IBM IMS Tools Base for z/OS
1.7

IMS Tools Knowledge Base User's Guide and Reference

SC27-9855-00

Note:

Before using this information and the product it supports, read the information in “Notices” on page 251.

First Edition (July 2022)

This edition applies to Version 1.7 of IBM IMS Tools Base for z/OS (program number 5655-V93) and to all subsequent releases and modifications until otherwise indicated in new editions.

Contents

About this information

IBM® IMS Tools Base for z/OS® IMS Tools Knowledge Base (also referred to as IMS Tools Knowledge Base or IMS Tools KB) is the foundational infrastructure that provides a centralized information management environment for IMS Tools products. By using IMS Tools Knowledge Base, you can store, manage, and access resources (such as reports, sensor data, policies, and rules) that are generated or used by any tool product that has been enabled and registered to participate in this environment.

These topics provide instructions for installing, configuring, and using IMS Tools Knowledge Base.

To use these instructions, you must have already installed IMS Tools Knowledge Base by completing the instructions in the *Program Directory for IBM IMS Tools Base for z/OS* (GI10-8819), which is included with the product media and is also available on the IMS Tools Product Documentation page.

These topics are designed to help database administrators, system programmers, application programmers, and system operators perform the following tasks:

- Understand the capabilities of the functions that are associated with IMS Tools Knowledge Base
- Install and operate IMS Tools Knowledge Base
- Customize your IMS Tools Knowledge Base environment
- Diagnose and recover from IMS Tools Knowledge Base problems
- Use IMS Tools Knowledge Base with other IMS products

To use these topics, you should have a working knowledge of:

- The z/OS operating system
- ISPF
- SMP/E
- IMS

Always refer to the IMS Tools Product Documentation web page for complete product documentation resources:

https://www.ibm.com/support/pages/node/712955

The IMS Tools Product Documentation web page includes:

- Links to IBM Documentation for the user guides ("HTML")
- PDF versions of the user guides ("PDF")
- Program Directories for IMS Tools products
- Recent updates to the user guides, referred to as "Tech docs" ("See updates to this information!")
- Technical notes from IBM Software Support, referred to as "Tech notes"
- White papers that describe product business scenarios and solutions

Part 1. IMS Tools Knowledge Base overview

IBM IMS Tools Base for z/OS IMS Tools Knowledge Base (also referred to as IMS Tools Knowledge Base or IMS Tools KB) is the foundational infrastructure that provides a centralized information management environment for IMS Tools products.

By using IMS Tools Knowledge Base, you can store, manage, and access resources (such as reports, sensor data, policies, and rules) that are generated or used by any tool product that has been enabled and registered to participate in this environment.

Topics:

Chapter 1. IMS Tools Knowledge Base overview

IBM IMS Tools Base for z/OS IMS Tools Knowledge Base (also referred to as IMS Tools Knowledge Base or IMS Tools KB) provides common services for storing and viewing resources (such as reports, sensor data, policies, and rules) that are generated or used by other participating IMS Tools products.

Topics:

What's new in IMS Tools Knowledge Base

This topic summarizes the technical changes for this edition.

New and changed information is indicated by a vertical bar (|) to the left of a change. Editorial changes that have no technical significance are not noted.

Revision markers follow these general conventions:

- Only technical changes are marked; style and grammatical changes are not marked.
- If part of an element, such as a paragraph, syntax diagram, list item, task step, or figure is changed, the entire element is marked with revision markers, even though only part of the element might have changed.
- If a topic is changed by more than 50%, the entire topic is marked with revision markers (so it might seem to be a new topic, even though it is not).

Revision markers do not necessarily indicate all the changes made to the information because deleted text and graphics cannot be marked with revision markers.

SC27-9855-00 - July 2022

The following updates have been made for this edition:

Description	Related APARs
Refreshed for IMS Tools Base 1.7. The following topics have been updated or added: • "Viewing repository information" on page 17 • "Starting and stopping repositories (ISPF)" on page 19 • "Starting and stopping repositories (batch)" on page 20 • "Setting the repository autoOPEN condition" on page 24 • "Connecting an additional Output repository" on page 29 • "Disconnecting an Output repository" on page 32 • Message HKTD515E • Chapter 22, "Gathering diagnostic documentation," on page 245	N/A

What does IMS Tools Knowledge Base do?

IMS Tools Knowledge Base is the foundational infrastructure that provides a centralized information management environment for IMS Tools products. By using IMS Tools Knowledge Base, you can store, manage, and access resources (such as reports, sensor data, policies, and rules) that are generated or used by any tool product that has been enabled and registered to participate in this environment.

IMS Tools Knowledge Base provides a common information management service that allows the sharing of data generated and used by multiple tool products within a sysplex. IMS Tools Knowledge Base is managed from a single, centralized user interface.

Report services support

Database administration responsibilities can include ensuring the availability and maintenance of many hundreds or thousands of databases. These database administration tasks require the services of many tools to perform backup, reorganization, and analysis operations. Reports that are generated by the tools during these operations can provide valuable information, such as documenting the success of tool execution or reporting statistics on the state of a database at that time.

Most of these reports are valuable to you long after they are generated. The reports, and the data that is provided in these reports, allow you to better use the rich information that is produced by the tools. Typically, however, most reports are deleted because there is no useful way to save and organize them.

The IMS Tools Knowledge Base information management environment, operating within a sysplex, allows automatic capturing of reports that are generated by participating IMS Tools products and storing of these reports in a central report (output) repository.

Sensor data services support

Sensor data is the information collected by a sensor-enabled IMS Tools product that measures the state of a specific database condition. The information is handled by the IMS Tools Knowledge Base server and stored in a central IMS Tools Knowledge Base Sensor Data repository.

Policy Services support

Policy Services can analyze specific database activity data that is collected by an IMS Tools product, and provide a response to any events that exceed the threshold limits specified for this data. All Policy Services-related information (such as policies, rules, directory entries, and notification lists) is stored in and managed by central repositories controlled by IMS Tools Knowledge Base Input repository.

Autonomics Director support

The Autonomics Director server records user defined parameter data for monitored databases and groups. It also records period definitions and evaluation data history for monitored databases. The data is stored and accessed by the Autonomics Director server in IMS Tools Knowledge Base.

Product features and benefits

This version of IMS Tools Knowledge Base provides the following features and benefits:

- Central repositories that are shared by all registered IMS Tools products in a sysplex and that provide convenient administration
- A central repository for automatically collecting reports that are generated by participating IMS Tools products
- Central repositories for storing Policy Services resources, such as policies, rules, directory entries, notification lists, and sensor data
- Central repository for storing Sensor Data that is used for database analysis and tuning purposes
- Central repository for storing Autonomics Director data, including monitor list entries and results of database evaluations
- Support for multiple IMS Tools products that are enabled for and registered with the IMS Tools Knowledge Base environment
- An interactive user interface (ISPF) with extensive and flexible search capabilities to quickly locate the stored resources that you need and then display them from anywhere in the sysplex environment
- Preservation of data for future trend analysis and decision making
- Report and policy environment history retention, to provide a history of database analysis and actions taken
- Access to historical report and policy environment data for accurate decision making
- Report retention based on user-defined criteria, such as the number of days and the number of versions of a report
- Report retention customized for individual tools or individual reports
- Automatic report deletion, after a report is expired

IBM IMS Tools Base for z/OS

IBM IMS Tools Base for z/OS (also referred to as IMS Tools Base) provides a means to streamline the control and delivery of existing common code components, services, and infrastructure code to IBM customers in a more effective way.

IMS Tools Base provides a simplified and more efficient delivery of common parts used by IMS Tools products. The included products and components provide required infrastructure code for all IMS Tools key strategies including autonomics, rule-based programming, and GUI support.

Common code components, for example, IMS Tools Online System Interface and IMS Tools Generic Exits are used by some of the IMS Tools products to connect into the IMS system.

In addition to common components, IMS Tools Base also includes products that are useful to customers when they are widely deployed as part of an overall solution.

IMS Tools Base is composed of the following tools and components:

- Autonomics Director
- Policy Services
- IMS Tools Knowledge Base
- Distributed Access Infrastructure
- IMS Tools Common Services (including IMS Tools Generic Exits and IMS Tools Online System Interface)

- IMS Hardware Data (HD) Compression Extended

About IMS Tools Knowledge Base

With its common repository and viewing interface, IMS Tools Knowledge Base can provide centralized data storage, access, and management capabilities for a complex sysplex environment. Central repositories allow access to historical data for accurate decision making. Stored resources can be found quickly using the powerful search capability, and data can be preserved for future trend analysis and decision making. IMS Tools Knowledge Base becomes the single platform within a sysplex environment for multiple IMS Tools products to share resources.

Always refer to the appropriate product information and description for any IMS Tools product to determine if the tool is enabled for operation with IMS Tools Knowledge Base. Many existing versions of IMS Tools products can be enabled by applying a service update.

Business scenarios for report services

The centralized IMS Tools Knowledge Base repository allows you to save and organize database reports that are normally discarded. These preserved reports can provide you with accurate information for future analysis, problem-solving, and research.

The following example scenarios illustrate the kinds of problems that can be solved with the IMS Tools Knowledge Base information management system:

Report storage and access

How can I save valuable reports?

How can I locate a report I saved?

How can I access reports using various criteria information?

Analysis of historical data

What did Space Monitor report the last time I ran it against this database?

What did Space Monitor report last month?

What did Space Monitor report six months ago?

Tracking of database actions

Did I run IMS HP Pointer Checker against this database recently?

Was this database reorganized last month?

Information management process flow

The IMS Tools Knowledge Base information management environment, operating within a sysplex, allows the storing, managing, and accessing of resources (such as reports, sensor data, policies, and rules) that are generated or used by any tool product that has been enabled and registered to participate in this environment.

Resources are handled and stored in central repositories by the IMS Tools Knowledge Base server.

The following diagram illustrates the process flow for the IMS Tools Knowledge Base information management environment:

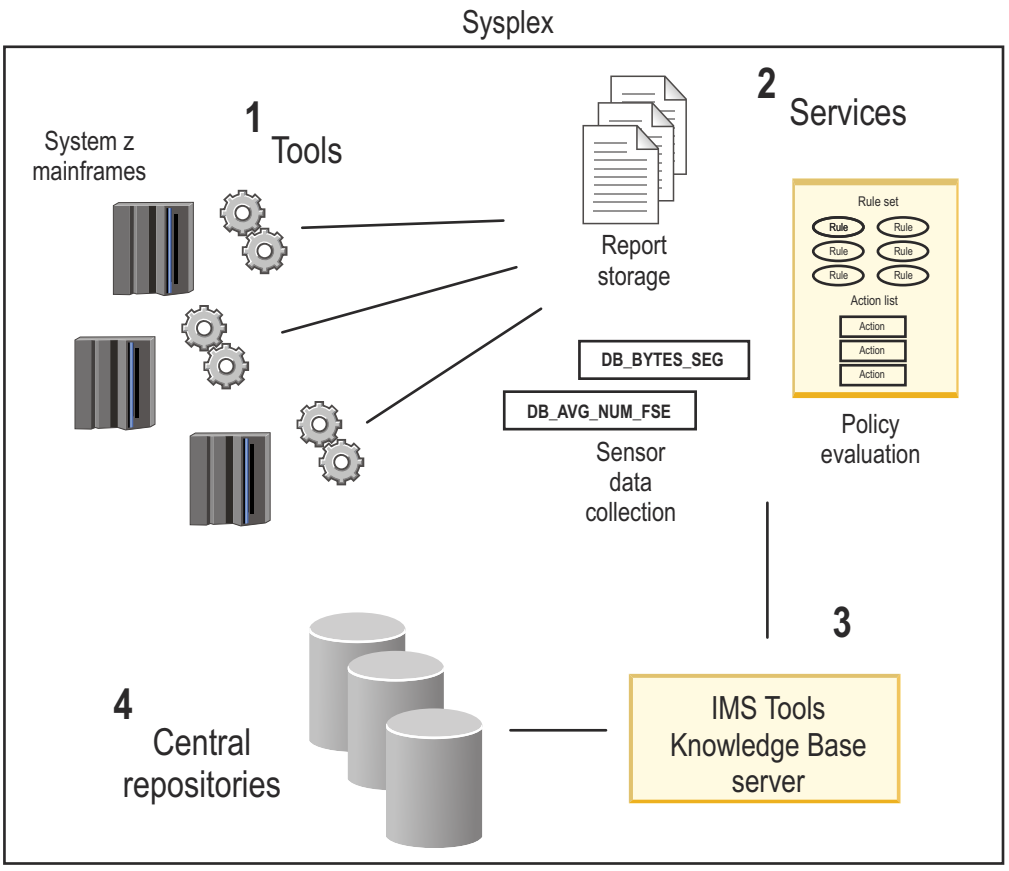

Figure 1. Information management process flow

The following process flow steps match the numbers in the diagram:

1. IMS Tools products perform operations that produce data resources for use by services, or request information from services.
2. Services (such as report storage, sensor data collection, and policy services) process the information.
3. The IMS Tools Knowledge Base server (or simply *IMS Tools KB server*) handles the data exchange between the services and the repositories where the data is stored.
4. Central repositories, managed by the IMS Tools Knowledge Base server, allow access to current and archived information (such as reports and policy data).

Report service environment

The IMS Tools Knowledge Base report service allows automatic capturing of reports that are generated by participating IMS Tools products and storing of these reports in a central report repository.

The IMS Tools Knowledge Base information management environment consists of the following components:

- One or more primary IMS Tools Knowledge Base servers

  You can divide workload and data storage between logical environments.
- One or more secondary IMS Tools Knowledge Base servers

  Failover recovery ensures that the server is available to record reports.
- Central report repository database
- IMS Tools products, enabled for and registered with IMS Tools Knowledge Base
- XCF interface that is used to transmit reports to the IMS Tools Knowledge Base server

- ISPF interface that is used for report access and administration

The following diagram illustrates the interaction of these components within a sysplex:

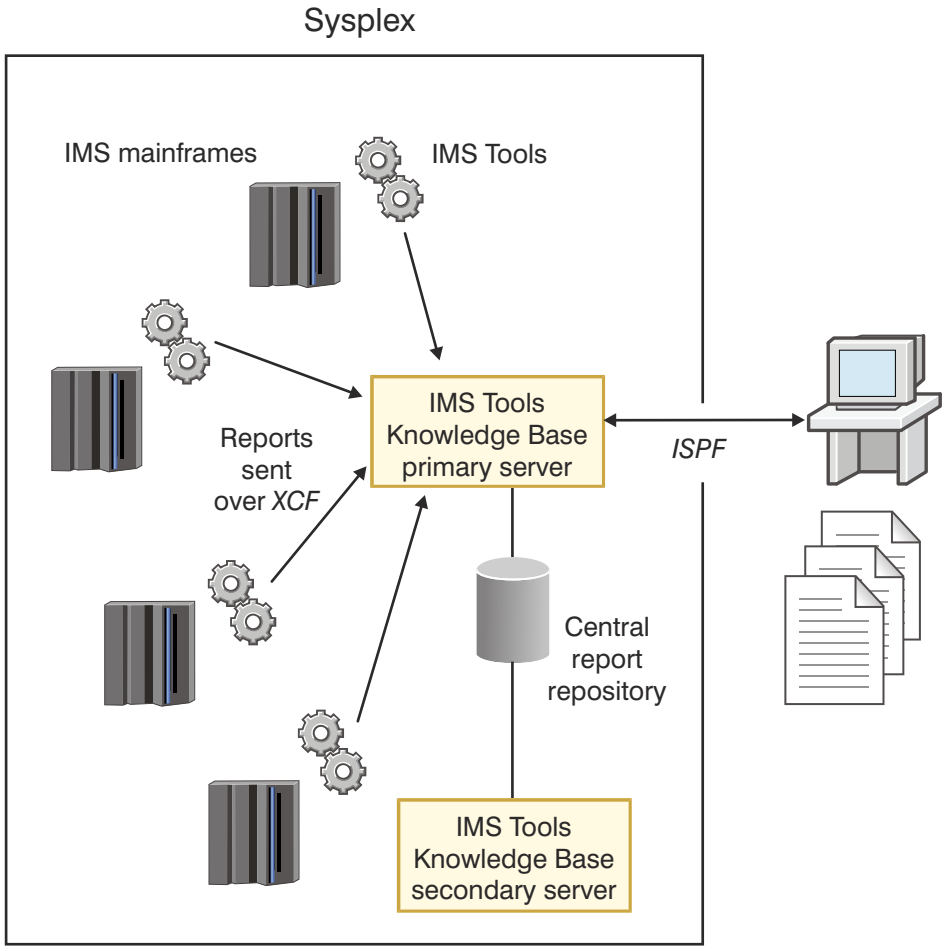

Figure 2. IMS Tools Knowledge Base report service environment

Policy Services environment (conditional reorganization example)

Policy Services can evaluate the data collected by an IMS Tools product about a specific database activity, and can provide a response to any events that exceed the threshold limits specified for this data.

Policy Services provides policy-based database management for members of the IMS Tools product family that are enabled to participate in a conditional autonomics environment. All information is stored in and managed by central repositories controlled by IMS Tools Knowledge Base.

IMS Database Reorganization Expert, with Policy Services, can assist the duties of database administration by providing policy-based conditional database reorganization for the databases important to the business. IMS Database Reorganization Expert uses its Smart Reorg utility to coordinate the evaluation of reorganization policies, and to implement an appropriate response to the reaching or exceeding of thresholds specified for the sensor data collected by the tool.

The conditional reorganization job is like a standard IMS Database Reorganization Expert job. The main difference is that the conditional reorganization job, rather than the Database Administrator (DBA), decides whether to reorganize the database.

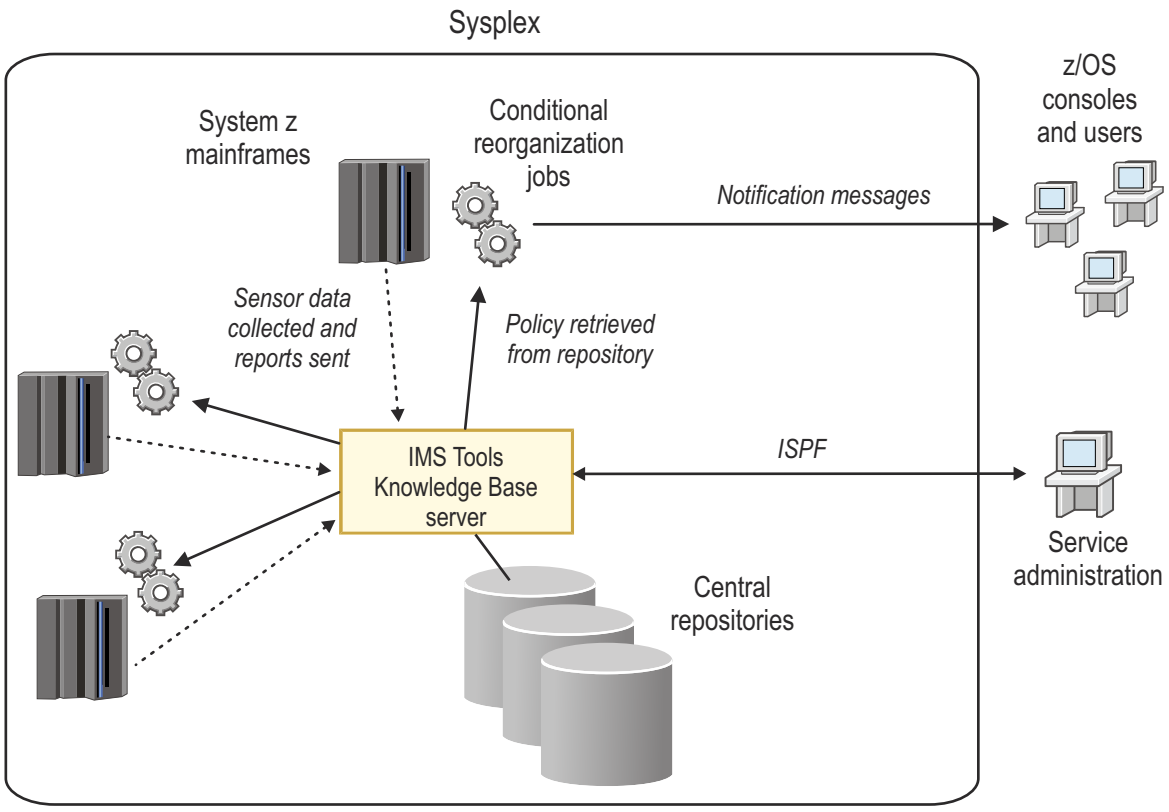

Figure 3. Example Policy Services sysplex scenario

Refer to the *IMS Database Reorganization Expert User's Guide* and *IMS Online Reorganization Facility User's Guide* for full details on how these IMS Tools products use Policy Services to perform conditional database reorganizations.

Utility history environment

The utility history service of IMS Tools Base IMS Tools Knowledge Base allows for automatic capturing of job information and statistics (*utility history data*) of participating IMS Tools products and stores this data in a central repository. The utility history data that is stored in the repository can be used by Policy Services to formulate job recommendations.

For example, Policy Services can access information about when and how often the conditional reorganization feature of the Smart Reorg utility in IMS Database Reorganization Expert and IMS Online Reorganization Facility has been run on a database and use this information to determine whether a reorganization is needed or not.

Refer to the *IMS Database Reorganization Expert User's Guide* and *IMS Online Reorganization Facility User's Guide* for full details on how these IMS Tools products use Policy Services to perform conditional database reorganizations.

Autonomics Director environment

Autonomics Director provides automation of recurring IMS database monitoring and maintenance activities based on a detailed understanding of the current state of your IMS databases.

The Autonomics Director environment is composed of several IMS Tools components.

The following figure illustrates the environment and the process flow for using Autonomics Director.

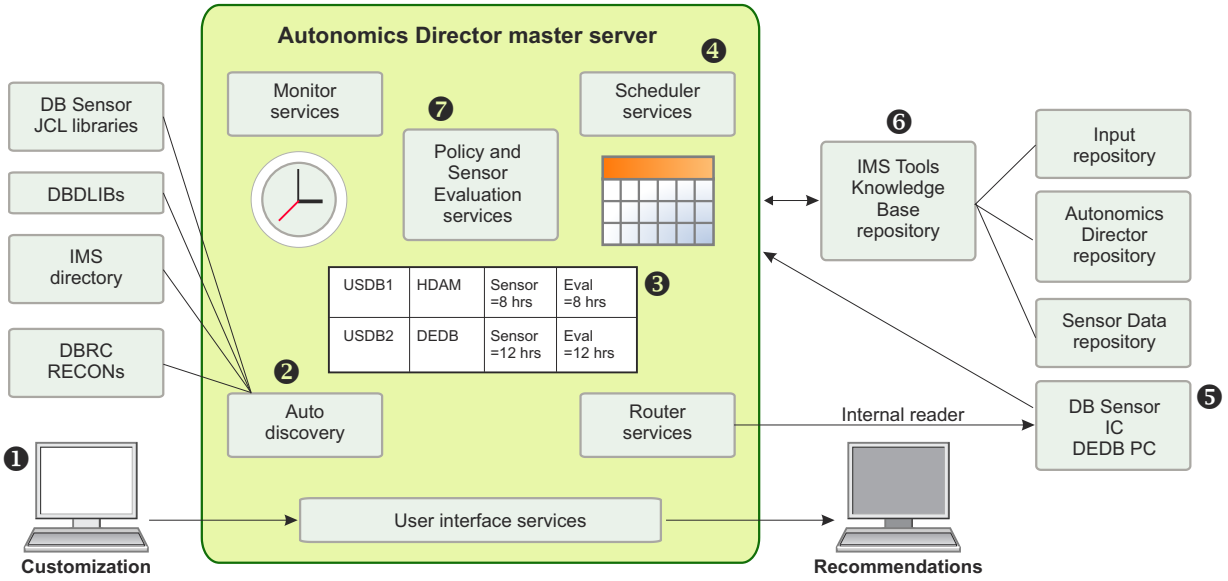

Figure 4. Autonomics Director Process Flow

The following process flow steps match the numbers in the figure:

1. The user customizes the Autonomics Director environment by using the Autonomics Director ISPF interface.
2. Autonomics Director collects database and group information from the DBD libraries and the RECON data sets. If the IMS-managed ACBs function is enabled, it collects the information from the IMS directory.
3. The user creates a monitor list that consists of group and database names with attributes that are saved in the Autonomics Director repository and that are available for monitoring.
4. The user defines parameters that control how frequently data is collected and policies are evaluated by Autonomics Director. The user can also schedule immediate and deferred data collection and policy evaluations.
5. Sensor data is collected to capture the status of databases at a specific point in time. The user can also request that Autonomics Director submit a batch job to collect the most up-to-date sensor data.
6. Policies and rules defined by Policy Services are stored in the IMS Tools Knowledge Base Input repository and are accessed by Autonomics Director. Results from the database evaluations are stored in the Autonomics Director repository and are accessed during inquiries from the client.
7. Autonomics Director uses policies and rules that are defined in Policy Services to evaluate against the most recent database sensor data.

Service updates and support information

Service updates and support information for this product, including software fix packs, PTFs, frequently asked questions (FAQs), technical notes, troubleshooting information, and downloads, are available from the web.

To find service updates and support information, see the following website:

IBM Support: IMS Tools Base for z/OS

Product documentation and updates

IMS Tools information is available at multiple places on the web. You can receive updates to IMS Tools information automatically by registering with the IBM My Notifications service.

Information on the web

Always refer to the IMS Tools Product Documentation web page for complete product documentation resources:

https://www.ibm.com/support/pages/node/712955

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- White papers that describe product business scenarios and solutions

IBM Redbooks® publications that cover IMS Tools are available from the following web page:

http://www.redbooks.ibm.com

The IBM Information Management System website shows how IT organizations can maximize their investment in IMS databases while staying ahead of today's top data management challenges:

https://www.ibm.com/software/data/ims/

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2. Enter your IBM ID and password, or create one by clicking **register now**.
3. When the My Notifications page is displayed, click **Subscribe** to select those products that you want to receive information updates about. The IMS Tools option is located under **Software** > **Information Management**.
4. Click **Continue** to specify the types of updates that you want to receive.
5. Click **Submit** to save your profile.

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- Click the Contact Us tab at the bottom of any IBM Documentation topic.
- Send an email to ibmdocs@us.ibm.com. Be sure to include the book title, topic or section title, specific text, and your comment.

To help us respond quickly and accurately, please include as much information as you can about the content you are commenting on, where we can find it, and what your suggestions for improvement might be.

Accessibility features

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use a software product successfully.

The major accessibility features in this product enable users to perform the following activities:

- Use assistive technologies such as screen readers and screen magnifier software. Consult the assistive technology documentation for specific information when using it to access z/OS interfaces.
- Customize display attributes such as color, contrast, and font size.
- Operate specific or equivalent features by using only the keyboard. Refer to the following publications for information about accessing ISPF interfaces:
  - *z/OS ISPF User's Guide, Volume 1*
  - *z/OS TSO/E Primer*
  - *z/OS TSO/E User's Guide*

  These guides describe how to use the ISPF interface, including the use of keyboard shortcuts or function keys (PF keys), include the default settings for the PF keys, and explain how to modify their functions.

Chapter 2. Configuring an initial installation of IMS Tools Knowledge Base

Information about configuring IMS Tools Knowledge Base and other IMS Tools Base components is provided in *IMS Tools Base Configuration Guide*.

Part 2. Repository reference

IMS Tools Knowledge Base is the foundational infrastructure that provides a centralized information management environment for IMS Tools products.

By using IMS Tools Knowledge Base, you can store, manage, and access resources (such as reports, sensor data, policies, and rules) that are generated or used by any tool product that has been enabled and registered to participate in this environment.

Topics:

Chapter 3. Repository administration

For repository administration tasks, use options from the **Administration** menu of the IMS Tools Knowledge Base main menu.

Topics:

Viewing repository information

You can view information about any of the repositories used by IMS Tools Knowledge Base.

About this task

Among other data, the information panel shows the data sets names for the Input, Output, and Registry repositories as defined in the Catalog repository.

Procedure

To view repository information, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
_________________________________________________
|    1. List Deferred Reports                   |
|    2. List Installed Products                 |
|    3. List Repositories                       |
|    4. List Recon Information                  |
|    5. Set retention for sensor data           |
_________________________________________________
```

   Figure 5. Administration menu options

2. Select option 3 (**List Repositories**). Press Enter.

   The **Repositories** panel is displayed.

   For example:

```
  Commands  Help
------------------------------------------------------------------------------
SERVER: FPQRDP01                    Repositories             Row 1 to 5 of 5
Command ===>

Enter a command, select a row action or press End to exit.

Row actions: I - Information S - Start  P - STOP  D -Disconnect  A - AutoOPEN

Action   Prefix    Name      Type      Stopped  Auto
         BSN_      SENSOR    SENSOR    N        Y
         HKT_      INPUT     INPUT     N        Y
         HKT_      O0000000  OUTPUT    N        Y
         HKT_      REGISTRY  REGISTRY  N        Y
         IAV_      AUTODIR   AUTODIR   N        Y
****************************** Bottom of data ********************************
```

Figure 6. Repositories panel

Normally you should see a listing for the Input, Output, and Registry repositories.

You can connect additional Output repositories to your information management environment. The **Repositories** panel list will show any additional Output repositories that you created.

3. Use the **Information** row action (I) for the appropriate repository. Press Enter.

   The **Repository Information** panel is displayed.

   For example:

```
  Help
------------------------------------------------------------------------------
SERVER: FPQRDP01               Repository Information              Ver 1.7.0
Command ===>                                                 Scroll ===> PAGE

Prefix : HKT_  Name . : O0000000  Type . : OUTPUT    Stopped : N  Auto . : Y


                     Dataset Names

Primary Index . . : RDEFAL1.O0000000.PRID
Primary Data  . . : RDEFAL1.O0000000.PRMD
Secondary Index . : RDEFAL1.O0000000.SRID
Secondary Data  . : RDEFAL1.O0000000.SRMD
Spare Index . . . : RDEFAL1.O0000000.SPRID
Spare Data  . . . : RDEFAL1.O0000000.SPRMD
```

Figure 7. Repository Information panel

The **Repository Information** panel shows the following information about the repository:

Table 1. Repository Information panel field descriptions

Field	Description
Prefix	The product prefix for the repository. Prefix is determined by the repository type, as follows: Sensor Data repository - BSN_ Input, Output, or Registry repository - HKT_ Autonomics Director repository - IAV_
Name	The name of the repository. Names must be eight characters long. Output repository names must start with an *O* and the subsequent characters must be numeric. For example: O1234567

Table 1. Repository Information panel field descriptions (continued)

Field	Description
Type	One of the following repository types: REGISTRY - only one such repository exists INPUT - only one such repository exists OUTPUT - more than one such repository can exist SENSOR - only one such repository exists AUTODIR - only one such repository exists
Stopped	Repository is in either a started (N) or stopped (Y) state.
Auto	Whether the repository is started when the IMS Tools Knowledge Base server is started (Y) or upon the first reference to the repository (N).
Data Set Names	The name of the four data sets required to create a repository. These data set names must not duplicate any other repository data set names.

Starting and stopping repositories (ISPF)

You can use the ISPF user interface to manually place the IMS Tools Knowledge Base repositories in a started or stopped state.

About this task

For example, you might want to stop a repository while the IMS Tools Knowledge Base server is running so you can back up and restore that repository.

The start and stop operations for a repository are persistent operations and are independent of the operation of the IMS Tools Knowledge Base server. If a repository is in the Start state and the IMS Tools Knowledge Base server is stopped temporarily, the repository is restored to the Start state when the server is restarted.

Procedure

To start or stop the repositories, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ------------------------------------------------
 |    1. List Deferred Reports                  |
 |    2. List Installed Products                |
 |    3. List Repositories                      |
 |    4. List Recon Information                 |
 |    5. Set retention for sensor data          |
 ------------------------------------------------
```

   Figure 8. Administration menu options

2. Select option 3 (**List Repositories**). Press Enter.

   The **Repositories** panel is displayed.

   For example:

```
  Commands  Help
------------------------------------------------------------------------------
SERVER: FPQRDP01                    Repositories             Row 1 to 5 of 5
Command ===>

Enter a command, select a row action or press End to exit.

Row actions: I - Information S - Start  P - STOP  D -Disconnect  A - AutoOPEN

Action   Prefix    Name      Type      Stopped  Auto

         BSN_      SENSOR    SENSOR    N        Y
         HKT_      INPUT     INPUT     N        Y
         HKT_      O0000000  OUTPUT    N        Y
         HKT_      REGISTRY  REGISTRY  N        Y
         IAV_      AUTODIR   AUTODIR   N        Y
****************************** Bottom of data ********************************
```

Figure 9. Repositories panel

Normally you should see a listing for the Input, Output, and Registry repositories.

You can connect additional Output repositories to your information management environment. The **Repositories** panel list will show any additional Output repositories that you created.

The state of each repository is indicated in the **Stopped** column:

- If the value for **Stopped** is N, the repository is started.
- If the value for **Stopped** is Y, the repository is not started and is not available to applications in the IMS Tools Knowledge Base environment.

3. If the repository is currently not started (Stopped=Y), use the **Start** row action (S) to start the repository.

   The value for **Stopped** is immediately changed to N.

   Note: If the value does not change to N, or it changes to N and then Y, check the job log for repository allocation or open error messages.
4. If the repository is currently started (Stopped=N), use the **STOP** row action (P) to stop the repository.

   The value for **Stopped** is immediately changed to Y.

Starting and stopping repositories (batch)

The batch utility, FPQBATCH, can be used to place individual IMS Tools Knowledge Base repositories in a started or stopped state.

For example, you might want to stop a repository while the IMS Tools Knowledge Base server is running so you can back up or reorganize that repository.

The start and stop operations for a repository are persistent operations and are independent of the operation of the IMS Tools Knowledge Base server. If a repository is in the Start state and the IMS Tools Knowledge Base server is stopped temporarily, the repository is restored to the Start state when the server is restarted.

The FPQBATCH product batch utility is executed by the job HKTSTSTP. You can provide multiple STOP and or START requests in one job.

To use the FPQBATCH program to issue the START and STOP repository commands to the IMS Tools Knowledge Base server, complete the following procedure:

1. Use the sample HKTSTSTP job included in this topic and modify the JCL appropriately for your environment and requirements.

The value of the repository name consists of the product prefix (HKT_, BSN_, or IAV) followed by the full repository name (including the initial letter *O*). For example (standard Output repository):

```
HKT_O0000000
```

2. Submit the job and ensure that it completes with a return code=0 (RC=0).

   A return code=0 from this utility indicates that the request was accepted and has begun processing.

   The START and STOP commands are processed synchronously, unless the seconds option in the MAXWAIT parameter is set to 0:

   ```
   MAXWAIT(0,xxxxxx)
   ```

   The START command should complete quickly unless repository recovery is required.

   The STOP command waits for active users of the repository to disconnect.

Parameter reference for the EXEC control statement

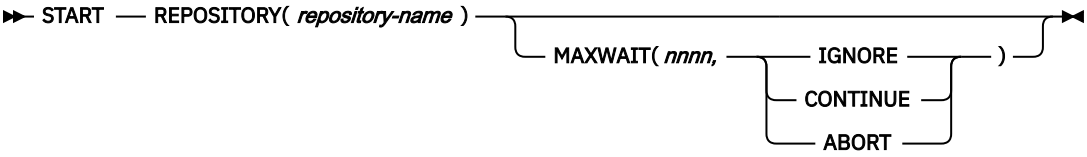
The following parameter is provided on the EXEC control statement of the HKTSTSTP job:

Table 2. Parameter for EXEC

Parameter	Description
XCFGROUP	Use the IMS Tools Knowledge Base server XCF group name for this value. The name can be up to eight characters in length. This parameter is required.

Syntax diagram for START repository command

The following syntax diagram shows the usage of the START repository command:



Parameter reference for the START repository command

The START repository command causes the repository to enter into an available (or STARTed) state. This state is required for applications to access the data in the repository.

If the repository AUTOOPEN property is set to Y (yes), the repository data sets are also OPENed. Otherwise, the data sets are OPENed upon the first application request for data.

Table 3. Parameters for START

Parameter	Description
REPOSITORY	This required parameter specifies the name of the repository to be started.

Table 3. Parameters for START (continued)

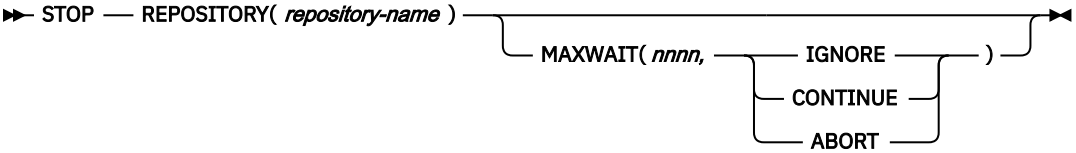
Parameter	Description
MAXWAIT	The START command makes an asynchronous request to the server. The MAXWAIT parameter controls how long the utility waits for completion of the command. MAXWAIT also controls the return code value that is set if the command does not complete in the specified time. The default specification is: `MAXWAIT(5,IGNORE)` Specify `MAXWAIT(0,IGNORE)` to not wait for the command to finish. Processing options: ***nnnn*** The maximum number of seconds to wait for the command to complete. The time values can range from 0 - 9999. Processing resumes either immediately upon successful completion of the command or upon exceeding *nnnn* seconds, whichever is first. If AUTOOPEN=Y, processing waits for a state of OPENed. If AUTOOPEN=N, processing waits for a state of START. **IGNORE | CONTINUE | ABORT** Determines the return code to be set if the command does not complete within the requested timeframe. IGNORE does not set a return code. CONTINUE sets a return code of 4. ABORT sets a return code of 8 and terminates further command processing. These return codes can be check in your job control to determine the execution of subsequent steps.

For example:

- Specify MAXWAIT(0,IGNORE) to not wait and not set a return code.
- Specify MAXWAIT(5,CONTINUE) to wait up to 5 seconds and set return code 4 if the command does not complete in 5 seconds.
- Specify MAXWAIT(20,ABORT) to wait up to 20 seconds, set return code 8, and terminate processing if the command does not complete in 20 seconds.

Syntax diagram for STOP repository command

The following syntax diagram shows the usage of the STOP repository command:



Parameter reference for the STOP repository command

The STOP repository command causes the repository to be closed and enter into an unavailable (or STOPPED) state.

This state prevents applications from accessing the data in the repository. This state is required to backup or reorganize the repository.

Table 4. Parameters for STOP

Parameter	Description
REPOSITORY	This required parameter specifies the name of the repository to be started.
MAXWAIT	The STOP command makes an asynchronous request to the server. The MAXWAIT parameter controls how long the utility waits for completion of the command. MAXWAIT also controls the return code value that is set if the command does not complete in the specified time. The default specification is: `MAXWAIT(5,IGNORE)` Specify `MAXWAIT(0,IGNORE)` to not wait for the command to finish. Processing options: ***nnnn*** The maximum number of seconds to wait for the command to complete. The time values can range from 0 - 9999. Processing resumes either immediately upon successful completion of the command or upon exceeding *nnnn* seconds, whichever is first. **IGNORE | CONTINUE | ABORT** Determines the return code to be set if the command does not complete within the requested timeframe. IGNORE does not set a return code. CONTINUE sets a return code of 4. ABORT sets a return code of 8 and terminates further command processing. These return codes can be check in your job control to determine the execution of subsequent steps.

For example:

- Specify MAXWAIT(0,IGNORE) to not wait and not set a return code.
- Specify MAXWAIT(5,CONTINUE) to wait up to 5 seconds and set return code 4 if the command does not complete in 5 seconds.
- Specify MAXWAIT(20,ABORT) to wait up to 20 seconds, set return code 8, and terminate processing if the command does not complete in 20 seconds.

Sample HKTSTSTP job

Copy the following sample HKTSTSTP job and modify the JCL appropriately for your environment and requirements.

```
//START EXEC PGM=FPQINI0$,REGION=0M,
//     PARM='BPEINIT=FPQBINI0,XCFGROUP=SRVRNAM'
//STEPLIB  DD  DISP=SHR,DSN=HLQ1.SHKTLOAD
//SYSPRINT DD  SYSOUT=*
//SYSIN DD *
START REPOSITORY(HKT_O0000000) MAXWAIT(5,CONTINUE)
/*
//STOP EXEC PGM=FPQINI0$,REGION=0M,
//     PARM='BPEINIT=FPQBINI0,XCFGROUP=SRVRNAM'
//STEPLIB  DD  DISP=SHR,DSN=HLQ1.SHKTLOAD
//SYSPRINT DD  SYSOUT=*
//SYSIN DD *
```

```
STOP  REPOSITORY(HKT_O0000000) MAXWAIT(5,CONTINUE)
/*
```

Example job STOP output

```
STOP  REPOSITORY(HKT_O0000000)
FPQ4750I STOP command processed successfully
```

Example server STOP output

```
FPQ2013I - Closing repository: HKT_O0000000
FPQ2015I - Repository stopped: HKT_O0000000
FPQ2017I - Repository closed: HKT_O0000000
```

Example job START output

```
START REPOSITORY(HKT_O0000000)
FPQ4750I START command processed successfully
```

Example server START output

```
FPQ2014I - Repository start request initiated: HKT_O0000000
FPQ2012I - Opening repository: HKT_O0000000
FPQ2016I - Repository opened: HKT_O0000000
```

Setting the repository autoOPEN condition

You can set the autoOPEN condition for the IMS Tools Knowledge Base repositories.

About this task

The autoOPEN condition indicates whether the repository data sets are allocated and opened when the repository is started or when the repository is first accessed by a transaction.

When the autoOPEN condition is set to N, the IMS Tools Knowledge Base server startup can complete sooner.

The initial autoOPEN value for a repository is set when you first define (add) the repository to the IMS Tools Knowledge Base environment (using member HKTDFREP).

Procedure

To set the repository autoOPEN condition, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ------------------------------------------------
 |    1. List Deferred Reports                  |
 |    2. List Installed Products                |
 |    3. List Repositories                      |
 |    4. List Recon Information                 |
 |    5. Set retention for sensor data          |
 ------------------------------------------------
```

   Figure 10. Administration menu options

2. Select option 3 (**List Repositories**). Press Enter.

   The **Repositories** panel is displayed.

For example:

```
  Commands  Help
------------------------------------------------------------------------------
SERVER: FPQRDP01                    Repositories             Row 1 to 5 of 5
Command ===>

Enter a command, select a row action or press End to exit.

Row actions: I - Information S - Start  P - STOP  D -Disconnect  A - AutoOPEN

Action   Prefix    Name      Type      Stopped  Auto
         BSN_      SENSOR    SENSOR    N        Y
         HKT_      INPUT     INPUT     N        Y
         HKT_      O0000000  OUTPUT    N        Y
         HKT_      REGISTRY  REGISTRY  N        Y
         IAV_      AUTODIR   AUTODIR   N        Y
****************************** Bottom of data ********************************
```

Figure 11. Repositories panel

The autoOPEN condition for each repository is indicated in the **Auto** column:

- If the value for **Auto** is Y, the repository data sets are allocated when the IMS Tools Knowledge Base server is started.
- If the value for **Auto** is N, the repository data sets are allocated when the repository is first accessed by a transaction.

3. To change the autoOPEN condition for a repository, the repository must be in the STOPPED state. If it is started, first stop the repository using the **STOP** row action (P). Press Enter.

   The value for **Stopped** is immediately changed to Y.
4. Use the **autoOPEN** row action (A) to change the setting for that repository. Press Enter.

   The value for **Auto** is immediately changed.
5. Use the **Start** row action (S) to restart the repository. Press Enter.

   The value for **Stopped** is immediately changed to N.

Setting the retention period for the Sensor Data repository

This section describes setting the data retention value (DAYS parameter in the INITSNSR control statement of HKTRJINT) through the administration user interface.

About this task

The data retention value specifies the minimum number of days that the Sensor Data repository retains sensor data and utility history data.

Sensor data is data collected by an IMS Tools product when it measures the condition (or state) of one or more databases. This sensor data is information captured at an instance in time that represents the condition, or state, of one or more databases. The data can be used for later analysis and policy evaluation.

Policies consist of a set of rules that each define threshold values for specific types of database conditions. The policy service mechanism evaluates these threshold values against the actual data values that an IMS Tools product collects and stores in the IMS Tools Knowledge Base Sensor Data repository.

The data is stored in the Sensor Data repository as records made up of data element values. The data record is stored in a well-understood and flexible format that allows its use years and multiple product releases later in time. The data and its format is understandable between products and releases to ensure reliable functionality.

Utility history data (job information and statistics) of some IMS Tools products are also stored in the Sensor Data repository.

You can control the length of time that data remains stored in the Sensor Data repository. When the Sensor Data repository is initially created, a default value is set for the DAYS parameter in the INITSNSR control statement of member HKTJRINT. You can modify this parameter at a later time using the **Administration > Set retention for sensor data** drop-down menu of the IMS Tools Knowledge Base report service user interface.

Table 5. DAYS parameter in the INITSNSR control statement of member HKTJRINT

Parameter	Description
DAYS	The DAYS parameter specifies the minimum number of days that sensor data and utility history data is retained in the Sensor Data repository. This parameter is optional. The valid range of values is 1 - 32767. If the Sensor Data repository is being initialized for the first time, the default value of the DAYS parameter is 365. If initialization was completed previously and the DAYS parameter is not coded, the existing value is used to reset the retention period. To determine an appropriate value, consider the type and extent of analysis of sensor data you might want to perform. For instance, you might be interested in performing trend analysis or comparative analysis.

Procedure

To set the retention days for data that is stored in the Sensor Data repository, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ------------------------------------------------
 |    1. List Deferred Reports                  |
 |    2. List Installed Products                |
 |    3. List Repositories                      |
 |    4. List Recon Information                 |
 |    5. Set retention for sensor data          |
 ------------------------------------------------
```

   Figure 12. Administration menu options

2. Select option 5 (**Set retention for sensor data**). Press Enter.

   The **Set Retention Days for Sensor Data** panel is displayed.

   For example:

```
  Commands  Help
 ------------------------------------------------------------------------------
SERVER: FPQSPLEX       Set Retention Days for Sensor Data          IMS Too...
Command ===>

Type number of days for retaining Sensor Data or press END to exit.


Retention
Days  . . . 256
```

   Figure 13. Set Retention Days for Sensor Data panel

3. Type the new value for retention Days, and press Enter.

   The valid range of values is 1 - 32767.

Chapter 4. Implementing a new Output repository

You can add a new Output repository to support your IMS Tools Knowledge Base information management environment.

The initial installation of IMS Tools Knowledge Base provides a single Output repository (O0000000). All reports that are written to IMS Tools Knowledge Base are directed to this one set of VSAM data sets.

You might want to implement additional Output repositories to reduce the size of the standard Output repository or perhaps to reduce the frequency with which the standard Output repository requires reorganization.

Implementing an additional Output repository requires the following three procedures:

Topics:

Defining a new Output repository

The first step to implementing a new Output repository is to define the new repository.

About this task

To define a new Output repository, you must define a set of four VSAM clusters by creating the appropriate control statements.

Procedure

To define a new Output repository, complete the following steps:

1. Copy member HKTDFREP in the *hlq*.SHKTSAMP data set.
2. Delete all of the statements that do not pertain to the four Output repository clusters. The four Output repository clusters include:

   O0000000.PRID
   O0000000.PRMD
   O0000000.SRID
   O0000000.SRMD
3. Change the string O0000000 to the new repository name.

   Repository names must be 8 characters long.

   Output repository names must start with an *O* and the subsequent characters must be numeric. For example: O1234567
4. Change the volume and cylinder statements.

   For more information, see the topic "Defining (allocating) repository data sets" in *IMS Tools Base Configuration Guide*.
5. Submit the job and ensure you get a return code=0.

Results

If you are using SAF security, you must grant the appropriate access to users.

For more information, see the topic "Defining (allocating) repository data sets" in *IMS Tools Base Configuration Guide*.

Example HKTDFREP JOB

The following example shows a modified version of HKTDFREP that rebuilds the Output repository:

```
//ALLOCAT1 EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
  /* DELETE EXISTING REPOSITORIES BEFORE RE-DEFINING */
 DELETE HLQ2.SRVRNAME.00000001.PRID CLUSTER
 DELETE HLQ2.SRVRNAME.00000001.SRID CLUSTER
 DELETE HLQ2.SRVRNAME.00000001.PRMD CLUSTER
 DELETE HLQ2.SRVRNAME.00000001.SRMD CLUSTER
  /*************************************************************
  /*  The following spare data sets are optional and can be
  /*  deleted if you do not want to include SPARE data sets.
  /*************************************************************
 DELETE HLQ2.SRVRNAME.O0000001.SPRID CLUSTER
 DELETE HLQ2.SRVRNAME.O0000001.SPRMD CLUSTER
 SET MAXCC = 0 /* RESET CC IF DELETE RETURNED A CC > 0 */
  /* DEFINE FOR PRIMARY OUT REP. RID (INDEX) CLUSTER REPOSITORY */
 DEFINE CLUSTER(NAME( HLQ2.SRVRNAME.00000001.PRID )          -
                VOL(VOLUM1) /*USER MUST CHANGE*/             -
                REUSE                                        -
                INDEXED                                      -
                KEYS(128  0)                                 -
                CYLINDERS(10 10) /*USER MUST CALCULATE*/     -
                SHAREOPTIONS (2 3)                           -
                FREESPACE (10 10)                            -
                RECORDSIZE (282  282)                        -
                CONTROLINTERVALSIZE (8192)                   -
                )                                            -
        INDEX (NAME( HLQ2.SRVRNAME.00000001.PRID.INDEX ) )   -
         DATA (NAME( HLQ2.SRVRNAME.00000001.PRID.DATA ) )
  /* DEFINE FOR SECONDARY OUT REP. RID (INDEX) CLUSTER REPOSITORY */
 DEFINE CLUSTER(NAME( HLQ2.SRVRNAME.00000001.SRID )          -
                VOL(VOLUM2) /*USER MUST CHANGE*/             -
                REUSE                                        -
                INDEXED                                      -
                KEYS(128  0)                                 -
                CYLINDERS(10 10) /*USER MUST CALCULATE*/     -
                SHAREOPTIONS (2 3)                           -
                FREESPACE (10 10)                            -
                RECORDSIZE (282  282)                        -
                CONTROLINTERVALSIZE (8192)                   -
                )                                            -
        INDEX (NAME( HLQ2.SRVRNAME.00000001.SRID.INDEX ) )   -
         DATA (NAME( HLQ2.SRVRNAME.00000001.SRID.DATA ) )
  /*************************************************************
  /*  The following OUTPUT SPARE RID is optional.
  /*************************************************************
  /* DEFINE FOR SPARE OUT REP. RID (INDEX) CLUSTER REPOSITORY */
 DEFINE CLUSTER(NAME( HLQ2.SRVRNAME.00000001.SPRID )          -
                VOL(VOLUM3) /*USER MUST CHANGE*/             -
                REUSE                                        -
                INDEXED                                      -
                KEYS(128  0)                                 -
                CYLINDERS(10 10) /*USER MUST CALCULATE*/     -
                SHAREOPTIONS (2 3)                           -
                FREESPACE (10 10)                            -
                RECORDSIZE (282  282)                        -
                CONTROLINTERVALSIZE (8192)                   -
                )                                            -
        INDEX (NAME( HLQ2.SRVRNAME.00000001.SPRID.INDEX ) )  -
         DATA (NAME( HLQ2.SRVRNAME.00000001.SPRID.DATA ) )
  /* DEFINE FOR PRIMARY OUT REP. RMD (MEMBER) CLUSTER REPOSITORY */
 DEFINE CLUSTER(NAME( HLQ2.SRVRNAME.00000001.PRMD )          -
                VOL(VOLUM1) /*USER MUST CHANGE*/             -
                REUSE                                        -
                INDEXED                                      -
                KEYS(12  0)                                  -
                CYLINDERS(50 50) /*USER MUST CALCULATE*/     -
                SHAREOPTIONS (2 3)                           -
                FREESPACE(00 20)                             -
                RECORDSIZE (8185 8185)                       -
                CONTROLINTERVALSIZE (8192)                   -
                )                                            -
```

```
       INDEX (NAME( HLQ2.SRVRNAME.00000001.PRMD.INDEX ) )    -
        DATA (NAME( HLQ2.SRVRNAME.00000001.PRMD.DATA ) )
 /* DEFINE FOR SECONDARY OUT REP. RMD (MEMBER) CLUSTER REPOSITORY */
DEFINE CLUSTER(NAME( HLQ2.SRVRNAME.00000001.SRMD )           -
               VOL(VOLUM2) /*USER MUST CHANGE*/              -
               REUSE                                         -
               INDEXED                                       -
               KEYS(12  0)                                   -
               CYLINDERS(50 50) /*USER MUST CALCULATE*/      -
               SHAREOPTIONS (2 3)                            -
               FREESPACE(00 20)                              -
               RECORDSIZE (8185 8185)                        -
               CONTROLINTERVALSIZE (8192)                    -
               )                                             -
       INDEX (NAME( HLQ2.SRVRNAME.00000001.SRMD.INDEX ) )    -
        DATA (NAME( HLQ2.SRVRNAME.00000001.SRMD.DATA ) )
 /*************************************************************
 /*  The following OUTPUT SPARE RMD is optional.
 /*************************************************************
 /* DEFINE FOR SPARE OUT REP. RMD (MEMBER) CLUSTER REPOSITORY */

DEFINE CLUSTER(NAME( HLQ2.SRVRNAME.O0000001.SPRMD )          -
               VOL(VOLUM3) /*USER MUST CHANGE*/              -
               REUSE                                         -
               INDEXED                                       -
               KEYS(12  0)                                   -
               CYLINDERS(50 50) /*USER MUST CALCULATE*/      -
               SHAREOPTIONS (2 3)                            -
               FREESPACE(00 20)                              -
               RECORDSIZE (8185 8185)                        -
               CONTROLINTERVALSIZE (8192)                    -
               )                                             -
       INDEX (NAME( HLQ2.SRVRNAME.O0000001.SPRMD.INDEX ) )   -
        DATA (NAME( HLQ2.SRVRNAME.O0000001.SPRMD.DATA ) )
```

Connecting an additional Output repository

The second step to implementing a new Output repository is to connect the repository to the IMS Tools Knowledge Base information management environment.

About this task

An Output repository must be defined to the IMS Tools Knowledge Base environment before you can perform the connect procedure.

If the VSAM cluster data sets are not pre-allocated for this new repository, the **Start** repository row action (S) will fail.

Procedure

To connect an additional Output repository, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ------------------------------------------------
 |    1. List Deferred Reports                  |
 |    2. List Installed Products                |
 |    3. List Repositories                      |
 |    4. List Recon Information                 |
 |    5. Set retention for sensor data          |
 ------------------------------------------------
```

   Figure 14. Administration menu options

2. Select option 3 (**List Repositories**). Press Enter.

   The **Repositories** panel is displayed.

   For example:

```
  Commands  Help
------------------------------------------------------------------------------
SERVER: FPQRDP01                    Repositories             Row 1 to 5 of 5
Command ===>

Enter a command, select a row action or press End to exit.

Row actions: I - Information S - Start  P - STOP  D -Disconnect  A - AutoOPEN

Action   Prefix    Name      Type      Stopped  Auto
         BSN_      SENSOR    SENSOR    N        Y
         HKT_      INPUT     INPUT     N        Y
         HKT_      O0000000  OUTPUT    N        Y
         HKT_      REGISTRY  REGISTRY  N        Y
         IAV_      AUTODIR   AUTODIR   N        Y
****************************** Bottom of data ********************************
```

Figure 15. Repositories panel

3. From the **Commands** menu, select option 1 (**Connect Output repository**).

   For example:

```
   Commands  Help
 ___________________________________
 | 1  1. Connect Output repository  |
 ___________________________________
```

Figure 16. Commands menu options

4. Press Enter.

   The **Connect Repository** panel is displayed:

```
  Help
------------------------------------------------------------------------------
SERVER: FPQRDP01                 Connect Repository                 Ver 1.7.0
Command ===>                                                 Scroll ===> PAGE

Fill in information and press ENTER to continue or press CANCEL to exit.

Prefix . .       Name . .           Type . : OUTPUT    Auto . . Y


                    Dataset Names. These VSAM datasets need to be
                    preallocated before this new repository can be
                    used. In particular the row actions A
                    and S will not function on the List
                    Repositories panel.
Primary Index . . .
Primary Data  . . .
Secondary Index . .
Secondary Data  . .
Spare Index . . . .
Spare Data  . . . .
```

Figure 17. Connect Repository panel

5. Enter the appropriate values for the new Output repository as described in the following table:

Table 6. Connect Repository panel field descriptions

Field	Description
Prefix	The product prefix for the Output repository. The Output repository prefix must be HKT_.
Name	The name of the Output repository. Names must be eight characters long. Output repository names must start with an *O* and the subsequent characters must be numeric. For example: O1234567

Table 6. Connect Repository panel field descriptions (continued)

Field	Description
Type	Defaults to OUTPUT.
Auto	Whether the repository is started when the IMS Tools Knowledge Base server is started (Y) or upon the first reference to the repository (N).
Data Set Names	The name of the four data sets you created for this repository. These data set names must not duplicate any other repository data set names.

6. Press Enter.

   The **Connect Repository** panel is refreshed with no values showing.
7. Press End (PF3).

   The **Repositories** panel is displayed with the newly connected Output repository listed.
8. Use the **Start** row action (S) to start the new repository.

   The value for **Stopped** is immediately changed to N.

   Note: If the value does not change to N, or it changes to N and then Y, check the job log for repository allocation or open error messages.

Changing the repository specification

The third step to implementing a new Output repository is to change the repository specification in one or more registered products.

About this task

When products are registered to, by default, the standard Output repository (O0000000) is designated. All reports for this product are written to this standard Output repository.

You can change the Output repository designation for any product to the newly defined repository. Once the repository designation is changed, all reports for that product from that point forward will be written to the new repository.

Procedure

To change the repository specification in one or more products, complete the following steps:

1. Access the **Administration** menu from the main menu panel.

   For example:

```
  Administration  Help
_________________________________________________
|    1. List Deferred Reports                   |
|    2. List Installed Products                 |
|    3. List Repositories                       |
|    4. List Recon Information                  |
|    5. Set retention for sensor data           |
_________________________________________________
```

   Figure 18. Administration menu options
2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

   For example:

```
 View  Help
_______________________________________________________________________________
SERVER: FPQRDP01              Installed Products List         Row 1 to 2 of 2
Command ===>                                                Scroll ===> PAGE

Select a row action or press End to exit.

Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
Subs



Act  Product Name                                    Product Release
__   IMS High Perfomance Pointer Checker             030100
__   IMS Hight Performance Unload                    010200
****************************** Bottom of data ********************************
```

Figure 19. Installed Products List panel

3. Use the **Subscriptions** (**Subs**) List row action (S) for the appropriate product to list all report subscriptions defined to the product. Press Enter.

   The **Report Subscription List** panel is displayed.

   For example:

```
  Global_Actions  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01              Report Subscriptions List      Row 1 to 16 of 20
Command ===>                                                Scroll ===> PAGE

Select a row action or press End to exit.

Row actions: U Update

Product Name . . : IMS High Performance Pointer Checker
Product Release  : 030100

                                 ----- Retention ------
Act Report Title                 Days  Versions Default Record Repository
__  ** PRODUCT DEFAULTS **         5     1                    O0000000
__  PC-BIT MAP DISPLAY             5     1    Y       Y      N/A
__  PC-BLOCK MAP AND DUMP          5     1    Y       Y      N/A
__  PC-DB RECORD DIST              5     1    Y       Y      N/A
__  PC-DB STAT                     5     1    Y       Y      N/A
__  PC-ENVIRONMENT                 5     1    Y       Y      N/A
```

Figure 20. Report Subscriptions List panel

   The first row contains the product defaults for report retention, report recording, and the designated Output repository for storing reports.

4. Use the **Update** row action (U) on the PRODUCT DEFAULTS row and replace the standard repository name (O0000000) with the newly defined repository. Press Enter.

Disconnecting an Output repository

The disconnect repository operation is rarely required and is available to support the management of multiple Output repositories.

About this task

Disconnecting an Output repository removes knowledge of the existence of that repository from the IMS Tools Knowledge Base server. The repository is no longer available for storing reports. The repository itself is not deleted and can be reconnected.

You should never disconnect the Input and Registry repositories.

Procedure

To disconnect an Output repository, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ------------------------------------------------
 |    1. List Deferred Reports                   |
 |    2. List Installed Products                 |
 |    3. List Repositories                       |
 |    4. List Recon Information                  |
 |    5. Set retention for sensor data           |
 ------------------------------------------------
```

   Figure 21. Administration menu options

2. Select option 3 (**List Repositories**). Press Enter.

   The **Repositories** panel is displayed.

   For example (2 Output repositories are listed):

```
  Commands  Help
-------------------------------------------------------------------------------
SERVER: FPQRDP01                    Repositories             Row 1 to 6 of 6
Command ===>

Enter a command, select a row action or press End to exit.

Row actions: I - Information S - Start  P - STOP  D -Disconnect  A - AutoOPEN

Action   Prefix    Name      Type      Stopped  Auto
         BSN_      SENSOR    SENSOR    N        Y
         HKT_      INPUT     INPUT     N        Y
         HKT_      O0000000  OUTPUT    N        Y
         HKT_      O1234567  OUTPUT    Y        Y
         HKT_      REGISTRY  REGISTRY  N        Y
         IAV_      AUTODIR   AUTODIR   N        Y
****************************** Bottom of data ********************************
```

   Figure 22. Repositories panel

   Normally you should see a listing for the Input, Output, and Registry repositories.

   You can connect additional Output repositories to your information management environment. The **Repositories** panel list will show any additional Output repositories that you created.

3. Use the **Disconnect** row action (D) to disconnect the appropriate Output repository. Press Enter.

   A **Confirmation** message is displayed.

   For example:

```
SERVER: FPQRDP01                       Confirmation
Command ===>                                          Scroll ===> PAGE

Press ENTER to continue or END to exit.

Warning:  . . . N   Do you really want to disconnect
                    Repository:
                    O1234567
```

   Figure 23. Confirmation message

4. To disconnect the repository, enter Y and press Enter.

   The **Repositories** panel is refreshed and the disconnected repository is no longer listed.

Chapter 5. Maintaining repository data sets

The IMS Tools Knowledge Base repositories are designed to be fault tolerant.

Each repository is implemented with four data sets, two primary and two secondary:

- Primary Repository Index (RID)
- Primary Repository Member Data (RMD)
- Secondary Repository Index (RID)
- Secondary Repository Member Data (RMD)

During normal repository operation, updates are made to the primary set of data sets first. Only after the updates are committed are the same updates applied to the secondary set of data sets. A failure of one set of data sets can always be recovered from the other set.

You can decrease the possibility of a complete loss of data by placing the primary and secondary data sets on separate devices. A failure of one set of data sets can always be automatically recovered from the other set.

Topics:

Backing up repository data sets

The purpose of backing up a repository is to allow you to recover data in the event that the repository suffers a logical failure or if there is a physical loss of both the primary and secondary repository data sets.

Repository backup process

You can use any backup utility of your choosing to back up the repository data sets. The repository must be stopped or the server must be down while you are performing the backup to ensure a valid copy is made.

You should always copy all four data sets for each repository (the two primary data sets and the two secondary data sets). If you back up only the primary or only the secondary data sets and not both, it is possible that you are backing up a data set in an error state.

Once the data set is backed up you can restart the repository or server.

The following example job uses the REPRO utility to back up repositories. Member HKTBAKUP can be found in the *hlq*.SHKTSAMP library file.

```
//* ================================================================
//*                  BACKUP the repository
//* ================================================================
//REPRO    EXEC  PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//BAKUPRID DD DSN=HLQ3.BACKUP.SERVER.REPOSIT.PRID,
//            DISP=(NEW,CATLG),DCB=BLKSIZE=24576,
//            UNIT=SYSALLDA,VOL=SER=VOLUM1, ** USER MUST CHANGE **
//            SPACE=(CYL,(1,1)) ** CHANGE TO SIZE NECESSARY **
//BAKUPRMD DD DSN=HLQ3.BACKUP.SERVER.REPOSIT.PRMD,
//            DISP=(NEW,CATLG),DCB=BLKSIZE=24576,
//            UNIT=SYSALLDA,VOL=SER=VOLUM1, ** USER MUST CHANGE **
//            SPACE=(CYL,(10,10)) ** CHANGE TO SIZE NECESSARY **
//BAKUSRID DD DSN=HLQ3.BACKUP.SERVER.REPOSIT.SRID,
//            DISP=(NEW,CATLG),DCB=BLKSIZE=24576,
```

```
//            UNIT=SYSALLDA,VOL=SER=VOLUM1, ** USER MUST CHANGE **
//            SPACE=(CYL,(1,1)) ** CHANGE TO SIZE NECESSARY **
//BAKUSRMD DD DSN=HLQ3.BACKUP.SERVER.REPOSIT.SRMD,
//            DISP=(NEW,CATLG),DCB=BLKSIZE=24576,
//            UNIT=SYSALLDA,VOL=SER=VOLUM1, ** USER MUST CHANGE **
//            SPACE=(CYL,(10,10)) ** CHANGE TO SIZE NECESSARY **
//SYSIN    DD    *
  /* BACKUP THE PRID (INDEX DATA) OF THE STOPPED REPOSITORY */
   REPRO INDATASET(HLQ2.SERVER.REPOSIT.PRID) -
         OUTFILE(BAKUPRID)
  /* BACKUP THE PRMD (MEMBER DATA) OF THE STOPPED REPOSITORY */

   REPRO INDATASET(HLQ2.SERVER.REPOSIT.PRMD) -
         OUTFILE(BAKUPRMD)
  /* BACKUP THE SRID (INDEX DATA) OF THE STOPPED REPOSITORY */
   REPRO INDATASET(HLQ2.SERVER.REPOSIT.SRID) -
         OUTFILE(BAKUSRID)

  /* BACKUP THE SRMD (MEMBER DATA) OF THE STOPPED REPOSITORY */
   REPRO INDATASET(HLQ2.SERVER.REPOSIT.SRMD) -
         OUTFILE(BAKUSRMD)
```

Determining the frequency of backing up repositories

Each of the IMS Tools Knowledge Base repositories have their own characteristics and purpose. The following information discusses the difference in backup needs among the repositories:

Catalog repository
The only non-recoverable information recorded in the Catalog repository is the definitions of the other repositories. The Catalog repository is updated frequently to reflect the current state of the repositories. However, a loss of this information is not significant.

Ensure that you back up the repository after any product configuration and after adding more Output repositories. Otherwise, only occasional backups are necessary.

Input repository
The Input repository is updated with information about your environment (such as RECON environment definitions) and Policy Services data (policies, rules, directory entries, and notification lists).

Weekly backups of this repository are probably sufficient. For best results, coordinate Input repository backups with Registry repository backups.

Registry repository
The Registry repository is updated whenever you register products or change product options using the ISPF Administration menu options.

Weekly backups of this repository are sufficient. For best results, coordinate Registry repository backups with Input repository backups.

Output repository
The Output repository is updated whenever a report is recorded.

Weekly backups of this repository are probably sufficient. Always consider the importance of reports you are storing when deciding on the frequency of backups for this repository.

Sensor Data repository
The Sensor Data repository is updated whenever statistics (sensor data) are recorded.

Weekly backups of this repository are probably sufficient.

Autonomics Director repository
The Autonomics Director repository is updated whenever information is added or changed for monitored databases, user groups, period definitions, evaluations, and database reorganizations.

Weekly backups of this repository are recommended, and additionally after any major changes to the monitor list, user groups, and period definitions.

Recovering repository data sets

Performing a repository recovery from your backup data sets should be a rare occurrence.

Considerations for recovering a repository

The probable reasons for requiring the recovery of a repository from backups are catastrophic hardware failure or accidental deletion of both the primary and secondary repository data sets.

In other cases, it is possible that the repository can be recovered automatically by the server without any loss of data. For example, if a device failure occurs during the update process, the repository is marked in error and is stopped. In this situation, the following message is issued:

```
FPQ00271 - Error during phase n of the repository update process
```

Correct whatever immediate problem is reported on the IMS Tools Knowledge Base server job log and restart the repository using the **Start** row action from the **List Repositories** option of the ISPF **Administration** menu.

If the update of the primary data sets fails, restarting the repository will automatically recover the primary data sets by copying the data from the secondary data sets. Only the unit-of-work that was being written at the time of the failure is lost.

If the update to the secondary data sets fails, restarting the repository will automatically recover the secondary data sets by copying the data from the primary data sets. There will be no data loss.

Observe the server messages and determine if recovery from your backup data sets is required.

Note: If the error is an out-of-space condition, you should reorganize the data sets and add space rather than simply restoring the repository. In this case, consider making use of SMS space management capabilities.

Repository recovery process

Repository recovery is performed from your last backups. Use the appropriate utility for the backup method you used.

If you are relocating the data sets, ensure that the primary and secondary data sets are on separate devices.

Once the data set is recovered you can start the repository.

The following example job uses the REPRO utility to recover a repository from the backup copy. Member HKTREORG can be found in *hlq*.SHKTSAMP.

```
//* ============================================================
//* REORG/RESTORE REPOSITORY DATASETS
//* ============================================================
//REORG    EXEC  PGM=IDCAMS
//SYSPRINT DD  SYSOUT=*
//BAKUPRID DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.PRID,
//             DISP=OLD
//BAKUPRMD DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.PRMD,
//             DISP=OLD
//BAKUSRID DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.SRID,
//             DISP=OLD
//BAKUSRMD DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.SRMD,
//             DISP=OLD
//OUTPRID  DD  DSN=HLQ2.SERVER.REPOSIT.PRID,DISP=OLD PRIMARY INDEX
//OUTPRMD  DD  DSN=HLQ2.SERVER.REPOSIT.PRMD,DISP=OLD PRIMARY MEMBER
//OUTSRID  DD  DSN=HLQ2.SERVER.REPOSIT.SRID,DISP=OLD SECOND INDEX
//OUTSRMD  DD  DSN=HLQ2.SERVER.REPOSIT.SRMD,DISP=OLD SECOND MEMBER
//SYSIN    DD  *
  /* REORG/RESTORE PRIMARY RID(INDEX DATA) OF THE STOPPED REPOSITORY*/
   REPRO INFILE(BAKUPRID)   -
         OUTFILE(OUTPRID) REUSE

  /* REORG/RESTORE PRIMARY RMD(MEMBER DATA) OF THE STOPPED REPOSITORY*/
   REPRO INFILE(BAKUPRMD)   -
```

```
        OUTFILE(OUTPRMD) REUSE

  /* REORG/RESTORE SECOND. RID(INDEX DATA) OF THE STOPPED REPOSITORY*/
   REPRO INFILE(BAKUSRID)   -
        OUTFILE(OUTSRID) REUSE

  /* REORG/RESTORE SECOND. RMD(MEMBER DATA) OF THE STOPPED REPOSITORY*/
   REPRO INFILE(BAKUSRMD)   -
        OUTFILE(OUTSRMD) REUSE
```

Reorganizing repository data sets

Repositories should be reorganized as needed to reclaim space and improve data clustering.

Considerations for reorganizing a repository

Consider the following information about repositories when you determining the need for reorganizing the repository data sets:

- The Catalog and Registry repositories rarely require reorganization.
- The Output repositories might need frequent reorganization depending upon the rate at which you are recording reports.
- The Input repository might require reorganization after changes are made to Policy Services data (policies, rules, directory entries, notification lists).
- The Sensor Data repository might need frequent reorganization depending upon the rate at which you are recording statistics (sensor data).

When the usage of IMS Tools Knowledge Base grows (for example, the addition of more enabled products), you might also have to expand the size of the repositories.

Repository reorganization process

The repository must be stopped or the server must be down while you reorganize the repository to ensure a valid copy is made.

You must first reorganize all four of the repository data sets to a sequential data set and then restore them back to the VSAM clusters.

Once the data set is reorganized you can restart the repository or server.

Refer to the previous backup example for the job to reorganize and restore the repositories to a sequential data set.

The following job resets the VSAM data sets and copies the data from the sequential files. Member HKTREORG can be found in *hlq*.SHKTSAMP.

```
//* ================================================================
//* REORG/RESTORE REPOSITORY DATASETS
//* ================================================================
//REORG    EXEC  PGM=IDCAMS
//SYSPRINT DD  SYSOUT=*
//BAKUPRID DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.PRID,
//             DISP=OLD
//BAKUPRMD DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.PRMD,
//             DISP=OLD
//BAKUSRID DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.SRID,
//             DISP=OLD
//BAKUSRMD DD  DSN=HLQ3.BACKUP.SERVER.REPOSIT.SRMD,
//             DISP=OLD
//OUTPRID  DD  DSN=HLQ2.SERVER.REPOSIT.PRID,DISP=OLD PRIMARY INDEX
//OUTPRMD  DD  DSN=HLQ2.SERVER.REPOSIT.PRMD,DISP=OLD PRIMARY MEMBER
//OUTSRID  DD  DSN=HLQ2.SERVER.REPOSIT.SRID,DISP=OLD SECOND INDEX
//OUTSRMD  DD  DSN=HLQ2.SERVER.REPOSIT.SRMD,DISP=OLD SECOND MEMBER
//SYSIN    DD  *
  /* REORG/RESTORE PRIMARY RID(INDEX DATA) OF THE STOPPED REPOSITORY*/
   REPRO INFILE(BAKUPRID)   -
        OUTFILE(OUTPRID) REUSE
```

```
/* REORG/RESTORE PRIMARY RMD(MEMBER DATA) OF THE STOPPED REPOSITORY*/
 REPRO INFILE(BAKUPRMD)   -
       OUTFILE(OUTPRMD) REUSE

/* REORG/RESTORE SECOND. RID(INDEX DATA) OF THE STOPPED REPOSITORY*/
 REPRO INFILE(BAKUSRID)   -
       OUTFILE(OUTSRID) REUSE

/* REORG/RESTORE SECOND. RMD(MEMBER DATA) OF THE STOPPED REPOSITORY*/
 REPRO INFILE(BAKUSRMD)   -
       OUTFILE(OUTSRMD) REUSE
```

Resizing repository data sets

The repository data sets are VSAM data sets and can be resized to accommodate the growth of the stored data.

Refer to the topic "Sizing your IMS Tools Knowledge Base repositories" in *IMS Tools Base Configuration Guide* for the specific repository that needs resizing.

Once you have determined the new size requirements, change the cluster definitions in HKTDFREP.

Then perform the following procedures:

1. Stop the repository.

   For details, see “Starting and stopping repositories (ISPF)” on page 19.
2. Unload the repository data set using your preferred method.
3. Delete the repository data set and define new clusters using the new sizes.

   Use a modified copy of HKTDFREP that only deletes and defines the four clusters for the repository you are changing.
4. Reload the repository data set using your preferred method.
5. Start the repository.

   For details, see “Starting and stopping repositories (ISPF)” on page 19.

Note: It is important that you use a utility (such as REPRO) that unloads and reloads the data at a record level. Refer to job HKTBAKUP to unload and job HKTREORG to reload.

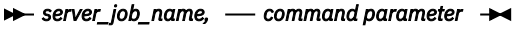
Chapter 6. IMS Tools Knowledge Base server commands

IMS Tools Knowledge Base server commands are provided for repository administration tasks.

Server operator commands

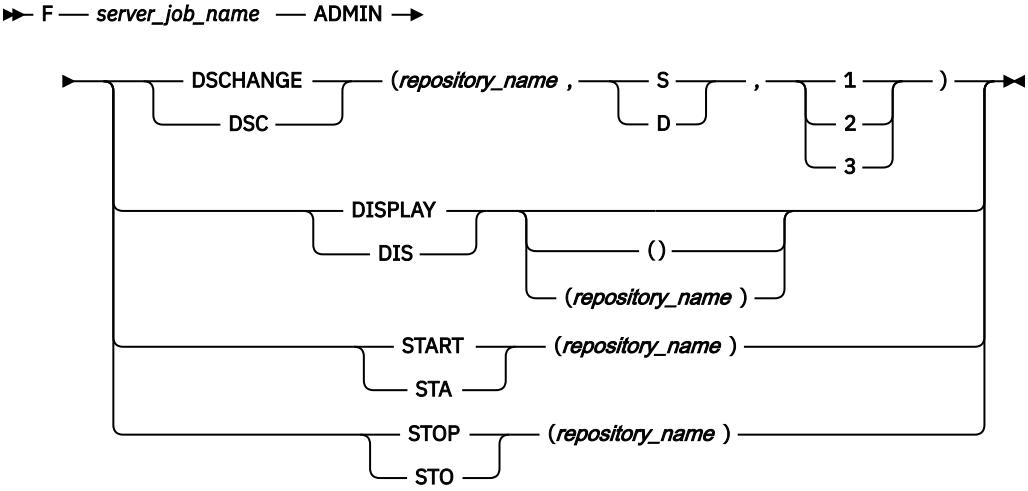
The Service Repository operator commands are invoked via the MVS™ **F** (**MODIFY**) command.

The general syntax is:



The following commands are used:

ADMIN
Performs repository administration for a selected subset of the administration tasks.



repository_name
The name of the repository that contains the data sets to change, display, start, or stop. You cannot use CATALOG because this name is reserved.

The name of the repository is defined when you add the repositories to the IMS Tools Knowledge Base server.

S | D
The DSCHANGE action that is applied to the repository data sets specified in the RDS parameter:

S
Request a SPARE action for a RDS pair.

D
Request a DISCARD action for a RDS pair.

1 | 2 | 3
A number between 1 - 3 that indicates the Repository Data Set (RDS) pair that the requested DSCHANGE action is applied to.

DSCHANGE
Changes the status of an RDS pair to either DISCARD or SPARE.

- If you run DISCARD against either COPY1 or COPY2, the repository must be stopped. Only use DISCARD with COPY1 or COPY2 to remove them from your system.
- If you run DISCARD against a SPARE RDS, it is not necessary for the repository to be stopped.
- The SPARE can only be run against a DISCARD data set pair where both of the data sets are empty.

Use this command sparingly.

Usage example:

In this example, there is a failure for the primary output repository data set COPY1 (HKT_O0000000). The system stopped the primary output repository data set COPY1, and copied the secondary output data set COPY2 to the SPARE output data set COPY3.

The ADMIN command DSCHANGE option is used to request that the output repository data set COPY1 (HKT_O0000000) is changed to DISCARD. The output data set COPY1 is changed to DISCARD because it is no longer available as the primary output repository data set. By changing to DISCARD, this allows a new output repository data set COPY1 to be allocated as the new SPARE.

Command input:

```
F PS13SRVJ,ADMIN DSCHANGE(HKT_O0000000,D,1)
```

Command output:

```
BPE0032I ADMIN COMMAND COMPLETED FPQ
FPQ0037I - RDS1 status has been changed to DISCARD.
Repository...: HKT_O0000000 FPQ
```

The ADMIN command DSCHANGE option requests that a output repository data set COPY1 (HKT_O0000000) is added as a new output repository data set COPY1 (HKT_O0000000).

Command input:

```
F PS13SRVJ,ADMIN DSCHANGE(HKT_O0000000,S,1)
```

Command output:

```
BPE0032I ADMIN COMMAND COMPLETED FPQ
FPQ0037I - RDS1 status has been changed to SPARE.
Repository...: HKT_O0000000 FPQ
```

DISPLAY/DIS

Lists all repositories defined in the catalog (similar to the LIST batch administration command).

Lists the details of a specified repository (similar to the LIST REPOSITORY batch administration command).

Usage example:

The ADMIN command DISPLAY option with and without () is issued to display all of the repositories defined in the catalog that are available to the server and the IMS tools associated with the repository server.

Command input:

```
F PS13SRVJ,ADMIN DISPLAY
```

or

```
F PS13SRVJ,ADMIN DISPLAY()
```

Command output:

```
BPE0032I ADMIN DIS COMMAND COMPLETED FPQ
FPQ2102I - HKT_REGISTRY                                  CLOSED
```

```
2021/01/13 USRT013  COPY1    COPY2    SPARE    FPQ
FPQ2102I - HKT_O0000000                                  CLOSED
2021/01/13 USRT013  COPY1    COPY2    SPARE    FPQ
FPQ2102I - HKT_INPUT                                     CLOSED
2021/01/13 USRT013  COPY1    COPY2    SPARE    FPQ
FPQ2102I - BSN_SENSOR                                    CLOSED
2021/01/13 USRT013  COPY1    COPY2    SPARE    FPQ
```

The ADMIN command DISPLAY option using repository name HKT_INPUT displays the details of the INPUT repository.

Command input:

```
F PS13SRVJ,ADMIN DISPLAY(HKT_INPUT)
```

Command output:

```
BPE0032I ADMIN COMMAND COMPLETED FPQ
FPQ2100I - ADMIN DISPLAY repository HKT_INPUT
         - Last updated date/time  : 2021/01/13 17:56:37  USER000
         - Status  . . . . . . . . : CLOSED
         - Auto-open . . . . . . . : NO
         - Security Class  . . . . : NOT DEFINED FPQ
FPQ2101I - ADMIN DISPLAY repository RDS1:
         - Index (RID) . . : IMSTOOL.PSS1.PS13SRVJ.INPUT.PRID
         - Member (RMD)  . : IMSTOOL.PSS1.PS13SRVJ.INPUT.PRMD
         - Status  . . . . : COPY1    FPQ
FPQ2101I - ADMIN DISPLAY repository RDS2:
         - Index (RID) . . : IMSTOOL.PSS1.PS13SRVJ.INPUT.SRID
         - Member (RMD)  . : IMSTOOL.PSS1.PS13SRVJ.INPUT.SRMD
         - Status  . . . . : COPY2    FPQ
FPQ2101I - ADMIN DISPLAY repository RDS3:
         - Index (RID) . . : IMSTOOL.PSS1.PS13SRVJ.INPUT.ARID
         - Member (RMD)  . : IMSTOOL.PSS1.PS13SRVJ.INPUT.ARMD
         - Status  . . . . : SPARE    FPQ
```

START/STA

Start a repository.

Usage example:

The ADMIN command using option START and including the HKT_O0000000 repository name displays when the selected repository has been started. This command is useful if the requested repository data set has not been started previously.

Command input:

```
F PS13SRVJ,ADMIN START(HKT_O0000000)
```

Command output:

```
FPQ2014I - Repository start request initiated: HKT_O0000000 FPQ
BPE0032I ADMIN COMMAND COMPLETED FPQ
FPQ2021I - Repository started: HKT_O0000000
```

STOP/STO

Stop a repository.

Usage example:

The ADMIN command using option STOP and including the HKT_O0000000 repository name displays that the selected repository has been stopped. If you STOP a repository data set it causes errors to any client attempting to retrieve or put data into that repository. Be very careful when stopping repository data sets.

Command input:

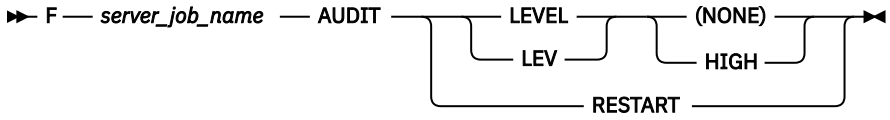
```
F PS13SRVJ,ADMIN STOP(HKT_O0000000)
```

Command output:

```
FPQ2020I - Repository stop request initiated: HKT_O0000000 FPQ
BPE0032I ADMIN COMMAND COMPLETED FPQ
FPQ2015I - Repository stopped: HKT_O0000000 FPQ
```

AUDIT

Dynamically change the auditing level from that set in the AUDIT_LEVEL configuration parameter.



LEVEL/LVL

Determines whether audit records are written to the log.

Usage example:

The AUDIT command using option LEVEL and including parameter NONE, means that the audit records are not written to the log.

Command input:

```
F PS13SRVJ,AUDIT LEVEL(NONE)
```

Command output:

```
FPQ2103I - Audit level changed from HIGH to NONE FPQ
BPE0032I AUDIT COMMAND COMPLETED FPQ
```

or

```
FPQ2104I - Audit level unchanged from NONE FPQ
BPE0032I AUDIT COMMAND COMPLETED FPQ
```

The AUDIT command using option LEVEL and including parameter HIGH, means that the audit records are written to the log.

Command input:

```
F PS13SRVJ,AUDIT LEVEL(HIGH)
```

Command output:

```
BPE0032I AUDIT COMMAND COMPLETED FPQ
FPQ2103I - Audit level changed from NONE to HIGH FPQ
```

or

```
FPQ2104I - Audit level unchanged from HIGH FPQ
BPE0032I AUDIT COMMAND COMPLETED FPQ
```

NONE

Audit records are not written.

HIGH

Audit records are written.

RESTART

Resume audit logging after logging was suspended due to an outstanding error while connecting to or writing to the log stream.

Usage example:

The AUDIT command using option RESTART resumes audit logging after logging was suspended due to an outstanding error while connecting to or writing to the log stream.

Command input:

```
F PS13SRVJ,AUDIT RESTART
```

Command output:

```
BPE0032I AUDIT RESTART COMMAND COMPLETED FPQ
FPQ2032I - Audit logging resumed FPQ
```

DUMPSTATS

Print repository server statistics to DD FPQPRINT.

RESET

Reset the statistics counts to zero as they are externalized.

Usage example:

The DUMPSTATS command with option RESET prints repository server statistics to the DD FPQPRINT data set. The statistics counts are reset to zero.

Command input:

```
F PS13SRVJ,DUMPSTATS RESET
```

Command output:

```
BPE0032I DUMPSTATS RESET COMMAND COMPLETED FPQ
```

NORESET

Leave the count values as is.

Usage example:

The DUMPSTATS command prints repository server statistics to the DD FPQPRINT data set. The statistic counts are not reset to zero.

Command input:

```
F PS13SRVJ,DUMPSTATS
```

Command output:

```
BPE0032I DUMPSTATS COMMAND COMPLETED FPQ
```

The DUMPSTATS command with option NORESET prints repository server statistics to the DD FPQPRINT data set. The statistic counts are not reset to zero.

Command input:

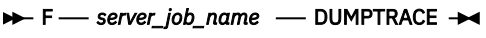
```
F PS13SRVJ,DUMPSTATS NORESET
```

Command output:

```
BPE0032I DUMPSTATS NORESET COMMAND COMPLETED FPQ
```

DUMPTRACE

Print dump diagnostics to DD FPQPRINT.



For more information, see Chapter 20, “BPE diagnostic trace,” on page 241.

Usage example:

The DUMPTRACE command dumps diagnostics to the DD FPQPRINT data set. For more information, see Chapter 20, “BPE diagnostic trace,” on page 241.

Command input:

```
F PS13SRVJ,DUMPTRACE
```

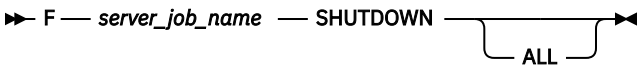
Command output:

```
BPE0032I DUMPTRACE COMMAND COMPLETED FPQ
```

SHUTDOWN

Stop the specified Service Repository server. The ALL keyword stops all servers in the same XCF group.

Tip: The P *server_job_name* has the same effect as F *server_job_name*,SHUTDOWN.



ALL

Stop all Service Repository servers that use the same XCF group as the specified server, including subordinate servers.

Usage example:

The SHUTDOWN command with option ALL stops the specified Service Repository server and all servers in the same XCF group.

Command input:

```
F PS13SRVJ,SHUTDOWN
```

Command output:

```
FPQ2005I - Shutdown command received, server terminating FPQ
FPQ2013I - Closing repository: CATALOG FPQ
FPQ2017I - Repository closed: CATALOG  FPQ
FPQ2013I - Closing repository: HKT_INPUT FPQ
FPQ2017I - Repository closed: HKT_INPUT FPQ
FPQ2013I - Closing repository: HKT_O0000000 FPQ
FPQ2017I - Repository closed: HKT_O0000000 FPQ
FPQ2013I - Closing repository: HKT_REGISTRY FPQ
FPQ2017I - Repository closed: HKT_REGISTRY
BPE0007I FPQ  BEGINNING PHASE 1 OF SHUTDOWN FPQ
BPE0032I SHUTDOWN COMMAND COMPLETED FPQ
BPE0008I FPQ  BEGINNING PHASE 2 OF SHUTDOWN FPQ
BPE0009I FPQ  SHUTDOWN COMPLETE FPQ
SMF000I  PS13SRVJ    FPQ2        FPQSVRS     0000
$HASP395 PS13SRVJ ENDED
```

Part 3. Report services reference

IMS Tools Knowledge Base is the foundational infrastructure that provides a centralized information management environment for IMS Tools products.

By using IMS Tools Knowledge Base, you can store, manage, and access resources (such as reports, sensor data, policies, and rules) that are generated or used by any tool product that has been enabled and registered to participate in this environment.

Topics:

Chapter 7. Finding and viewing reports

To find and view reports that are stored in the IMS Tools Knowledge Base central repository, use the IMS Tools Knowledge Base ISPF user interface.

Topics:

IMS Tools Knowledge Base main menu

To access and manage reports that are stored in the repository, use the IMS Tools Knowledge Base main menu.

```
  Administration  Help
_______________________________________________________________________________
 SERVER: FPQRDP01             Knowledge Base            Ver 1.7.0
 Option ===>_____________________________________________________________

 Select an option or press END to exit.


 *Knowledge Base Server Name . . . . FPQRDP01
  Recon ID . . . . . . . . . . . . . _________          *History (y/n) Y

 Display Database Report Output
 1  List of databases with reports
 2  List of DDnames with reports
 3  List of IMS Systems with reports
 4  List of Report jobs
 5  List of Report types
 6  List of Reports
 7  List of Products
 8  List reports using selection criteria
 9  List of all reports available
 10 List of recently viewed reports
 11 Exit
```

Figure 24. IMS Tools Knowledge Base main menu panel

Entering the server name

When you first use the IMS Tools Knowledge Base main menu panel, you must enter the name of the IMS Tools Knowledge Base server that is used for your sysplex environment.

For example:

```
*Knowledge Base Server Name . . . . FPQRDP01
```

This value is preserved in your user profile and is automatically set for all future access of this panel.

You can specify the question mark character (?) in the field (and press Enter) to view a list of servers that you connected to in the past.

Setting the history value

You are also required to set the **History** value. The most recent report for a given resource is considered the current report. Older versions, if saved, are considered history reports.

Report retention settings control whether a previous (or history) version of a report is retained when a new version is recorded. Many history versions can be retained.

When you indicate N for **History** on the main panel, the **Available Reports Lists** shows only the current instance of each report in the repository.

When you indicate Y for **History** on the main panel, the **Available Reports Lists** displays all current reports and existing history instances of the reports in the repository.

For example:

```
*History (y/n) Y
```

This value is preserved in your user profile and is automatically set for all future access of this panel.

Entering a RECON ID

Optionally, you can enter a RECON environment ID. RECON environments are defined to IMS Tools Knowledge Base by using the product administration utility.

The setting for **Recon ID** limits the database reports that you see to just the reports for databases that are associated with that RECON environment. You can type the question mark character (?) in the field (and press Enter) to see a list of all defined RECON environments.

For example:

```
Recon ID . . . . . . . . . . . . . TTRECN11
```

This value is preserved in your user profile and is automatically set for all future access of this panel.

ISPF panel features and functions

The IMS Tools Knowledge Base ISPF interface provides extensive and flexible search capabilities to quickly locate the reports that you require. This topic discusses several features and functions that can help make your search time more efficient.

Help

The IMS Tools Knowledge Base ISPF interface includes a Help system that provides immediate reference information while you are using the product. Help information is provided through two methods:

- Panel help
- Field help

Panel help provides overview information about the purpose and function of the panel and includes a summary of the fields and actions available on the panel. For example, panel help will list all pull down menu options, row actions, and commands. You can access panel help in three ways:

- Place the cursor on the Help menu at the top of the panel, press Enter, select option 1 (**Panel Help**), and press Enter
- Place the cursor on the title of the panel and press F1

  Note: You can also access the panel help by pressing F1 anywhere on the panel, except in a data field area.

Field help provides information specific to a data field area on the panel. To access field help, place the cursor in the data entry area of the field and press F1.

Note: If there is no field help information available for a field, the general panel help information is displayed.

Wildcard characters

Wildcard characters can be used in some fields to represent any character value.

Wildcard characters include a percent sign (%), which represents a single character substitution, and an asterisk (*), which represents a multiple character substitution. Only one asterisk (*) can be specified; for example, *A* is not valid.

For example:

A%CD
A*D
*D
A*

Date format

The **Report Selection Criteria** panel includes the option to enter a date and time range.

The **Start Date** is an optional field that limits selection of reports to those with a job, step, or report date no earlier than the specified date.

The **End Date** is an optional field that limits selection of reports to those with a job, step, or report date no later than the specified date.

You can specify an absolute date using the following format:

```
yyyy/mm/dd
```

Alternatively, you can specify a relative date from 0 to 99, where 0 is today and 1 is yesterday.

Time format

The **Start Time** is an optional field that limits selection of reports to those with a job, step, or report time no earlier than the specified time. **Start Time** cannot be specified without **Start Date**.

The **End Time** is an optional field that limits selection of reports to those with a job, step, or report time no later than the specified time. **End Time** cannot be specified without **End Date**.

You can specify a **Start Time** and **End Time** using the following format:

```
hh:mm:ss
```

History

The most recent report for a given resource is considered the current report. Older versions, if saved, are considered history reports.

You can choose whether or not history versions of reports are selected for display from the IMS Tools Knowledge Base main menu and from the **Report Selection Criteria** panel.

In addition, you can locate all of the versions of a report by using the **History** row action (H) on the **Available Reports List** panel.

Sort

Panels often contain many rows of reports.

The **Sort** option from the **View** menu allows you to sort the rows using up to six columns. The Sort setting is saved in your profile.

The **Reset Sort Sequencing** option from the **View** menu allows you to restore the original sort sequence.

You can also access the sort function by entering SORT on the command line.

Filter

Panels often contain many rows of reports.

The **Filter** option from the **View** menu displays a **Set Filter** criteria panel where you can enter specific values that identify the reports you require.

The refreshed list of reports limits the rows displayed to those reports that match the filter criteria. All reports not meeting the specified filter criteria are eliminated from the refreshed list of reports.

You can also access the filter function by entering FILTER on the command line.

Find

Panels often contain many rows of reports.

The **Find** option from the **View** menu displays a **Find** criteria panel where you can enter specific values that identify the reports you require.

The refreshed list of reports positions the first matching report at the top of the display. The RFIND (repeat find) function key will find the next match.

You can also access the find function by entering FIND on the command line.

Column order

The **Available Reports List** panel displays the information about a report in multiple columns that extend beyond the width of your screen.

The **Order Columns** option from the **View** menu displays an **Order Column Settings** panel where you can specify the sequence the columns are displayed in. The customized Order setting is saved in your profile.

The **Reset Order** option from the **View** menu allows you to restore the original column sequence.

You can also access the column order function by entering ORDER on the command line.

Scrolling

The **Available Reports List** panel displays the information about a report in multiple columns that extend beyond the width of your screen.

Right and left scrolling is supported. Scroll right to see additional information about the reports.

You can provide a numeric value on the command line to scroll a specific number of columns.

- A value of 0 will position the screen at the leftmost column.
- A value of 99 will position the screen at the rightmost column.

Finding reports by selection criteria

You can find reports by using specific characteristics of the reports that you require.

About this task

The **Report Selection Criteria** panel allows you to produce a list of reports by specifying one or more report characteristics.

The following tables describes each of the selection criteria that can be used to find reports in the IMS Tools Knowledge Base report repository:

- For report selection criteria descriptions, see Table 7 on page 53.
- For RECON selection criteria descriptions, see Table 8 on page 53.
- For database selection criteria descriptions, see Table 9 on page 53.
- For job and step selection criteria descriptions, see Table 10 on page 54.
- For date and time selection criteria descriptions, see Table 11 on page 54.

Table 7. Report selection criteria descriptions

Criteria	Description
Quick Index	An alphanumeric identifier that uniquely identifies a specific report instance.
History	Include archived (history) versions of all reports being displayed. Values are Y and N.
Product	The product name specifies the short name of the IMS Tools product that created the reports. See the users guide of the IMS Tools product to find the short name of that product.
Report	The report name specifies the short name of a report. See the users guide of the IMS Tools product to find the short names of the reports generated by that product.
Type	The report type can be one of the following classification values: DBD, DD, AREA, PART, LOG, SUM, or WTO
Cmp Code (Completion Code)	A completion code is an integer value that is optionally used by products to communicate the significance of information contained in the report. A completion code of zero means that the report was successfully completed. However, a completion code of zero does not mean that the report does not contain any errors. See the documentation for each product to determine the meaning of specific completion codes.

Table 8. RECON selection criteria descriptions

Criteria	Description
RECON ID	The RECON ID is an eight-character name that you assign to a RECON by associating it with the RECON1 data set name. You can review these associations and change them using the IMS Tools Knowledge Base administration user interface. The IMS Tools product that produces database reports uses the RECON1 data set name to make this association.
RECON1 Name	The RECON1 data set that the reports are associated with.
IMS ID	The IMS ID is the IMS system name that is associated with the reports.

Table 9. Database selection criteria descriptions

Criteria	Description
Database	The database name is the name of the database that is associated with the reports.
Part/Area (Partition/Area)	The name of the partition or area associated with this report.
DD Name	The data definition name is the name of the data set that is associated with the reports.

Table 9. Database selection criteria descriptions (continued)

Criteria	Description
Group Type	Database objects can belong to groups. Groups can be defined to DBRC or IMS Tools Knowledge Base (ITKB).
Group Name	Database objects can belong to groups. The group name is the name of the group associated with data objects in this report.
DB Set	HAL DB databases that are enabled for OLR have two sets of data sets. "P" or primary are the "A-J" data sets, and "S" or secondary are the "M-V" data sets.

Table 10. Job and step selection criteria descriptions

Criteria	Description
System ID	The system ID specifies the IMS system that the report was created on.
User ID	The user ID is the user ID value associated with the job that produced the report.
Job Name	The job name is the name of the job that created the reports.
Job Number	The job number is the number of the job that created the reports.
Step Name	The step name specifies the name of the job step that created the reports.

Table 11. Date and time selection criteria descriptions

Criteria	Description
Date/Time range	Choose to apply the date and time range to the Job (J), Step (S), or Report (R).
Start Date	The Start Date value limits selection of reports to those with a job/step/report time no earlier than the specified date. You can specify either a relative date (from 0 to 99 where 0 is today, 1 is yesterday) or an absolute date. Format is "yyyy/mm/dd".
Start Time	The Start Time value limits selection of reports to those with a job/step/report time no earlier than the specified time. Start Time cannot be specified without Start Date. Format is "hh:mm:ss".
End Date	The End Date value limits selection of reports to those with a job/step/report time no later than the specified date. You can specify either a relative date (from 0 to 99 where 0 is today, 1 is yesterday) or an absolute date. Format is "yyyy/mm/dd".
End Time	The End Time value limits selection of reports to those with a job/step/report time no later than the specified time. End Time cannot be specified without End Date. Format is "hh:mm:ss".

Procedure

To find reports when you know some characteristics of these reports, complete the following steps:

1. Select option 8 from the IMS Tools Knowledge Base main menu panel. Press Enter.

   The **Report Selection Criteria** panel is displayed:

```
  Commands  Help
_______________________________________________________________________________
SERVER: FPQRDP01             Report Selection Criteria           Ver 1.7.0
Command ===>

Type criteria for reports, then press ENTER to see selected reports or
press END to exit.


Quick Index . .                                          History (y/n) Y

Product . . . .
Report  . . . .                              Type . .        Cmp Code

RECON ID  . . .
RECON1 Name . .
IMS ID  . . . .

Database  . . .           Part/Area . . .           DD Name . . .
Group Type  . .           Group Name  . .           DB Set  . . .

System ID . . .           User ID . . . .
Job Name  . . .           Job Number  . .           Step Name . .

Date/Time Range           (J - Job, S - Step or R - Report)
Start Date  . .             Start Time  . .
End Date  . . .             End Time  . . .
```

Figure 25. Report Selection Criteria panel

2. Enter any information that describes the list of reports you want to review. Press Enter.

   Important: The RECON1 Name field does not allow the use of wildcard characters.

   The **Available Reports List** panel displays a list of reports that meet the specified criteria.

```
 View  Help
_______________________________________________________________________________
SERVER: FPQRDP01            Available Reports List               Row 1 from 6
Command ===>                                                  Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    DBD      Area/Part DD       Set
    HP Unload       UL-SEGMENT STATISTICS                        BBD7DD1
    HP Unload       UL-SEGMENT STATISTICS                        BBD7DD1
    HP Unload       UL-SEGMENT STATISTICS                        CUD7DD1
    HP Unload       UL-SEGMENT STATISTICS                        CUD7DD1
    HP Unload       UL-SEGMENT STATISTICS                        DDD7DD1
    HP Unload       UL-SEGMENT STATISTICS                        DDD7DD1
****************************** Bottom of data ********************************
```

Figure 26. Available Reports List panel

   If you do not enter any data in the **Report Selection Criteria** panel, the **Available Reports List** displays all of the available reports in the repository (the same output as main menu option 9). This list can be very lengthy.

3. Use the **Sort**, **Find**, and **Filter** options from the **View** menu to drill down to the appropriate reports.
4. Use the Row Actions commands to view and manage your reports.
5. Use the PF11 and PF10 keys to scroll the panel right and left.
6. Use the **Order Columns** option from the **View** menu to change the order that the columns are displayed on the panel.

Saving and retrieving the selection criteria

You can save the criteria that you specified in the **Report Selection Criteria** panel to quickly find similar reports at a later time. If you specified date and time criteria, you might want to use relative time references.

To save and retrieve the criteria that you entered on the **Report Selection Criteria** panel, complete the following steps:

1. Enter the appropriate criteria information on the **Report Selection Criteria** panel.
2. From the Commands menu of the **Report Selection Criteria** panel, select option 1 (**Save**). Press Enter.

```
  Commands  Help
 - - - - - - - - - -
 | 1  1. Save      |
 |    2. Retrieve  |
 - - - - - - - - - -
```

Figure 27. Commands menu from the Report Selection Criteria panel

The **Save Selection Criteria** panel is displayed.

```
SERVER: FPQRDP01              Save Selection Criteria            Ver 1.7.0
Command ===>

Enter a name and description and press ENTER to save the selection
criteria or press END to exit.

*Name . . . . .
Description . .
```

Figure 28. Save Selection Criteria panel

3. From the **Save Selection Criteria** panel, enter a unique name for this criteria profile and a description of what report output this criteria profile produces. Press Enter.
4. From the **Commands** menu of **Report Selection Criteria** panel, select option 2 (**Retrieve**). Press Enter.

```
  Commands  Help
 - - - - - - - - - -
 | 2  1. Save      |
 |    2. Retrieve  |
 - - - - - - - - - -
```

Figure 29. Commands menu from the Report Selection Criteria panel

The **Retrieve Selection Criteria** panel is displayed.

For example:

```
SERVER: FPQRDP01            Retrieve Selection Criteria     Row 1 to 2 of 2
Command ===>

Choose a selection criteria and press ENTER or press END to exit.



Row actions: S - List D - Delete

Act  Name      Description
_    S1        Primary selection criteria
_    S2        Secondary selection criteria
****************************** Bottom of data ******************************
```

Figure 30. Retrieve Selection Criteria panel

5. Use the **List** row action (S) to display the **Report Selection Criteria** panel for the selected saved criteria. Press Enter.

   The **Report Selection Criteria** panel is displayed.

   For example:

```
  Commands  Help
_______________________________________________________________________
SERVER: FPQRDP01             Report Selection Criteria           Ver 1.7.0
Command ===>

Type criteria for reports, then press ENTER to see selected reports or
press END to exit.


Quick Index . .                                          History (y/n)

Product . . . .
Report  . . . .                               Type . .        Cmp Code

RECON ID  . . .
RECON1 Name . .
IMS ID  . . . .

Database  . . . a*        Part/Area . . .           DD Name . . .
Group Type  . .           Group Name  . .           DB Set  . . .

System ID . . .           User ID . . . .
Job Name  . . .           Job Number  . .           Step Name . .

Date/Time Range j         (J - Job, S - Step or R - Report)
Start Date  . . 60          Start Time  . .
End Date  . . .             End Time  . . .
```

Figure 31. Report Selection Criteria panel

6. You can delete the saved criteria from the **Retrieve Selection Criteria** panel by using the **Delete** row action (D) and pressing Enter.

Finding reports by job

You can find reports by the job that generated the reports.

Procedure

To find reports when you know the job that generated the reports, complete the following steps:

1. Select option 4 from the IMS Tools Knowledge Base main menu panel. Press Enter.

   The **Report Jobs List** panel is displayed. The list provides job names, job numbers, and the number of reports that are available for each job.

```
  View  Help
_______________________________________________________________________
SERVER: FPQRDP01                Report Jobs List              Row 1 from 3
Command ===>                                            Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - List
                                                      Nbr of
Act  Job Name  Job Nbr   Job Start          User ID   Reports
_    RDOADRPT  01912     20220406 02:00:22  CDLLD01         3
_    RD0ADRPT  02832     20220331 22:32:01  RDEFAL1        30
_    RD0ADRPT  02833     20220331 22:32:55  RDEFAL1        30
****************************** Bottom of data ********************************
```

Figure 32. Report Jobs List panel

2. If the results list is lengthy, use the **Sort**, **Find**, and **Filter** options from the **View** menu to locate the job.
3. Select the appropriate job by using the **List** row action (S). Press Enter.

   The **Available Reports by Job** panel is displayed:

```
  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01           Available Reports - Job            Row 11 from 30
Command ===>                                                Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    DBD      Area/Part DD       Set
    HP Unload       UL-HDAM RAA STATISTICS    CCSTD7             DDD7DD1
    HP Unload       UL-HDAM RAA STATISTICS    CUSTD7             CUD7DD1
    HP Unload       UL-SEGMENT STATISTICS     AASTD7
    HP Unload       UL-SEGMENT STATISTICS     CCSTD7
    HP Unload       UL-SEGMENT STATISTICS     CUSTD7
    IMS RSP         DRFXF ICMDRPT             AASTD7
    IMS RSP         DRFXF ICMDRPT             CCSTD7
    IMS RSP         DRFXF ICMDRPT             CUSTD7
    IMS RSP         DRFXF RPIDRPT             AASTD7             BBD7DD1
    IMS RSP         DRFXF RPIDRPT             CCSTD7             DDD7DD1
    IMS RSP         DRFXF RPIDRPT             CUSTD7             CUD7DD1
```

   Figure 33. Available Reports by Job panel
4. Use the **Sort**, **Find**, and **Filter** options from the **View** menu to drill down to the required reports.
5. Use the Row Actions commands to view and manage your reports.
6. Use the PF11 and PF10 keys to scroll the panel right and left.
7. Use the **Order Columns** option from the **View** menu to change the order that the columns that are displayed on the panel.

Finding reports by group

You can find specific reports from a list of reports that are associated with a specific group type.

About this task

IMS Tools Knowledge Base group types include:

- Databases
- DDnames
- IMS systems
- Report types
- Report titles
- Products

Procedure

To find reports by groups, complete the following steps:

1. Select the appropriate group option from the IMS Tools Knowledge Base main menu panel. Press Enter.

   Options are available for the following groups:

   - Option 1 displays a list of **databases** have available reports.
   - Option 2 displays a list of **DDnames** that have available reports.
   - Option 3 displays a list of **IMS systems** that have available reports.

- Option 5 displays a list of **report types** (for example, AREA, DBD, DD, LOG, PART, SUM) that have available reports.
- Option 6 displays a list of **report titles** that have available reports.
- Option 7 displays a list of **registered products** that have available reports.

For example, selecting option 1 produces the **Database List** panel that displays all databases that currently have available reports:

```
  View  Help
_____________________________________________________________________________
SERVER: FPQRDP01                  Database List                 Row 1 from 8
Command ===>                                                Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - List
                        Nbr of
Act  Recon ID  DBD Name  Reports
_    MYRECON1  AASTD7          6
_    MYRECON1  CCSTD7          6
_    MYRECON1  CUSTD7          6
_    MYRECON1  DBD001DA       30
_    MYRECON1  SY11           30
_    MYRECON2  AASTD7          6
_    MYRECON2  CCSTD7          6
_    MYRECON2  CUSTD7          6
****************************** Bottom of data ********************************
```

Figure 34. Database List panel

2. If the results list is lengthy, use the **Sort**, **Find**, and **Filter** options from the **View** menu to locate the job.
3. Use the **List** row action (S) to produce an **Available Reports List** panel. Press Enter.

   For example, with database AASTD7 selected, the **Available Reports - DB** panel displays the available reports for that database:

```
  View  Help
_____________________________________________________________________________
SERVER: FPQRDP01           Available Reports - DB               Row 1 from 6
Command ===>                                                Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    DBD      Area/Part DD       Set
    HP Unload       UL-DATA SET STATISTICS    AASTD7
    HP Unload       UL-DATA SET STATISTICS    AASTD7
    HP Unload       UL-HDAM RAA STATISTICS    AASTD7             BBD7DD1
    HP Unload       UL-HDAM RAA STATISTICS    AASTD7             BBD7DD1
    HP Unload       UL-SEGMENT STATISTICS     AASTD7
    HP Unload       UL-SEGMENT STATISTICS     AASTD7
****************************** Bottom of data ********************************
```

Figure 35. Available Reports - DB panel

4. Use the **Sort**, **Find**, and **Filter** options from the **View** menu to drill down to the required reports.
5. Use the Row Actions commands to view and manage your reports.
6. Use the PF11 and PF10 keys to scroll the panel right and left.
7. Use the **Order Columns** option from the **View** menu to change the order the columns that are displayed on the panel.

Finding reports from the all available report list

You can find reports by listing all available reports.

About this task

Option 9 of the IMS Tools Knowledge Base main menu panel lists all of the reports in the repository. The list can be large.

From this broad listing of reports in the repository, you can use the following techniques to drill down to specific reports:

- Sort the list order by report characteristics
- Search for a report by using Find criteria
- Filter the list by using Filter criteria
- Customize the display order of column fields that show report characteristics

Procedure

To find reports from an all available reports list, complete the following steps:

1. Select option 9 from the IMS Tools Knowledge Base main menu panel. Press Enter.

   The **Available Reports List** panel is displayed:

```
  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01            Available Reports List             Row 1 from 1163
 Command ===>                                                  Scroll ===> PAGE

 Select a row action or press END to exit.

 Row actions: S - View J - Job T - Step H - History P - Print D - Delete
              I - Info A - Archive
 Act Product         Report                    DBD      Area/Part DD       Set
     HP Unload       UL-DATA SET STATISTICS                       BBD7DD1
     HP Unload       UL-DATA SET STATISTICS                       BBD7DD1
     HP Unload       UL-DATA SET STATISTICS                       CUD7DD1
     HP Unload       UL-DATA SET STATISTICS                       CUD7DD1
     HP Unload       UL-DATA SET STATISTICS                       DDD7DD1
     HP Unload       UL-DATA SET STATISTICS                       DDD7DD1
     HP Unload       UL-HDAM RAA STATISTICS                       BBD7DD1
     HP Unload       UL-HDAM RAA STATISTICS                       BBD7DD1
     HP Unload       UL-HDAM RAA STATISTICS                       CUD7DD1
     HP Unload       UL-HDAM RAA STATISTICS                       CUD7DD1
     HP Unload       UL-HDAM RAA STATISTICS                       DDD7DD1
     HP Unload       UL-HDAM RAA STATISTICS                       DDD7DD1
     HP Unload       UL-SEGMENT STATISTICS     AASTD7
     HP Unload       UL-SEGMENT STATISTICS     AASTD7
```

   Figure 36. Available Reports List panel

2. Use the **Sort**, **Find**, and **Filter** options from the **View** menu to drill down to the required reports.

```
  View  Help

     1. Sort
     2. Reset Sort Sequencing
     3. Find
     4. Find Next
     5. Filter
     6. Filter Off
     7. Order Columns
     8. Reset Order
```

   Figure 37. View menu options

3. Use the Row Actions commands to view and manage your reports.

4. Use the PF11 and PF10 keys to scroll the panel right and left.
5. Use the **Order Columns** option from the **View** menu to change the order the columns that are displayed on the panel.

Finding reports from the recently viewed report list

You can find reports by listing all recently viewed reports.

About this task

Option 10 of the IMS Tools Knowledge Base main menu panel lists the last ten reports that you viewed, which enables you to view them again quickly.

Procedure

To find reports from the list of recently viewed reports, complete the following steps:

1. Select option 10 from the IMS Tools Knowledge Base main menu panel. Press Enter.

   The **Available Reports List** panel is displayed:

```
 View  Help
_____________________________________________________________________________
 SERVER: FPQRDP01            Available Reports List              Row 1 from 3
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    Report Start      DBD
    HP Unload       UL-DATA SET STATISTICS    20220331 22:32:09 AASTD7
    HP Unload       UL-HDAM RAA STATISTICS    20220331 22:32:58 CUSTD7
    HP Unload       UL-SEGMENT STATISTICS     20220331 22:32:21 CCSTD7
****************************** Bottom of data ********************************
```

   Figure 38. Available Reports List panel
2. Use the Row Actions commands to view and manage your reports.

Finding reports by using the quick index number

You can find reports based on the quick index numbers for the reports.

About this task

The quick index number is a unique identifier assigned to the report when it is added to the repository.

If you know the quick index number for the report, you can immediately retrieve the report without using sort, find, and filter techniques.

Procedure

To retrieve a report using the quick index number, complete the following steps:

1. Select option 8 from the IMS Tools Knowledge Base main menu panel. Press Enter.

   The **Report Selection Criteria** panel is displayed.
2. Enter the quick index number for the report in the **Quick Index** field.

   For example:

```
  Commands  Help
_______________________________________________________________________________
SERVER: FPQRDP01             Report Selection Criteria           Ver 1.7.0
Command ===>

Type criteria for reports, then press ENTER to see selected reports or
press END to exit.


Quick Index . . AD07B7E0E00700000001                      History (y/n) Y

Product . . . .
Report  . . . .                               Type . .        Cmp Code

RECON ID  . . .
RECON1 Name . .
IMS ID  . . . .

Database  . . .           Part/Area . . .           DD Name . . .
Group Type  . .           Group Name  . .           DB Set  . . .

System ID . . .           User ID . . . .
Job Name  . . .           Job Number  . .           Step Name . .

Date/Time Range           (J - Job, S - Step or R - Report)
Start Date  . .             Start Time  . .
End Date  . . .             End Time  . . .
```

Figure 39. Report Selection Criteria panel

3. Press Enter.

   The **Available Reports List** panel is displayed. For example:

```
 View  Help
_______________________________________________________________________________
SERVER: FPQRDP01           Available Reports List               Row 1 from 1
Command ===>                                                  Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    DBD      Area/Part DD       Set
    HP Unload       UL-SEGMENT STATISTICS     CCSTD7
****************************** Bottom of data ********************************
```

Figure 40. Available Reports List panel

4. Use the Row Actions commands to view and manage the report.

Obtaining the quick index number for a report

To obtain the quick index number for a report, complete the following steps:

1. Generate an **Available Reports List** from any of the options that are available from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01            Available Reports List              Row 1 from 3
Command ===>                                                  Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    Report Start      DBD
    HP Unload       UL-DATA SET STATISTICS    20220331 22:32:09 AASTD7
    HP Unload       UL-HDAM RAA STATISTICS    20220331 22:32:58 CUSTD7
    HP Unload       UL-SEGMENT STATISTICS     20220331 22:32:21 CCSTD7
****************************** Bottom of data ********************************
```

Figure 41. Available Reports List panel

2. Use the **Info** row action (I) for a specific report on the list to generate the **Report Information** panel. Press Enter.

   The **Report Information** panel is displayed.

   For example:

```
  Help
_______________________________________________________________________________
 SERVER: FPQRDP01                 Report Information                 Ver 1.7.0
 Command ===>

 Press END to exit.


                                        Quick Index : AD03B9FF121100000002
 Product Name  : IMS High Performance Unload
 Report Title  : IPRUL-DATA SET STATISTICS
                                                          Cmp Code . : 000

 RECON ID  . . : MYRECON1
 RECON1 Name . : IMS1.RECON1
 IMS ID  . . . :

 Database  . . : CUSTD7    Part/Area . . :           DD Name . . :
 Group Type  . :           Group Name  . :

 System ID . . : STLABA6   User ID . . . : RDEFAL1
 Job Name  . . : RD0ADRPT  Job Number  . : 02833     Step Name . : SWRITE

 Job Start . . : 20220331 22:32:55
 Step Start  . : 20220331 22:32:56
 Report Start  : 20220331 22:32:57

 Retention Days 0       Versions  0
```

Figure 42. Report Information panel

The **Quick Index** field and value is the first information listed.

Finding related reports

You can find reports that are related by job, job step, and history.

Procedure

To find related reports, complete the following steps:

1. Generate an **Available Reports List** from any of the options available from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  View  Help
_____________________________________________________________________________
SERVER: FPQRDP01            Available Reports List              Row 1 from 3
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    Report Start      DBD
    HP Unload       UL-DATA SET STATISTICS    20220331 22:32:09 AASTD7
    HP Unload       UL-HDAM RAA STATISTICS    20220331 22:32:58 CUSTD7
    HP Unload       UL-SEGMENT STATISTICS     20220331 22:32:21 CCSTD7
****************************** Bottom of data ********************************
```

Figure 43. Available Reports List panel

2. Use any of the following row actions (followed by pressing Enter) to find all reports that are related to the selected report:

   J - Display all reports with the same job number as the selected report

   T - Display all reports with the same job step as the selected report

   H - Display all versions of the selected report, including the current report and all history instances of the report

3. Use the **Order Columns** option from the **View** menu to change the order that the columns are displayed on the panel.

   Example 1 (job number as column 3):

```
  View  Help
_____________________________________________________________________________
 SERVER: FPQRDP01            Available Reports - Job              Row 1 from 30
 Command ===>                                                 Scroll ===> PAGE

 Select a row action or press END to exit.

 Row actions: S - View J - Job T - Step H - History P - Print D - Delete
              I - Info A - Archive
 Act Product         Report                    Job Nbr Area/Part DD       Set
     HP Unload       UL-DATA SET STATISTICS    02832             BBD7DD1
     HP Unload       UL-DATA SET STATISTICS    02832             CUD7DD1
     HP Unload       UL-DATA SET STATISTICS    02832             DDD7DD1
     HP Unload       UL-HDAM RAA STATISTICS    02832             BBD7DD1
     HP Unload       UL-HDAM RAA STATISTICS    02832             CUD7DD1
     HP Unload       UL-HDAM RAA STATISTICS    02832             DDD7DD1
     HP Unload       UL-SEGMENT STATISTICS     02832
     HP Unload       UL-SEGMENT STATISTICS     02832
```

Figure 44. Example 1: Available Reports - Job panel

Example 2 (job step as column 3):

```
  View  Help
_____________________________________________________________________________
SERVER: FPQRDP01            Available Reports - Job             Row 1 from 30
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    Step Name Area/Part DD       Set
    HP Unload       UL-DATA SET STATISTICS    SWRITE              BBD7DD1
    HP Unload       UL-DATA SET STATISTICS    SWRITE              CUD7DD1
    HP Unload       UL-DATA SET STATISTICS    SWRITE              DDD7DD1
    HP Unload       UL-HDAM RAA STATISTICS    SWRITE              BBD7DD1
    HP Unload       UL-HDAM RAA STATISTICS    SWRITE              CUD7DD1
    HP Unload       UL-HDAM RAA STATISTICS    SWRITE              DDD7DD1
    HP Unload       UL-SEGMENT STATISTICS     SWRITE
    HP Unload       UL-SEGMENT STATISTICS     SWRITE
```

Figure 45. Example 2: Available Reports - Job panel

Example 3 (history):

```
  View  Help
_____________________________________________________________________________
SERVER: FPQRDP01            Available Reports - History           Row 1 from 2
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    DBD      Area/Part DD       Set
    HP Unload       UL-HDAM RAA STATISTICS                       BBD7DD1
    HP Unload       UL-HDAM RAA STATISTICS                       BBD7DD1
****************************** Bottom of data ******************************
```

Figure 46. Example 3: Available Reports - History panel

4. Use the **Sort**, **Find**, and **Filter** options from the **View** menu to drill down to the required reports.
5. Use the PF11 and PF10 keys to scroll the panel right and left.

Viewing and printing reports

You can view and print the contents of reports that have been stored in the IMS Tools Knowledge Base repository.

Procedure

To view and print the contents of a report, complete the following steps:

1. Generate an **Available Reports List** from any of the options available from the IMS Tools Knowledge Base main menu panel.

   For example:

```
SERVER: FPQRDP01           Available Reports List              Row 1 from 3
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                   Report Start      DBD
    HP Unload       UL-DATA SET STATISTICS   20220331 22:32:09 AASTD7
    HP Unload       UL-HDAM RAA STATISTICS   20220331 22:32:58 CUSTD7
    HP Unload       UL-SEGMENT STATISTICS    20220331 22:32:21 CCSTD7
****************************** Bottom of data ******************************
```

Figure 47. Available Reports List panel

2. Use the **View** row action (S) to display the contents of the report. Press Enter.

   The contents of the report is displayed in the standard ISPF user interface.

   For example:

```
  File  Edit  Edit_Settings  Menu  Utilities  Compilers  Test  Help
_______________________________________________________________________________
VIEW       HDUNLOAD:DB_STATISTICS                        Columns 00001 00072
Command ===>                                               Scroll ===> PAGE
****** ***************************** Top of Data ******************************
==MSG> -CAUTION- Data contains invalid (non-display) characters. Use command
==MSG>           ===> FIND P'.' to position cursor to these
==MSG> -Warning- The UNDO command is not available until you change
==MSG>           your edit profile using the command RECOVERY ON.
000001 IMS HIGH PERFORMANCE UNLOAD                                      "CAB
000002 5655-E06                                        03/31/2022  22.32.15
000003
000004 DDNAME=CUD7DD1
000005 ------------------------------------------------------------------------
000006 *** CAB ENVIRONMENT
000007           OPERATING SYSTEM   z/OS 02.04.00 HBB7709
000008           ACCESS METHOD      VSAM
000009           BUFFER FIXING      NO
000010           RANSIZE              45
000011           NBRSRAN               9
000012           NBRDRAN               4
000013           NBRDBUF              90
000014           OVERLAP            YES
000015           REFT1                 0
000016           REFT2                 0
000017           REFT3                 0
000018           REFT4                45
000019           NBHSIZE               3
000020           INTER              NO
000021           ANYNEXT            NO
 F1=Help      F2=Split     F3=Exit      F5=Rfind     F6=Rchange   F7=Up
 F8=Down      F9=Swap     F10=Left     F11=Right    F12=Cancel
```

Figure 48. ISPF view of report contents

3. Use the standard ISPF VIEW controls to navigate through the contents of the report.
4. To print the report, return to the **Available Reports List** and use the **Print** row action (P). Press Enter.

   The **Print Report** message is displayed.

   For example:

```
             Print Report

 You are requesting a report be
 printed. Please specify the SYSOUT
 class. press CANCEL to exit without
 printing.

 Then press ENTER to print the report.

 SYSOUT Class  . . . .
```

Figure 49. Print Report message

5. Specify the SYSOUT class and press Enter.

   The **Available Reports List** panel displays the row for the printed report.

   The `Report Printed` message is displayed in the upper right corner of the panel.

   For example:

```
SERVER: FPQRDP01           Available Reports List             Report Printed
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                   Report Start      DBD
    HP Unload       UL-HDAM RAA STATISTICS    20220331 22:32:58 CUSTD7
******************************** Bottom of data ********************************
```

Figure 50. Available Reports List panel

Chapter 8. Managing reports

To manage reports that are stored in the IMS Tools Knowledge Base central repository, use the IMS Tools Knowledge Base ISPF user interface.

Topics:

Archiving reports

You can override the retention settings for a report and archive that report permanently.

About this task

All reports that are stored in the IMS Tools Knowledge Base repository are initially subject to automatic deletion. The time of deletion is determined by the report's retention values. The retention values for a report are set when the report is initially registered with the repository by the tool product. You can customize the retention values by using the ISPF **Report Subscriptions List** panel for a product.

See "Report retention overview" on page 91.

Report retention is governed by the following two values:

- **Days** - the minimum number of days that the report will be retained in the repository
- **Versions** - the minimum number of reports of a given index value that will be retained in the repository as history copies

When a new report is generated, the retention status is evaluated for any existing reports that have the same index value. Reports that exceed both the number of days and the number of versions will be deleted.

You can view the retention values for a report by viewing the **Report Information** panel for the report (use the **Info** row action (I) from an **Available Reports** panel). The retention values are located at the end of this panel.

For example:

```
SERVER: FPQRDP01                 Report Information                Ver 1.7.0
Command ===>

Press END to exit.


                                        Quick Index : AD01BA5AC08100000002
Product Name  : IMS High Performance UnLoad
Report Title  : IPRUL-DATA SET STATISTICS
                                                        Cmp Code . : 000

RECON ID  . . : MYRECON1
RECON1 Name . : IMS1.RECON1
IMS ID  . . . :

Database  . . :           Part/Area . . :           DD Name . . : BBD7DD1
Group Type  . :           Group Name  . :

System ID . . : STLABA6   User ID . . . : RDEFAL1
Job Name  . . : RD0ADRPT  Job Number  . : 02833     Step Name . : SWRITE

Job Start . . : 20220331 22:32:55
Step Start  . : 20220331 22:33:02
Report Start  : 20220331 22:33:03

Retention Days 1,234   Versions  9
```

Figure 51. Report Information panel

You can take a report out of the retention cycle by archiving the report. This report will no longer be considered for deletion and does not get counted in the versions when evaluating retention for non-archived reports.

Procedure

To archive a report, complete the following steps:

1. Generate an **Available Reports List** from any of the options that are available from the IMS Tools Knowledge Base main menu panel.

   For example:

```
SERVER: FPQRDP01            Available Reports List              Row 1 from 3
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                    Report Start      DBD
    HP Unload       UL-DATA SET STATISTICS    20220331 22:32:09 AASTD7
    HP Unload       UL-HDAM RAA STATISTICS    20220331 22:32:58 CUSTD7
    HP Unload       UL-SEGMENT STATISTICS     20220331 22:32:21 CCSTD7
****************************** Bottom of data ********************************
```

   Figure 52. Available Reports List panel

2. Use the **Archive** row action (A) to place the report in an archived condition. Press Enter.
3. To view the archive status of this report, use the **Info** row action (I) for that report. Press Enter.

   The **Report Information** panel is displayed.

   The `Report is ARCHIVED` message is displayed at the end of the panel.

   For example:

```
SERVER: FPQRDP01                  Report Information                 Ver 1.7.0
Command ===>

Press END to exit.


                                        Quick Index : AD03B72B37C800000001
Product Name  : IMS High Performance UnLoad
Report Title  : IPRUL-DATA SET STATISTICS
                                                        Cmp Code . : 000

RECON ID  . . : MYRECON1
RECON1 Name . : IMS1.RECON1
IMS ID  . . . :

Database  . . : AASTD7    Part/Area . . :           DD Name . . :
Group Type  . :           Group Name  . :

System ID . . : STLABA6   User ID . . . : RDEFAL1
Job Name  . . : RD0ADRPT  Job Number  . : 02832     Step Name . : SWRITE

Job Start . . : 20220331 22:32:01
Step Start  . : 20220331 22:32:08
Report Start  : 20220331 22:32:09

Retention Days 0       Versions  0
Report is ARCHIVED; it will not expire.
```

Figure 53. Report Information panel

Deleting reports

You can delete reports that are stored in the Output repository.

Procedure

To delete a report from the Output repository, complete the following steps:

1. Generate an **Available Reports List** from any of the options that are available from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01           Available Reports List              Row 1 from 3
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: S - View J - Job T - Step H - History P - Print D - Delete
             I - Info A - Archive
Act Product         Report                   Report Start      DBD
    HP Unload       UL-DATA SET STATISTICS   20220331 22:32:09 AASTD7
    HP Unload       UL-HDAM RAA STATISTICS   20220331 22:32:58 CUSTD7
    HP Unload       UL-SEGMENT STATISTICS     20220331 22:32:21 CCSTD7
****************************** Bottom of data ********************************
```

   Figure 54. Available Reports List panel

2. Use the **Delete** row action (D) to delete the report. Press Enter.
3. A **Delete Report** message is displayed that prompts you to confirm that you really want to delete the report and, if so, whether to delete just this version of the report or all versions of the report.

```
              Delete Report

You are requesting the deletion of a
report, press CANCEL to exit without
deleting.

Choose whether to delete this report
(Y) or to delete all versions of this
report with the same index value (A).
Then press ENTER to DELETE.

Delete all versions?     (A/Y/N)
```

Figure 55. Delete Report message

4. To complete the task, respond appropriately and press Enter.
   - Use Y to delete the report
   - Use A to delete all versions of this report with the same index value
   - Use N to exit this action without deleting (this is the equivalent of using CANCEL)

Managing deferred reports

Deferred reports are reports that were generated by IMS Tools products in the Output repository but that have not been made available to users.

About this task

For example, the IMS Parallel Reorganization tool might be in the process of reorganizing databases to restore data clustering and distribute free space evenly. During the process, shadow databases exist.

The reorganization process requires the services of several other IMS Tools products. For example, IMS High Performance Image Copy allows database blocks to be passed directly from the reload task to an image copy task for processing. IMS High Performance Pointer Checker allows HASH pointer checking during the image copy processing.

Both IMS High Performance Image Copy and IMS High Performance Pointer Checker might be generating reports while supporting the reorganization process. While the reorganization task is in process (until the databases are switched), the generated reports are held in a deferred status by IMS Tools Knowledge Base.

If the IMS Parallel Reorganization database reorganization does not complete for some reason, the generated reports remain in the deferred state. You can manually manage these deferred reports by either deleting them or committing them to the Output repository. Typically this action will not be required.

Do not delete or commit any reports for active processes (in general, ignore anything within the last 24 hours).

Procedure

To manage deferred reports, complete the following steps:

Note: While reports are in the deferred state, they are not accessible for viewing from the IMS Tools Knowledge Base ISPF user interface.

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ____________________________________
|    1. List Deferred Reports        |
|    2. List Installed Products      |
|    3. List Repositories            |
|    4. List Recon Information       |
|    5. Set retention for sensor data|
|____________________________________|
```

Figure 56. Administration menu options

2. Select option 1 (**List Deferred Reports**). Press Enter.

   The **Deferred Report**s panel is displayed.

   For example:

```
  Help
 ____________________________________________________________________________
SERVER: FPQRDP01                  Deferred Reports           Row 1 to 3 of 3
Command ===>                                                Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: C - Commit D - Delete

    Job      Jobnum ID               Date/Time         Prod Name      Rptcnt
    RDDEFRD  00938  C0908F66C6F26369 20220508 10:23:16 HP Unload      1
    RDDEFRD  00938  C0908F67F39B3C69 20220508 10:23:17 HP Unload      1
    RDDEFRD  00938  C0908F68FA315DAC 20220508 10:23:18 HP Unload      1
****************************** Bottom of data ********************************
```

Figure 57. Deferred Reports panel

3. Use the **Commit** row action (C) to make the reports available from the IMS Tools Knowledge Base ISPF user interface. Press Enter.

   The Report ID value changes to `Committed`.

   For example:

```
  Help
 ____________________________________________________________________________
SERVER: FPQRDP01                  Deferred Reports          Reports Committed
Command ===>                                                Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: C - Commit D - Delete

    Job      Jobnum ID               Date/Time         Prod Name      Rptcnt
    RDDEFRD  00938  Committed        20220508 10:23:16 HP Unload      1
    RDDEFRD  00938  C0908F67F39B3C69 20220508 10:23:17 HP Unload      1
    RDDEFRD  00938  C0908F68FA315DAC 20220508 10:23:18 HP Unload      1
****************************** Bottom of data ********************************
```

Figure 58. Deferred Reports panel

4. Use the **Delete** row action (D) to remove the reports entirely from the Output repository. Press Enter.

   The Report ID value changes to `Deleted`.

   For example:

```
  Help
_______________________________________________________________________________
SERVER: FPQRDP01                  Deferred Reports            Reports Deleted
Command ===>                                                 Scroll ===> PAGE

Select a row action or press END to exit.

Row actions: C - Commit D - Delete

    Job      Jobnum ID               Date/Time         Prod Name      Rptcnt
    RDDEFRD  00938  Committed        20220508 10:23:16 HP Unload      1
    RDDEFRD  00938  Deleted          20220508 10:23:17 HP Unload      1
    RDDEFRD  00938  C0908F68FA315DAC 20220508 10:23:18 HP Unload      1
****************************** Bottom of data ********************************
```

Figure 59. Deferred Reports panel

Importing reports

You can import reports into the Output repository.

Reports generated by products enabled to participate in the IMS Tools Knowledge Base information management environment are automatically sent to and stored in the Output repository. There can be situations when you have reports that you must import into the repository.

Possible scenarios where importing reports might be required include:

- The JCL for an enabled product was not correctly set up and the automatic storing of reports in the repository fails to function.
- The product is registered but not enabled. In this case, the product JCL can write reports to a temporary data set. The IMPORT job can read the reports from that data set and write the reports to the Output repository.
- You have reports from another source that you want entered into the Output repository.

When reports are written to the Output repository, they are indexed by the values supplied for IMSID, GRPTYPE, GRPNAME, DBD, PART/AREA, and DD. You should only provide values that will allow you to easily search for the reports in the future.

In normal use, the index values for each report generated by your product should be unique to the resource processed. Reports with the same index value (for the same report ID) are considered to be versions of the same report. Retention rules will determine whether old versions of the report are saved or deleted.

When you import reports, you are responsible for creating appropriate index values for the reports.

To import reports, complete the following procedure:

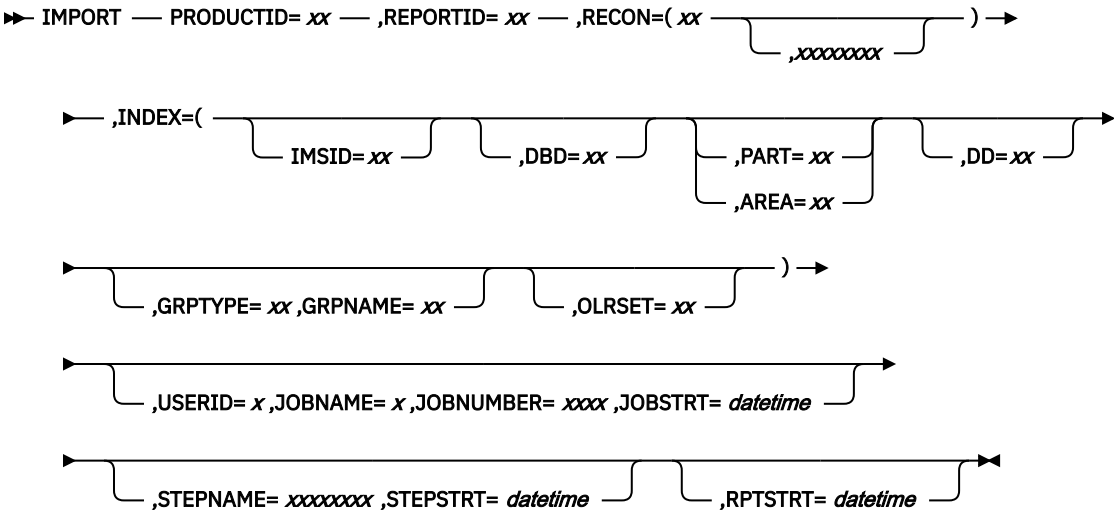
1. Customize the properties for the report by modifying your copy of member HKTJIMPT.

   Refer to member HKTJIMPT in *hlq*.SHKTSAMP for the job JCL.

   Substitute the *hlq* variable with the installation data set high level qualifier.

   The member includes commented instructions.
2. Submit the job and ensure that it completes with a return code=0.

Syntax diagram for IMPORT



Parameter reference for HKTJIMPT

The following parameters are provided on the EXEC statement and control the execution of the JOB.

Table 12. Parameters for EXEC

Parameter	Description
ITKBSRVR	The name of the IMS Tools Knowledge Base server XCF group. The value can be a maximum of 8 characters in length. This parameter is required.
PRINT=YES|NO	Specifies whether or not the report read from the REPORT DD is written to the PRINT DD. The default value is NO. This parameter is optional.

The following parameters must be supplied to assign appropriate properties to the report:

Table 13. Parameters for SYSIN DD

Parameter	Description
IMPORT	Identifies the function. Must be first non-blank keyword on the statement. This parameter is required.
PRODUCTID	2-character ID of the product that is defined to IMS Tools Knowledge Base. This parameter is required. Refer to Table 15 on page 79.
REPORTID	Two-character ID of the report that is defined to IMS Tools Knowledge Base for the specified PRODUCTID. This parameter is required.

Table 13. Parameters for SYSIN DD (continued)

Parameter	Description
RECON= (DSN|DDN|RCN| NONE,*value*)	Associates this report with a RECON environment. **DSN,*value*** Specifies a 44-character data set name that is used to identify the RECON environment. The data set name must be provided in *value*. **DDN,*value*** Specifies an 8-character DD that is used to locate the data set name that will be used to identify the RECON environment. The DD name must be provided in *value*. **RCN** The RECON1, RECON2, and RECON3 DDs that are used to locate the data set name that will be used to identify the RECON environment. **NONE** Specifies that there is no associated RECON environment. This parameter is required.
INDEX	One or more sub-parameters, enclosed in parentheses, that define the index or indexes for this report. At least one index must be supplied. Up to 100 indexes are supported. One or more INDEX sub-parameters must be provided. A null value will be used for any subparameter not provided. See Table 14 on page 77. This parameter is required.
USERID	The ID of the user that ran the report. If not specified, the user ID for the current IMPORT job will be used. The value can be a maximum of 8 characters in length. If specified, the parameter must be used in combination with JOBNAME, JOBNUMBER, and JOBSTRT. This parameter is optional.
JOBNAME	The name of the JOB that produced the report. If not specified, the JOBNAME for the current IMPORT job will be used. The value can be a maximum of 8 characters in length. If specified, this parameter must be used in combination with USERID, JOBNUMBER, and JOBSTRT. This parameter is optional.
JOBNUMBER	The number of the JOB that ran the report. If not specified, the job number for the current IMPORT job will be used. The value can be a maximum of 7 characters (numeric) in length. If specified, this parameter must be used in combination with USERID, JOBNAME, and JOBSTRT. This parameter is optional.

Table 13. Parameters for SYSIN DD (continued)

Parameter	Description
JOBSTRT	The start time for the JOB that ran the report. If not specified, the Job start time for the current IMPORT job will be used. Syntax (must be specified in its entirety): `yyyy/mm/dd;hh:mm:ss` *yyyy* must be 2004 or greater. If specified, this parameter must be used in combination with USERID, JOBNAME, and JOBNUMBER. This parameter is optional.
STEPNAME	The name of the step that ran the report. If not specified, the name of the step for the current IMPORT job will be used. The value can be a maximum of 8 characters. Permitted characters include A-Z, 0-9, @, #, $, -, _, and blank. If specified, this parameter must be used in combination with STEPSTRT. This parameter is optional.
STEPSTRT	The start time for the step that ran the report. If not specified, the step start time for the current IMPORT job will be used. Syntax (must be specified in its entirety): `yyyy/mm/dd;hh:mm:ss` The value *yyyy* must be 2004 or greater. If specified, this parameter must be used in combination with STEPNAME. This parameter is optional.
RPTSTRT	The start time for the JOB that ran the report. If not specified, the JOB start time for the current IMPORT job will be used. Syntax (must be specified in its entirety): `yyyy/mm/dd;hh:mm:ss` The value *yyyy* must be 2004 or greater. This parameter is optional.

Table 14. Sub-parameters for INDEX

Parameter	Description
IMSID	The IMS system to associate this report with. Up to four characters in length. Specify only if the report is related to a specific IMS instance. This parameter is optional.

Table 14. Sub-parameters for INDEX (continued)

Parameter	Description
GRPTYPE, GRPNAME	Specify only if the report was generated for a specific RECON group type and group name. The value for GRPTYPE can be either CA or DBDS (groups defined to DBRC). GRPNAME is the name of the group associated with this report. The value can be a maximum of 8 characters These parameters are optional. If one of these parameters is specified, the other parameter must also be specified.
DBD	The database to associate this report with. The value can be a maximum of 8 characters in length. This parameter is optional.
PART | AREA=*xxxxxxxx*	The partition or area to associate this report with. The value can be a maximum of 8 characters in length. This parameter is optional.
DD	The database data set DD to associate this report with. The value can be a maximum of 8 characters in length. This parameter is optional.
OLRSET	Applies only to HALDB databases that are OLR-enabled. This parameter is not an index value, but is associated with the report. Indicates whether the report is for the Primary or Secondary data sets or if the status is Unknown. Valid values are: P - Primary data set S - Secondary data set U - Unknown This parameter is optional.

Guidelines for setting INDEX sub-parameters

- If the report member contains information about a database or it is generated for each database, specify DBD but do not specify PART/AREA or DD.
- If the report member contains information about HALDB partition or it is generated by each partition, specify DBD and PART but do not specify DD.
- If the report member contains information about DEDB area or it is generated by each area, set DBD and AREA but do not specify DD.
- If the report member contains information about database data set or it is generated by each database data set, set DBD, PART/AREA, and DD.
- For the Full-Function database and non-HALDB, do not specify PART/AREA.
- In case of HALDB, specify the A-side DD name even if an actual active side is M-side.

ID reference for IMS Tools products

The following table specifies the IDs of IMS Tools products for use as values to the IMPORT PRODUCTID parameter.

Table 15. IDs of IMS Tools products for use as values to the PRODUCTID parameter

Product ID	Name
DA	IMS Database Reorganization Expert
DC	IMS High Performance Change Accumulation Utility
DE	IMS Recovery Expert for z/OS
DF	IMS Fast Path Solution Pack
DG	IMS Database Solution Pack, IMS Database Utility Solution
DH	IMS High Performance Prefix Resolution
DI	IMS High Performance Image Copy
DL	IMS High Performance Load
DP	IMS High Performance Pointer Checker
DR	IMS Database Recovery Facility
DS	IMS Recovery Solution Pack
DU	IMS High Performance Unload
DX	IMS Index Builder
IB	IMS Buffer Pool Analyzer
IP	IMS Performance Analyzer

Example: HKTJIMPT JOB

```
//IMPORT   EXEC  PGM=HKTIMPRT,PARM='ITKBSRVR=SRVRNAME'
//STEPLIB  DD  DISP=SHR,DSN=HLQ1.SHKTLOAD
//SYSPRINT DD  SYSOUT=*
//REPORT   DD  DISP=SHR,DSN=REPORT.NAME
//SYSIN    DD  *
    IMPORT  PRODUCTID=PP,REPORTID=RR,
     RECON=(NONE)
     INDEX(DBD=DBDNAME,DD=DDNAME)
//*
```

Exporting reports

You can selectively export (print) reports that reside in the IMS Tools Knowledge Base Output repository.

Reports generated by products enabled to participate in the IMS Tools Knowledge Base information management environment are automatically sent to and stored in the Output repository. You can print groups of stored reports based on specific criteria such as product ID, report ID, and history versions.

When reports are exported, they are indexed by the values supplied for IMSID, GRPTYPE, GRPNAME, DBD, PART/AREA, and DD.

To export reports, complete the following procedure:

1. Customize the properties for the report by modifying your copy of member HKTJEXPT.

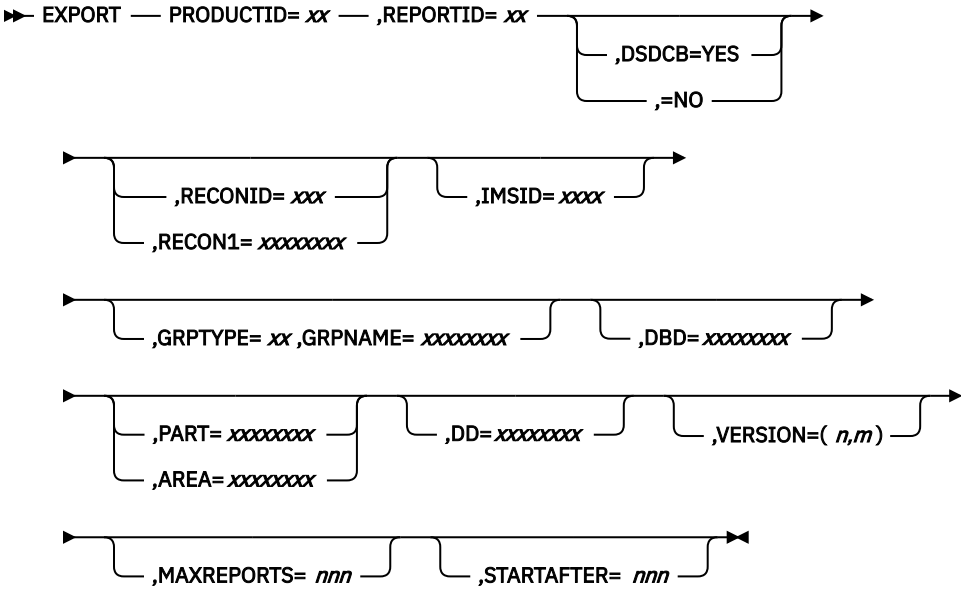
   Refer to member HKTJEXPT in *hlq*.SHKTSAMP for the job JCL.

   Substitute the *hlq* variable with the installation data set high level qualifier.

The member includes commented instructions.

2. Submit the job and ensure that it completes with a return code=0.

Syntax diagram for EXPORT



Parameter reference for HKTJEXPT

The following parameters are provided on the EXEC statement and control the execution of the JOB.

Table 16. Parameters for EXEC

Parameter	Description
ITKBSRVR	The name of the IMS Tools Knowledge Base server XCF group. Can be up to eight characters in length. This parameter is required.

The following parameters must be supplied to assign appropriate properties to the report:

Table 17. Parameters for SYSIN DD

Parameter	Description
EXPORT	Identifies the function. Must be first non-blank keyword on the statement. This parameter is required.
PRODUCTID	2-character ID of the product that is defined to IMS Tools Knowledge Base. This parameter is required. Refer to Table 18 on page 82.
REPORTID	Two-character ID of the report that is defined to IMS Tools Knowledge Base for the specified PRODUCTID and is to be exported (printed). This parameter is required.

Table 17. Parameters for SYSIN DD (continued)

Parameter	Description
DSDCB=YES|NO	Specifies how DCB attributes are set, If set to NO, EXPORT will set DCB attributes based on the report attributes. If set to YES, EXPORT uses the DCB attributes of the PRINT data set rather than the DCB attributes of the report. Ensure that the data set has the appropriate attributes. The default value is NO. This parameter is optional.
VERSION=*n*|*n,m*	Specifies the range of reports to be exported (printed). The value *n* is the relative generation number of the report, where 0 is the current generation, -1 is the one before, and the like. *n,m* is a range of reports to be generated for each report found by the index values. *m* is specified as *n*. Both *n* and *m* must specify relative values. *n* is oldest and *m* is the newest. The range of valid values for this parameter is -32767 to 0. The default value is 0. This parameter is optional.
MAXREPORTS=*nnn*	Specifies the maximum number of report members that will be produced. The range of valid values for this parameter is 1 to 32767. The default value is 1. This parameter is optional.
STARTAFTER=*nnn*	Specifies the maximum number of reports members to be skipped before printing begins. The range of valid values for this parameter is 0 to 32767. The default value is 0. MAXREPORTS is required with STARTAFTER. This parameter is optional.
RECONID=*xxxxxxxx*	RECONID specifies the user-assigned RECON name to be used to select reports. The value can be a maximum of 8 characters. The default value is NORECON. This parameter is optional.
RECON1=*string*	RECON1 specifies the RECON1 data set name to be used to select reports. The value can be a maximum of 44 characters. There is no default value. This parameter is optional.
IMSID=*xxxx*	Specifies the IMS ID of the members to be selected for this report. This parameter is optional.

Table 17. Parameters for SYSIN DD (continued)

Parameter	Description
GRPTYPE=*xxxx*, GRPNAME=*xxxxxxxx*	Specifies the group type and name of the members to be selected for this report. The value for GRPTYPE can be either CA or DBDS (groups defined to DBRC). GRPNAME is the name of the group and should match the name of a defined group. The value can be a maximum of 8 characters. These parameters are optional. If one of these parameters is specified, the other parameter must also be specified.
DBD=*xxxxxxxx*	Specifies DBD name of the members to be selected for this report. The value can be a maximum of 8 characters. This parameter is optional.
PART | AREA=*xxxxxxxx*	Specifies partition or area name of the members to be selected for this report. The value can be a maximum of 8 characters. This parameter is optional.
DD=*xxxxxxxx*	Specifies the database DD name of the members to be selected for this report. The value can be a maximum of 8 characters. This parameter is optional.

ID reference for IMS Tools products

The following table specifies the IDs of IMS Tools products for use as values to the PRODUCTID parameter.

Table 18. IDs of IMS Tools products for use as values to the PRODUCTID parameter

Product ID	Name
DA	IMS Database Reorganization Expert
DC	IMS High Performance Change Accumulation Utility
DE	IMS Recovery Expert for z/OS
DF	IMS Fast Path Solution Pack
DG	IMS Database Solution Pack, IMS Database Utility Solution
DH	IMS High Performance Prefix Resolution
DI	IMS High Performance Image Copy
DL	IMS High Performance Load
DP	IMS High Performance Pointer Checker
DR	IMS Database Recovery Facility

Table 18. IDs of IMS Tools products for use as values to the PRODUCTID parameter (continued)

Product ID	Name
DS	IMS Recovery Solution Pack
DU	IMS High Performance Unload
DX	IMS Index Builder
IB	IMS Buffer Pool Analyzer
IP	IMS Performance Analyzer

Example: HKTJEXPT JOB

```
//EXPORT   EXEC PGM=HKTEXPR2,PARM='ITKBSRVR=SRVRNAME'
//STEPLIB  DD  DISP=SHR,DSN=HLQ1.SHKTLOAD
//PRINT    DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
    EXPORT  PRODUCTID=PP,REPORTID=RR,
            RECONID=MYRECON1,
            DBD=DBDNAME,DD=DDNAME
/*
```

Example: HKTJEXPT report results

The following report shows the results from an HKTJEXPT JOB that specified a product ID for IMS Recovery Solution Pack for z/OS: IMS Database Recovery Facility: Extended Functions and a report ID of 01. The history version specification called for the current version of the report plus the previous three versions.

The PRT indicator in the Action (Act) column indicates those reports that are printed.

```
1      IMS Tools Knowledge Base REPOSITORY     REPORT EXPORT UTILITY               00/00/0000
                            * CONTROL STATEMENTS READ *
             EXPORT  PRODUCTID=DS,REPORTID=01,RECONID=MYRECON1                          00121641
            VERSION=(-3,0),MAXREPORTS=20,DBD=SY12                                      00121747
1Act Product     Report             DBD      Area/Part  DD       Recon ID IMS ID  Grp Type Grp Name
 PRT IMS RSP     DRFXF SUMMARY      SY12     ITKBPR12   SYSP12   MYRECON1 IT02
 PRT IMS RSP     DRFXF SUMMARY      SY12     ITKBPR12   SYSP12   MYRECON1 IT02
 PRT IMS RSP     DRFXF SUMMARY      SY12     ITKBPR12   SYSP12   MYRECON1 IT02
 PRT IMS RSP     DRFXF SUMMARY      SY12     ITKBPR12   SYSP12   MYRECON1 IT02
     IMS RSP     DRFXF SUMMARY      SY12     ITKBPR12   SYSP12   MYRECON1 IT02
     IMS RSP     DRFXF SUMMARY      SY12     ITKBPR12   SYSP12   MYRECON1 IT02
0               HKT2201I HKTJEXPT ended with RC=0000
```

Chapter 9. Product administration

For product administration tasks, use options from the **Administration** menu of the IMS Tools Knowledge Base main menu.

Topics:

Removing a product

You can select a product and remove all of its releases, subscriptions, and reports from the IMS Tools Knowledge Base environment.

Procedure

To remove a product from the IMS Tools Knowledge Base environment, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
_______________________________________
|    1. List Deferred Reports         |
|    2. List Installed Products       |
|    3. List Repositories             |
|    4. List Recon Information        |
|    5. Set retention for sensor data |
|_____________________________________|
```

   Figure 60. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

   For example:

```
 View  Help
_____________________________________________________________________
SERVER: FPQRDP01              Installed Products List         Row 1 to 2 of 2
Command ===>                                                Scroll ===> PAGE

Select a row action or press End to exit.

Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
Subs



Act  Product Name                                    Product Release
__   IMS High Performance Pointer Checker            030100
__   IMS High Performance Unload                     010200
******************************* Bottom of data ********************************
```

   Figure 61. Installed Products List panel

3. Use the **Remove Product** row action (RP) for the appropriate product to remove all of its releases, subscriptions, and reports from the environment. Press Enter.

   The **Confirm Remove Product** message is displayed.

For example:

```
Confirm remove product

Removing this product will DELETE ALL it's saved reports.

NO further reports can be recorded for this product.

Press Enter to continue or End to exit.

Product name
IMS HIGH PERFORMANCE POINTER CHECKER


Remove product . . N  Y or N
```

Figure 62. Confirm Remove Product message

4. To remove this release of the product, enter Y and press Enter.

   The **Confirm Remove Subscription and Reports** message is displayed.

   For example:

```
Confirm remove subscription and reports.

If there are a lot of report subscriptions to remove then
the TSO session could be locked for some time.

Press Enter to continue or End to exit.

Product name
IMS HIGH PERFORMANCE POINTER CHECKER
Product release
030100


Report count . . . . . . . . . : 12
Remove subscriptions . . . . . N  Y or N
```

Figure 63. Confirm Remove Subscription and Reports message

5. Enter Y and press Enter.

   The **Installed Products List** is refreshed and the product no longer appears in the list.

Removing a product release

You can remove a specific release of a product from the IMS Tools Knowledge Base environment.

About this task

If the release is the only instance of the product remaining in the environment, then the Remove Product (RP) action is performed.

Procedure

To remove a product release from the IMS Tools Knowledge Base environment, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ____________________________________
|    1. List Deferred Reports        |
|    2. List Installed Products      |
|    3. List Repositories            |
|    4. List Recon Information       |
|    5. Set retention for sensor data|
|____________________________________|
```

Figure 64. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

   The **Product/Release** column shows the version, release, and modification values for each installed product.

   For example:

```
  View  Help
_____________________________________________________________________________
 SERVER: FPQRDP01              Installed Products List         Row 1 to 2 of 2
 Command ===>                                              Scroll ===> PAGE

 Select a row action or press End to exit.

 Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
 Subs



 Act  Product Name                                    Product Release
 __   IMS Database Reorganization Expert              040100
 __   IMS High Performance Pointer Checker            030100
 __   IMS High Performance Unload                     010200
 ******************************* Bottom of data ********************************
```

Figure 65. Installed Products List panel

3. Use the **Remove Release** row action (RR) for the appropriate product to remove a specific product release from the environment. Press Enter.

   The selected product is removed from the list immediately.

   If only one release of the product is found, the following message is displayed:

   For example:

```
Only one Release found for this Product.

Press Enter to remove the Product or End to exit.

Product name
IMS HIGH PERFORMANCE POINTER CHECKER
Product release
030100


Remove product . . . . . N  Y or N
```

Figure 66. Only One Release Found for This Product message

4. To remove this release of the product, enter Y and press Enter.

   The **Installed Products List** is refreshed and the product release is no longer displayed in the list.

Removing all subscriptions and reports for a product

You can select a product and remove all its subscriptions and reports from the IMS Tools Knowledge Base environment.

Procedure

To remove all subscriptions and reports for a product from the IMS Tools Knowledge Base environment, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
_______________________________________
|    1. List Deferred Reports         |
|    2. List Installed Products       |
|    3. List Repositories             |
|    4. List Recon Information        |
|    5. Set retention for sensor data |
|_____________________________________|
```

   Figure 67. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

   For example:

```
 View  Help
_____________________________________________________________________________
SERVER: FPQRDP01              Installed Products List         Row 1 to 2 of 2
Command ===>                                                Scroll ===> PAGE

Select a row action or press End to exit.

Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
Subs



Act  Product Name                                      Product Release
__   IMS High Performance Pointer Checker              030100
__   IMS High Performance Unload                       010200
****************************** Bottom of data ********************************
```

   Figure 68. Installed Products List panel

3. Use the **Remove Subscriptions** (**Subs**) row action (RS) for the appropriate product (and release) to remove all of its subscriptions and reports from the environment. Press Enter.

   The **Confirm Remove Subscription and Reports** message is displayed.

   For example:

```
Confirm remove subscription and reports.

If there are a lot of report subscriptions to remove then
the TSO session could be locked for some time.

Press Enter to continue or End to exit.

Product name
IMS HIGH PERFORMANCE POINTER CHECKER
Product release
030100


Report count . . . . . . . . . : 12
Remove subscriptions . . . . . N  Y or N
```

Figure 69. Confirm Remove Subscription and Reports message

The confirmation message identifies the product, its release, and its report count. You can either cancel or continue the action.

4. To remove all subscriptions and reports for this product (and release), enter Y and press Enter.

   The **Installed Products List** is refreshed.

Chapter 10. Report administration

For report administration tasks, use options from the **Administration** menu of the IMS Tools Knowledge Base main menu.

Topics:

Report retention overview

IMS Tools Knowledge Base retains old versions of your reports for historical reference.

IMS Tools products in the IMS Tools Knowledge Base environment can produce many different reports. These reports are saved and indexed by the product ID, report ID, and various other values that identify the database, area or partition, and data set that are the subject of the report.

When an IMS Tools product generates the same report for the same resource, the new report can either replace the previous report (history disabled) or be added to a series of reports that includes the current report and one or many history reports (history enabled).

The values for the following parameters determine how long reports are retained:

DAYS=*value*
: The minimum number of days that a report must be stored in the repository before it can be deleted. Valid values are 0 - 32767.

VERSIONS=*value*
: The minimum number of reports of a specified index value that must be stored in the repository before any reports can be deleted. Valid values are 0 - 32767.

When a new report is generated, the retention status is evaluated against any existing reports that contain the same index value. Reports that exceed both the minimum number of days and the minimum number of versions are deleted.

Most IMS Tools contain a default retention period of `DAYS=30,VERSIONS=7`. These defaults are based on the assumption that the customer reports for a given database are generated every two to four days at most. With a default retention period of 30 days and 7 versions, generating reports every two to four days over a 30 day period would result in 7 to 15 saved reports. With that same retention period, generating reports once or twice a week for a 30-day period would result in 4 to 7 saved reports. Depending on your environment, you might need to change the default retention period of the product or the product reports.

If you want the DAYS=*value* or VERSIONS=*value* to be the critical retention period, set one of the retention values to zero, as shown in the following example:

- To retain history for four days but not track the number of versions, set `DAYS=4,VERSIONS=0`.

  By using these settings, the reports for a database are retained for four days. The number of versions has no impact.
- To retain the history of four consecutive versions but not track the number of days, set `DAYS=0,VERSIONS=4`.

  By using these settings, the reports for a database retained for four versions. The number of days has no impact.

If the generated reports are a mixture of daily, weekly, and monthly critical retention values, consider allocating multiple output repository data sets and as follows:

- Repository O0000000: Configure products to generate reports to output repository O0000000 with a set of retention values where the number of days is the critical value
- Repository O0000001: Configure products to generate reports to output repository O0000001 with a set of retention values where the number of weeks is the critical value
- Repository O0000002: Configure products to generate reports to output repository O0000002 with a set of retention values where the number of months is the critical value

In the following example, a report has a retention setting of `DAYS=7,VERSIONS=7`:

- If you run the same report for a resource once per day, seven history versions of the report are retained.
- If you run the same report for the same resource two times per day, 14 history versions of the report are retained, and the oldest version is seven days old.
- If you run the same report for the same resource once per week, seven history versions of the report are retained, and the oldest version is seven weeks old.

A retention setting of `DAYS=0, VERSIONS=0` results in no retention of reports with the same index value. Only the current report is retained.

The retention period of DAYS=*value*,VERSIONS=*value* is an *and* condition, not an *or* condition. No reports are deleted unless both of the following conditions are met:

- The number of days the oldest report has been stored in the repository exceeds the DAYS *value*
- The number of report versions stored in the repository exceeds the VERSIONS *value*

Changing the default report retention values

Report retention settings are applied to all reports to control the growth of the report repository.

About this task

The retention values for a product's reports are provided by the product definition table when the product is registered with IMS Tools Knowledge Base.

This topic explains how you can change the product's default report retention values.

You can also change the retention values on a per-report basis. See “Changing the retention values for individual reports” on page 93.

Procedure

To change the product's default report retention values, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ----------------------------------------
 |    1. List Deferred Reports          |
 |    2. List Installed Products        |
 |    3. List Repositories              |
 |    4. List Recon Information         |
 |    5. Set retention for sensor data  |
 |______________________________________|
```

   Figure 70. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

For example:

```
 View  Help
_____________________________________________________________________________
SERVER: FPQRDP01              Installed Products List          Row 1 to 2 of 2
Command ===>                                                 Scroll ===> PAGE

Select a row action or press End to exit.

Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
Subs



Act  Product Name                                    Product Release
__   IMS High Performance Pointer Checker            030100
__   IMS High Performance Unload                     010200
****************************** Bottom of data ********************************
```

Figure 71. Installed Products List panel

3. Use the **Subscriptions** (**Subs**) List row action (S) for the appropriate product to list all of the report subscriptions that are defined to the product. Press Enter.

   The **Report Subscription List** panel is displayed.

   For example:

```
  Global_Actions  View  Help
_____________________________________________________________________________
SERVER: FPQRDP01             Report Subscriptions List      Row 1 to 16 of 20
Command ===>                                                 Scroll ===> PAGE

Select a row action or press End to exit.

Row actions: U Update

Product Name . . : IMS High Performance Pointer Checker
Product Release  : 030100

                                 ----- Retention ------
Act Report Title                 Days  Versions Default Record Repository
__  ** PRODUCT DEFAULTS **         5     1                    00000000
__  PC-BIT MAP DISPLAY             5     1    Y       Y      N/A
__  PC-BLOCK MAP AND DUMP          5     1    Y       Y      N/A
__  PC-DB RECORD DIST              5     1    Y       Y      N/A
__  PC-DB STAT                     5     1    Y       Y      N/A
__  PC-ENVIRONMENT                 5     1    Y       Y      N/A
```

Figure 72. Report Subscriptions List panel

   The first row contains the product defaults for report retention and report recording.

4. Use the **Update** row action (U) on the PRODUCT DEFAULTS row and change the retention values for **Days** and **Versions** as required. Press Enter.

   All retention settings for reports with a Default setting of Y will change to the new default values.

Changing the retention values for individual reports

Report retention settings are applied to all reports to control the growth of the report repository.

About this task

The retention values for a product's reports are provided by the product Definition Table when the product is registered with IMS Tools Knowledge Base.

You can change the product's default report retention values. See “Changing the default report retention values” on page 92.

This topic explains how to change the retention values on a per-report basis.

Procedure

To change the retention values for individual reports, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

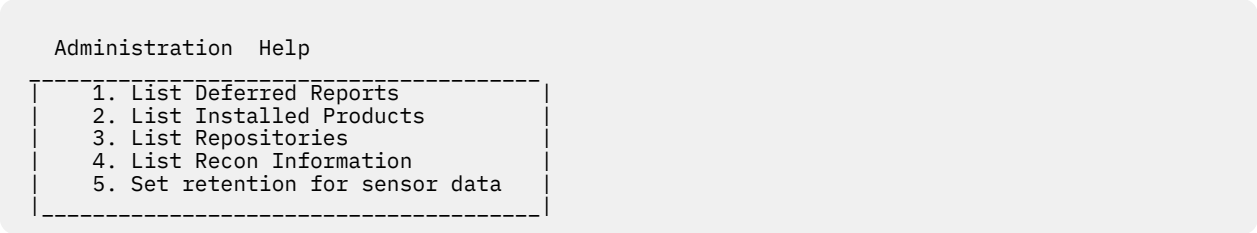


   Figure 73. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

   For example:

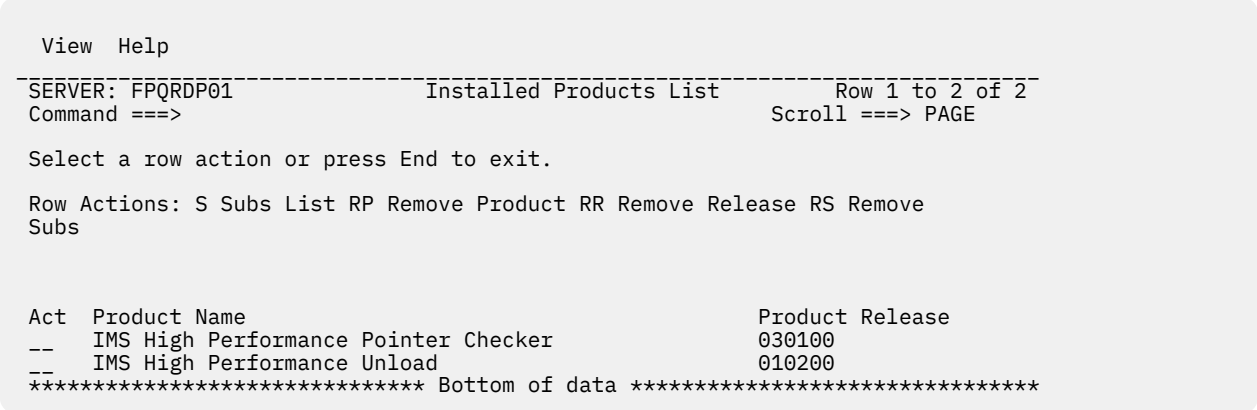


   Figure 74. Installed Products List panel

3. Use the **Subscriptions** (**Subs**) List row action (S) for the appropriate product to list all of the report subscriptions that are defined to the product. Press Enter.

   The **Report Subscription List** panel is displayed.

   For example:

```
  Global_Actions  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01              Report Subscriptions List      Row 1 to 16 of 20
Command ===>                                               Scroll ===> PAGE

Select a row action or press End to exit.

Row actions: U Update

Product Name . . : IMS High Performance Pointer Checker
Product Release  : 030100

                                 ----- Retention ------
Act Report Title                 Days  Versions Default Record Repository
__  ** PRODUCT DEFAULTS **          5     1                   O0000000
__  PC-BIT MAP DISPLAY              5     1    Y       Y      N/A
__  PC-BLOCK MAP AND DUMP           5     1    Y       Y      N/A
__  PC-DB RECORD DIST               5     1    Y       Y      N/A
__  PC-DB STAT                      5     1    Y       Y      N/A
__  PC-ENVIRONMENT                  5     1    Y       Y      N/A
```

Figure 75. Report Subscriptions List panel

The first row contains the product defaults for report retention and report recording.

4. Use the **Update** row action (U) on a specific report and change the retention values for **Days** and **Versions** as required. Press Enter.

   The panel is refreshed and shows the new retention values for the report. The Default setting for the report is automatically changed to N.
5. Perform the same task for all other reports that require customized retention settings.

Resetting report retention values to the product default

You can reset the retention values on all of the reports for a product to the product's default retention values.

About this task

The retention values for a product's reports are provided by the product definition table when the product is registered with IMS Tools Knowledge Base.

You can then change the retention values on individual reports. This task allows you to immediately reset the retention for all reports to the default settings.

Procedure

To reset the retention values on all reports for a product to the product's default values, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
_____________________________________
|    1. List Deferred Reports       |
|    2. List Installed Products     |
|    3. List Repositories           |
|    4. List Recon Information      |
|    5. Set retention for sensor data   |
|___________________________________|
```

Figure 76. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

For example:

```
 View  Help
_____________________________________________________________________________
SERVER: FPQRDP01              Installed Products List         Row 1 to 2 of 2
Command ===>                                                Scroll ===> PAGE

Select a row action or press End to exit.

Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
Subs



Act  Product Name                                    Product Release
__   IMS High Performance Pointer Checker            030100
__   IMS High Performance Unload                     010200
****************************** Bottom of data ********************************
```

Figure 77. Installed Products List panel

3. Use the **Subscriptions** (**Subs**) List row action (S) for the appropriate product to list all of the report subscriptions that are defined to the product. Press Enter.

   The **Report Subscriptions List** panel is displayed.

   For example:

```
  Global_Actions  View  Help
_____________________________________________________________________________
SERVER: FPQRDP01             Report Subscriptions List      Row 1 to 16 of 20
Command ===>                                               Scroll ===> PAGE

Select a row action or press End to exit.

Row actions: U Update

Product Name . . : IMS High Performance Pointer Checker
Product Release  : 030100

                                ----- Retention ------
Act Report Title                Days  Versions Default Record Repository
__  ** PRODUCT DEFAULTS **          5     1                  O0000000
__  PC-BIT MAP DISPLAY              5     1    Y       Y     N/A
__  PC-BLOCK MAP AND DUMP           5     1    Y       Y     N/A
__  PC-DB RECORD DIST               5     1    Y       Y     N/A
__  PC-DB STAT                      5     1    Y       Y     N/A
__  PC-ENVIRONMENT                  5     1    Y       Y     N/A
```

Figure 78. Report Subscriptions List panel

4. From the **Global_Actions** menu, select option 1 (**RESET all retentions to product defaults**).

   For example:

```
  Global_Actions  View  Help
_____________________________________________________________________
|    1. RESET all retentions to product defaults                     |
|    2. SYNC synchronise repository with displayed retention values  |
---------------------------------------------------------------------
```

Figure 79. Global_Actions menu options

5. Press Enter.

   The panel is refreshed and shows the default product retention values applied to all reports.

Synchronizing the repository with displayed retention values

The retention values that are set for reports are automatically conveyed to the IMS Tools Knowledge Base Output repository where reports are stored.

About this task

Scenarios are possible in which the retention values that are displayed in the **Report Subscriptions List** are not synchronized with the values that are recognized by the repository. Some possible examples include:

- The repository database is deleted and reformatted
- The repository is not available on the network when retention values are conveyed

You can ensure that the displayed retention values are the same as the values that are recognized by the repository by manually performing the synchronization task.

Procedure

To manually synchronize the repository with displayed retention values, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
_______________________________________
|    1. List Deferred Reports         |
|    2. List Installed Products       |
|    3. List Repositories             |
|    4. List Recon Information        |
|    5. Set retention for sensor data |
|_____________________________________|
```

   Figure 80. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

   For example:

```
 View  Help
_____________________________________________________________________________
SERVER: FPQRDP01              Installed Products List          Row 1 to 2 of 2
Command ===>                                                Scroll ===> PAGE

Select a row action or press End to exit.

Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
Subs



Act  Product Name                                        Product Release
__   IMS High Performance Pointer Checker                030100
__   IMS High Performance Unload                         010200
****************************** Bottom of data ********************************
```

   Figure 81. Installed Products List panel

3. Use the **Subscriptions** (**Subs**) List row action (S) for the appropriate product to list all report subscriptions that are defined to the product. Press Enter.

   The **Report Subscriptions List** panel is displayed.

   For example:

```
  Global_Actions  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01              Report Subscriptions List      Row 1 to 16 of 20
Command ===>                                              Scroll ===> PAGE

Select a row action or press End to exit.

Row actions: U Update

Product Name . . : IMS High Performance Pointer Checker
Product Release  : 030100

                                 ----- Retention ------
Act Report Title                 Days  Versions Default Record Repository
__  ** PRODUCT DEFAULTS **          5     1                   O0000000
__  PC-BIT MAP DISPLAY              5     1    Y       Y      N/A
__  PC-BLOCK MAP AND DUMP           5     1    Y       Y      N/A
__  PC-DB RECORD DIST               5     1    Y       Y      N/A
__  PC-DB STAT                      5     1    Y       Y      N/A
__  PC-ENVIRONMENT                  5     1    Y       Y      N/A
```

Figure 82. Report Subscriptions List panel

4. From the **Global_Actions** menu, select option 2 (**SYNC synchronize repository with displayed retention values**).

   For example:

```
  Global_Actions  View  Help
_____________________________________________________________________
|    1. RESET all retentions to product defaults                     |
|    2. SYNC synchronize repository with displayed retention values  |
_____________________________________________________________________
```

Figure 83. Global_Actions menu options

5. Press Enter.

   The **Report Subscriptions List** panel is refreshed.

Enabling and disabling report recording

You can enable or disable the automatic recording of reports to the IMS Tools Knowledge Base repository on a report-by-report basis.

About this task

The default record value for a product's reports are provided by the product definition table when the product is registered with IMS Tools Knowledge Base. After initial registration, all reports that are associated with that product are set with these values.

This topic explains how to change the record values on a per-report basis.

Procedure

To change the retention values for individual reports, complete the following steps:

1. Access the **Administration** menu from the IMS Tools Knowledge Base main menu panel.

   For example:

```
  Administration  Help
 ____________________________________
|    1. List Deferred Reports        |
|    2. List Installed Products      |
|    3. List Repositories            |
|    4. List Recon Information       |
|    5. Set retention for sensor data|
|____________________________________|
```

Figure 84. Administration menu options

2. Select option 2 (**List Installed Products**). Press Enter.

   The **Installed Products List** panel is displayed.

   For example:

```
 View  Help
_______________________________________________________________________________
SERVER: FPQRDP01              Installed Products List         Row 1 to 2 of 2
Command ===>                                              Scroll ===> PAGE

Select a row action or press End to exit.

Row Actions: S Subs List RP Remove Product RR Remove Release RS Remove
Subs



Act  Product Name                                    Product Release
__   IMS High Performance Pointer Checker            030100
__   IMS High Performance Unload                     010200
****************************** Bottom of data ********************************
```

Figure 85. Installed Products List panel

3. Use the **Subscriptions** (**Subs**) List row action (S) for the appropriate product to list all report subscriptions that are defined to the product. Press Enter.

   The **Report Subscriptions List** panel is displayed.

   For example:

```
  Global_Actions  View  Help
_______________________________________________________________________________
SERVER: FPQRDP01             Report Subscriptions List      Row 1 to 16 of 20
Command ===>                                              Scroll ===> PAGE

Select a row action or press End to exit.

Row actions: U Update

Product Name . . : IMS High Performance Pointer Checker
Product Release  : 030100

                              ----- Retention ------
Act Report Title              Days  Versions Default Record Repository
__  ** PRODUCT DEFAULTS **       5     1                   O0000000
__  PC-BIT MAP DISPLAY           5     1    Y       Y      N/A
__  PC-BLOCK MAP AND DUMP        5     1    Y       Y      N/A
__  PC-DB RECORD DIST            5     1    Y       Y      N/A
__  PC-DB STAT                   5     1    Y       Y      N/A
__  PC-ENVIRONMENT               5     1    Y       Y      N/A
```

Figure 86. Report Subscriptions List panel

4. Use the **Update** row action (U) on a specific report and change the value for **Record** to N to not record reports or to Y to record reports. Press Enter.

   The panel is refreshed and shows the new Record values for the report.

5. Perform the same task for all other reports that require customized Record settings.

Part 4. Utilities reference

The topics in this section provide information about the IMS Tools Knowledge Base utilities.

Topics:

Chapter 11. IMS Tools Discovery Utility

You can use the IMS Tools Discovery Utility (HKTDDSC0) to create an inventory of IMS databases, programs, and DBRC groups in the IMS Tools Knowledge Base HKT_INPUT repository.

The data stored in this inventory can be retrieved later by any IMS Tools product to perform its functions. Along with the RECON ID records that describe the IMS system libraries, the Discovery Utility inventory simplifies the configuration and customization tasks for IMS Tools products.

Important: To keep the data in the inventory up to date, this utility must be run after each DBDGEN, PSBGEN, or DBRC change for databases, programs, or groups.

Using the Discovery Utility

You can run the Discovery Utility by modifying and submitting the JCL.

Procedure

1. Copy the HKTDISC0 member from *smphlq*.SHKTSAMP and modify it.

```
//HKTDISCO  JOB  <JOB CARD PARAMETERS>
//STEP1    EXEC PGM=HKTDDSC0,
//             PARM=('ITKBSRVR=yourITKBservername',
//             'RECONID=yourRECONID',
//             'FUNC=CREATE|DELETE')
//STEPLIB  DD  DISP=SHR,DSN=smphlq.SHKTLOAD
//         DD  DISP=SHR,DSN=ims.reslib
//SYSPRINT DD  SYSOUT=*
//SYSABEND DD  SYSOUT=H
//
```

   where:

   yourITKBservername
   The IMS Tools Knowledge Base server name that the utility uses to connect to and create the inventory. The *yourITKBservername* is the same as the name that is defined in the FPQCONFG member in *smphlq*.SHKTSAMP for the XCF_GROUP_NAME= parameter. The XCF group name acts as the IMS Tools Knowledge Base server name.

   yourRECONID
   The RECON ID that points to DBDLIB, PSBLIB, and RECON data sets that the utility uses to discover IMS databases, programs, and DBRC groups.

   CREATE | DELETE
   The function to be run.

   CREATE
   Build a new inventory or refresh of an existing inventory.

   DELETE
   Delete an existing inventory.

   smphlq
   The SMP/E high level qualifier for the SHKTLOAD load library.

   ims.reslib
   The IMS RESLIB data set name.

2. Submit the job.

Chapter 12. Import and Export Utility

The Import and Export Utility imports and exports a complete set or a subset of repository members across repositories.

Topics:

Import and Export Utility overview

The Import and Export Utility imports and exports a complete set or a subset of repository members across repositories.

The export process writes the repository content to the import and export file (IMEXFILE). The export process does not update the repository.

The import process writes or appends the members that are specified in the IMEXFILE file to a single repository. During the import process, you can delete selected repository members and trim the repository member version.

You start the Import and Export Utility by running the HKTIMEX0 program. Input commands are entered by using the JCL PARM= specification, a SYSIN file, or a combination of both. If you specify both methods, the JCL PARM= is processed first followed by the SYSIN file.

A log file is generated that provided details about the calls to the repository and any processing issues. A report file is generated that provides details about the specific import and export processes.

Important: If you are importing or exporting only Policy Services members, use the Policy Services ISPF interface rather than the Import and Export Utility. If you are importing or exporting the entire HKT_INPUT repository, use the Import and Export Utility.

This process is illustrated in the following figure:

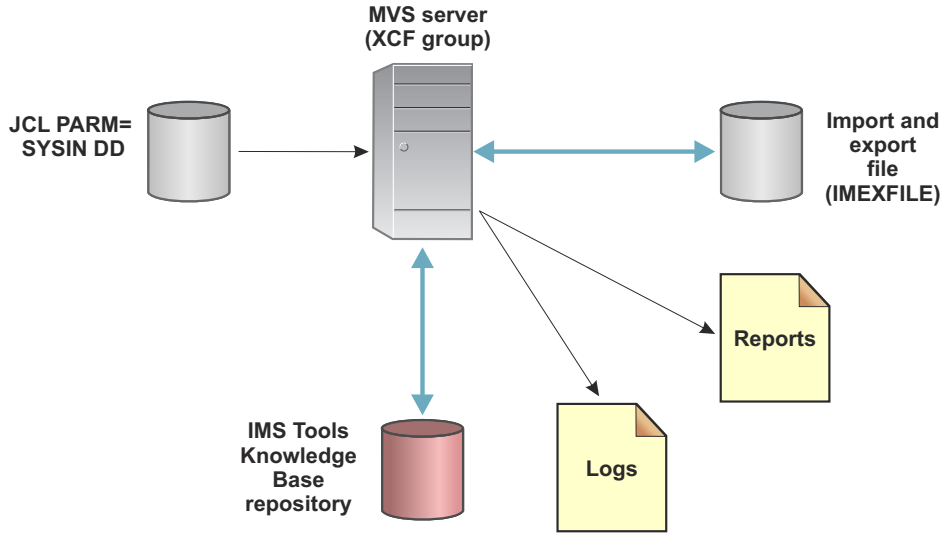


Figure 87. The Import and Export Utility

Importing or exporting a repository

You can import or export an entire repository or a selected subset of members, based on product and type, member name, and index data.

Before you begin

- Make sure that the repositories are IMS Tools Base 1.7 compliant.
- Back up your repositories before using the Import and Export Utility. Sample library member HKTJIE01 contains sample JCL to back up a set of repositories. Sample member HKTJIE02 contains JCL to restore a set of repositories.
- Make sure that the IMS Tools Knowledge Base server is running.

About this task

Sample JCL is provided in members HKTJIE01 through HKTJIE11 to assist you with using the Import and Export Utility.

Procedure

1. Specify options by using the input commands from the JCL PARM= specification and the SYSIN file.

   Tip: You can generate a list of all available PROJECTs and FIELDs of the Import and Export Utility by submitting the following JCL:

```
//EXPORT01 EXEC  PGM=HKTIMEX0,REGION=0M,
// PARM='EXPORT GROUP=srvrname REPOS=NONE'
//STEPLIB  DD    DISP=SHR,DSN=itkbhlq.SHKTLOAD
//SYSLOG   DD    SYSOUT=*              <=LOGGING
//SYSPRINT DD    SYSOUT=*              <=REPORT
//SYSABEND DD    SYSOUT=*
//IMEXFILE DD    DUMMY
//SYSIN    DD    *
    LIST=ONLY               C=(List keyword descriptions ONLY)
/*
```

2. Submit the job.

Import and Export Utility sample JCL

The IMS Tools Knowledge Base sample library file (SHKTSAMP) contains a set of members with sample JCL that can perform many of the Import and Export Utility tasks.

The following Import and Export Utility members are included in the SHKTSAMP library:

Table 19. Import and Export Utility sample library members

Member name	Description
HKTJIE01	This member contains sample JCL to back up a set of repositories to a data set by using the Import and Export Utility.
HKTJIE02	This member contains sample JCL to restore a set of repositories to a data set by using the Import and Export Utility.
HKTJIE03	This member contains sample JCL to export or import an entire repository by using the Import and Export Utility.
HKTJIE04	This member contains sample JCL to export or import RECON data to or from the HKT_INPUT repository by using the Import and Export Utility.

Table 19. Import and Export Utility sample library members (continued)

Member name	Description
HKTJIE05	This member contains sample JCL to export or import discovery data from a RECON ID to or from the INPUT repository by using the Import and Export Utility.
HKTJIE06	This member contains sample JCL to export or import the Autonomics Director monitor list data to or from the IAV_AUTODIR repository by using the Import and Export Utility.
HKTJIE07	This member contains sample JCL to export all of the Autonomics Director data types from the IAV_AUTODIR repository, but import only the monitor list data by using the Import and Export Utility.
HKTJIE08	This member contains sample JCL to export or import product registration data to or from the HKT_REGISTRY repository by using the Import and Export Utility.
HKTJIE09	This member contains sample JCL to export or import sensor data to or from the BSN_SENSOR repository by using the Import and Export Utility.
HKTJIE10	This member contains sample JCL to list the descriptions of all of the available keywords in the Import and Export Utility.
HKTJIE11	This member contains sample JCL to export reports from the HKT_O*nnnnnnn* repository by using the Import and Export Utility.

Import and Export Utility DD statements

DD statements are used to identify the source of input and the placement of output information.

The following DD statements are specific to the Import and Export Utility:

SYSLOG
Contains the log file. The SYSLOG is set to LRECL=80 RECFM=FB. This DD name can be overridden.

Tip: Specify this statement as `DD DUMMY` to suppress the Import and Export Utility output.

SYSPRINT
Contains the report file. The SYSPRINT is set to LRECL=133 RECFM=FBA. This DD name can be overridden.

IMEXFILE
Contains the import or export data set content. The IMEXFILE is set to LRECL=256 RECFM=VB. This DD name can be overridden.

SYSIN
Contains the optional input command file. The SYSIN is set to LRECL=80 RECFM=FB. This DD name can be overridden.

The following example shows a standard invocation of the Import and Export Utility:

```
//SAMPLE    EXEC  PGM=HKTIMEX0,REGION=0M,PARM='input keywords'
//STEPLIB   DD    DISP=SHR,DSN=hlq.SHKTLOAD
//SYSLOG    DD    DUMMY
//SYSPRINT DD     SYSOUT=*       <= The report file
//SYSABEND DD     SYSOUT=*
//IMEXFILE DD     DISP=SHR,DSN=yourhlq.imex.dataset
//SYSIN     DD    *            <= SYSIN file input commands
    . . . input keywords . . .
/*
```

where:

input keywords
Input commands are entered by using the JCL PARM= specification, a SYSIN file, or a combination of both.

DSN=*hlq*.SHKTLOAD
The location of your sample data set.

DSN=*yourhlq.imex.dataset*
The location of your IMEXFILE.

Keyword reference for Import and Export Utility

You can modify Import and Export Utility keywords to control how the utility is started and how the utility runs.

Keyword reference overview

You can specify commands in both the JCL PARM= input string and the SYSIN input file, unless otherwise noted.

- The command syntax is free form. That is, you do not need to code each keyword on a separate line, and each line can begin in any column from 1 to 72.
- You can use spaces, commas, and semicolons as delimiters.
- Input from the JCL PARM= specification is a single string of varying length.
- Input from the SYSIN file must adhere to this format:
  - Each record can be a maximum of 80 characters with columns 73 through 80 treated as blanks.
  - The default maximum of uncommented records is 1000.
- Commands are entered as a keyword with zero or more values. For example, `Keyword=`*`value`* or `Keyword=(`*`value1,value2, … valuen`*`)`.

The date and time stamps of the create and update members are set to the date and time of the import operation, not the export operation.

Repository aliases are members that have identical repository member data (RMD), but different repository index data (RID). Repository aliases are imported and exported as separate members. However, importing as a separate member does not affect the functional usage of these members. The size of the imported member can be larger than the exported member.

Certain keywords allow wildcard characters:

- An asterisk (*) matches 0 or more characters.
- A percent sign (%) matches a single character.

Default value types

Two types of defaults exist for some keywords:

1. **Implicit** default; what happens if the keyword is not used.

   For example, if the keyword DELETE is not specified, then the resulting behavior is the same as DELETE=NO.
2. **Explicit** default; what happens if the keyword is specified without a value.

   For example, if the keyword DELETE is specified, but without a value, the resulting behavior is the same as DELETE=YES.

Required keywords

The following keywords are required:

EXPORT=*ddname*
This required keyword defines the process as an export function in which one or more members of a repository are written to the import and export file (IMEXFILE).

The use of the EXPORT keyword is mutually exclusive with the IMPORT keyword.

The EXPORT keyword can be specified as EXPORT, EXPRT, or EXP.

ddname
This optional parameter specifies the DD name for the IMEXFILE.

The default value is IMEXFILE.

IMPORT=*ddname*
This required keyword defines the process as an import function in which one or more members of a repository are added, updated, or deleted based on the input import and export file (IMEXFILE).

The use of the IMPORT keyword is mutually exclusive with the EXPORT keyword.

The IMPORT keyword can be specified as IMPORT, IMPRT, or IMP.

ddname
This optional parameter specifies the DD name for the IMEXFILE.

The default value is IMEXFILE.

GROUP=*group_name*
This required keyword specifies the XCF group or server name that contains the repository to be imported or exported.

The GROUP keyword can be specified as either GROUP or GRP.

REPOSITORY=*repository_name*
This required keyword specifies the name of the repository. The REPOSITORY keyword can be specified as either REPOSITORY or REPOS.

You can specify the following values for *repository_name*:

HKT_INPUT
The Input repository.

IAV_AUTODIR
The Autonomics Director repository.

BSN_SENSOR
The Sensor Data repository.

HKT_REGISTRY
The Registry repository.

HKT_O*nnnnnnn*
The standard Output repository where *nnnnnnn* is the name of the output repository.

Restriction: You cannot import or export the Catalog repository by using the Import and Export Utility.

Optional keywords

The following keywords are optional:

COMMENT=(*comment_statement*)
This optional keyword specifies that a comment is added as the value of the comment keyword.

The *comment_statement* value must adhere to the syntax rules of a keyword or value pair. The *comment_statement* value can have a null value.

The COMMENT keyword can be specified as either COMMENT or C.

The COMMENT keyword is an alternative to specifying comments by using an asterisk in column 1 of a SYSIN input file record.

For example:

```
EXPORT GROUP=servername HISTORY=NO MAXDSIZE(16)
C=(PROJECT NAME) PROJECT=DISCOVERY C=(PRINT LIST OF PROJECTs) LIST
FIELD=(NAME=DISC_MTYPE,STRING=DISC)  C=(ALL MEMBERS ARE 'DISC')
FIELD=(NAME=DISC_MVERS,STRING=0001)  C=(ALL MEMBERS ARE '0001')
FIELD=(NAME=DISC_RECON_STRING,STR=$ADUT3)
FIELD=(NAME=DISC_DATABASE,PATTERN=REC*)
```

COMMIT=YES|NO|IGNORE
This optional keyword specifies whether updates to the repository are committed and whether changes are locked in a single unit of work or handled on a case-by-case basis.

Important: Back up your repository before specifying COMMIT=YES and COMMIT=IGNORE.

The COMMIT keyword can be specified as either COMMIT or COMM.

YES
Changes are committed and the repository is locked in a single unit of work.

If an error occurs during processing, all scheduled updates are backed out.

NO
Changes are not committed and the repository is locked in a single unit of work.

If the processing succeeds to the end, the return code is set to 4.

IGNORE
Changes are committed independently on a case-by-case basis without setting a unit of work.

If an error occurs during the processing, only some members are updated.

Both implicit and explicit default value is COMMIT=YES.

Tip: You can perform validity checking of the Import and Export Utility process by specifying COMMIT=NO. Validity checking is useful with the SYSPRINT output report or the SYSLOG file.

DELETE=YES|NO|COND
This optional keyword specifies whether to delete members for all versions before importing.

The DELETE keyword can be specified as either DELETE or DEL.

Important: Back up your repository before specifying DELETE=YES or DELETE=COND.

YES
Deletes the member before writing. The member must exist in the repository.

NO
Retains any existing version of the member. The member that is written becomes the newest version.

COND
Deletes the member before writing. The member does not need to exist.

The implicit value default is DELETE=NO.

The explicit default value is DELETE=YES.

FIELD=(*keyword1=value1*, *keyword2=value2*, ... *keywordN=valueN*)
This optional keyword specifies the FIELD name, where *field_name* is a maximum 64-character name.

A named entity that can contain the following keyword values:

AND|OR
This value specifies the Boolean AND or OR operation.

The OR operation takes precedence over the AND operation.

NAME=*field_name*
This required keyword specifies a field name that is either defined in the current or global project.

The *field_name* value contains the RID location and the data type to be validated or compared.

The NAME keyword can be specified as either NAME or NAM.

OPERATOR=*operator_name*
This keyword specifies which comparison test is used between the field entry in the RID and the specified field value.

Valid *operator_name* values are:

EQUAL
Test that operators are equal. The EQUAL keyword can be specified as either EQUAL or EQ.

NOT_EQUAL
Test that operators are not equal. The NOT_EQUAL keyword can be specified as either NOT_EQUAL or NE.

LESS_THAN_OR_EQUAL
Test that operators are less than or equal to each other. The LESS_THAN_OR_EQUAL keyword can be specified as either LESS_THAN_OR_EQUAL or LTE.

LESS_THAN
Test that operators are less than each other. The LESS_THAN keyword can be specified as either LESS_THAN or LT.

GREATER_THAN_OR_EQUAL
Test that operators are greater than or equal to each other. The GREATER_THAN_OR_EQUAL keyword can be specified as either GREATER_THAN_OR_EQUAL or GTE.

GREATER_THAN
Test that operators are greater than each other. The GREATER_THAN keyword can be specified as either GREATER_THAN or GT.

PACKED_UNSIGNED=*numeric_value*
This keyword specifies the entire field must contain an unsigned packed number.

Each byte must contain two packed digits. The maximum length is 256 bytes.

The PACKED_UNSIGNED keyword can be specified as either PACKED_UNSIGNED or PKU.

PACKED_SIGNED=*numeric_value*
This keyword specifies the entire field must contain a signed packed number.

Each byte except the last must contain two packed digits. The last byte must contain a packed digit and a sign field. The maximum length is 16 bytes.

The PACKED_SIGNED keyword can be specified as either PACKED_SIGNED or PKS.

PADZERO
This keyword specifies that the comparison of RECON data set names are padded with any combination of hex zeros or blanks.

This keyword does not apply to any other field type.

The PADZERO keyword can be specified as PADZERO, PZERO, or PZ.

RECON_DSNAME=*recon_dataset_name*
This keyword specifies the name of a RECON data set name that is compared to any RECON type, including a RECON data set name, an external 8-byte character RECON identifier, or an internal 4-byte binary RECON identifier.

The *recon_dataset_name* value must be defined as an entry in the RECON registry.

The RECON_DSNAME keyword can be specified as RECON_DSNAME, RECON_DSN, or RDS.

RECON_INTERNAL=*recon_internal_value*
This keyword specifies a 4-byte binary RECON value that is compared to any RECON type, including a RECON data set name, an external 8-byte character RECON identifier, or an internal 4-byte binary RECON identifier.

The *recon_internal_value* value must be defined as an entry in the RECON registry.

The RECON_INTERNAL keyword can be specified as RECON_INTERNAL, RECON_INT, or RII.

RECON_EXTERNAL=*recon_external_value*

This keyword specifies an 8-byte character RECON string that is compared to any RECON type, including a RECON data set name, an external 8-byte character RECON identifier, or an internal 4-byte binary RECON identifier.

The *recon_external_value* value must be defined as an entry in the RECON registry.

The RECON_EXTERNAL keyword can be specified as RECON_EXTERNAL, RECON_EXT, or RXI.

STRING

This keyword specifies a value for a string type value. A string is defined as a series of valid print type characters, including:

- Alphabetic (A to Z)
- Numeric (0 - 9)
- ! @ # $ % & * _ - + = { } | < > . ? /

The STRING keyword can be specified as either STRING or STR.

If necessary, the string is considered to be padded with blanks.

If you want the string to contain any other characters, then consider using the MIXED or HEXADECIMAL field keywords.

HEXADECIMAL=*hexadecimal_string*

This keyword specifies a value for string type value as a series of hexadecimal digits. The number of hexadecimal digits must be an even number.

Each hexadecimal digit occupies a half-byte. If the number of bytes filled is less than the field length, the remaining bytes are set to zero (X'00').

The HEXADECIMAL keyword can be specified as either HEXADECIMAL or HEX.

LENGTH=*length*

This keyword specifies an overriding length value for string type fields.

The length is expressed as a numeric value. The *length* value must be a positive integer whose value is within the current field definition.

The field definition value is calculated by adding the values of the POSITION and LENGTH keywords.

The LENGTH keyword can be specified as either LENGTH or LEN.

MIXED=*mixed_string*

This keyword specifies a value for a mixed string.

A mixed string provides a way to express values as hex, but without using the HEX keyword. A mixed string can contain both characters and hexadecimal representations for a comparison value.

The MIXED keyword is useful for characters that can interfere with parsing or that are white space (for example, C++ terminology).

The MIXED keyword can be specified as MIXED, MIXD, or MXD.

A *mixed_string* value is composed of a forward slash (/), an escape type indicator, and zero, one, or two characters with the escape value setting. Available characters are:

- Alphabetic (A to Z)
- Numeric (0 - 9)
- ! @ # $ % & * _ - + = { } | < > . ? /

For example, consider a field called PERSON that is 36 characters long, left-aligned, and blank-filled:

- To have the name of a person with the first and family name separated by a blank, include the following FIELD keyword:

```
FIELD=(NAME=PERSON,MIXED=JOHN/BDOE/B)
```

The /B is substituted with a blank space, so it would be JOHN DOE. The first /B is the name separator, and the final /B acts as both the character at the end of the name and the fill character to make the entry padded with enough blanks to make it 40 characters long.

- To have the name enclosed in quotation marks, include the following FIELD keyword:

```
FIELD=(NAME=PERSON,MIXED=/QJOHN/BDOE/Q/B)
```

- To use tab characters, which are X'05', to surround the name, include the following FIELD keyword:

```
FIELD=(NAME=PERSON,MIXED=/X05JOHN/BDOE/X05/B)
```

POSITION=*position*
This keyword specifies an overriding position value for string type fields.

The position is expressed as a numeric value for the zero origin start within the current field.

If the POSITION value is greater than zero, you must specify the LENGTH keyword. The *position* value must be a positive integer whose value is within the current field definition. The field definition value is calculated by adding the values of the POSITION and LENGTH keywords.

The POSITION keyword can be specified as either POSITION or POS.

STRINGZ=*string*
This keyword specifies a value for a string type value. A string is defined as a series of valid print type characters, including:

- Alphabetic (A to Z)
- Numeric (0 - 9)
- ! @ # $ % & * _ - + = { } | < > . ? /

The STRINGZ keyword can be specified as either STRINGZ or STRZ.

If necessary, the string is considered to be padded with X'00'. If you want the string to contain any other characters, consider using the MIXED or HEXADECIMAL field keywords.

PATTERN=*pattern_string*
This keyword specifies the string type value as pattern string.

A pattern string is similar to the STRING keyword, except that it allows for the use of wildcard characters.

The PATTERN keyword can be specified as either PATTERN or PAT.

SIGNED_BINARY=*numeric_value*
This keyword specifies a value for comparison with binary type fields.

This keyword can be used for either a signed or unsigned binary field type.

The SIGNED_BINARY keyword can be specified as SIGNED_BINARY, SBIN, or SBI.

SIGNED_PACKED=*numeric_value*
This keyword specifies a value for comparison with signed packed type fields.

This keyword can be used only for a signed packed field type.

The SIGNED_PACKED keyword can be specified as SIGNED_PACKED, SPACK, or SPN.

UNSIGNED_BINARY=*numeric_value*
This keyword specifies a value for comparison with binary type fields. The UNSIGNED_BINARY keyword can be specified as UNSIGNED_BINARY, UBIN, or UBI.

UNSIGNED_PACKED=*unsigned_packed_string*
This keyword specifies a value for comparison with unsigned packed type fields.

The *unsigned_packed_string* value must contain only decimal digits.

The UNSIGNED_PACKED keyword can be specified as UNSIGNED_PACKED, UPACK, or UPN.

HISTORY=YES|NO
This optional keyword specifies whether to include all versions or only the latest version of the specified member.

The HISTORY keyword can be specified as either HISTORY or HIST.

Imported versions are appended to existing members and are considered new members. Imported versions are applied in the same sequence as exported versions.

YES
Include all versions.

NO
Only the latest version of the selected members is included.

Both implicit and explicit default value is HISTORY=YES.

Tip: You can trim multiple member versions to the latest member version by specifying `HISTORY=NO`.

ISEMPTY=YES|NO
This optional keyword specifies whether to check that a repository is empty, before an import operation.

This option is ignored for export operations.

The ISEMPTY keyword can be specified as either ISEMPTY or ISEMP.

YES
Verify that the repository is empty before the import operation.

NO
Do not verify whether the repository is empty before the import operation.

For import operations, the implicit default value is ISEMPTY=NO.

For import operations, the explicit default value is ISEMPTY=YES.

LIST=YES|NO|ONLY
This optional keyword specifies whether to print the available PROJECTs and FIELDs on the output report file.

The LIST keyword can be specified as either LIST or LST.

YES|NO
Print the available PROJECTs and FIELDs and continue processing.

NO
Do not print the available PROJECTs and FIELDs.

ONLY
Print the available PROJECTs and FIELDs and terminate processing. If processing is successful, the return code is 4.

Requirement: If you specify LIST=ONLY, you must also specify the REPOSITORY=NONE.

The implicit default value is LIST=NO.

The explicit default value is LIST=YES.

MAXDATASIZE=*data_size_numeric_value*
This optional keyword specifies the maximum character size of the Import and Export Utility member RMD (data component) that is printed on the output report file.

The MAXDATASIZE keyword can be specified as either MAXDATASIZE or MAXDSIZE.

Choose an appropriate *data_size_numeric_value* value so that the output report is not too large.

The default value is 0, which means that RMD (data component) is not printed.

Important: A MEMBER_PRINT=NO specification overrides any MAXDATASIZE setting.

MEMBER_PRINT=YES|NO|COND
This optional keyword specifies whether the Import and Export Utility member index component (RID) and data component (RMD) are included in the output report.

The RID contains the member identification, system, and optional high-impact data for a member.

The MEMBER_PRINT keyword can be specified as MEMBER_PRINT, MEMPRINT, or MEMPRT.

The values for the MEMBER_PRINT keyword are:

YES
Print the RID and RMD data. The RMD is printed only if MAXDATASIZE is greater than 0.

NO
Do not print the RID and RMD data.

Important: A MEMBER_PRINT=NO specification overrides any MAXDATASIZE setting.

COND
Print the RID and RMD only if DELETE=YES is specified.

Both implicit and explicit default value is MEMBER_PRINT=YES.

NOEXIST=YES|NO
This optional keyword specifies whether to validate that the target repository does not already contain the members to be imported.

The NOEXIST keyword can be specified as either NOEXIST or NOEX.

Restriction: The NOEXIST keyword is valid only for import operations in which DELETE=NO is also specified; otherwise it is ignored.

The values for the NOEXIST keyword are:

YES
Validate whether the target repository already contains members to be imported.

NO
Do not validate whether the target repository already contains members to be imported.

If the member exists, the imported member becomes a newer member version.

Both implicit and explicit default value is NOEXIST=NO.

PRODUCT=*member_product_identification*
This optional keyword specifies the product that is being processed, identified by a product identifier.

The PRODUCT keyword can be specified as PRODUCT, PROD, or PRD.

You can use a wildcard character.

The default value is all products.

PROJECT=*project_name*
This optional keyword specifies the name of the PROJECT.

A PROJECT is a set of predefined input values that can include REPOSITORY, PRODUCT, TYPE, and FIELD.

The keywords that are contained in the PROJECT take effect as if they were individually specified. Their values are immediately available for use, overriding the global PROJECT fields.

The PROJECT keyword can be specified as either PROJECT or PROJ.

Valid values for *project_name* are:

AUTONOMICS_DIRECTOR
Defines the Autonomics Director repository members for all types. The types are MON for monitored database member, GRP for group, PER for period, and CAC for cached items. The specific types can be overridden by the TYPE keyword specification.

AUTONOMICS_DIRECTOR_CAC
Defines the Autonomics Director repository members for the CAC type.

AUTONOMICS_DIRECTOR_GRP
Defines the Autonomics Director repository members for the GRP type.

AUTONOMICS_DIRECTOR_MON
Defines the Autonomics Director repository members for the MON type.

AUTONOMICS_DIRECTOR_PER
Defines the Autonomics Director repository members for the PER type.

DISCOVERY
Defines stored discovery data for databases and groups. This *project_name* is the generic version for all types.

DISCOVERY_DATABASE
Defines stored discovery data for the DATABASE type.

DISCOVERY_GROUP
Defines stored discovery data for GROUP type.

OUTPUT_REPORT
Defines the output report repository.

The OUTPUT_REPORT project is designed to access the first output repository, for example HKT_O0000000.

To override this output repository value, add a REPOSITORY statement.

PRODUCT_REGISTRY
Defines the product registry definitions.

RECON_REGISTRY
Defines the RECON registry.

REPORT_REGISTRY
Defines the product report registry.

SENSOR_DATA
Defines the sensor data repository members.

Tip: Specify LIST=YES to print the available PROJECTs and FIELDs.

SCAN=YES|NO
This optional keyword specifies whether to scan the keywords for correct syntax before running the import or export process.

The SCAN keyword can be specified as either SCAN or SCN.

YES
Verify the syntax and keywords of the command, but do not run the import or export process.

A return code of 4 indicates the syntax and keywords of the command are valid.

Tip: Specifying SCAN=YES is similar to specifying TYPRUN=SCAN on JCL.

NO
Run the import or export process without verifying the syntax and keywords of the command.

The implicit default value is SCAN=NO.

The explicit default value is SCAN=YES.

TYPE=*member_type_identification*
This optional keyword specifies the type identifiers for all Import and Export Utility members.

The TYPE keyword can be specified as either TYPE or TYP.

Tip: The TYPE keyword is different from the `FIELD=(NAME=TYPE, … )` specification.

You can use a wildcard character.

The default value is all types.

Usage scenarios for the Import and Export Utility

The following usage scenarios address some of the more common ways to import and export data from repositories by using the Import and Export Utility.

Topics:

Scenario: Exporting discovery data and RECON data from Autonomics Director

This scenario demonstrates how to export data discovery members from the Autonomics Director repository by using the Import and Export Utility.

About this task

Exporting data discovery members from Autonomics Director is useful in the following situations:

- To import the data into another repository running on a different server
- To take a checkpoint of the repository
- To recover the repository to a specific point in time
- To trim the number of versions of members by using an import with delete capabilities

Tip: Sample JCL is provided in member HKTJIE05 to export or import discovery data from a RECON ID to or from the HKT_INPUT repository by using the Import and Export Utility.

Procedure

1. Specify options by using the input commands from the JCL PARM= specification and the SYSIN file.
   a) Customize the SYSPRINT DD statement for the report file, which shows the results of the processing.
   For example:

```
//SYSPRINT DD    DSN=EXDDSCN.IMEX.PRINT,DISP=SHR,
// UNIT=3390,VOL=SER=IMSTL7
```

   b) Customize the IMEXFILE DD statement. This statement is the target file for an export operation. It contains the selected data from the repository based on control statements.
   For example:

```
//IMEXFILE DD    DSN=EXDDSCN.IMEX.EXPORT.DSC.DATA,DISP=(,CATLG),
//    UNIT=SYSDA,SPACE=(CYL,(10)),
//    DCB=(LRECL=256,RECFM=VB,DSORG=PS)
```

   c) Customize the SYSIN DD statement, which contains the control statements.
   For example:

```
EXPORT GROUP=FPQSRVT3 REPOS=IAV_AUTODIR
HISTORY=NO MAXDSIZE(100)
```

```
PROJECT=DISCOVERY                          C=(DISCOVERY)
FIELD=(NAME=DISC_MTYPE,STRING=DISC)        C=('DISC' members)
```

where:

EXPORT
Indicates that the operation is to export data from the repository into the Import and Export Utility file (IMEXFILE).

GROUP=FPQSRVT3
Indicates that FPQSRVT3 is the group or server that is associated with the repository shown in the data export operation.

REPOS=IAV_AUTODIR
Indicates IAV_AUTODIR as the name of the repository that contains the data for export.

Remember: The IAV_AUTODIR repository is contained on the FPQSRVT3 group or server.

MAXDSIZE(100)
Indicates that members that are printed to the SYSPRINT output are limited to 100 GB of RMD data.

FIELD=(NAME=DISC_MTYPE,STRING=DISC)
Indicates that you want to include only discovery members with names that match the string DISC.

FIELD=(NAME=DISC_RECON_STRING,STR=$ADUT3)
Indicates that you want to include only discovery members associate with RECON ID $ADUT3.

2. Submit the job and ensure that it completes with a return code=0.

Example

In the following example, the JCL to export discovery members from Autonomics Director is shown:

```
//*********************************************************************
//*        EXPORT AUTONOMICS DIRECTOR DISCOVERY MEMBERS               *
//*********************************************************************
//EXPDISC  EXEC  PGM=HKTIMEX0,REGION=0M,
//STEPLIB  DD    DISP=SHR,DSN=DBGTOOL.IMSADM.SIAVLOAD
//STEPLIB  DD    DISP=SHR,DSN=EXDDSCN.HKT2.LOAD
//         DD    DISP=SHR,DSN=EXDDSCN.IAV3.LOAD
//******   DD    DISP=SHR,DSN=IMSBLD.HAHN210.ABSNLOAD
//******   DD    DISP=SHR,DSN=IMSBLD.HAHN210.SBSNLOAD
//         DD    DISP=SHR,DSN=IMSTOOL.HKT120CP.SHKTLOAD
//         DD    DISP=SHR,DSN=SYS1.CSSLIB
//         DD    DISP=SHR,DSN=IMSTOOL.FPQ120M.D100819.SFPQLMD0
//         DD    DISP=SHR,DSN=IMSTOOL.FPQ12007.SFPQLMD0
//         DD    DISP=SHR,DSN=IMSTOOL.FPQ1203E.SBPELMD0
//SYSPRINT DD    DSN=EXDDSCN.IMEX.PRINT,DISP=SHR,
// UNIT=3390,VOL=SER=IMSTL7
//IMEXFILE DD    DSN=EXDDSCN.IMEX.EXPORT.DSC.DATA,DISP=(,CATLG),
//    UNIT=SYSDA,SPACE=(CYL,(10)),
//    DCB=(LRECL=256,RECFM=VB,DSORG=PS)
//SYSABEND DD    SYSOUT=*
//SYSIN    DD    *
  EXPORT GROUP=FPQSRVT3 REPOS=IAV_AUTODIR
  HISTORY=NO MAXDSIZE(100)
  PROJECT=DISCOVERY                        C=(DISCOVERY)
  FIELD=(NAME=DISC_MTYPE,STRING=DISC)      C=('DISC' members)
  FIELD=(NAME=DISC_RECON_STRING,STR=$ADUT3)       C=(your RECONID)
/*
```

Scenario: Exporting sensor data from the BSN_SENSOR repository

This scenario demonstrates how to export sensor data from the BSN_SENSOR repository by using the Import and Export Utility.

About this task

Sample JCL provided in member HKTJIE09 to export or import sensor data to or from the BSN_SENSOR repository by using the Import and Export Utility.

Procedure

1. Specify options by using the input commands from the JCL PARM= specification and the SYSIN file.
   a) Customize the SYSPRINT DD statement for the report file, which shows the results of the processing. For example:

```
//SYSPRINT DD    DSN=EXDDSCN.IMEX.PRINT,DISP=(,CATLG),
// UNIT=3390,VOL=SER=IMSTL7
```

   b) Customize the IMEXFILE DD statement. This statement is the target file for an export operation. It contains the selected data from the repository based on control statements. For example:

```
//IMEXFILE DD    DSN=EXDDSCN.IMEX.DATA,DISP=(,CATLG),
//    UNIT=SYSDA,SPACE=(CYL,(10)),
//    DCB=(LRECL=256,RECFM=VB,DSORG=PS)
```

   c) Customize the SYSABEND DD statement, which contains the abend information. For example:

```
SYSABEND DD    SYSOUT=*
```

   d) Customize the SYSIN DD statement, which contains the control statements. For example:

```
EXPORT GROUP=FPQSRVT3 REPOS=BSN_SENSOR
HISTORY=NO MAXDSIZE(1G)
PROJECT=SENSOR_DATA                          C=(SENSOR data)
FIELD=(NAME=DATABASE STRING=DISC)
```

   where:

   EXPORT
   Indicates that the operation is to export data from the repository into the Import and Export Utility file (IMEXFILE).

   GROUP=FPQSRVT3
   Indicates that FPQSRVT3 is the group or server that is associated with the repository shown in the data export operation.

   MAXDSIZE(1G)
   Indicates that members that are printed to the SYSPRINT output are limited to 1 GB of RMD data.

   REPOS=BSN_SENSOR
   Indicates BSN_SENSOR as the name of the repository that contains the data for export.

   FIELD=(NAME=DATABASE STRING=DISC)
   Indicates that you want to include only databases with names whose bytes match the string DISC.

2. Submit the job and ensure that it completes with a return code=0.

Scenario: Exporting all Autonomics Director data from the Autonomics Director repository

This scenario demonstrates how to export all Autonomics Director data from the Autonomics Director repository by using the Import and Export Utility.

About this task

Sample JCL is provided in member HKTJIE07 to import or export all of the Autonomics Director data types from the IAV_AUTODIR repository by using the Import and Export Utility.

Procedure

1. Specify options by using the input commands from the JCL PARM= specification and the SYSIN file.

a) Customize the SYSPRINT DD statement for the report file, which shows the results of the processing.
For example:

```
//SYSPRINT DD    DSN=EXDDSCN.IMEX.PRINT,DISP=SHR,
// UNIT=3390,VOL=SER=IMSTL7
```

b) Customize the IMEXFILE DD statement. This statement is the target file for an export operation. It contains the selected data from the repository based on control statements.
For example:

```
//IMEXFILE DD    DSN=EXDDSCN.IMEX.AUTODIR.DATA,DISP=(,CATLG),
//    UNIT=SYSDA,SPACE=(CYL,(10,10)),  <=USER'S CHOICE
//    DCB=(LRECL=256,RECFM=VB,DSORG=PS)
```

c) Customize the SYSIN DD statement, which contains the control statements.

For example:

```
EXPORT GROUP=FPQSRVT3 REPOS=IAV_AUTODIR
    HISTORY=NO MAXDSIZE(100)
    PROJECT=AUTODIR                  C=(Autonomics Director all types)
     FIELD=(NAME=TYPE,STRING=MON)       C=(Monitor List)
     FIELD=(OR NAME=TYPE,STRING=GRP)    C=(Group definition)
     FIELD=(OR NAME=TYPE,STRING=PER)    C=(Period Data)
     FIELD=(OR NAME=TYPE,STRING=CAC)    C=(Cached Data)
```

where:

EXPORT
Indicates that the operation is to export data from the repository into the Import and Export Utility file (IMEXFILE).

GROUP=FPQSRVT3
Indicates that FPQSRVT3 is the group or server that is associated with the repository shown in the data export operation.

REPOS=IAV_AUTODIR
Indicates IAV_AUTODIR as the name of the repository that contains the data for export.

Remember: The IAV_AUTODIR repository is contained on the FPQSRVT3 group or server.

MAXDSIZE(100)
Indicates that members that are printed to the SYSPRINT output are limited to 100 GB of RMD data.

PROJECT=AUTODIR
Indicates that the PROJECT selected is AUTODIR, a PROJECT that selects all Autonomics Director data.

2. Submit the job and ensure that it completes with a return code=0.

Scenario: Exporting RECON data from the HKT_INPUT repository

This scenario demonstrates how to export RECON data from the HKT_INPUT repository by using the Import and Export Utility.

About this task

Sample JCL provided in member HKTJIE04 to export or import RECON data to or from the HKT_INPUT repository by using the Import and Export Utility.

Procedure

Specify options by using the input commands from the JCL PARM= specification and the SYSIN file.

1. Customize the SYSPRINT DD statement for the report file, which shows the results of the processing.
For example:

```
//SYSPRINT DD    DSN=EXDDSCN.IMEX.PRINT,DISP=SHR,
// UNIT=3390,VOL=SER=IMSTL7
```

2. Customize the IMEXFILE DD statement. This statement is the target file for an export. It contains the selected data from the repository based on control statements.
   For example:

```
//IMEXFILE DD    DSN=EXDDSCN.IMEX.EXPORT.RCNREG.DATA,
//    DISP=(,CATLG),
//    UNIT=SYSDA,SPACE=(CYL,(10)),
//    DCB=(LRECL=256,RECFM=VB,DSORG=PS)
```

3. Customize the SYSIN DD statement, which contains the control statements.

   For example:

```
EXPORT GROUP=FPQSRVT3 REPOS=HKT_INPUT
    HISTORY=NO MAXDSIZE(100)
    PROJECT=RCNREG
```

   where:

   EXPORT
   Indicates that the operation is to export data from the repository into the Import and Export Utility file (IMEXFILE).

   GROUP=FPQSRVT3
   Indicates that FPQSRVT3 is the group or server that is associated with the repository shown in the data export operation.

   REPOS=HKT_INPUT
   Indicates HKT_INPUT as the name of the repository that contains the data for export.

   Remember: The HKT_INPUT repository is contained on the FPQSRVT3 group or server.

   MAXDSIZE(100)
   Indicates that members that are printed to the SYSPRINT output are limited to 100 GB of RMD data.

   PROJECT=RCNREG
   Indicates that the PROJECT selected is RCNREG, a PROJECT that selects RECON data.

Scenario: Exporting product registration data from the HKT_REGISTRY repository

This scenario demonstrates how to export product registration data from the HKT_REGISTRY repository by using the Import and Export Utility.

About this task

Sample JCL provided in member HKTJIE08 to export or import product registration data to or from the HKT_REGISTRY repository by using the Import and Export Utility.

Procedure

1. Specify options by using the input commands from the JCL PARM= specification and the SYSIN file.
   a) Customize the SYSPRINT DD statement for the report file, which shows the results of the processing. For example:

```
//SYSPRINT DD    DSN=EXDDSCN.IMEX.PRINT,DISP=(,CATLG),
// UNIT=3390,VOL=SER=IMSTL7
```

   b) Customize the IMEXFILE DD statement. This statement is the target file for an export operation. It contains the selected data from the repository based on control statements. For example:

```
//IMEXFILE DD    DSN=EXDDSCN.IMEX.EXPORT.PRODREG.DATA,
//    DISP=(,CATLG),
//    UNIT=SYSDA,SPACE=(CYL,(10)),
//    DCB=(LRECL=256,RECFM=VB,DSORG=PS)
```

c) Customize the SYSABEND DD statement, which contains the abend information. For example:

```
SYSABEND DD    SYSOUT=*
```

d) Customize the SYSIN DD statement, which contains the control statements. For example:

```
EXPORT GROUP=FPQSRVT3 REPOS=HKT_REGISTRY
HISTORY=NO MAXDSIZE(1G)
PROJECT=PRODREG
```

where:

EXPORT
Indicates that the operation is to export data from the repository into the Import and Export Utility file (IMEXFILE).

GROUP=FPQSRVT3
Indicates that FPQSRVT3 is the group or server that is associated with the repository shown in the data export operation.

MAXDSIZE(1G)
Indicates that members printed to the SYSPRINT output are limited to 1 GB of RMD data.

REPOS=PRODREG
Indicates PRODREG as the name of the repository that contains the data for export.

2. Submit the job and ensure that it completes with a return code=0.

Scenario: Trimming a version by using the Import and Export Utility

This scenario demonstrates how to trim a version by using the Import and Export Utility.

Procedure

1. Customize the properties for the report by modifying your copy of member HKTIMEX0.
2. Start an IMPORT operation by specifying HISTORY=NO and DELETE=YES.

   For example:

```
//*********************************************************************
//* Export with HISTORY=NO
//*********************************************************************
//EXPORT   EXEC  PGM=HKTIMEX0,REGION=0M,
//  PARM='EXPORT GROUP=FPQSRVB1 HISTORY(NO) REPOSITORY(HKT_O0000000)'
//STEPLIB  DD    DISP=SHR,DSN=IMSTESTL.TNUC0
//         DD    DISP=SHR,DSN=IMSBLD.HAHN130.SHKTLOAD
//SYSPRINT DD    SYSOUT=*
//SYSABEND DD    SYSOUT=*
//IMEXFILE DD    DSN=&&TRIM,
//    DISP=(NEW,CATLG),
//    UNIT=SYSDA,SPACE=(CYL,(2,1)),
//    DCB=(DSORG=PS,LRECL=256,RECFM=VB)
/*
//*********************************************************************
//* Import with DELETE=YES
//*********************************************************************
//IMPORT   EXEC  PGM=HKTIMEX0,REGION=0M
//STEPLIB  DD    DISP=SHR,DSN=IMSTESTL.TNUC0
//         DD    DISP=SHR,DSN=IMSBLD.HAHN130.SHKTLOAD
//SYSPRINT DD    SYSOUT=*
//SYSABEND DD    SYSOUT=*
//IMEXFILE DD    DISP=(OLD,DELETE),DSN=&&TRIM
//SYSIN    DD    *
  IMPORT GROUP=FPQSRVB1,
  PROJECT=OUTPUT_REPORT,
  FIELD=(NAME=DBD_NAME,OPER=EQ,STRING=CUST02),
  FIELD=(OR NAME=IMS,OPER=EQ,STRING=IMB1),
```

```
  DELETE=YES
/*
```

3. Submit the job.
4. Verify on the IMS Tools Knowledge Base panels that only the current version is listed.

What to do next

Continue to import reports, to verify that the output repository is not broken after trimming.

Part 5. Troubleshooting

The topics in this section provide you with supplemental technical references that can help you diagnose, troubleshoot, and solve IMS Tools Knowledge Base problems.

Topics:

Chapter 13. FPQ reason codes (repository server)

This reference section provides detailed information about the reason codes issued by the IMS Tools Knowledge Base repository server.

Any reason code not included in the following table is an internal error the requires assistance from IBM Software Support.

Table 20. FPQ reason codes

Reason code	Explanation	User response
001	FPQ subsystem not found	Make sure the FPQ subsystem is initialized on the system that you are running on. For more information, see the topic "Configuring SAF security" in *IMS Tools Base Configuration Guide*.
002	Server not found	The server specified in ITKBSRVR was not found. Start the server.
003	No FPQ server for server name	The server specified in ITKBSRVR was not found. Start the server.
004	FPQ server in shutdown	The server is not accepting connections. Wait until the server is available.
005	FPQ server has shutdown or failed	The server is not accepting connections. Wait until the server is available.
006	FPQ server is busy (retry valid)	The server allows a limited number of concurrent connections. Increase the value of XCF_THREADS and recycle the server. It is possible that the server is getting insufficient processing resources to keep up with the workload. You might need to increase its service class or move it to a system with less workload.
008	Repository not found	The repository is not known to the server. This should not occur and might be a result of disconnecting repositories using the Administration menu of the ISPF user interface. Restore access to any required repositories.
009	Repository is unavailable	The repository is currently STOPPED. Start the repository.
00A	User has insufficient access	The security subsystem has denied access to a repository. See your system administrator for information.
014	Search field not defined	This code is an error that occurs when the repository gets out of synch with the definition requirements. Restore the definitions to the repository by using the List Installed Products selection from the Administration menu. Select the product in error from the Report Subscriptions List and then use the Global_Actions > SYNC function.

Table 20. FPQ reason codes (continued)

Reason code	Explanation	User response
015	Search field definition mismatch	This code is an error that occurs when the repository gets out of synch with the definition requirements. Restore the definitions to the repository by using the List Installed Products selection from the Administration menu. Select the product in error from the Report Subscriptions List and then use the Global_Actions > SYNC function.
017	No search-field-table match	This code is an error that occurs when the repository gets out of synch with the definition requirements. Restore the definitions to the repository by using the List Installed Products selection from the Administration menu. Select the product in error from the Report Subscriptions List and then use the Global_Actions > SYNC function.
102	API level not supported	The Knowledge Base release level of the program is incompatible with the server.
110	Stacking PC (CSSP) error	This code is most likely caused by the FPQ subsystem not being properly initialized. Verify that the message `FPQ3001I STACKING PC – FPQ SUBSYSTEM INSTALLED` was issued. Other causes include insufficient private storage and internal errors regarding the use of IXCJOIN and IXCQUERY services.
111	Server error	This code reflects an error processing this request in the server. Refer to the server JOBLOG for more information.
113	Max XCF server connections	The number of concurrent sessions with the IMS Tools Base IMS Tools Knowledge Base server exceeds the allowed limit for your release of z/OS. It is possible that a higher release of z/OS allows a greater number of connections. Consider dividing the workload for the server into one or more additional servers.

Chapter 14. FPQ error messages (repository server)

This reference section provides detailed information about the error messages issued by the IMS Tools Knowledge Base repository server.

Message format

IMS Tools Knowledge Base repository server messages adhere to the following format:

```
FPQnnnnx
```

where:

FPQ
Indicates that the message was issued by IMS Tools Knowledge Base repository server

nnnn
Indicates the message identification number

x
Indicates the severity of the message:

A
Indicates that operator intervention is required before processing can continue.

E
Indicates that an error occurred, which might or might not require operator intervention.

I
Indicates that the message is informational only.

W
Indicates that the message is a warning to alert you to a possible error condition.

Each message also includes the following information:

Explanation:
The Explanation section explains what the message text means, why it occurred, and what its variables represent.

System action:
The System action section explains what the system will do in response to the event that triggered this message.

User response:
The User response section describes whether a response is necessary, what the appropriate response is, and how the response will affect the system or program.

FPQ0001E **Server terminating due to an error condition.**
Feedback: *feedback_word1 feedback_word2 feedback_word3*

Explanation

An unsupported error condition has occurred. The server must terminate because its integrity is unknown.

System action

Processing ends unconditionally and the server terminates.

User response

Contact IBM Software Support.

Feedback words:

IBM diagnostic and debugging information.

FPQ0002E **The server experienced an error condition.**
Feedback: *feedback_word1 feedback_word2 feedback_word3*

Explanation

An unsupported error has occurred in the server. The server can continue processing.

System action

Processing ends for the affected thread but the server attempts to continue processing.

User response

Contact IBM Software Support.

Feedback words:

IBM diagnostic and debugging information.

FPQ0006E **Unable to load Catalog Search Interface routine IGGCSI00. Info=*LOAD_abend_code / LOAD_reason_code***

Explanation

The server attempted to load the MVS Catalog Search Interface routine and this operation failed.

LOAD_abend_code
The abend code returned by the failing LOAD macro.

LOAD_reason_code
The reason code returned by the failing LOAD macro.

System action

Processing ends unconditionally and the server terminates.

User response

See the response and reason codes for the IGGCSI00 subroutine, which are listed in the topic "Managing Catalogs" in *z/OS DFSMS Managing Catalogs*.

FPQ0007E **Repository data set not found. DSN=*data_set_name***

Explanation

Data set was not found. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Ensure that the data set name is correct and that the data set is cataloged on the z/OS system.

FPQ0008E **Invalid repository data set name. DSN=*data_set_name***

Explanation

Repository data set name is not a valid VSAM KSDS name. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Define the data set.

FPQ0009E **Repository data set is not a VSAM KSDS. DSN=*data_set_name***

Explanation

The repository data set is not a VSAM key-sequenced data set (KSDS). Service repository only supports VSAM KSDS. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Enter a valid VSAM KSDS name or correct the data set definition.

FPQ0010E **Repository data set DYNALLOC error RC=*DYNALLOC_return_code* RSN=*DYNALLOC_reason_code*. DSN=*data_set_name***

Explanation

During repository open processing, an attempt to dynamically allocate (DYNALLOC) a repository data set failed.

DYNALLOC_reason_code
The reason code returned by the DYNALLOC (SVC99).

DYNALLOC_return_code
The return code returned by DYNALLOC (SVC99).

data_set_name
The repository data set name.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Information messages accompany this error; search for FPQ0011I. The return and reason codes are produced by DYNALLOC (SVC99). For a complete description of these return codes, see *z/OS MVS Programming: Authorized Assembler Services Guide*.

FPQ0011I ***Variable information from DYNALLOC***

Explanation

Information messages accompanying error FPQ0010E. This information was returned by DYNALLOC when the request failed, and is reformatted as a service repository information message.

System action

See "FPQ0010E" on page 130.

User response

Use this message to help diagnose and correct the error.

FPQ0012E **Insufficient access authority to repository data set. DSN=*data_set_name***

Explanation

An attempt to access a repository data set failed because the server has insufficient RACF® (or similar) privileges. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Change the data set access privileges.

FPQ0013E **Reset failed as repository data set is non-reusable. DSN=*data_set_name***

Explanation

An attempt to reset a repository data set during data set recovery failed because the data set does not have the REUSE attribute. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Use IDCAMS to delete or define the data set. Optionally, add the REUSE attribute. However this is not required because the DELETE and DEFINE keywords reset the data set for this operation.

FPQ0014E **Repository data set *call* error RC=*VSAM_return_code* ACBERFLG=*access_ctrl_blk_err_flag* DSN=*data_set_name***

Explanation

An unsupported error condition occurred on a VSAM data set OPEN or CLOSE call.

call
The type of VSAM function that was attempted (OPEN or CLOSE).

VSAM_return_code
The VSAM return code.

ACBERFLG
The reason code in the ACBERFLG field of the ACB.

data_set_name
The repository data set name.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Refer to *z/OS DFSMS Macro Instructions for Data Sets* for additional information on this VSAM error.

FPQ0015E **Invalid RID data set. Use KEYS (128 0).**
Repository:*repository_name*
Data set name:*data_set_name*

Explanation

A data set used for the repository index data (RID) has invalid KEYS values specified. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Change the data set *data_set_name* option to have KEYS (128 0).

FPQ0016E **Invalid RMD data set. Use KEYS (12 0).**
Repository:*repository_name*
Data set name:*data_set_name*

Explanation

A data set used for the repository member data (RMD) has invalid KEYS values specified. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Change the data set *data_set_name* option to have KEYS (12 0).

FPQ0017E **Invalid RID data set. Use RECORDSIZE(256 256).**
Repository:*repository_name*
Data set name:*data_set_name*

Explanation

A data set used for the repository index data (RID) has invalid RECORDSIZE values specified. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Change the data set *data_set_name* option to have RECORDSIZE (256 256).

Note: RID records have a fixed length. Therefore, equal average and maximum RECORDSIZE are recommended.

FPQ0018E **Invalid RMD data set. Use max RECORDSIZE >= 52 bytes.**
Repository:*repository_name*
Data set name:*data_set_name*

Explanation

A data set used for the repository index data (RMD) has a RECORDSIZE size defined that is too small. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Change the data set *data_set_name* option to have a RECORDSIZE greater than 52 bytes.

Note: 52 bytes is the minimum value, not the recommended value.

FPQ0019E **Invalid repository data set SHAREOPTIONS. Use (2 3) or (1 3).**
Repository:*repository_name*
Data set name:*data_set_name*

Explanation

A data set used for the repository has invalid SHAREOPTIONS defined. The server identifies and

raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Redefine the repository data set *data_set_name* with SHAREOPTIONS (2 3) or (1 3).

FPQ0020E **Inconsistent repository data set SHAREOPTIONS.**
Share options: DATA (*data_op1 data_op2*), INDEX (*idx_op1 Idx_op2*)
Repository=:*repository_name*
Data set name:*data_set_name*

Explanation

The share options for the repository data set INDEX and DATA are not the same are not the same making them invalid. Use options (2 3) for both or options (1 3) for both. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Change the data set options for the DATA and INDEX component to make them consistent.

FPQ0021E **Invalid repository data set control record.**
Repository:*repository_name*
Data set name:*data_set_name*

Explanation

Data set validation identified a repository data set with a missing, or invalid control record. The server identifies and raises this error only when trying to open the repository.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, the Service Repository server will terminate.

User response

The given repository data set is invalid. The likely causes are that an incorrect data set was specified, or that the data set needs a DELETE/DEFINE in order to empty it.

FPQ0022E **Inconsistent *type* data set maximum RECORDSIZE.**
Record size:
PRI=*primary_type_recordsize*,
SEC=*secondary_type_recordsize*
Repository:*repository_name*

Explanation

The primary and secondary RID or RMD data sets do not have the same RECORDSIZE option. The primary RID must have the same RECORDSIZE option as the secondary RID. The primary RMD must have the same RECORDSIZE option as the secondary RMD. The server identifies and raises this error only when trying to open the repository.

type
Either RID or RMD

primary_type_recordsize
The RECORDSIZE option of either the primary RID or RMD (depending on *type*).

secondary_type_recordsize
The RECORDSIZE option of either the secondary RID or RMD (depending on *type*).

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Define primary and secondary RMD data sets with the same maximum RECORDSIZE values.

FPQ0023I **Recoverable data set combination identified.**
Repository:*repository_name*
Primary RID:*primary_rid_data_set_state*
Primary RMD:*primary_rmd_data_set_state*
Secondary RID:*secondary_rid_data_set_state*
Secondary RMD:*secondary_rmd_data_set_state*

Explanation

During repository open processing, Service Repository found that one or more data sets needs to be recovered and can be recovered.

System action

The repository server proceeds with repository data set recovery processing.

User response

None. This message is informational.

FPQ0024E **Non-recoverable data set combination identified.**
Repository:*repository_name*
Primary RID:*primary_rid_data_set_state*
Primary RMD:*primary_rmd_data_set_state*
Secondary RID:*secondary_rid_data_set_state*
Secondary RMD:*secondary_rmd_data_set_state*

Explanation

When trying to open a repository the server determined that recovery is required but cannot be performed. The state can be one of the following:

Empty data set detected
One or more data sets are empty.

Update-in-progress state
One or more of the data sets appear to have had an incomplete write operation.

Data set consistency token *token*
The data sets do not have the same consistency tokens suggesting that one or more of the data sets belongs to another repository. A recovery will not be attempted.

Last-update timestamp *timestamp*
The last-update timestamp of the repositories is inconsistent, suggesting an incomplete write operation. The time stamp format is:

```
YYYY/MM/DD HH:MM:SS.thmiju
```

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, Service Repository will terminate.

User response

Correct the repository data sets, restart them (with total loss of data), or recover them from backups if available. Search for message FPQ0024I for additional information.

FPQ0025I **Repository data set initialization successful.**
Repository:*repository_name*

Explanation

During repository open processing, all repository data sets were found to be empty and have subsequently been successfully initialized.

System action

Repository open processing continues.

User response

None. This message is informational.

FPQ0026I **Recovery of the *data_set_type* data set successful.**
Repository:*repository_name*

Explanation

The repository *repository_name* was successfully recovered. The data set which was recovered can be found by identifying which data set is used for the *data_set_type* of that repository.

data_set_type
Specifies whether the data set was the primary or secondary, the RID or the RMD.

System action

Information message only.

User response

None. This message is informational.

FPQ0027I **Error during phase *n* update process.**
Repository . . . :*repository_name*

Explanation

An error has occurred during the 2-phase update process for the given repository data set.

System action

The given repository is stopped, and needs recovery. If the failure was in phase 1, then the primary RID and RMD data sets are in-error, and the unit-of-work being committed at the time of error is rolled back. If the failure was in phase 2, then the secondary RID and RMD data sets are in-error, and the unit-of-work being committed at the time of error was successful.

User response

Address the reason for the failure and restart the repository.

FPQ0028E **VSAM function error:*function* RC=*VSAM_return_code* RPLERRCD=*RPL_error_code*. DSN=*data_set_name***

Explanation

An unsupported error condition occurred on a VSAM function call.

function
The type of VSAM function performed:

- VERIFY
- POINT
- GET
- PUT
- ERASE

VSAM_return_code
The VSAM return code.

RPL_error_code
The RPL error code.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, the repository server will terminate.

User response

Refer to *z/OS DFSMS Macro Instructions for Data Sets* for a complete description of the VSAM error.

FPQ0029E **Unable to load module *module*: *description***

Explanation

As part of server initialization, the server attempted to perform a LOAD for a routine and the LOAD failed.

module
Name of the module that could not be loaded.

description
One of the following:

- Module not found
- BLDL for module failed
- LOAD for module failed
- BPELOAD RC=*BPE_return_code*

System action

The repository server will terminate.

User response

If possible, resolve the condition and restart the server. Otherwise, contact IBM.

FPQ0030E **Data decompression error: *description***

Explanation

A compressed RMD member as been detected, however decompression is not supported on the current platform.

description
One of the following:

- Unsupported on current MVS level
- Up-level data compression detected
- Invalid data compression detected
- CSRCESRV RC=*macro_return_code*

System action

The calling function fails and processing continues.

User response

Start the repository server on a platform that is compatible with the one the repository member data was written on.

FPQ0031E **VSAM resource pool build failure: *description***

Explanation

An error occurred on build VSAM resource pool (BLDVRP) during server initialization.

description
One of the following:

- Insufficient virtual storage

- BLDVRP *macro_return_code*

System action

The repository server will terminate.

User response

Refer to *z/OS DFSMS Macro Instructions for Data Sets* for a complete description of the BLDVRP error. Correct the issue and restart the server.

FPQ0032E **Repository data set control interval exceeds VSAM_BUFSIZE. DSN=*data_set_name***

Explanation

During repository open processing, a repository data set was found to have a control interval size that exceeded the VSAM shared pool buffer size.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, the repository server will terminate.

User response

Ensure that the data set name is correct, or modify the VSAM_BUFSIZE configuration parameter so that the buffer size is equal to or larger than the CI size of the given repository data set.

Note: Consideration must be given to both the DATA and INDEX components of the data set.

FPQ0033I **Error during CONTROL SET function processing. Repository: *repository***

Explanation

An error has occurred during CONTROL SET processing for the given repository data set, leaving the repository CONTROL data (for example, history retention table and search fields tables) potentially inconsistent.

System action

The given repository is stopped.

User response

Contact IBM Software Support.

Note: A restart of the repository will reestablish CONTROL data integrity.

FPQ0034E **Repository data set in use by another job or user. DSN=*data_set_name***

Explanation

During repository open processing, a repository data set was found to be unavailable.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, the repository server will terminate.

User response

Retry after ensuring that the data set is available.

FPQ0035E **VSAM unable to extend data set: RC=*return_code* RPLERRCD=*RPL_error_code*. DSN=*data_set_name***

Explanation

A repository data set was unable to be extended, causing the repository update process to fail.

System action

The repository is placed in the stopped state and cannot be accessed. If the repository is the catalog, the repository server will terminate.

User response

Refer to *z/OS DFSMS Macro Instructions for Data Sets* for a more complete description of the VSAM error. Resolve the cause of the data set extension failure, then restart the repository.

FPQ0036E **Invalid SPARE RDS data sets. *RDSn* is now discarded. Repository...:*repository_name* Description..:*description***

Explanation

Data set validation has failed for an RDS that was designated as a SPARE, where:

RDSn
RDS number 1, 2, or 3.

description
One of the following:

- Data set open-time error
- Data sets not empty

- RECORDSIZE inconsistent with other RDS

System action

The RDS is discarded.

User response

Correct the data set issues that caused the RDS to be discarded. DSCHANGE can then be used to alter the RDS status from DISCARD to SPARE.

FPQ0037I ***RDSn* status has been changed to *status*. Repository...: *repository_name***

Explanation

The status of a repository data set pair has been changed. This can occur when an ADMIN command is used to change the type of a repository data set pair to SPARE or DISCARD; or dynamically in a repository error scenario, for example, a physical I/O error during a two-phase update.

In the message text:

RDSn
The repository data set number 1, 2, or 3.

status
The repository data set type SPARE or DISCARD.

System action

The server continues.

User response

None. This message is informational.

FPQ0038I ***VSAM physical error message text***

Explanation

This message contains the supporting information that is printed when an FPQ0028E message is issued that represents a VSAM physical error (RC=12).

System action

Refer to message "FPQ2028E" on page 144.

User response

For a complete description of the VSAM error, see *z/OS DFSMS Macro Instructions for Data Sets*.

FPQ0039I **Spare *RDSn* has been assigned *status* status. Repository...: *repository_name***

Explanation

A SPARE repository data set pair has been assigned COPY1 or COPY2 status. This occurs as part of repository recovery when COPY1 or COPY2 has been discarded.

In the message text:

RDSn
The repository data set number 1, 2, or 3.

status
The repository data set type COPY1 or COPY2.

System action

The server continues.

User response

None. This message is informational.

FPQ0040E **Repository cannot be started: *reason*. Repository...: *repository_name* RDS1 status..: *status* RDS2 status..: *status* RDS3 status..: *status***

Explanation

The repository cannot be started due to *reason*.

In the message text:

reason

SPARE RDS required
During repository start or open processing, it was determined that the repository cannot be started because a COPY1 or COPY2 repository data set needs to be recovered but there is no SPARE recovery data set to facilitate this recovery.

No COPY1 or COPY2 RDS
During repository start or open processing, it was determined that the repository cannot be started because there are no repository data sets with COPY1 or COPY2 status. This is a Service Repository error.

status
The repository data set type COPY1, COPY2, or SPARE.

System action

The repository is stopped and cannot be accessed.

User response

Take the appropriate action depending on *reason*:

SPARE RDS required
Reset the discarded data sets and change the associated repository data set status to SPARE.

Tip: If the data sets were discarded because they could not be extended, increase the data sets size.

No COPY1 or COPY2 RDS
Perform the following steps:

Important: Make a backup copy before performing the following steps. Reinitializing the repository data sets results in complete loss of data.

1. Reinitialize or recover the data sets from backups if available.
2. Redefine the user repository to establish RDS1 as COPY1 and RDS2 as COPY2.

FPQ1001E **Configuration error: *xxxxxx***

Explanation

An error in the JCL initialization script prevented the Service Repository server from initializing. Depending on the message description, this could have been because of a missing keyword, parameter, or a reference to an invalid PDS member. For example, a member that does not exist.

System action

Job terminated.

User response

Review the startup JCL, ensure all parameters are valid, and rerun the job.

FPQ1002E **Error processing PROCLIB member *xxxxxxxx xxx***
Return Code: *xxx*
Description: *xxxxxx*

Explanation

Error reading PROCLIB member
OPEN failed for PROCLIB PDS
PROCLIB PDS not in fixed format
PROCLIB member not found

System action

Job terminated.

User response

Review the startup JCL, ensure all parameters are valid, rerun the job.

FPQ1003I ***xxxxxx***

Explanation

These are informational messages indicating the processing stage.

System action

None.

User response

None. This message is informational.

FPQ1004E **Error in parameter parser: BPECBGET RC= *xxxx***

Explanation

System action

User response

Correct the invalid parameter.

FPQ1005E **Parameter parser has identified an error.**
Member: *xxxx*
Line: *xxxx*
Position: *xxxx*
Description: *xxxxxx*
Reason code: *xxx*

Explanation

Invalid keyword detected
Unknown positional parameter
Sublists must use parentheses
Input ended before end of parsing
Keyword encountered when value expected
Number is out of range
Invalid digits found in decimal field
Invalid digits found in hex field
Key value invalid
Duplicate keyword found
A required parameter was not found
Value is longer than field length

System action

Job terminated.

User response

Correct the invalid parameter.

FPQ1006E **Parameter parser has identified an error.**
Member: *xxxxxxxx*
Line: *xxx*
Position: *xxxxx*
Description: Value must be in the range 4 through 32 and divisible by 4

Explanation

System action

User response

Correct the invalid parameter.

FPQ1007E **Invalid XCF group name specified: *xxxxxxxx***

Explanation

System action

User response

Provide a valid XCF group name.

FPQ1008E **Invalid number of XCF threads specified: *xxxx***
Valid range is 4 through 99.

Explanation

System action

User response

Provide a valid range.

FPQ1009E **Invalid core size specified: *xxxx***
Valid range is 32 through 4096 (K).

Explanation

System action

User response

Provide a valid range.

FPQ1010E **Invalid SAF class name specified: *xxxx***

Explanation

System action

User response

Provide a valid SAF class name.

FPQ1011E **Invalid number of VSAM buffers specified: *xxxxx***
Valid range is 3 through 65535.

Explanation

System action

User response

Provide a valid range.

FPQ1012E **Invalid maximum retry count specified: *xxx***
Valid range is 1 through 255.

Explanation

System action

User response

Provide a valid range.

FPQ1013E **Invalid TCP/IP port number specified: *xxxxx***
Valid range is 0 through 65535.

Explanation

System action

User response

Provide a valid range.

FPQ1014E **Invalid TCP/IP thread number specified: *xxx***
Valid range is 0 through 999.

Explanation

System action

User response

Provide a valid range.

FPQ1015E **SAF class not defined: *xxxxx***

Explanation

The SAF class could not be identified. Possible reasons:

Security (RACF) not installed.
The class was not defined.

System action

The server will terminate.

User response

Correct the FPQ configuration parameter member if the SAF class is not as expected, or make sure the SAF class is defined.

FPQ1016E **Invalid DSN specified: *description***

Explanation

A server configuration parameter that specifies one of the Catalog repository data set names is invalid.

In the message text:

description
The Catalog repository data set that contains the invalid name.

System action

The server terminates.

User response

Correct the parameter value and rerun the job.

FPQ1018E **Invalid AUDIT_LOG specified: <*logname*>**

Explanation

The value specified in the AUDIT_LOG server configuration parameter is not a valid MVS log stream name. In the message text:

logname
The value of the AUDIT_LOG parameter specified in the FPQ configuration member.

System action

The server terminates.

User response

Correct the parameter value and rerun the job.

FPQ1019E **Invalid AUDIT_ID number specified: <*nnn*>. Valid range is 160 through 255.**

Explanation

The value specified by the AUDIT_ID server configuration parameter is invalid. The value must be in the range 160 - 255.

In the message text:

nnn
The value of the AUDIT_ID parameter specified in the FPQ configuration member.

System action

The server terminates.

User response

Correct the parameter value and rerun the job.

FPQ2001I **Subordinate repository server status obtained.**

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2002I **Master repository server status obtained.**

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2003I Attempting to become master repository server.

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2004I FPQPRINT DD not defined. Trace facility not available.

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2005I Shutdown command received, server terminating.

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2007I Shutdown command received, notifying all repository servers to shut down.

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2009E TCP/IP port *port_number* in use

Explanation

The TCP/IP port specified by *port_number* is currently in use. In the message text:

port_number
The value of the TCPIP_PORT parameter specified in the FPQ configuration member.

System action

The server continues without TCP/IP support.

User response

Do either of the following:

- Retry the operation. The TCP/IP can take up to 2 minutes to free a port.
- Change the TCPIP_PORT parameter specified in the FPQ configuration member.

FPQ2010I TCP/IP using port *port_number*

Explanation

The server is using TCP/IP port *port_number*. In the message text:

port_number
The value of the TCPIP_PORT parameter specified in the FPQ configuration member.

System action

None.

User response

None. This message is informational.

FPQ2011E Shutdown command rejected, shutdown in progress.

Explanation

The shutdown command entered was rejected because the system is already processing a shutdown command.

System action

None.

User response

None.

FPQ2012I **Opening repository: *xxxxxxx***

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2013I **Closing repository: *xxxxxxx***

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2014I **Repository start request initiated: *xxxxxx***

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2015I **Repository stopped: *xxxxxxxx***

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2016I **Repository opened: *xxxxxxx***

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2017I **Repository closed: *xxxxxx***

Explanation

Information message only.

System action

None.

User response

None. This message is informational.

FPQ2018E **Unable to open repository.**
Repository: *xxxxxxx*
Description: Catalog definition member is in use

Explanation

System action

User response

Retry at a later time.

FPQ2020I **Repository stop request initiated: *repository***

Explanation

The repository server received a request to stop the repository *repository*. The asynchronous process to perform this action has been initiated.

System action

The originator of the STOP request is notified that the request was accepted. The asynchronous process to perform the STOP action continues.

User response

None. This message is informational.

FPQ2021I Repository started: *repository*

Explanation

The repository *repository* is started. An ADMIN START request for repository *repository* was driven from the console.

System action

None.

User response

None. This message is informational.

FPQ2022E Repository unavailable: *repository*

Explanation

This message indicates that the repository *repository* is unavailable for processing. The message is issued if:

- The Catalog repository is unavailable during server initialization. The server terminates.
- An ADMIN command for repository *repository* is suppressed. This occurs when a repository is temporarily unavailable due to an in-progress state change, for example, the repository is in the process of being stopped.

System action

- If the message is issued because the Catalog repository is unavailable, the server terminates.
- If the message is issued because of a suppressed ADMIN command, there is no system action.

User response

Review the status of repository *repository* and reissue the command if applicable.

FPQ2023E Repository not found: *repository*

Explanation

An ADMIN command for repository *repository* was received, but the request could not be performed because the specified repository is unknown.

System action

None.

User response

Correct the repository name and reissue the command.

FPQ2024E Request ignored, repository already started | stopped: *repository*

Explanation

An ADMIN=START or ADMIN=STOP command for repository *repository* was received, but the request was ignored because the repository is already in the requested state.

System action

None.

User response

None.

FPQ2025I Server start completed

Explanation

The server is now ready to accept client connections.

System action

None.

User response

None. This message is informational.

FPQ2026I XCF group *group* joined successfully

Explanation

The XCF group was successfully joined. The IMS Tools KB server can now accept XCF registrations and connections for XCF group *group*. In the message text:

group
The XCF group name in the FPQ configuration member.

System action

None.

User response

None. This message is informational.

FPQ2027E Unable to connect to audit log stream, server terminating

Explanation

The log stream is unavailable and AUDIT_FAIL=ABORT was specified in the server configuration parameters.

System action

The IMS Tools KB server terminates.

User response

Ensure that the AUDIT_LOG parameter specifies a valid log stream name and that the log stream is set up correctly. Optionally, bypass the audit log by setting AUDIT_FAIL=CONTINUE or AUDIT=NO.

FPQ2028E DUMPTRACE | DUMPSTATS command ignored because FPQPRINT DD not allocated

Explanation

A MODIFY DUMPTRACE or DUMPSTATS command was issued but the DD name FPQPRINT was not found or was not open.

System action

The command is ignored and the IMS Tools KB server continues.

User response

Ensure that the DD FPQPRINT is available on the next restart of the server.

FPQ2029E Log stream connection failed RC=*rc* RSN=*rsn*

Explanation

The log stream connection (IXGCONN) failed. In the message text:

rc
The IXGCONN return code.

rsn
The IXGCONN reason code.

System action

If AUDIT_FAIL=ABORT, the server terminates, otherwise, no system action.

User response

Check the return and reason codes to determine the cause of the error. Optionally, bypass the audit log by setting AUDIT_FAIL=CONTINUE or AUDIT=NO.

FPQ2030E ENF listener activation failed RC=*rc*

Explanation

The ENF listener activation (ENFREQ) failed. In the message text:

rc
Indicates the ENFREQ return code.

System action

If AUDIT_FAIL=ABORT is specified, the server terminates.

User response

Check the return code to determine the cause of the error. For a complete description of ENFREQ return codes, see *z/OS MVS Programming: Authorized Assembler Services Reference, Vol 2 (EDT-IXG)*. You can optionally bypass the audit log by setting AUDIT_FAIL=CONTINUE or AUDIT=NO.

FPQ2031I Audit logging suspended due to CONNECT | WRITE RC=*rc* RSN=*rsn*

Explanation

Audit logging is suspended due to an outstanding error while connecting to or writing to the log stream (IXGCONN REQUEST=CONNECT or IXGWRITE).

Important: If AUDIT_FAIL=CONTINUE is specified, it is possible that records might be missing from the audit log because logging is suspended.

System action

- If AUDIT_FAIL=CONTINUE is specified, the server continues.
- If AUDIT_FAIL=ABORT is specified and the error occurred on CONNECT during server startup, the server shuts down.
- If AUDIT_FAIL=ABORT is specified and the error occurred on WRITE, the server waits until either the problem is resolved automatically, the server is shut down, or the problem is resolved manually and a

MODIFY AUDIT RESTART command is successfully issued. No logging is performed until the problem is resolved. This message is reissued every 60 seconds until audit logging resumes.

User response

Repair the logging problem and issue a MODIFY AUDIT RESTART command to restart the logging service.

FPQ2032I Audit logging resumed

Explanation

The audit logging error has been corrected. Auditing will continue.

Important: If AUDIT_FAIL=CONTINUE is specified, it is possible that records might be missing from the audit log because logging is suspended.

System action

None.

User response

None. This message is informational.

FPQ2033E Unexpected TCPIP response. IP operation was *operation*, ERRNO was *errno*

Explanation

The Service Repository received an unexpected IP network response while attempting to perform a function by using the IP network.

System action

The Service Repository server attempts to continue processing without the IP network connection.

User response

To determine the recommended action, see the sockets return codes (ERRNOs) in *z/OS Communications Server: IP Sockets Application Programming Interface Guide and Reference*.

FPQ2034I Lost XCF client Sysname=*MVS_system* Jobname=*client_job_name*, response discarded

Explanation

This is a response to a z/OS cross-system coupling facility (XCF) client request that could not be sent by the Repository Server and has been discarded. This error occurs if the client fails (for example, the client is canceled) while the repository server is processing the request on behalf of the client.

In the message text:

MVS_system
Indicates the MVS system name of the XCF client.

client_job_name
Indicates the job name of the XCF client.

System action

None.

User response

For more information, look up RC=8, RSN=IXCMSGORSNTARGETNOTVALID for the IXCMSGO macro in *z/OS MVS Programming: Sysplex Services Reference*.

FPQ2100I ADMIN DISPLAY repository *repository* - Last updated date/time : *date_time userID* - Status . . . . . : *status* - Auto-open . . . . . : *autoopen_flag* - Security Class . . . . : *class*

Explanation

This message shows the result of the following console z/OS MODIFY ADMIN command:

```
F server,ADMIN DISPLAY(repository)
```

In the message text:

repository
Indicates the name of the IMSRSC repository.

date_time
Indicates the date and time the repository was last updated.

userID
Indicates the user ID of the user who last updated the repository.

status
Indicates the status of the repository.

autoopen_flag
Indicates whether the repository data set is allocated when the repository is started.

class
Indicates the name of the security class.

System action

Processing continues.

User response

None. This message is informational.

FPQ2101I **ADMIN DISPLAY repository RDS*n*:**
- Index (RID) . . :
RID_data_set_name
- Member (RMD) . :
RMD_data_set_name
- Status . . . . : *status*

Explanation

This message shows the result of the following console z/OS MODIFY ADMIN command:

```
F server,ADMIN DISPLAY(repository)
```

This is a supplement to FPQ2100I and is displayed once for each defined repository data set pair.

In the message text:

RDS*n*
Indicates the repository data set number: 1, 2, or 3.

RID_data_set_name
Indicates the name of the repository index data set (RID).

RMD_data_set_name
Indicates the name of the repository member data set (RMD).

status
Indicates the status of the named repository.

System action

Processing continues.

User response

None. This message is informational.

FPQ2102I ***repository repository_status update_date update_userID RDS1_status RDS2_status RDS3_status***

Explanation

This message shows the result of the following console z/OS MODIFY ADMIN command:

```
F server,ADMIN DISPLAY()
```

This message is repeated for each repository.

In the message text:

repository
Indicates the name of the repository.

repository_status
Indicates the current status of the repository.

update_date
Indicates the last updated date of the repository.

update_userID
Indicates the user ID by which the repository was last updated.

RDS1_status
Indicates the status of RDS1.

RDS2_status
Indicates the status of RDS2.

RDS3_status
Indicates the status of RDS3.

System action

Processing continues.

User response

None. This message is informational.

FPQ2103I **Audit level changed from *old_level* to *new_level***

Explanation

This message shows the result of the following console z/OS MODIFY AUDIT command:

```
F server,AUDIT LEVEL(new_level)
```

In the message text:

old_level
Indicates the old audit level of the repository.

new_level
Indicates the new audit level of the repository.

System action

Processing continues.

User response

None. This message is informational.

FPQ2104I **Audit level unchanged from *old_level***

Explanation

This message shows the result of the following console z/OS MODIFY AUDIT command:

```
F server,AUDIT LEVEL(new_level)
```

In the message text:

old_level
Indicates the old audit level of the repository.

System action

Processing continues.

User response

None. This message is informational.

FPQ2105I In-core user security profiles refreshed

Explanation

This message shows the result of the following console z/OS MODIFY SECURITY command:

```
F server,SECURITY REFRESH
```

System action

Processing continues.

User response

None. This message is informational.

FPQ2106E Security request rejected, CLASS not defined

Explanation

This message shows the result of the following console z/OS MODIFY SECURITY command:

```
F server,SECURITY REFRESH
```

Security settings cannot be refreshed because security is not active for this repository.

System action

Processing continues, but the security settings are not refreshed.

User response

Specify a security class in the SAF_CLASS parameter in the FPQ configuration file, then restart the server.

FPQ2107E DSCHANGE request rejected, *reason*

Explanation

This message shows the result of the following console z/OS MODIFY ADMIN DSCHANGE command:

```
F server,ADMIN DSCHANGE(repname,S|D,1|2|3)
```

In the message text:

reason
Indicates the reason of this error. The *reason* can be one of the following:

- Repository data set status is unchanged
- RDS status not available for this request
- DISCARD rejected; no SPARE repository data set
- DISCARD rejected; last COPY repository data set
- Invalid repository data set data sets
- Repository data set status changes detected
- Repository not STOPPED

System action

The command is not processed.

User response

View the repository details by using the ADMIN DISPLAY command, and examine the status of the repository data set before reissuing the command.

FPQ3001I STACKING PC - FPQ SUBSYSTEM INSTALLED

Explanation

The Service Repository subsystem has been installed and its initialization routine FPQCSSI2 has established a stacking PC.

It is still possible to get error message FPQ3005 after this, but the resolution of this error does not require the subsystem to be reinstalled.

See FPQ3005 description.

System action

None.

User response

None. This message is informational.

FPQ3002E STACKING PC - FPQ SUBSYSTEM NOT FOUND

Explanation

The subsystem with the subname FPQ could not be located in the systems SSCT.

System action

Subsystem initialization cannot take place. All API calls will fail with a reason code `RSN_FPQSS_NOT_FOUND (x'001')`

User response

Make sure the correct SUBSYS command has been issued, or the correct entry placed into the parameter library member IEFSSN*xx*.

FPQ3003E STACKING PC - FPQ SUBSYSTEM ALREADY INSTALLED

Explanation

The Service Repository subsystem should only be installed once. The FPQCRFSH utility can be used to refresh the FPQCXCF2 module.

System action

The second installation of the stacking PC is rejected.

User response

None.

FPQ3005E STACKING PC - MODULE FPQCXCF2 NOT LOCATED

Explanation

The Service Repository subsystem has successfully installed and established the stacking PC, but the client XCF module FPQCXCF2 can not be located in LPA.

System action

All API calls will fail with a reason code `RSN_NO_CLIENT_XCF (x'115')`

User response

Module FPQCXCF2 must be made available in LPA. Use the refresh utility FPQCRFSH in conjunction with the SETPROG LPA,ADD command to add FPQCXCF2 to LPA and allow the stacking PC code to locate it.

FPQ3006E STACKING PC - FPQ SUBSYSTEM NOT INITIALIZED

Explanation

This error message is issued by the refresh utility FPQCRFSH. It is issued if the FPQ subsystem is located but has not been initialized. This can happen if the initialization routine FPQCSSI2 was not available in LPA at the time the subsystem was installed.

System action

All API calls will fail with a reason code `RSN_CSSPC_ERR (x'110')`.

User response

The FPQ subsystem and stacking PC must be installed correctly. The system must be IPLed, FPQCSSI2 and FPQCXCF2 made available in LPA, and the FPQ subsystem reinstalled.

FPQ3007W MODULE FPQCXCF2 EYECATCHER INFORMATION HAS NOT CHANGED

Explanation

This error message is issued by the refresh utility FPQCRFSH. It is a warning to say that the version of module FPQCXCF2 just installed contains the same eyecatcher date and time as the one being replaced. The load module eyecatcher date and time are set at compile time, so this indicates that the same version of FPQCXCF2 has been reinstalled.

This may indicate that the system commands SETPROG LPA,DELETE and SETPROG LPA,ADD were either not issued, or issued incorrectly.

System action

None.

User response

Check system commands issued, and rerun the FPQCRFSH utility if necessary.

FPQ3008I STACKING PC - DYNAMICALLY ADDING FPQ2 SUBSYSTEM

Explanation

The refresh utility (FPQCRFSH) determined that the FPQ subsystem is not present. The FPQCRFSH utility will attempt to add the subsystem dynamically.

System action

Processing continues.

User response

Look for later message FPQ3001I, which will indicate the success of the dynamic subsystem add request, otherwise an error message is displayed.

FPQ3010I **ENTER SETPROG DELETE AND ADD COMMANDS, REPLY 'C' WHEN COMPLETED**

Explanation

This is the WTOR issued by the refresh utility FPQCRFSH.

System action

None.

User response

None. This message is informational.

FPQ3101E **XCF SRB FAILURE: FPQCMSRB - T*XXXX* REASON=*xxxxxxxx***

Explanation

XCF message exit (FPQCMSRB) hardcoded WTO message. The SRB's FRR routine has trapped an abend in order to report the event through this WTO message.

System action

User response

Analyze the abend dump.

FPQ3102E **XCF SRB FAILURE: FPQCGSRB - T*XXXX* REASON=*xxxxxxxx***

Explanation

XCF group exit (FPQCGSRB) hardcoded WTO message. The SRB's FRR routine has trapped an abend in order to report the event through this WTO message.

System action

User response

Analyze the abend dump.

FPQ3103E **XCF SRB FAILURE: FPQSMSRB - T*XXXX* REASON=*xxxxxxxx***

Explanation

XCF message exit (FPQSMSRB) hardcoded WTO message. The SRB's FRR routine has trapped an abend in order to report the event through this WTO message.

System action

User response

Analyze the abend dump.

FPQ3104E **XCF SRB FAILURE: FPQSGSRB - T*XXXX* REASON=*xxxxxxxx***

Explanation

XCF group exit (FPQSGSRB) hardcoded WTO message. The SRB's FRR routine has trapped an abend in order to report the event through this WTO message.

System action

User response

Analyze the abend dump.

FPQ3105E **XCF SRB FAILURE: FPQSSSRB - T*XXXX* REASON=*xxxxxxxx***

Explanation

XCF subordinate-server group exit (FPQSSSRB) hardcoded WTO message. The SRB's FRR routine has trapped an abend in order to report the event through this WTO message.

System action

User response

Analyze the abend dump.

FPQ3106E **XCF ERROR: FPQSMSRB - MSGX RC=*xx* REASON=*xxxxxxxx***

Explanation

XCF group exit (FPQSMSRB) hardcoded WTO message. Either an IXCMSGI (XCF input message) or IXCMSGO (XCF output message) macro has failed. This is not expected to occur, so this SRB event is recorded through this WTO.

System action

User response

Check with Systems Programming. Increase XCF control blocks.

FPQ3107E XCF SRB FAILURE: <*module*> - CB=*xxxx* ARCLEV=*xx*

Explanation

A failure occurred in a cross-system coupling facility (XCF) member exit. The service request block (SRB) has encountered an unsupported architecture level or control block.

In the message text:

module
Indicates the module in which the failure occurred. The *module* can be either FRPCMSRB (client-side exit) or FRPSMSRB (server-side exit).

xxxx
Indicates the data that was found in the control block where a control block eye-catcher was expected.

xx
Indicates the extracted architecture level that is not supported. The architecture level (ARCLEV) value is displayed if the eye-catcher represents a valid block.

System action

Indicates the extracted architecture level that is not supported. The architecture level (ARCLEV) value is displayed if the eye-catcher represents a valid block.

User response

Check that the client and the server are both running at the same maintenance level. Contact IBM Software Support.

FPQ3108E ENF ERROR: FPQSENF - MSG*x* RC=*xx* REASON=*xxxxxxxx*

Explanation

A failure occurred in the server-side ENF listener exit (FPQSENF). The functional recovery routine (FRR) of the service request block (SRB) has trapped the abend in order to report the event by using this message.

System action

Processing ends for the affected SRB.

User response

Verify that the client and the server are both running at the same maintenance level. Contact IBM Software Support.

FPQ3109E XCF SRB FAILURE: FPQCMSRB - SLOT MISMATCH

Explanation

A failure occurred in the client-side XCF member exit (FPQCMSRB). The service request block (SRB) identified a consistency token mismatch between a server response and the associated client slot.

System action

Processing ends for the affected SRB. The client might be placed in wait state.

User response

Contact IBM Software Support.

FPQ3110E XCF SRB FAILURE: FPQCMSRB - BAD SLOT STATE FLAG1=*xx*

Explanation

A failure occurred in the client-side XCF member exit (FPQCMSRB). The service request block (SRB) identified an issue while processing a server response. The state of the associated client slot was not as expected.

In the message text:

xx
Indicates the slot state flag byte. This value is returned for diagnostic purposes.

System action

Processing ends for the affected SRB. The client might be placed in wait state.

User response

Contact IBM Software Support.

FPQ3111I RESMGR FPQSRV RC=*rc*/*rsn* FC=*fc* FDBK=*xxxxxxxx xxxxxxxx xxxxxxxx*

Explanation

While attempting client FPQ object cleanup, the FPQ client-side RESMGR exit (FPQCRMGR) issued an FPQSRV request, but the request failed or ended in error. This message is issued to capture the feedback

for diagnostic purposes and might not represent any error.

In the message text:

rc
Indicates the return code for this error.

rsn
Indicates the reason code for this error.

fc
Indicates the FPQ function code that is listed in the FPQCRMGR macro.

xxxxxxxx xxxxxxxx xxxxxxxx
Indicates the feedback that was captured for diagnostic purposes.

System action

RESMGR processing attempts to continue.

User response

Capture diagnostic information on request from IBM Software Support.

FPQ3112E **RESMGR XCF2 RC=*rc*/*rsn* FC=*fc* FDBK=*xxxxxxxx xxxxxxxx xxxxxxxx***

Explanation

While attempting client FPQ client object cleanup, the FPQ client-side RESMGR exit (FPQCRMGR) issued an FPQ stacking PC (FPQCXCF2) request, but this request failed.

In the message text:

rc
Indicates the return code for this error.

rsn
Indicates the reason code for this error.

fc
Indicates the CSSP function code. This code is not defined in an API macro and is only of value to IBM Software Support.

xxxxxxxx xxxxxxxx xxxxxxxx
Indicates the feedback that was captured for diagnostic purposes.

System action

RESMGR processing attempts to continue.

User response

Contact IBM Software Support.

FPQ3113E **RESMGR DELETE UNSUCCESSFUL RC=*xx* TCB=*xxxxxxxx***

Explanation

While attempting client FPQ object cleanup, the FPQ client-side RESMGR exit (FPQCRMGR) failed in its attempt to delete the RESMGR for the task.

In the message text:

xx
Indicates the return code from the RESMGR macro.

xxxxxxxx
Indicates the TCB of the task where the RESMGR is running.

System action

RESMGR processing attempts to continue.

User response

Contact IBM Software Support.

FPQ4000E **Function *xxxxxx* failed with reason code *xxx***

Explanation

Service repository API function *xxxxxx* received an error with reason code RSN.

System action

Processing is stopped at the point of error.

User response

Refer to the FPQ reason codes section of this user's guide for a description of the error.

FPQ4001E **FPQ subsystem not found**

Explanation

The FPQ subsystem is not installed.

System action

No processing is performed.

User response

Ensure the installation of the FPQ subsystem was performed successfully.

FPQ4002E **XCF group *xxxxxx* not found**

Explanation

The XCF group as supplied in the PARM parameter on the job EXEC statement cannot be found.

System action

No processing is performed.

User response

Check the XCF group name set up in the Service Repository server configuration matches that supplied in the job parameters.

Check the Service Repository server has started successfully.

FPQ4003E **No FPQ server is active in the XCF group *xxxxx***

Explanation

The Service Repository server is not found in XCF group as supplied in the PARM parameter on the job EXEC statement.

System action

No processing is performed.

User response

Check the XCF group name set up in the Service Repository server configuration matches that supplied in the job parameters.

Check the Service Repository server has started successfully.

FPQ4004E **The FPQ server is in shutdown mode**

Explanation

Either an error has occurred and the server is in the processes of shutting down, or a shutdown command has been issued for the server and the server is in the process of shutting down.

System action

Processing is stopped at the point of error.

User response

Check the server's message log for error messages or shutdown request messages.

FPQ4005E **The FPQ server has shutdown or has failed**

Explanation

Either an error has occurred in the server, or a shutdown command has been issued for the server and the server is no longer active.

System action

Processing is stopped at the point of error.

User response

Check the server's message log for error messages or shutdown request messages.

FPQ4006E **The FPQ server is busy, try again later**

Explanation

System action

Processing is stopped at the point of error.

User response

Try resubmitting the JCL.

FPQ4008E ***xxxxxx* repository not found**

Explanation

The server could not find the named repository.

System action

Processing is stopped at the point of error.

User response

Ensure that the supplied repository name is correct, or check the server message log for error messages.

FPQ4009E ***xxxxxx* repository not available**

Explanation

The repository might be stopped, in the process of stopping, or in error.

System action

Processing is stopped at the point of error.

User response

Check the server message log to establish the cause. If the repository is in stopped status, it can be started again with a START command. If the cause is due to an error, contact IBM Software Support.

FPQ4010E User has insufficient access

Explanation

Function call rejected by SAF due to lack of authority.

System action

No processing is performed.

User response

Ensure that you have defined the SAF security as required.

FPQ4014E *xxxxxxx* is in use

Explanation

An update or delete of a repository definition has been requested, but the repository definition is locked for use by another job or user.

System action

Processing is stopped at the point of error.

User response

Try resubmitting batch commands from the one in error.

FPQ4022E Repository *repository_name* already defined in the catalog

Explanation

An attempt was made to add a repository to the Catalog repository, but a repository of the same name already exists.

System action

Processing is stopped.

User response

Specify a unique repository name and retry.

FPQ4031E Catalog busy, repository definition entry *repository_name* is not available

Explanation

The entry in the Catalog repository for the repository *repository_name* is currently unavailable. The Catalog repository was in the process of making another, conflicting update.

System action

The command was rejected.

User response

Retry later.

FPQ4032E Repository *repository_name* is not in stopped status

Explanation

A repository must be stopped before you can attempt to update or delete it.

System action

Processing is stopped.

User response

Issue a stop request against the repository. Check the server message log for the stop completed message.

FPQ4040W Repository *repository_name* RDS status is unchanged

Explanation

The repository data set status is unchanged. The repository data set is already in the required state.

System action

Processing continues.

User response

None.

FPQ4041E Repository *repository_name* RDS status not applicable

Explanation

The status of the repository data set is not applicable to this request. This message is issued when, for example, you attempt to use a repository data set that has a status of COPY1 or COPY2 as a SPARE data set.

System action

Processing is stopped.

User response

Display the repository information and check its current state. Check the server message log for error messages.

FPQ4042E **Repository *repository_name* DISCARD rejected, need SPARE RDS**

Explanation

A discard request was rejected because a SPARE repository data set is not available. This message is issued when, for example, you attempt to discard a COPY1 or COPY2 IMSRSC repository data set when there is no SPARE repository data set available.

System action

Processing is stopped.

User response

Display the repository information and check its current state. Check the server message log for error messages.

FPQ4043E **Repository *repository_name* DISCARD rejected, last COPY RDS**

Explanation

A discard request was rejected because this is the last available COPY repository data set. This message is issued when, for example, you attempt to discard a COPY1 repository data set when there is no COPY2 repository data set.

System action

Processing is stopped.

User response

Display the repository information and check its current state. Check the server message log for error messages.

FPQ4044E **Repository *repository_name* RDS data sets invalid**

Explanation

The repository data sets are invalid. This message is issued when, for example, you attempt to copy a discarded repository data set to the SPARE repository data set but the basic validation for the data sets fails.

System action

Processing is stopped.

User response

Display the repository information and check its current state. Check the server message log for error messages.

FPQ4045E **Repository *repository_name* RDS data sets not empty**

Explanation

The repository data sets are not empty. This message is issued when, for example, you attempted to change the status of a repository data set pair from DISCARD to SPARE but the data sets are not empty. In this case, the status of the repository data set is not changed and remains in a discarded state.

System action

Processing is stopped.

User response

Display the repository information and check its current state. Check the server message log for error messages.

FPQ4046E **Resultant repository definition is invalid. Request rejected.**

Explanation

An ADD or UPDATE batch request for the repository definition was rejected because an error was detected during validation of the repository definition.

System action

Processing is stopped.

User response

Review the parameter values that are specified in the request, correct any errors, and try the request again. If this is an UPDATE request, the specified parameter values must be considered in the context of the current repository definition.

FPQ4273E **Server error. Feedback: *xxxxxx xxxxxx xxxxxx***

Explanation

An unexpected error occurred on the server.

System action

Processing is stopped at the point of error.

User response

Contact IBM Software Support.

FPQ4700E **SYSPRINT DD is missing**

Explanation

The SYSPRINT DD was not specified in the JCL.

System action

Processing is stopped immediately.

User response

Specify the SYSPRINT DD in the JCL and retry.

FPQ4701E **Error opening SYSPRINT file, RC=*xxx***

Explanation

Error opening SYSPRINT file.

System action

Processing is stopped immediately.

User response

Refer to the *z/OS DFSMS Macro Instructions for Data Sets* for OPEN macro return codes.

FPQ4702E **SYSIN file missing**

Explanation

The SYSIN DD was not specified in the JCL.

System action

Processing is stopped immediately.

User response

Specify the SYSIN DD in the JCL and retry.

FPQ4703E **Error opening SYSIN file. RC= *xxx***

Explanation

Error opening SYSIN file.

System action

Processing is stopped immediately.

User response

Refer to *z/OS DFSMS Macro Instructions for Data Sets* for OPEN macro return codes.

FPQ4704E **Virtual storage obtain request failed. Length= *xxxx***

Explanation

The specified amount of storage could not be obtained.

System action

Processing is stopped immediately.

User response

Increase the REGION size of your job. If this does not correct the problem, contact IBM Software Support.

FPQ4705E **XCFGROUP must be supplied in the PARM parameter on the job EXEC statement**

Explanation

Parameters are required that must be supplied using the PARM parameter of the job EXEC statement.

System action

Processing is stopped immediately.

User response

Supply the required parameters in the job EXEC statement and retry.

FPQ4706E **The *xxxxxxx* parameter is invalid.**

Explanation

The parameter value supplied in the job PARM parameter is invalid.

System action

Processing is stopped immediately.

User response

Correct the required parameters in the job EXEC statement and retry.

FPQ4710E The command *xxxxx* is unknown

Explanation

Unrecognized command in SYSIN data.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4711E The parameter *xxxxx* is unknown

Explanation

The named parameter is not valid for the current command.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4712E *xxxxxx* parameter parentheses error

Explanation

Parameter values must be enclosed in parentheses.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4713E *xxxxxxx* parameter value length error

Explanation

Error in parameter value specification.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4714E *xxxxxxxxx* parameter value is invalid

Explanation

Error in parameter value specification.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4715E Too many values specified for parameter *xxxxxx*

Explanation

Parameter specification error.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4716E *xxxxxxxx* parameter requires a value

Explanation

Parameter requires a value.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4717E The parameter *xxxxxxx* is required

Explanation

The named parameter is required for the current command.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data.

FPQ4718E The repository name CATALOG is reserved and cannot be used

Explanation

The name CATALOG is used internally and cannot be used as a repository name.

System action

Input checking continues, but no processing is performed.

User response

Choose another repository name and retry.

FPQ4719E Specify either STATUS or a repository name

Explanation

Cannot specify both STATUS and a repository name.

System action

Input checking continues, but no processing is performed.

User response

If you require a list of the status of all repositories specify STATUS only. If you require the details of a single repository, specify the repository name only.

FPQ4720E Parameter *xxxxx* already specified

Explanation

Only one occurrence of the named parameter is allowed for the command.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data and resubmit job.

FPQ4721E The CATALOG uses one or more of the VSAM data sets specified

Explanation

Specifying the catalog VSAM data sets for a user repository is not allowed.

System action

Input checking continues, but no processing is performed.

User response

Correct the input statement in the SYSIN data and resubmit job. Refer to the FPQ configuration parameter member to see which data sets are in use by the catalog.

FPQ4730E Cannot connect to the CATALOG

Explanation

An attempt to connect to the CATALOG failed. The reason why is described in the message following FPQ4730.

System action

No processing is performed.

User response

Check the message following FPQ4730, correct problem, and retry.

FPQ4731E Repository *xxxxxxxx* already defined in the catalog

Explanation

An attempt was made to ADD a repository to the catalog, but a repository of the same name already exists.

System action

Processing stopped.

User response

Choose a unique repository name and retry.

FPQ4732W **Repository *xxxxxxxx* does not exist in the catalog**

Explanation

An attempt was made to DELETE a repository from the catalog, but it does not exist in the catalog.

System action

Warning only. Processing continues.

User response

None.

FPQ4733W **Repository *xxxxxxxx* is already started**

Explanation

An attempt was made to change the repository state to started, but the repository is already in the started state.

System action

Warning only. Processing continues.

User response

None.

FPQ4734W **Repository *xxxxxxx* is already stopped**

Explanation

An attempt was made to change the repository state to stopped, but the repository is already in a stopped state.

System action

Warning only. Processing continues.

User response

None.

FPQ4735E **Repository *xxxxxx* is not in stopped status**

Explanation

A repository must be in stopped status before you can update or delete it.

System action

Processing stopped.

User response

Issue a stop request against the repository. Check the server message log for the stop completed message.

FPQ4736I **The catalog is empty**

Explanation

There are no repositories defined in the catalog.

System action

None.

User response

None. This message is informational.

FPQ4737I **The repository START|STOP request has been scheduled successfully**

Explanation

The repository request (START or STOP) was scheduled successfully.

System action

Processing continues.

User response

None. This message is informational.

FPQ4739W **Repository *repository-name* is not *state*, processing continues**

Explanation

A repository START or STOP request has not completed successfully within the MAXWAIT time, and the CONTINUE processing option has been specified.

State values are STARTED or OPEN, CLOSED or STOPPED.

The OPEN state is checked on START if AUTOOPEN=YES.

The CLOSED state occurs after the STOPPED state, and must be reached to release the repository resources.

System action

Processing continues.

User response

Use the List Repositories administration panel to display the repository information and check its current state. Check the server message log for error messages. If necessary, increase the MAXWAIT time.

FPQ4740W **Repository *repository-name* is not *state*, processing aborted**

Explanation

A repository START or STOP request has not completed successfully within the MAXWAIT time, and the ABORT processing option has been specified.

State values are STARTED or OPEN, CLOSED or STOPPED.

The OPEN state is checked on START if AUTOOPEN=YES.

The CLOSED state occurs after the STOPPED state, and must be reached to release the repository resources.

System action

Processing stops.

User response

Use the List Repositories administration panel to display the repository information and check its current state. Check the server message log for error messages. If necessary, increase the MAXWAIT time, or change the processing option from ABORT to CONTINUE.

FPQ4741W ***repository_name* repository not found**

Explanation

The server could not find the repository *repository_name*.

System action

Processing continues.

User response

Make sure that the repository name that you provided is correct. Check the server message log for error messages.

FPQ4750I ***xxxxxxxx* command processed successfully**

Explanation

Statement processed successfully.

System action

None.

User response

None. This message is informational.

FPQ4751E ***xxxxxx* command not processed due to previous errors**

Explanation

A previous command has received an error. No more processing is performed.

System action

Processing stopped at the point of error.

User response

Locate the command in error by checking previous messages. Correct the errors and resubmit the JCL statements from this point forward.

FPQ4752E **No processing performed due to previous errors**

Explanation

Syntax checking of the SYSIN input found errors. No processing of any command took place.

System action

No processing is performed.

User response

Check previous errors and correct the SYSIN data.

FPQ4753I ***command_name* command processing completed with warnings**

Explanation

The command processing completed with warnings.

In the message text:

command_name
Indicates the name of the command.

System action

Processing continues.

User response

Locate the command with warnings by checking previous messages. If warnings are significant, correct the errors and resubmit JCL statements from this point onwards.

FPQ4999E **Message *xxxxxxx* cannot be formatted, reason code *xxxx***

Explanation

There is an error with the batch message formatter.

System action

User response

Contact IBM Software Support.

FPQ8001E **DUMPTRACE command ignored because FPQPRINT DD not allocated**

Explanation

System action

User response

Provide the FPQPRINT DD statement when using the DUMPTRACE command.

Chapter 15. HKT return and reason codes (repositories)

This reference section provides detailed information about the return and reason codes issued by the IMS Tools Knowledge Base repositories.

Errors not listed in this table are internal errors and should be reported to IBM Software Support.

Table 21. Return and reason codes reported by IMS Tools

Return code	Reason code	Message text
4 (04)	27 (1B)	HKT2300E No RECON entries in the registry
28 (1C)	12 (0C)	HKT2301E Unable to connect – incorrect server name
32 (20)	01 (01)	HKT2302E Insufficient access authority to repository
4 (04)	38 (26)	HKT2303E Report defined as RECORD=N
8 (08)	105 (69)	HKT2304E RECON not found
12 (0C)	37 (25)	HKT2305E Product not defined
12 (0C)	40 (28)	HKT2306E Report not defined
12 (0C)	76 (4C)	HKT2307E Product not defined to record reports
12(0C)	42(02a)	HKT2309E Connection to I/O repository failed

Chapter 16. HKT error messages (import and export utility)

This reference section provides detailed information about the error messages issued by the IMS Tools Knowledge Base import and export utility.

Message format

IMS Tools Knowledge Base import and export utility messages adhere to the following format:

```
HKTnnnnx
```

where:

HKT
Indicates that the message was issued by IMS Tools Knowledge Base import and export utility

nnnn
Indicates the message identification number

x
Indicates the severity of the message:

A
Indicates that operator intervention is required before processing can continue.

E
Indicates that an error occurred, which might or might not require operator intervention.

I
Indicates that the message is informational only.

W
Indicates that the message is a warning to alert you to a possible error condition.

Each message also includes the following information:

Explanation:
The Explanation section explains what the message text means, why it occurred, and what its variables represent.

System action:
The System action section explains what the system will do in response to the event that triggered this message.

User response:
The User response section describes whether a response is necessary, what the appropriate response is, and how the response will affect the system or program.

Explanation of message text components

Example message output:

```
LOCID=ddd RC=12 RSN=001 R0=F0C9xx01 : INVALID KEYWORD
```

LOCID=*ddd*
LOCID indicates the internal location, in decimal format, where the message originated.

This information is useful for debugging the source code and might not be useful to the end-user.

RC
The return code value in hexadecimal format.

This information is appropriate for an end-user submitting a JCL job.

RSN
The reason code value in hexadecimal format.

This information is appropriate for an end-user submitting a JCL job.

R0=*mmmmxxrr*
R0 displays the value that is in the 32-bit register zero when the process returns.

This information is appropriate for a programmer who is internally invoking the import export utility.

mmmm
The internal identification of the module, in hexadecimal format, that issues the error (either x'F0C9' or x'F1C9').

xx
The hexadecimal value of the location identifier.

This value is the hexadecimal equivalent to *ddd* (which is in decimal format).

rr
The hexadecimal value of the reason code.

HKT0001E **LOCID=*ddd* RC=0C RSN=01 R0=F0C9*xx*01 : INVALID OR UNDEFINED KEYWORD ENTERED**

Explanation

The user specified an invalid keyword in the input stream. This includes AUDIT types.

System action

The program terminates processing and returns the error code.

User response

Most likely a keyword was misspelled. Check how far the output report has proceeded. It may provide a clue as to which keyword was misspelled.

HKT0002E **LOCID=*ddd* RC=0C RSN=02 R0=F0C9*xx*02 : INPUT SPECIFICATION ONLY ALLOWED IN PRIMARY INPUT**

Explanation

A keyword was specified in the SYSIN type file (secondary input) that is only allowed in the primary input (that is, the input parameter list). The list of keywords are: INPUT, LOGFILE, MAXRECORDS and SUPRESS_COMMENT.

System action

The program terminates processing and returns the error code.

User response

Check to make sure that none of the keywords listed in the Explanation section are specified in the secondary input. If you want to use any of them, they must be specified in the primary input parameter list.

HKT0003E **LOCID=*ddd* RC=0C RSN=03 R0=F0C9*xx*03 : PRINT SPECIFICATION ONLY ALLOWED IN PRIMARY INPUT**

Explanation

This message is similar to HKT0002E, except that it refers to the specific keyword: PRINT.

System action

The program terminates processing and returns the error code.

User response

Check to make sure that the PRINT keyword is not specified in the secondary input. If you wish to use the PRINT keyword, it must be specified in the primary input parameter list.

HKT0004E **LOCID=*ddd* RC=10 RSN=04 R0=F0C9*xx*04 : THE PRINT DDNAME IS MISSING**

Explanation

The print file (either the default name of SYSPRINT or an overriding print file name) is missing from the JCL file stream.

System action

The program terminates processing and returns the error code.

Prior to setting the PRINT file output, the output is queued up in a dynamically allocated SYSOUT=* file. Each record or message is printed in a dump format style. The file will have a DDNAME of SYS*nnnnn,* where *nnnnn* is an integer.

User response

Verify that the DDNAME for the output print file is in the JCL. If the default file is being used, then it is SYSPRINT; otherwise, it will be what is specified by the PRINT keyword.

HKT0005E **LOCID=*ddd* RC=10 RSN=05 R0=F0C9*xx*05 : ITKB REPORT OPEN FAILED**

Explanation

The print file could not be opened.

System action

The program terminates processing and returns the error code.

User response

Verify that the attributes for the print file are compatible. The print file must be defined as a sequential data set with RECFM=FBA, LRECL=133.

HKT0006E **LOCID=*ddd* RC=08 RSN=06 R0=F0C9*xx*06 : THE GROUP IS NOT SPECIFIED**

Explanation

The GROUP or XCF server where the targeted repository resides must be specified.

System action

The program terminates processing and returns the error code.

User response

Be sure that the GROUP name is specified in the input stream.

HKT0007E **LOCID=*ddd* RC=08 RSN=07 R0=F0C9*xx*07 : THE REPOSITORY IS NOT SPECIFIED**

Explanation

The repository name for import or export must be specified.

System action

The program terminates processing and returns the error code.

User response

Be sure that the REPOSITORY or the PROJECT name identifying the repository is specified.

HKT0008E **LOCID=*ddd* RC=0C RSN=08 R0=F0C9*xx*08 : THE EXPORT OR IMPORT DATASET DOES NOT EXIST**

Explanation

The repository name for import or export must be specified.

System action

The program terminates processing and returns the error code.

User response

Be sure that the REPOSITORY or the PROJECT name identifying the repository is specified.

HKT0009E **LOCID=*ddd* RC=0C RSN=09 R0=F0C9*xx*09 : BOTH IMPORT AND EXPORT FUNCTIONS SPECIFIED**

Explanation

Both the IMPORT and EXPORT keywords are specified in the input stream.

System action

The program terminates processing and returns the error code.

User response

The IMPORT and EXPORT keywords are mutually exclusive. Make sure that the input stream only contains references to one or the other (not both).

HKT0015E **LOCID=*ddd* RC=04 RSN=0F R0=F0C9*xx*0F : SCAN ONLY REQUESTED**

Explanation

This is an indication that the user only want the input stream to be scanned for correctness.

System action

This is informational (not an error). Once the scanning of the commands is completed, the program returns with the affiliated return and reason code.

User response

The user can govern the scanning option using the SCAN keyword.

HKT0016E **LOCID=*ddd* RC=08 RSN=10 R0=F0C9*xx*10 : INVALID HISTORY VALUE**

Explanation

During phase #2 of processing the value for the HISTORY keyword was found to be invalid.

System action

The program terminates processing and returns the error code.

User response

Be sure that value for the HISTORY keyword is either YES, NO or *implied*.

This error may be detected in phase #1 with a reason code of 47 (decimal).

HKT0017E **LOCID=*ddd* RC=08 RSN=11 R0=F0C9*xx*11 : THE COMMIT VALUE SPECIFIED IS INVALID**

Explanation

During phase #2 of processing the value for the COMMIT keyword was found to be invalid.

System action

The program terminates processing and returns the error code.

User response

Be sure that value for the COMMIT keyword is either YES, NO, IGNORE or *implied*.

This error may be detected in phase #1 with a reason code of 47 (decimal).

HKT0018E **LOCID=*ddd* RC=08 RSN=12 R0=F0C9*xx*12 : THE DELETE VALUE SPECIFIED IS INVALID**

Explanation

During phase #2 of processing the value for the DELETE keyword was found to be invalid.

System action

The program terminates processing and returns the error code.

User response

Be sure that value for the DELETE keyword is either YES, NO, CONDITIONAL or *implied*.

This error may be detected in phase #1 with a reason code of 47 (decimal).

HKT0019E **LOCID=*ddd* RC=08 RSN=13 R0=F0C9*xx*13 : THE SKIP VALUE SPECIFIED IS INVALID**

Explanation

During phase #2 of processing the value for the SKIP keyword was found to be invalid.

System action

The program terminates processing and returns the error code.

User response

Be sure that value for the SKIP keyword is either YES, NO, or *implied*.

This error may be detected in phase #1 with a reason code of 47 (decimal).

HKT0020E **LOCID=*ddd* RC=08 RSN=14 R0=F0C9*xx*14 : THE SCAN VALUE SPECIFIED IS INVALID**

Explanation

During phase #2 of processing the value for the SCAN keyword was found to be invalid.

System action

The program terminates processing and returns the error code.

User response

Be sure that value for the SCAN keyword is either YES, NO, or *implied*.

This error may be detected in phase #1 with a reason code of 47 (decimal).

HKT0021E **LOCID=*ddd* RC=08 RSN=15 R0=F0C9*xx*15 : THE GROUP VALUE SPECIFIED IS INVALID**

Explanation

During phase #2 of processing the value for the GROUP name was found to begin with a non-printable character.

System action

The program terminates processing and returns the error code.

User response

This can occur if a GROUP is specified without a value. Make sure the GROUP=group name is specified. This is only syntax checking. It does not guarantee that it is an actual (nor correct) GROUP name value.

HKT0022E **LOCID=*ddd* RC=08 RSN=16 R0=F0C9*xx*16 : THE REPOSITORY VALUE SPECIFIED IS INVALID**

Explanation

During phase #2 of processing the value for the REPOSITORY name was found to begin with a non-printable character.

System action

The program terminates processing and returns the error code.

User response

This can occur if a REPOSITORY is specified without a value. Make sure the REPOSITORY=repository name is specified. This is only syntax checking. It does not guarantee that it is an actual (nor correct) repository name value.

HKT0023E **LOCID=*ddd* RC=08 RSN=17 R0=F0C9*xx*17 : AN INVALID MAXIMUM RECORD SIZE SPECIFIED**

Explanation

The value supplied by MAXRECORDS is invalid. The value may contain invalid numeric syntax or a negative value.

System action

The program terminates processing and returns the error code.

User response

Check the value specified by MAXRECORDS for correctness.

Note: The value specified does not check for storage range. It may be larger than the available storage.

HKT0024E **LOCID=*ddd* RC=0C RSN=18 R0=F0C9*xx*18 : AN INPUT RECORD STORAGE OVERFLOW**

Explanation

Input from the file (SYSIN-type) overflowed the input buffer.

System action

The program terminates processing and returns the error code.

User response

Increase the size of the input buffer by using the MAXRECORDS keyword and rerun.

Note: By default, the maximum number of records is 1000, which should be easily enough for all conditions. If this number is not large enough, the user should reevaluate the commands inputted.

HKT0025E **LOCID=*ddd* RC=08 RSN=19 R0=F0C9*xx*19 : THE PROJECT SPECIFIED WAS NOT FOUND**

Explanation

The PROJECT name specified was not registered to the import/export facility.

System action

The program terminates processing and returns the error code.

User response

Check the spelling of the PROJECT name supplied. Use the LIST option to list all projects defined to validate.

HKT0026E **LOCID=*ddd* RC=10 RSN=1A R0=F0C9*xx*1A : THE PROJECT ENVIRONMENT IS CORRUPT**

Explanation

The PROJECT value accessed by the PROJECT name is corrupt.

System action

The program terminates processing and returns the error code.

User response

If you are using the EXTENTS_MODULE option, make sure you are accessing a valid module with PROJECT definitions. If you are using the default, then this is an administration problem.

HKT0027E **LOCID=*ddd* RC=0C RSN=1B R0=F0C9*xx*1B : THE FIELD SPECIFIED IS NOT FOUND**

Explanation

The name of a FIELD in a FIELD statement was not found.

System action

The program terminates processing and returns the error code.

User response

Check the spelling. If you are using the PROJECT keyword, make sure that the name corresponds to either a project FIELD name or one of the built-in FIELD names (for example, MEMBER). If a PROJECT has not been specified, then make sure that is a built-in FIELD name.

The LIST option can be used to verify FIELD names.

HKT0028E **LOCID=*ddd* RC=0C RSN=1C R0=F0C9*xx*1C : THE VALUE IS NOT SPECIFIED**

Explanation

The value supplied by a FIELD statement is invalid to the type.

System action

The program terminates processing and returns the error code.

User response

Check to make sure that the value supplied is correct for the syntax of the FIELD. For example, if a numeric value is the value of FIELD, a non-numeric value will trigger this error.

HKT0029E **LOCID=*ddd* RC=08 RSN=1D R0=F0C9*xx*1D : AN INVALID MAXIMUM DATA SIZE SPECIFIED**

Explanation

The specification for MAXDATASIZE has an invalid numeric syntax.

System action

The program terminates processing and returns the error code.

User response

Check the MAXDATASIZE specified value for a correct binary value.

HKT0030E **LOCID=*ddd* RC=0C RSN=1E R0=F0C9*xx*1E : AN INVALID INPUT TYPE SPECIFIED**

Explanation

The input type of a value is incompatible with the FIELD type definition. The name of the FIELD governs what type of input value is allowed. For example, a RECON type might be an internal, external or a RECON data set; however, it cannot be a string, pattern, and so on.

System action

The program terminates processing and returns the error code.

User response

Check the FIELD name to see what type is allowed. Either change to another FIELD name that is compatible or change the value and value type to be compatible with the current FIELD name.

HKT0031E **LOCID=*ddd* RC=0C RSN=1F R0=F0C9*xx*1F : AN INPUT FIELD LENGTH SPECIFIED IS INVALID**

Explanation

The length specified for an input value is invalid. This can be a negative length.

System action

The program terminates processing and returns the error code.

User response

Check the LENGTH of the FIELD specification to see that the result is in the valid range of the FIELD.

HKT0032E **LOCID=*ddd* RC=0C RSN=20 R0=F0C9*xx*20 : AN INVALID CONVERSION CONDITION WAS DETECTED**

Explanation

An input data value of a FIELD is incompatible with the type specified for the value. For example, an input value that is specified as hex has a non-hex digit or a numeric value that violates a numeric syntax.

System action

The program terminates processing and returns the error code.

User response

Make sure the value of the FIELD has a compatible syntax for the given type. Either change to another FIELD definition or modify the value to be consistent.

HKT0034E **LOCID=*ddd* RC=0C RSN=22 R0=F0C9*xx*22 : INVALID RECON SPECIFICATION**

Explanation

An input value of type RECON is invalid. Specified RECON values are validated against the RECON definition repository. This is true even if there is no conversion of the RECON type. A specified RECON value must be a valid defined RECON image.

System action

The program terminates processing and returns the error code.

User response

Check the RECON value supplied to a FIELD of type RECON being specified. Also, if necessary, check to be sure that the import/export facility has access to the RECON definitions repository (HKT_INPUT).

HKT0035E **LOCID=*ddd* RC=0C RSN=23 R0=F0C9*xx*23 : AN INVALID FIELD DIMENSION, POSITION, OR LENGTH OVERRIDE SPECIFIED**

Explanation

The position and length specified for an input value is invalid.

System action

The program terminates processing and returns the error code.

User response

Check the POSITION and LENGTH values for a specified FIELD to see that the resulting value is in range of the FIELD data.

This is similar to the HKT0031E message.

HKT0036E **LOCID=*ddd* RC=0C RSN=24 R0=F0C9*xx*24 : AN INVALID MIXED STRING SPECIFIED**

Explanation

An input FIELD value of type string has an invalid specified MIXED string value. This likely due to an invalid escape value being specified. This is similar to a conversion condition.

System action

The program terminates processing and returns the error code.

User response

Check MIXED strings for valid values, especially with escape sequences. This include MIXED strings where the escape sequence is fully defined. For example, a hex specification has both hex digits specified.

HKT0040E **LOCID=*ddd* RC=0C RSN=28 R0=F0C9*xx*28 : AN INVALID LIST OPTION SPECIFIED**

Explanation

An invalid LIST option has been specified. The valid values are YES, NO, ONLY or *implied*.

System action

The program terminates processing and returns the error code.

User response

Check the LIST to see that the LIST option specified is valid.

HKT0041E **LOCID=*ddd* RC=0C RSN=29 R0=F0C9*xx*29 : AN INVALID FIELD CHARACTER SPECIFIED**

Explanation

A character in a STRING value has an invalid non-printable *whitespace* character. This can happen if the input was supplied by an editable file.

System action

The program terminates processing and returns the error code.

User response

If a non-printable character is required, consider entering the STRING as either a HEX or a MIXED type.

HKT0042E **LOCID=*ddd* RC=0C RSN=2A R0=F0C9*xx*2A : AN INVALID AUDIT OPTION SPECIFIED**

Explanation

The AUDIT specification for a data set name of a FIELD is undefined. Valid data set AUDIT types are: SEQUENTIAL, PARTITIONED, and/or GENERATION.

System action

The program terminates processing and returns the error code.

User response

Make sure all AUDIT types in a FIELD for a data set are valid.

HKT0043I **LOCID=*ddd* RC=04 RSN=2B R0=F0C9*xx*2B : LIST ONLY REQUESTED**

Explanation

This is an informational message to indicate the LIST=ONLY processing is being invoked.

System action

The program continues processing.

User response

None. This message is informational.

HKT0044E **LOCID=*ddd* RC=0C RSN=2C R0=F0C9*xx*2C : UNABLE TO LOAD MODULE WITH EXTENDED DEFINITIONS**

Explanation

The module containing extended FIELD definitions cannot be loaded. This can be the default module (HKTIMEX2) or an overriding module specified by the EXTENTS_MODULE option.

System action

The program terminates processing and returns the error code.

User response

Make sure that the required extents module is defined and loadable in the JCL STEPLIB.

HKT0045E **LOCID=*ddd* RC=0C RSN=2D R0=F0C9*xx*2D : INVALID SUPPRESS COMMENT**

Explanation

The SUPPRESS_COMMENT option has an invalid integer mask definition. The valid values are:

- 0 = no suppression
- 1 = first character asterisk
- 2 = double slashes
- 3 = both (1) and (2)

System action

The program terminates processing and returns the error code.

User response

Check the SUPPRESS_COMMENT keyword for a valid integer SUPPRESS_COMMENT mask.

HKT0046I **LOCID=*ddd* RC=04 RSN=2E R0=F0C9*xx*2E : INPUT FILE HAS BEEN BLOCKED**

Explanation

This is an informational message to indicate the input (SYSIN-type) file will be blocked from processing. This would be similar to treating the secondary input as a // DD DUMMY type file.

The input file can be blocked by used of the prefixed _BLKI=YES option.

System action

The program continues processing.

User response

None. This message is informational.

HKT0047E **LOCID=*ddd* RC=08 RSN=2F R0=F0C9*xx*2F : INVALID VALUE SPECIFIED**

Explanation

An invalid option has been specified for COMMIT, DELETE, HISTORY, ISEMPTY, MEMPRINT, NOEXIST, SCAN, SKIP, or TRY options during phase #1 of parsing.

System action

The program terminates processing and returns the error code.

User response

Check the values specified for one of the affiliated keywords.

This error message may supersede the error message for each of the specific option's error messages.

HKT1201E **LOCID=*ddd* RC=10 RSN=01 R0=F1C9*xx*01 : UNABLE TO OPEN THE REPORT FILE**

Explanation

Access to the REPORT file during stage #2 failed. This error may be preempted for another error issued during stage #1.

System action

The program terminates processing and returns the error code.

User response

Make sure that the REPORT file (SYSPRINT-type) is well defined in JCL.

HKT1202E **LOCID=*ddd* RC=0C RSN=02 R0=F1C9*xx*02 : THE GROUP NAME IS MISSING**

Explanation

The chosen XCF GROUP name is missing during stage #2. This error may be preempted for another error issued during stage #1.

System action

The program terminates processing and returns the error code.

User response

Be sure the valid GROUP name is supplied for the accessed repository.

HKT1203E **LOCID=*ddd* RC=0C RSN=03 R0=F1C9*xx*03 : THE REPOSITORY IS MISSING**

Explanation

The repository name is missing in stage #2. This error may be preempted for another error issued during stage #1.

System action

The program terminates processing and returns the error code.

User response

Be sure the repository to be accessed is defined in the input stream, either through the REPOSITORY or PROJECT specification.

HKT1204E **LOCID=*ddd* RC=0C RSN=04 R0=F1C9*xx*04 : THE REPOSITORY CONNECTION FAILED**

Explanation

The connection to the specified repository on the specified server failed.

System action

The program terminates processing and returns the error code.

User response

This can occur for a number of reasons. Check to see that the correct server and the correct repository is specified. Check to see if the requested (XCF) server has been activated. Check the log file for a connection error to the repository. Contact the server/repository administrator.

HKT1205E **LOCID=*ddd* RC=0C RSN=05 R0=F1C9*xx*05 : AN INVALID FUNCTION IS SPECIFIED**

Explanation

The lower level stage #2 function to be processed is invalid.

System action

The program terminates processing and returns the error code.

User response

Make sure that either IMPORT or EXPORT has been specified. This may be an internal issue. Contact the administrator.

HKT1206E **LOCID=*ddd* RC=0C RSN=06 R0=F1C9*xx*06 : AN INVALID HISTORY SETTING IS SPECIFIED**

Explanation

The HISTORY setting is invalid for stage #2. This error may be preempted for another error issued during stage #1.

System action

The program terminates processing and returns the error code.

User response

Be sure the HISTORY in the input stream is valid.

HKT1207E **LOCID=*ddd* RC=0C RSN=07 R0=F1C9*xx*07 : THE UOW WAS NOT CREATED**

Explanation

The import/export facility failed to create a unit-of-work (UOW) for processing the repository.

System action

The program terminates processing and returns the error code.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact the administrator.

HKT1208E **LOCID=*ddd* RC=0C RSN=08 R0=F1C9*xx*08 : THE GENERIC LOCK FAILED**

Explanation

The import/export facility failed to create a GENERIC LOCK for processing the repository.

System action

The program terminates processing and returns the error code.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact the administrator.

HKT1209E **LOCID=*ddd* RC=0C RSN=09 R0=F1C9*xx*09 : THE EXPORT LIST FAILED**

Explanation

The import/export facility failed to access the list of all members to export.

System action

The program terminates processing and returns the error code.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact the administrator.

HKT1210I **LOCID=*ddd* RC=04 RSN=0A R0=F1C9*xx*0A : NO MEMBERS WERE FOUND TO EXPORT**

Explanation

This is an informational/warning that the initial list of members to export is empty.

System action

The program terminates processing and returns the error code.

User response

It might be valid that there are no members. Otherwise, check the member specifications, including PRODUCT and TYPE, to see if they are correctly specified.

HKT1211E **LOCID=*ddd* RC=0C RSN=0B R0=F1C9*xx*0B : UNABLE TO OPEN THE IMPORT/EXPORT FILE**

Explanation

The import/export file for input (import) could not be opened.

System action

The program terminates processing and returns the error code.

User response

Make sure the file is correctly defined, especially the attributes as sequential (RECFM=VB and LRECL=256). Rerun the original job that populated the import/export file (IMEXFILE-type) and then run the import. If the problem persists, contact administration.

HKT1212E **LOCID=*ddd* RC=10 RSN=0C R0=F1C9*xx*0C : AN INVALID RECORD READ**

Explanation

The import/export file has read a corrupted record.

System action

The program terminates processing and returns the error code.

User response

Be sure that the file was correctly built by a successful export of the import/export facility of a compatible version. Rerun the original job that populated the import/export file (IMEXFILE-type) and then run the import. If the problem persists, contact administration.

HKT1213E **LOCID=*ddd* RC=0C RSN=0D R0=F1C9*xx*0D : AN UNKNOWN RECORD TYPE SPECIFIED**

Explanation

The import/export file has read a record with an invalid record type. This is similar to HKT1212E.

System action

The program terminates processing and returns the error code.

User response

Be sure that the file was correctly built by a successful export of the import/export facility of a compatible version. Rerun the original job that populated the import/export file (IMEXFILE-type) and then run the import. If the problem persists, contact administration.

HKT1214E **LOCID=*ddd* RC=0C RSN=0E R0=F1C9*xx*0E : AN INVALID RECORD STATE SPECIFIED**

Explanation

The import/export file (IMEXFILE-type) has an invalid sequence or a missing COUNTS record.

System action

The program terminates processing and returns the error code.

User response

The most likely cause is that the import/export file was empty. There were no records produced by the original export for the current import. In this case, the best solution is to suppress the import step by using the JCL COND specification (for example, COND=(0,LT,*export*)).

Also be sure that the file was correctly built by a successful export of the import/export facility of a compatible version. Rerun the original job that populated the import/export file (IMEXFILE-type) and then run the import. If the problem persists, contact administration.

HKT1215E **LOCID=*ddd* RC=0C RSN=0F R0=F1C9*xx*0F : THE REPOSITORY WRITE PROCESS FAILED**

Explanation

Attempting to write a repository member (import) failed.

System action

The program terminates processing and returns the error code.

User response

This is likely an environmental problem. This includes, but is not limited to, no available space in the repository to write. If possible, obtain a log file of the problem and contact the administrator.

HKT1216E **LOCID=*ddd* RC=04 RSN=10 R0=F1C9*xx*10 : THERE ARE NO ENTRIES FOUND TO PROCESS**

Explanation

This is an informational message. The import/export file (IMEXFILE-type) for import had no members to process. That is, the record count on the COUNTS record was zero.

System action

The program continues processing.

User response

Check the record criteria on the original export process.

HKT1217E **LOCID=*ddd* RC=0C RSN=11 R0=F1C9*xx*11 : AN INVALID VERIFY ONLY SPECIFIED**

Explanation

The value for the COMMIT keyword during stage #2 is invalid. This error may be preempted for another error issued during stage #1.

System action

The program terminates processing and returns the error code.

User response

Check the COMMIT specification.

HKT1218W **LOCID=*ddd* RC=04 RSN=12 R0=F1C9*xx*12 : THERE ARE NO MEMBERS TO ACCESS**

Explanation

This is an informational message. There are no members to access for the export.

System action

The program continues processing.

User response

Check the record criteria on the original export process.

HKT1219E **LOCID=*ddd* RC=08 RSN=13 R0=F1C9*xx*13 : THE ACCESS TO MEMBER FAILED**

Explanation

Access to a repository member for export failed.

System action

The program terminates processing and returns the error code.

User response

This is likely an environmental problem. Rerun the job with a log file. If the problem persists, contact the administrator.

HKT1220I **LOCID=*ddd* RC=04 RSN=14 R0=F1C9*xx*14 : THE MEMBER WAS REJECTED BECAUSE OF THE HISTORY**

Explanation

This is an informational message. A specific member version of writing a member of the repository was rejected because HISTORY=NO was specified on the IMPORT.

System action

The program continues processing.

User response

None. This message is informational.

HKT1221I **LOCID=*ddd* RC=04 RSN=15 R0=F1C9*xx*15 : THE MEMBER WAS REJECTED BECAUSE OF THE PRODUCT**

Explanation

This is an informational message. A specific member version of writing a member of the repository was rejected because the primary PRODUCT specified did not match what was requested.

System action

The program continues processing.

User response

None. This message is informational.

HKT1222I **LOCID=*ddd* RC=04 RSN=16 R0=F1C9*xx*16 : THE MEMBER WAS REJECTED BECAUSE OF THE TYPE**

Explanation

This is an informational message. A specific member version of writing a member of the repository was rejected because the primary TYPE specified did not match what was requested.

System action

The program continues processing.

User response

None. This message is informational.

HKT1223I **LOCID=*ddd* RC=04 RSN=17 R0=F1C9*xx*17 : THE COMMIT WAS SUPPRESSED BY USER SPECIFICATION**

Explanation

This is an informational message. User indicated via the COMMIT=NO for a normal execution, except that the target repository will not be updated. The user could test out processing commands without updating the repository.

System action

The program continues processing.

User response

When the user is satisfied that the input stream will produce the desired results, then COMMIT=NO can be changed to COMMIT=YES.

HKT1224E **LOCID=*ddd* RC=0C RSN=18 R0=F1C9*xx*18 : AN INVALID DELETE OPTION SPECIFIED**

Explanation

A DELETE option specified in the input stream was neither YES, NO, CONDITIONAL nor *implied*.

System action

The program terminates processing and returns the error code.

User response

The user should check to be sure that any DELETE specification is using a valid DELETE option.

HKT1225E **LOCID=*ddd* RC=0C RSN=19 R0=F1C9*xx*19 : THE MEMBER DELETE FAILED**

Explanation

Access to a repository member for export failed.

An attempt was made to delete a member, and the delete failed.

System action

The program terminates processing and returns the error code.

User response

This is likely an environmental problem. Rerun the job with a log file. If the problem persists, contact the administrator.

HKT1226E **LOCID=*ddd* RC=0C RSN=1A R0=F1C9*xx*1A : AN INVALID SKIP OPTION SPECIFIED**

Explanation

The SKIP option had an illegal value. The only values allowed are YES, NO or *implied*.

System action

The program terminates processing and returns the error code.

User response

Make sure that any SKIP specification has a correct value.

HKT1228E **LOCID=*ddd* RC=0C RSN=1C R0=F1C9*xx*1C : AN INVALID COMPARE VECTOR SPECIFIED**

Explanation

The internal compare vector table had zero entries in stage #2.

System action

The program terminates processing and returns the error code.

User response

This is an environmental problem. Try rerunning with a log file. If the problem persists, contact the administrator.

HKT1230E **LOCID=*ddd* RC=0C RSN=1E R0=F1C9*xx*1E : AN INVALID UNSIGNED BINARY SPECIFIED**

Explanation

An unsigned binary number was larger than the allowed maximum size.

System action

The program terminates processing and returns the error code.

User response

Check any FIELDS referencing unsigned binary numbers for values beyond 64-bits.

HKT1231E **LOCID=*ddd* RC=0C RSN=1F R0=F1C9*xx*1F : AN INVALID SIGNED BINARY SPECIFIED**

Explanation

A signed binary number was larger than the allowed maximum size.

System action

The program terminates processing and returns the error code.

User response

Check any FIELDS referencing signed binary numbers for values beyond 63-bits.

HKT1232E **LOCID=*ddd* RC=0C RSN=20 R0=F1C9*xx*20 : AN INVALID SIGNED PACKED SPECIFIED**

Explanation

An unsigned packed number was larger than the allowed maximum size.

System action

The program terminates processing and returns the error code.

User response

Check any FIELDS referencing unsigned packed numbers for values beyond 16-bits/32-digits or for invalid decimal digits.

HKT1233E **LOCID=*ddd* RC=0C RSN=21 R0=F1C9*xx*21 : AN INVALID OPERATOR SPECIFIED**

Explanation

A comparison operator was specified in a FIELD.

System action

The program terminates processing and returns the error code.

User response

Check the FIELDS to see that all specified explicit operations are correct.

HKT1240E **LOCID=*ddd* RC=0C RSN=28 R0=F1C9*xx*28 : AN INVALID ISEMPTY OPTION SPECIFIED**

Explanation

Access to the repository member list failed for a reason other than a "no members found" condition.

System action

The program terminates processing and returns the error code.

User response

This is likely an environmental problem. Rerun the job with a log file. If the problem persists, contact the administrator.

HKT1241E **LOCID=*ddd* RC=08 RSN=29 R0=F1C9*xx*29 : AN ISEMPTY VIOLATION OCCURRED**

Explanation

At least one member was returned while issuing an ISEMPTY test.

System action

The program terminates processing and returns the error code.

User response

This result is legitimate. Processing should continue.

HKT1242E **LOCID=*ddd* RC=0C RSN=2A R0=F1C9*xx*2A : AN INVALID NOEXIST OPTION SPECIFIED**

Explanation

Access to a particular repository member failed for a reason other than the member was not found.

System action

The program terminates processing and returns the error code.

User response

This is likely an environmental problem. Rerun the job with a log file. If the problem persists, contact the administrator.

HKT1243E **LOCID=*ddd* RC=08 RSN=2B R0=F1C9*xx*2B : A NOEXIST VIOLATION OCCURRED**

Explanation

An imported member was already found in the target repository.

System action

The program terminates processing and returns the error code.

User response

This result is legitimate. Processing should continue.

HKT1244E **LOCID=*ddd* RC=0C RSN=2C R0=F1C9*xx*2C : INVALID MEMBER PRINT OPTION**

Explanation

The MEMPRINT Option supplied in the input stream was invalid.

System action

The program terminates processing and returns the error code.

User response

Make sure that the supplied MEMPRINT option is either YES, NO, CONDITIONAL or *implied*.

HKT1245E **LOCID=*ddd* RC=0C RSN=2D R0=F1C9*xx*2D : INVALID TRY OPTION**

Explanation

The TRY Option supplied in the input stream was invalid.

System action

The program terminates processing and returns the error code.

User response

Make sure that the supplied TRY option is either YES, NO or *implied*.

HKT1246E **LOCID=*ddd* RC=0C RSN=2E R0=F1C9*xx*2E : BAD DEFINED UPDATE FIELD**

Explanation

The target of a substitution value is smaller than the substitution value.

System action

The program terminates processing and returns the error code.

User response

Make sure that a substitution value does not overflow its target.

Chapter 17. HKT error messages (repositories)

This reference section provides detailed information about the error messages issued by the IMS Tools Knowledge Base repositories.

Note: Tools Base Diagnostics Aid messages (HKT80*xxx*) are documented in *IMS Tools Base IMS Tools Common Services User's Guide and Reference*.

Message format

IMS Tools Knowledge Base repository messages adhere to the following format:

```
HKTnnnnx
```

where:

HKT
Indicates that the message was issued by IMS Tools Knowledge Base repositories

nnnn
Indicates the message identification number

x
Indicates the severity of the message:

A
Indicates that operator intervention is required before processing can continue.

E
Indicates that an error occurred, which might or might not require operator intervention.

I
Indicates that the message is informational only.

W
Indicates that the message is a warning to alert you to a possible error condition.

Each message also includes the following information:

Explanation:
The Explanation section explains what the message text means, why it occurred, and what its variables represent.

System action:
The System action section explains what the system will do in response to the event that triggered this message.

User response:
The User response section describes whether a response is necessary, what the appropriate response is, and how the response will affect the system or program.

HKT2001I HKTJIMPT ended with RC=*xxxxxx*

Explanation

If a single or multiple reports were being processed, the processing of each report could return a different return code value. This message will display the highest numeric value return code that was encountered during the execution.

User response

None. Information message only.

HKT2002I The LOG DD failed to open; LOG=NO will be assumed.

Explanation

A HKTLOG DD statement might have been omitted from the HKTJIMPT job stream.

User response

Ensure that a HKTLOG DD statement is in the HKTJIMPT job stream.

HKT2003E **No EXEC parameters found. ITKBSRVR parameter is required.**

Explanation

The execution parameter has been omitted from the HKTJIMPT job stream.

User response

Add the execution parameter that specifies the ITKBSRVR parameter.

HKT2004I **EXEC parameter specified - *xxxxxx***

Explanation

This message shows the execution parameter that was specified.

User response

This message is displayed before an error message. Refer to the messages that follow.

HKT2005E **RECFM of REPORT DD is invalid for the ITKB repository.**

Explanation

The file that was allocated to the REPORT DD does not have a RECFM of F or V.

User response

Ensure that the file that was allocated to the REPORT DD has a RECFM of F (fixed) or V (variable).

HKT2006E **Unsuccessful parse of EXEC PARMS. Internal error.**

Explanation

An internal error occurred in the parser.

User response

Contact IBM Software Support.

HKT2007E **Errors found in EXEC parameters.**

Explanation

Errors were found in the EXEC parameters.

User response

This message is followed by message HKT2004I, which shows the EXEC parameters that were specified. A message that indicates the error will follow.

HKT2008W **The PRINT DD failed to open, PRINT=NO will be assumed.**

Explanation

A PRINT DD statement might have been omitted from the HKTJIMPT job stream.

User response

Ensure that a PRINT DD statement is in the HKTJIMPT job stream.

HKT2009E **Server name is required.**

Explanation

An IMS Tools KB server name was not specified.

User response

Ensure that the name of an active IMS Tools KB server is specified.

HKT2010E **Unsuccessful parse of SYSIN data. Internal error.**

Explanation

An internal error occurred in the parser.

User response

Contact IBM Software Support.

HKT2011E **Storage overflow for SYSIN data.**

Explanation

An internal error occurred in the parser.

User response

Contact IBM Software Support.

HKT2012E **Unable to connect to ITKB repository server.**

Explanation

The specified IMS Tools KB server is not active.

User response

Ensure that the name of an active IMS Tools KB server is specified. Check the job log for any additional messages.

HKT2013E **Required parameter IMPORT not found. *xxxxxx* was found.**

Explanation

The required control statement verb IMPORT was not found. The character string that was found is displayed in the message.

User response

Ensure that IMPORT is specified on the first control statement.

HKT2014W **Report *xxxxxx* specified as RECORD=N. Report will not be written.**

Explanation

The report that was specified was registered in IMS Tools Knowledge Base as RECORD=N and therefore will not be written into the IMS Tools Knowledge Base repository.

User response

None.

HKT2015E **Invalid RECON type or value. Valid types are DSN, DDN, RCN, or NONE.**

Explanation

The value that was specified for the RECON parameter is not one of the allowed values.

User response

Change the RECON parameter to one of the allowed values.

HKT2016E **INDEX parameter specified without any sub-parameters. INDEX(*nn*).**

Explanation

An INDEX parameter was found without any sub-parameters.

User response

Ensure that all INDEX parameters are specified with at least one subparameter. The INDEX(*nn*) value in the message lists the count of the index parameters in the input.

HKT2017E **Group type/name must be specified together. INDEX(*nn*).**

Explanation

A GRPTYPE or GRPNAME parameter was found without the other. Both parameters must be present.

User response

Ensure that both the GRPTYPE and GRPNAME parameters are specified. The INDEX(*nn*) value in the message lists the count of the index parameters in the input.

HKT2018E **Invalid group type given. Types are CA or DBDS. INDEX(*nn*).**

Explanation

The value that was specified for the GRPTYPE parameter was not one of the allowed values.

User response

Change the GRPTYPE value to one of the allowed values. The INDEX(*nn*) value in the message lists the count of the index parameters in the input.

HKT2019E **Both PART and AREA are given. Only one can be specified. INDEX(*nn*).**

Explanation

Both the PART and AREA parameter were specified. Only one can be specified.

User response

Ensure that only the PART or AREA parameter is specified. The INDEX(*nn*) value in the message lists the count of the index parameters in the input.

HKT2020E **JOBNUMBER specifies too many digits, 7 maximum.**

Explanation

The JOBNUMBER value is limited to 7 digits maximum.

User response

Ensure that the JOBNUMBER value is 7 digits or less.

HKT2021E **USERID, JOBNAME, JOBNUM, JOB START must all be specified.**

Explanation

One of the following parameters was specified without the others: USERID, JOBNAME, JOBNUM, or JOBSTRT.

User response

Ensure that USERID, JOBNAME, JOBNUM, and JOBSTRT are all specified.

HKT2022E **JOB start date is greater than today's date or has an invalid format.**

Explanation

The specified JOBSTRT value is incorrect.

User response

Ensure that the JOBSTRT value uses the correct syntax, *yyyy/mm/dd*, and that the date is not greater than today's date or before 2004/01/01.

HKT2023E **STEP name and valid start date must both be specified.**

Explanation

A STEPNAME or STEPSTRT parameter was found without the other. Both parameters must be specified.

User response

Ensure that both the STEPNAME and STEPSTRT parameters are specified.

HKT2024E **STEP start date is greater than today's date or has an invalid format.**

Explanation

The specified STEPSTRT value is incorrect.

User response

Ensure that the STEPSTRT value uses the correct syntax, *yyyy/mm/dd*, and that the date is not greater than today's date or before 2004/01/01.

HKT2025E **REPORT start date is greater than today's date or has an invalid format.**

Explanation

The specified RPTSTRT value is incorrect.

User response

Ensure that the RPTSTRT value uses the correct syntax, *yyyy/mm/dd*, and that the date is not greater than today's date or before 2004/01/01.

HKT2026E **Report open failed. Verify that all parameters are valid.**

Explanation

The parameters specified to select a report do not correctly identify a report and have caused a failure when IMPORT attempts to open the nonexistent report.

User response

Ensure that the specified parameters correctly identify a report.

HKT2027E **Invalid OLRSET specified. Values are P, S, or U. INDEX(*nn*)**

Explanation

The value that was specified for the OLRSET parameter was not one of the allowed values.

User response

Change the OLRSET value to one of the allowed values. The INDEX(*nn*) value in the message lists the count of the index parameters in the input.

HKT2028E **Product *xx* not defined.**

Explanation

The value that was specified for the PRODUCTID parameter was not defined.

User response

Ensure that the product has been registered with the IMS Tools KB server.

HKT2029E **Report *xx* not defined.**

Explanation

The value that was specified for the REPORTID parameter was not defined.

User response

Ensure that the report has been registered with the IMS Tools KB server.

HKT2030W **Second RECON parameter not required with RCN or NONE.**

Explanation

A second parameter was found that is not required.

User response

The second parameter will be ignored.

HKT2031E **Verify that the RECON data set name is defined as a RECON1 dsn.**

Explanation

A data set name that was specified with a DSN parameter was not found in the IMS Tools Knowledge Base repository.

User response

Ensure that the data set name that was specified is defined as a RECON1 in the IMS Tools Knowledge Base repository.

HKT2032E **Verify that the RECON DD name allocates a data set defined as a RECON1 dsn.**

Explanation

The data set that was allocated to the ddname that was specified with the DDN parameter was not found in the IMS Tools Knowledge Base repository.

User response

Ensure that the data set name that was specified is defined as a RECON1 in the IMS Tools Knowledge Base repository.

HKT2033E **Verify that RECON1, RECON2, and RECON3 DDs allocate a RECON1 dsn**

Explanation

The data set names that were allocated to the RECON1, RECON2, and RECON3 DDs cannot be found in the IMS Tools Knowledge Base repository.

User response

Ensure that one of the data set names is defined as a RECON1 in the IMS Tools Knowledge Base repository.

HKT2034E **Repository write error**

Explanation

An error occurred while writing to the IMS Tools KB server.

User response

Contact IBM Software Support.

HKT2035W **Some report records were truncated while being written to the PRINT DD.**

Explanation

Some of the records in the REPORT DD were longer than allowed for SYSOUT.

User response

Ensure that the record length of the REPORT DD file is 133 bytes or shorter.

HKT2036W **The number of INDEXs exceeded 100. INDEXs after will be ignored**

Explanation

More than 100 INDEX parameters were found.

User response

Ensure that no more than 100 index parameters are specified.

HKT2037E **There are no RECON entries in the registry.**

Explanation

HKTJIMPT determined that no RECON entries are present in the IMS Tools Knowledge Base repository.

User response

Notify the IMS Tools Knowledge Base administrator.

HKT2038E **An INDEX parameter contains an invalid character.**

Explanation

An INDEX parameter contains an invalid character (* or %).

User response

Ensure that the INDEX parameters do not contain the * or % character.

HKT2039E **The *xxxx* parameter contains an invalid character.**

Explanation

The parameter contains an invalid character (* or %).

User response

Ensure that the parameter does not contain the * or % character.

HKT2050I **SYSIN records read *nnnnnnnn* REPORT records written *nnnnnn***

Explanation

The number of SYSIN records read and the number of REPORT records written to the IMS Tools KB server are displayed.

User response

Informational message.

HKT2061E **Unknown keyword - *xxxxxx***

Explanation

An unknown keyword was encountered in the input. The message contains the unknown keyword.

User response

Change the unknown keyword to one of the keywords that are defined for HKTJIMPT.

HKT2062E **Unknown positional parameter - *xxxxxx***

Explanation

An unknown positional parameter was encountered in the input. The message contains the unknown parameter.

User response

Change the unknown parameter to one of the parameters that are defined for HKTJIMPT.

HKT2063E **Keyword missing sub-parameters - *xxxxxx***

Explanation

A keyword was encountered without its required sub-parameters. The message contains the keyword parameter.

User response

Ensure that the keyword is specified with all required parameters.

HKT2064E **Input ended before all keywords processed.**

Explanation

HKTJIMPT found end-of-file before all of the specified keywords were processed.

User response

Ensure that all keywords are correct.

HKT2065E **Keyword found instead of value - *xxxxxx***

Explanation

A keyword was encountered when a value was expected. The keyword is contained in the message.

User response

Ensure that the correct parameter syntax is specified.

HKT2066E **Number out of range - *xxxxxx***

Explanation

A number was encountered that was out of the range allowed. The message contains the incorrect number.

User response

Ensure that the number that was specified is within the allowable range.

HKT2067E **Invalid number - *xxxxxx***

Explanation

A number was encountered that contained non-decimal digits. The message contains the incorrect number.

User response

Ensure that the number is correctly specified.

HKT2068E **Unknown keyword value - *xxxxxx***

Explanation

The value that was specified for the keyword is not one of the allowed values. The message contains the incorrect value.

User response

Ensure that the value that was specified is one of the allowed values.

HKT2069E **Keyword parameter specified more than once - *xxxxxx***

Explanation

A keyword was encountered more that once in the input. The message contains the incorrect keyword.

User response

Ensure that the keyword is specified the correct number of times.

HKT2070E **Required parameter was not found.**

Explanation

One of the required parameters was not found.

User response

Ensure that all required parameters are specified. This message will be accompanied by HKT2072I.

HKT2071E **Keyword value too long - *xxxxxx***

Explanation

The value that was specified for the keyword exceeds the maximum allowable length. The message contains the incorrect value.

User response

Ensure that the value that was specified for the keyword is correct.

HKT2072I **Required parameters are IMPORT, PRODUCTID, REPORTID, RECON, INDEX.**

Explanation

This message lists the required parameters for HKTJIMPT.

User response

Informational message.

HKT2100E **Required short name not specified; PRODUCTID=*xx***

Explanation

A short name must be specified for a user product. User products must start with U, V, or W.

User response

Add a unique SNAME parameter value and resubmit this request.

HKT2101E **Invalid RECORD specified; REPORTID=*xx*; PRODUCTID=*xx***

Explanation

The RECORD= parameter was specified on the ADDPROD command. The RECORD= parameter is not supported by the ADDPROD command.

User response

Remove the RECORD= parameter from the ADDPROD command and resubmit the request.

HKT2102E **External table load requested failed; TABLENAME=*xxxxxx***

Explanation

The name that was specified with the TABLE= parameter could not be located in the library concatenation.

User response

Verify that the name that was specified is the correct name and that the requested table is in the library concatenation. After correcting the error, resubmit the request.

HKT2103E **Invalid command specified; COMMAND=*xxxxxx***

Explanation

The first non-comment, non-blank string in a request set must be one of the recognized keyword commands. Recognized commands are LIST, ADDPROD, and ADDRPT.

User response

Correct the input and resubmit the request.

HKT2104E **Parsing error. Please verify your input.**

Explanation

This generic error identifies an unidentified parsing error. Most errors produce a more specific error message. Generally, additional information is included at the end of this message that can help identify the problem.

User response

Inspect the input in SYSPRINT to attempt to identify the error. If the parser returns information, the message text will include this additional information.

HKT2105E **Short name invalid; PRODUCTID=*xx***

Explanation

The SNAME parameter was specified for a PRODUCTID that is not recognized as a user product. SNAME is applicable only for user products.

User response

If this is a user product, the PRODUCTID must start with U, V, or W. If this is not a user product, remove the SNAME parameter.

HKT2106E **Long name invalid; PRODUCTID=*xx***

Explanation

The LNAME parameter was specified for a PRODUCTID that is not recognized as a user product. LNAME is applicable only for user products.

User response

If this is a user product, the PRODUCTID must start with U, V, or W. If this is not a user product, remove the LNAME parameter.

HKT2107E **Error encountered during end processing**

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2108E **Run terminated due to missing required execution parameter specifying server ID; ITKBSRVR=**

Explanation

The execution parameter that specifies the IMS Tools KB server is missing.

User response

Ensure that the execution parameter that specifies the IMS Tools KB server is included.

HKT2109E **Reserved for future use.**

Explanation

User response

HKT2110E **Run terminated due to internal error; bad BPE startup**

Explanation

A bad return code was received from BPE during startup.

User response

Contact IBM Software Support.

HKT2111E **Run terminated due to internal error; GETMAIN for work area failed**

Explanation

A GETMAIN for a required work area failed. Processing terminates.

User response

Increase the region size.

HKT2112E **Run terminated due to SYSIN open failure**

Explanation

The SYSIN DD named data set failed to open properly. The requests for service are contained in the SYSIN data set. Processing terminates.

User response

Determine why the data set failed to open, correct the problem, and resubmit the job.

HKT2113E **Required RELEASE parameter is invalid; RELEASE=*xxxxxx***

Explanation

For products that are loaded from the internal table, a non-blank numeric 6-character RELEASE must be specified. The first two characters of the parameter must not be 00.

User response

Correct the RELEASE parameter and resubmit this request.

HKT2114E **REPOSITORY cannot be specified with REPLACE=YES.**

Explanation

REPOSITORY and REPLACE=YES are mutually exclusive parameters.

User response

Remove the REPOSITORY parameter to update a product. If you want to change the repository a product is stored in, the product must be deleted and redefined with the new repository.

HKT2115E **Reserved for future use.**

Explanation

User response

HKT2116E **Reserved for future use.**

Explanation

User response

HKT2117E **LIST function for all products with specific REPORTID invalid; REPORTID = *xxxxxx***

Explanation

A specific REPORTID was requested but no PRODUCTID was specified. This request type is not supported.

User response

Specify either a specific PRODUCTID or LIST PRODUCTID=*

HKT2118E **REPORTID invalid with ADDPROD function**

Explanation

The REPORTID parameter was specified for an ADDPROD command. REPORTID is not a valid parameter with the ADDPROD command.

User response

Remove the REPORTID parameter from the command statement.

HKT2119E **HLQ specified is not valid HLQ; HLQ = *xxxxxx***

Explanation

The high-level qualifier that was specified does not conform the rules of a data set name qualifier.

User response

Adjust the value to conform to data set naming rules.

HKT2120E **Invalid PRODUCTID for this request; PRODUCTID=*xx***

Explanation

An invalid PRODUCTID parameter value was detected for this request. The PRODUCTID parameter must use the character set A-Z,0-9,@#$.

If this is an ADDRPT request, it must be for a PRODUCTID for a user product that starts with U, V, or W.

User response

Correct the specified PRODUCTID parameter value and resubmit the request.

HKT2121E **Long name already in use - must be unique; *xxxxxx***

Explanation

This long name (LNAME) is defined as the long name in another PRODUCTID.

User response

Change the long name and resubmit the request.

HKT2122E **Long title duplicate for product; *xxxxxx***

Explanation

The long title (LTITLE) must be unique for a product.

User response

Change the long title so that it is unique for the product.

HKT2123E **Short name already in use - must be unique; *xxxxxx***

Explanation

This short name (SNAME) is defined as the short name for another PRODUCTID.

User response

Change the short name and resubmit the request.

HKT2124E **Short title duplicate for product; *xxxxxx***

Explanation

This short title (STITLE) is already defined as the short title for this product.

User response

Change the short title and resubmit the request.

HKT2125E **Internal error GET RECORD R15 = *xxxxxx*; RSN= *xxxxxx***

Explanation

An error occurred while processing a GET RECORD request.

User response

Contact IBM Software Support.

HKT2126E **Internal error GETMAIN for container list; OUTSIZE=*xxxxxx***

Explanation

The utility was unable to obtain sufficient storage for a container list. The size requested is shown.

User response

If the size of the request seems reasonable, increase your region size and resubmit your request.

If the size of the request seems unreasonable, contact IBM Software Support.

HKT2127E **Internal error, bad return - container list sizing; R15=*xxxxxx*; RSN=*xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2128E **Internal error, bad return - container list; R15=*xxxxxx*; RSN=*xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2129E **Run terminated due to bad initialization call; R15 = *xxxxxx*; RSN = *xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2130E **Open failed for LIST output data set**

Explanation

Open failed for the OUTRPT DD statement. All LIST commands will fail.

User response

Verify that a valid OUTRPT DD statement is included in the step. Resubmit the request.

HKT2131E **Bad return from point report container; R15 = *xxxxxx*; RSN = *xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2132E **Bad return from get next report; R15 = *xxxxxx*; RSN = *xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2133E **Internal error, bad get next record; R15 = *xxxxxx*; R0 = *xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2134E **Requested report in LIST not found; PRODUCTID=*xx*; REPORTID=*xx***

Explanation

The requested REPORTID to be LISTed from the given PRODUCTID was not found.

User response

Correct either the PRODUCTID or the REPORTID and resubmit the request.

HKT2135E **Unknown type from table load; *xxxxxx* type encountered**

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2136E **Bad return code from add product; R15 = *xxxxxx*; RSN = *xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2137E **Internal table load request failed; TABLENAME = *xxxxxx***

Explanation

An attempt was made to load the displayed table.

User response

Verify that you have the correct STEPLIB. If the library is correct, contact IBM Software Support.

HKT2138E **Bad return code from add report; R15=*xxxxxx*; RSN=*xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2139E **Incorrect message requested message *xxxx* not found**

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2140E **Specified PRODUCTID was not found in the internal table; PRODUCTID=*xx***

Explanation

The PRODUCTID that was requested could not be found.

User response

Correct the value for PRODUCTID parameter and resubmit the request.

HKT2141E **Reserved for future use.**

Explanation

User response

HKT2142E **External table *xxxxxx* did not begin with a product record**

Explanation

The requested TABLE= parameter value is not in the proper format.

User response

Contact the supplier of this table for a correct table name.

HKT2143E **External table *xxxxxx* had multiple products; only 1 used**

Explanation

The TABLE= parameter name was loaded. The first product was added. Additional product records were on this table. Only the first product was added.

User response

Inform the supplier of this table.

HKT2144E **Invalid execution parameter**

Explanation

The parser detected a problem with the execution parameter that was specified.

User response

Correct the error and resubmit the request.

HKT2145E **Duplicate PRODUCTID; PRODUCTID=*xx* already exists**

Explanation

The ADDPROD request detected that the PRODUCTID to be added already exists within the repository. Some of the data that is associated with this request might not be processed.

User response

Warning message.

HKT2146E **Server specified unavailable; ITKBSRVR=*xxxxxx***

Explanation

The server ID that was specified on the execution parameter cannot be accessed.

User response

Verify that the correct sever ID was specified. Inspect the job log for any indication of the problem. Correct and resubmit the request.

HKT2147E **PRODUCTID already exists in the repository**

Explanation

The request for the ADDPROD failed because the PRODUCTID already exists in the repository.

User response

This is an informational message.

HKT2148E **PRODUCTID not found while attempting to add report; PRODUCTID=*xx*; REPORTID=*xxxxxx***

Explanation

The ADDRPT failed because the PRODUCTID requested does not exist. Products must be present before reports can be added to them.

User response

Change the ADDRPT request so that it is associated with an existing PRODUCTID.

HKT2149E **Invalid short name. Only 0-9,A-Z,a-z,#@$-_ or blank are valid. SNAME=*xxxxxx***

Explanation

An invalid value was specified on the SNAME parameter. The value that you specify for the SNAME parameter must either be blank or must consist of the characters 0-9, A-Z, a-z, #, @, $, -, _, or blank.

User response

Correct the SNAME parameter value and resubmit the request.

HKT2150E **Invalid long name. Only 0-9,A-Z,a-z,#@$-_ or blank are valid. LNAME=*xxxxxx***

Explanation

An invalid value was specified on the LNAME parameter. The value that you specify for the LNAME parameter must either be blank or must consist of the characters 0-9, A-Z, a-z, #, @, $, -, _, or blank.

User response

Correct the LNAME parameter value and resubmit the request.

HKT2151E **Invalid short title. Only 0-9,A-Z,a-z,#@$-_ or blank are valid. STITLE=*xxxxxx***

Explanation

An invalid value was specified on the STITLE parameter. The value that you specify for the STITLE parameter must either be blank or must consist of the characters 0-9, A-Z, a-z, #, @, $, -, _, or blank.

User response

Correct the STITLE parameter value and resubmit the request.

HKT2152E **Invalid long title. Only 0-9,A-Z,a-z,#@$-_ or blank are valid. LTITLE=*xxxxxx***

Explanation

An invalid value was specified on the LTITLE parameter. The value that you specify for the LTITLE parameter must either be blank or must consist of the characters 0-9, A-Z, a-z, #, @, $, -, _, or blank.

User response

Correct the LTITLE parameter value and resubmit the request.

HKT2153E **Invalid RETENTION. Must be between 0 and 32767**

Explanation

An invalid value was specified for the RETENTION parameter. The RETENTION parameter must be set to a numeric value between 0 and 32676.

User response

Specify a valid value for the RETENTION parameter and resubmit the request.

HKT2154E **SYSIN data set contains no valid data**

Explanation

Nothing could be processed because no valid requests were found.

User response

Correct the problem and resubmit the request.

HKT2155E **PRODUCTID specified is invalid; PRODUCTID=*xx***

Explanation

An invalid value was specified for the PRODUCTID parameter. The value that you specify for the PRODUCTID parameter must consist of the characters 0-9, A-Z, a-z, #, @, $, and -.

User response

Correct the PRODUCTID parameter value and resubmit the request.

HKT2156E **REPORTID specified is invalid; REPORTID=*xxxxxx***

Explanation

The REPORTID parameter must use A-Z,0-9,@,#,$ as valid characters.

User response

Specify a valid value for the REPORTID parameter and resubmit the request.

HKT2157E **Invalid RETENTION specified**

Explanation

An invalid value was specified for the RETENTION parameter. The value that you specify for the RETENTION parameter must be a numeric value between 0 and 32676.

User response

Specify a valid value for the RETENTION parameter and resubmit the request.

HKT2158I **Request completed successfully**

Explanation

Request completed successfully.

User response

This is an informational message that indicates the successful completion of the request.

HKT2159E **Internal error, bad point container; R15=*xxxxxx*; R0=*xxxxxx***

Explanation

This is an internal error.

User response

Contact IBM Software Support.

HKT2160E **Unknown Keyword - *xxxxxx***

Explanation

An unknown keyword was encountered in the input. The message contains the unknown keyword.

User response

Change the unknown keyword to one of the keywords that are defined for the product administration utility (HKTAPRA0).

HKT2161E **Unknown Positional Parameter - *xxxxxx***

Explanation

An unknown positional parameter was encountered in the input. The message contains the unknown parameter.

User response

Change the unknown parameter to one of the parameters that are defined for the product administration utility (HKTAPRA0).

HKT2162E **Keyword missing sub-parameters - *xxxxxx***

Explanation

A keyword was encountered without its required sub-parameters. The message contains the keyword parameter.

User response

Ensure that the keyword is specified with all required parameters.

HKT2163E **Input ended before all keywords processed**

Explanation

The product administration utility (HKTAPRA0) found end-of-file before all of the specified parameters were processed.

User response

Ensure that all parameters are correct.

HKT2164E **Keyword found instead of value - *xxxxxx***

Explanation

A keyword was encountered when a value was expected. The keyword is contained in the message.

User response

Ensure that the correct parameter syntax is specified.

HKT2165E **Number out of range - *xxxxxx***

Explanation

A number was encountered that was out of the range allowed. The message contains the incorrect number.

User response

Ensure that the number specified is within the allowable range.

HKT2166E **Invalid number - *xxxxxx***

Explanation

A number was encountered that contained non-decimal digits. The message contains the incorrect number.

User response

Ensure that the number is specified correctly.

HKT2167E **Unknown keyword value - *xxxxxx***

Explanation

The value that was specified for the keyword is not one of the allowed values. The message contains the incorrect value.

User response

Ensure that you use valid values when specifying this keyword.

HKT2168E **Keyword parameter specified more than once - *xxxxxx***

Explanation

A keyword was encountered more that once in the input. The message contains the incorrect keyword.

User response

Ensure that the keyword is specified the correct number of times.

HKT2169E **Required parameter was not found**

Explanation

One of the required parameters was not found.

User response

Ensure that all required parameters are specified.

HKT2170E **Keyword value too long - *xxxxxx***

Explanation

The value specified for the keyword is longer than allowed. The message contains the incorrect value.

User response

Ensure that the value specified for the keyword is correct.

HKT2171E **Invalid REPOSITORY name specified; REPOSITORY=*xxxxxx***

Explanation

The REPOSITORY= parameter specified an invalid value. The value must be a numeric value and must not exceed seven characters.

The value is the repository name without the initial O. For example, use 1234567 for a repository name of O1234567.

User response

Specify a valid REPOSITORY parameter name and resubmit the request.

HKT2172E **REPOSITORY is unavailable**

Explanation

The attempt to connect to the specified REPOSITORY was unsuccessful.

User response

Verify that the REPOSITORY value specified was correct and resubmit the request.

HKT2173E **REPLACE option = NO. RELEASE information exists.**

Explanation

Information was not replaced because REPLACE=YES was not specified.

User response

This is an informational message.

HKT2174E **Invalid external table specified; TABLE=*xxxxxx***

Explanation

The module that is specified in the TABLE= parameter does not conform to the required format.

User response

Notify the creator of the module to correct this problem.

HKT2175E **External table specified not found in STEPLIB; TABLE=*xxxxxx***

Explanation

The TABLE= parameter value could not be found. External table modules must reside in the standard load concatenation sequence.

User response

Place the requested module where it can be located.

HKT2176E **HKTAPRS0 not found in STEPLIB. Verify that the correct STEPLIB is included.**

Explanation

The IBM-generated internal table could not be located.

User response

Add this module to the execution library.

HKT2177E **Connect failed for requested REPOSITORY**

Explanation

A connection to a requested repository failed.

Possible reasons for the failed connection include:

- The IMS Tools Knowledge Base server is not running or incorrectly specified.
- The required IMS Tools Knowledge Base repository name is incorrectly specified.
- The ADDPROD command used the REPLACE=YES parameter, which requires the use of the default definition table and the repository name referenced in the product registry.

User response

Troubleshoot the connection failure from the suggestions described in the Explanation section, and resubmit the request.

HKT2178I **Attempting to add *xxxxxx***

Explanation

This is an informational message intended to be used in conjunction with other messages in the event of an error.

User response

Informational only.

HKT2179E **Run terminated due to bad enqueue return; R15=*xxxxxx***

Explanation

An enqueue request was issued and failed.

User response

Contact the IBM Software Support.

HKT2180E **Run terminated due to load failure for HKTRIAX**

Explanation

HKTAPRA0 failed to find the required module. The run is terminated.

User response

Correct the problem and resubmit the request.

HKT2181E **Run terminated due to load failure for HKTXRRF**

Explanation

The product administration utility (HKTAPRA0) failed to find the required module. The run terminates.

User response

Correct the problem and resubmit the request.

HKT2182E **Run terminated due to load failure for HKTXPRR**

Explanation

The product administration utility (HKTAPRA0) failed to find the required module. The run terminates.

User response

Correct the problem and resubmit the request.

HKT2183E **Attempted to add a report. Failed to find PRODUCTID=**

Explanation

The ADDRPT command could not find the PRODUCTID that was specified during the add report request.

User response

Verify that a valid PRODUCTID was used. Register the product or specify a product that is registered with IMS Tools Knowledge Base.

HKT2184I **Reports were not added to previous definitions because REPLACE=NO**

Explanation

The ADDPRD request tried to add one or more reports that already existed. This occurs when the ADDPRD is performed for a product that is already defined. Processing resumes with the next report for the product.

User response

None. This message is informational.

HKT2201I HKTJEXPT ended with RC=

Explanation

This message shows the highest return code that was encountered during the running of the job. Information message only.

User response

None. This message is informational.

HKT2202I The LOG DD failed to open; LOG=NO will be assumed.

Explanation

A HKTLOG DD statement might have been omitted from the HKTJEXPT job stream.

User response

Ensure that a HKTLOG DD statement is in the HKTJEXPT job stream.

HKT2203E No EXEC parameters found. ITKBSRVR parameter is required.

Explanation

The execution parameter has been omitted from the HKTJEXPT job stream.

User response

Add the execution parameter that specifies the ITKBSRVR parameter.

HKT2204I EXEC parameter specified

Explanation

This message shows the execution parameter that was specified.

User response

This message is displayed before an error message. Refer to the messages that follow.

HKT2205E VERSION parameter is greater than zero.

Explanation

The version parameter specified is greater than zero.

User response

The current version of a report is version zero.

HKT2206E Unsuccessful parse of EXEC PARMS. Internal error.

Explanation

An internal error occurred in the parser.

User response

Contact IBM Software Support.

HKT2207E Errors found in EXEC PARMS.

Explanation

Errors were found in the EXEC PARMS.

User response

This message is followed by message HKT2204I, which shows the EXEC parameters that were specified. A message that indicates the error will follow.

HKT2208E The PRINT DD failed to open.

Explanation

A PRINT DD statement might have been omitted from the HKTJEXPT job stream.

User response

Ensure that a PRINT DD statement is in the HKTJEXPT job stream.

HKT2209E Server name is required.

Explanation

An IMS Tools KB server name was not specified.

User response

Ensure that the name of an active IMS Tools KB server is specified.

HKT2210E Unsuccessful parse of SYSIN data. Internal error.

Explanation

An internal error occurred in the parser.

User response

Contact IBM Software Support.

HKT2211E **Storage overflow for SYSIN data.**

Explanation

An internal error occurred in the parser.

User response

Contact IBM Software Support.

HKT2212E **Unable to connect to ITKB repository server.**

Explanation

The specified IMS Tools KB server is not active.

User response

Ensure that the name of an active IMS Tools KB server is specified. Check the job log for any additional messages.

HKT2213E **Required parameter EXPORT not found, *xxxx* was found.**

Explanation

The required control statement verb EXPORT was not found. The character string that was found is displayed in the message.

User response

Ensure that EXPORT is specified on the first control statement.

HKT2214W **No Reports selected.**

Explanation

There are no reports that match the specified parameters.

User response

Change the report selection parameters to be less specific.

HKT2215E **Both RECON1 and RECONID are specified. Only one can be specified.**

Explanation

Both RECON1 and RECONID were specified. Only one can be specified.

User response

Ensure that only RECON1 or RECONID is specified.

HKT2216E **INITIAL failed (LP) (*nn*,*nn*).**

Explanation

An internal error occurred in IMS Tools Knowledge Base.

User response

Contact IBM Software Support.

HKT2217E **Group type/Group name must be specified together.**

Explanation

A GRPTYPE or GRPNAME parameter was found without the other. Both parameters must be present.

User response

Ensure that both the GRPTYPE and GRPNAME parameters are specified.

HKT2218E **Invalid group type given. Types are CA or DBDS.**

Explanation

The value that was specified for the GRPTYPE parameter was not one of the allowed values.

User response

Change the GRPTYPE value to one of the allowed values.

HKT2219E **Both PART and AREA are specified. Only one can be specified.**

Explanation

Both the PART and AREA parameter were specified. Only one can be specified.

User response

Ensure that only the PART or AREA parameter is specified.

HKT2220W **One or more of the Output Repositories are not available.**

Explanation

One or more of the output repositories are not available. This might prevent some reports from being selected if they are in an offline repository.

User response

Ensure that all repositories are online when exporting reports.

HKT2221E **No output repositories.**

Explanation

HKTJEXPT determined that there are no output repositories available at this time.

User response

Notify the IMS Tools Knowledge Base administrator.

HKT2223E **Input registry not available, verify that server *nnn* is active.**

Explanation

HKTJEXPT determined that the input registry is not available at this time.

User response

Ensure that the specified server is available and if so, notify the IMS Tools Knowledge Base administrator.

HKT2226E **Report open failed, verify that all parameters are valid. (*nn*,*nn*).**

Explanation

The report selected failed to open.

User response

Contact IBM Software Support.

HKT2228E **Product *xx* not defined.**

Explanation

The value that was specified for the PRODUCTID parameter was not defined.

User response

Ensure that the product has been registered with the IMS Tools KB server.

HKT2229E **Report *xx* not defined.**

Explanation

The value that was specified for the REPORTID parameter was not defined.

User response

Ensure that the report has been registered with the IMS Tools KB server.

HKT2230E **RECONID *reconid* not defined.**

Explanation

The value that was specified for the RECONID parameter was not defined.

User response

Ensure that this RECONID value has been defined with the IMS Tools KB server.

HKT2231E **RECON1 *dsn* not defined.**

Explanation

The value that was specified for the RECON1 parameter was not defined.

User response

Ensure that this RECON1 value has been defined with the IMS Tools KB server.

HKT2233W ***nnnn* reports were selected which exceeds MAXREPORTS.**

Explanation

The number of reports selected exceeds the value specified for the MAXREPORTS parameter.

User response

None required. Only the number of reports specified by the MAXREPORTS parameter will actually be printed.

HKT2234E **Repository read error (*nn*,*nn*)**

Explanation

An internal error occurred in the IMS Tools Knowledge Base.

User response

Contact IBM Software Support.

HKT2235W **Some report records were truncated while being written to the PRINT dd.**

Explanation

Some of the records in the report were longer than allowed for SYSOUT.

User response

Ensure that the record length of the report file is 133 bytes or shorter.

HKT2236E **The first version number is greater than the second.**

Explanation

The first version number is greater than the second.

User response

Ensure that when a version number range is specified that the first version is less than the second.

HKT2237E **There are no RECON entries in the registry.**

Explanation

HKTJEXPT determined that no RECON entries are present in the IMS Tools Knowledge Base repository.

User response

Notify the IMS Tools Knowledge Base administrator.

HKT2238W **STARTAFTER specified without MAXREPORTS, the STARTAFTER will be ignored.**

Explanation

A STARTAFTER parameter was found without a MAXREPORTS parameter. STARTAFTER requires MAXREPORTS.

User response

Ensure that when STARTAFTER is specified that the MAXREPORTS parameter is also specified.

HKT2239E **No SYSIN control statements found.**

Explanation

No SYSIN control statements were found.

User response

Ensure that the SYSIN DD statement is correctly specified.

HKT2240W **Report printing bypassed because of mixed attributes, RECFM=FBA or FBM.**

Explanation

HKTJEXPT detected that the attributes of the reports selected has changed from fixed to variable or variable to fixed as they are being printed. The report will not be printed.

User response

Change the selection criteria to eliminate the mixed attribute types.

HKT2241W **Invalid value for MAXREPORTS, 1 assumed.**

Explanation

The value specified was not in the allowable range. The range of valid values for this parameter is 1 to 2147483647.

User response

Ensure that the correct parameter value is specified.

HKT2242W **Invalid value for STARTAFTER, 0 assumed.**

Explanation

The value specified was not in the allowable range. The range of valid values for this parameter is 0 to 2147483647.

User response

Ensure that the correct parameter value is specified.

HKT2243E **VERSION parameter exceeds range.**

Explanation

The value specified was not in the allowable range. The range of valid values for this parameter is 0 to 32767.

User response

Ensure that the correct parameter value is specified.

HKT2244C **Report selection table exceeds 10000 entries.**

Explanation

The number of reports exceeded the size of the internal table.

User response

Use the MAXREPORTS and STARTAFTER parameters to break the selected reports into groups of less than 10,000 entries.

HKT2261E **Unknown keyword - *xxxxx***

Explanation

An unknown keyword was encountered in the input. The message contains the unknown keyword.

User response

Change the unknown keyword to one of the keywords that are defined for HKTJEXPT.

HKT2262E **Unknown positional parameter - *xxxxx***

Explanation

An unknown positional parameter was encountered in the input. The message contains the unknown parameter.

User response

Change the unknown parameter to one of the parameters that are defined for HKTJEXPT.

HKT2263E **Keyword missing sub-parameter - *xxxxxx***

Explanation

A keyword was encountered without its required sub-parameters. The message contains the keyword parameter.

User response

Ensure that the keyword is specified with all required parameters.

HKT2264E **Input ended before all keywords processed**

Explanation

HKTJEXPT found end-of-file before all of the specified keywords were processed.

User response

Ensure that all keywords are correct.

HKT2265E **Keyword found instead of value - *xxxxx***

Explanation

A keyword was encountered when a value was expected. The keyword is contained in the message.

User response

Ensure that the correct parameter syntax is specified.

HKT2266E **Number out of range - *xxxxx***

Explanation

A number was encountered that was out of the range allowed. The message contains the incorrect number.

User response

Ensure that the number that was specified is within the allowable range.

HKT2267E **Invalid number - *xxxxx***

Explanation

A number was encountered that contained non-decimal digits. The message contains the incorrect number.

User response

Ensure that the number is correctly specified.

HKT2268E **Unknown keyword value – *xxxxx***

Explanation

The value that was specified for the keyword is not one of the allowed values. The message contains the incorrect value.

User response

Ensure that the value that was specified is one of the allowed values.

HKT2269E **Keyword parameter specified more than once - *xxxxx***

Explanation

A keyword was encountered more that once in the input. The message contains the incorrect keyword.

User response

Ensure that the keyword is specified the correct number of times.

HKT2270E Required parameter was not found

Explanation

One of the required parameters was not found.

User response

Ensure that all required parameters are specified. This message will be accompanied by HKT2272.

HKT2271E Keyword value too long - *xxxxx*

Explanation

The value that was specified for the keyword exceeds the maximum allowable length. The message contains the incorrect value.

User response

Ensure that the value that was specified for the keyword is correct.

HKT2272I Required parameters are PRODUCTID and REPORTID.

Explanation

This message lists the required parameters for HKTJEXPT.

User response

Informational message.

HKT2300E No RECON entries in the registry.

Explanation

No RECON environments are defined to IMS Tools Knowledge Base. The RECON definitions must be initialized even if you are not using a RECON.

User response

If you do not use DBRC, you can run the JOB HKTDFREP.

Use the NEW command from the Recon Information panel (Administration/List Recon Information menu option) of the ISPF user interface to add the RECON environment to IMS Tools Knowledge Base.

HKT2301E Unable to connect – incorrect server name or insufficient access authority to repository

Explanation

The server that you specified is either not available, or the name is incorrect, or you have insufficient access authority to the repository.

User response

Check the server name that was specified. If it is correct, make sure the server initialized successfully.

To enable communication with the IMS Tools KB server, the FPQ subsystem is required on the system that you are running on. Ensure it is initialized correctly.

HKT2302E Insufficient access authority to repository

Explanation

Your access control system prevented access to one or more repositories.

User response

Determine which repository is affected and request the necessary authority.

HKT2303E Report defined as RECORD=N

Explanation

The report is currently defined to not be recorded (this is similar to DD DUMMY).

User response

Ignore this message if you do not want the report recorded. Otherwise, change the record setting for the report by using the Administration/List Installed Products/Subscription List action of the ISPF user interface.

HKT2304E RECON not found

Explanation

The IMS Tool or IMPORT utility tried to add a report to IMS Tools Knowledge Base by using a RECON1 data set name that is not defined.

User response

Use the NEW command from the Recon Information panel (Administration/List Recon Information menu option) of the ISPF user interface to add the RECON environment to IMS Tools Knowledge Base.

HKT2305E Product not defined

Explanation

The product is not registered to IMS Tools Knowledge Base.

User response

Use the product administration utility (HKTAPRA0) to register the product.

HKT2306E Report not defined

Explanation

The report is not registered to IMS Tools Knowledge Base.

User response

Use the product administration utility (HKTAPRA0) to register the product.

HKT2307E Product not defined to record reports

Explanation

The product is registered to IMS Tools Knowledge Base but is not currently defined to record any reports. This error might have occurred due to using the Administration/List Installed Products/Remove Subscriptions action of the ISPF user interface.

User response

Re-register the product and its reports.

HKT2308E Report index busy

Explanation

The product attempted to write a report but another report with the same index value is being written. This probably results from running two or more product jobs performing the same function for the same database.

User response

This problem should resolve when the competing job finishes. If you cannot identify a competing job, take a console dump of the server address space and contact IBM Software Support.

HKT2309E Connection to I/O repository failed

Explanation

The Output repository is not available and is likely stopped.

The repository might have been stopped intentionally or stopped because of an error. A likely error is an out-of-space condition.

User response

The initial Output repository designation is O0000000. If other Output repositories were implemented, use the Admin drop-down menu from the IMS Tools Knowledge Base user interface, and select List Repositories to view other possible Output repositories involved in this error.

Analyze the error reported to the server JOBLOG to determine possible solutions to the problem.

HKT2401I The program HKTRINIT ended with highest RC=*xxxxxx*

Explanation

The return code is a decimal number.

User response

None. This message is informational only. If the return code is nonzero, refer to other messages that were issued from the run of the program.

HKT2402I The HKTLOG DD failed to open, so logging does not occur for the job.

Explanation

LOG=YES was specified in the job's execution parameters, but an HKTLOG DD statement was not present in the job stream. Processing continues without logging.

User response

If logging the job is required, specify LOG=YES in the job's execution parameters and ensure that an HKTLOG DD statement is present in the job stream.

HKT2404I EXEC parameter specified - *xxxxxx*

Explanation

This message is issued when an error is detected in the job's execution parameters. It displays the execution parameters that were specified.

User response

This message is displayed with other messages. Refer to these messages for additional diagnostic information.

HKT2406E **Unsuccessful parse of EXEC PARMS. Internal error. Parse RC=xxxx**

Explanation

An internal error occurred in the parser. The displayed parser return code and reason code are hexadecimal values.

User response

Contact IBM Software Support.

HKT2407E **Errors found in EXEC parameters.**

User response

This message is displayed with other messages. Refer to these messages for more diagnostic information.

HKT2408E **Unable to add *xxxxxxxx* due to system contention. Please try again later.**

Explanation

System contention prevented the operation.

User response

Try the action later.

HKT2409E **Server name is required.**

Explanation

An IMS Tools KB server name was not specified.

User response

Ensure that the name of an active IMS Tools KB server is specified. You can place the name in the job's execution parameter or on the SYSIN control statements. Specify the server name by using 'ITKBSRVR=*xxxxxxxx'*, where *xxxxxxxx* is the XCF group name that is associated with an active IMS Tools KB server.

HKT2410E **Unsuccessful parse of SYSIN data. Internal error. Parse RC=*xxxx***

Explanation

An internal error occurred in the parser. The displayed parser return code and reason code are hexadecimal values.

User response

Contact IBM Software Support.

HKT2411E **Storage overflow for SYSIN data.**

Explanation

An internal error occurred in the parser.

User response

Contact IBM Software Support.

HKT2412E **Unable to connect to ITKB repository server.**

Explanation

The specified IMS Tools KB server is not active.

User response

Ensure that the name of an active IMS Tools KB server is specified. Check the job log for any additional messages.

HKT2413E **The parameter - *xxxxxx* is unknown and was ignored.**

Explanation

The function that is specified on the control statement is unknown. The character string that was found is displayed in the message. The supported functions are INITITKB, INITSNSR, and LISTRECN.

User response

Ensure that INITITKB, INITSNSR, or LISTRECN is specified on the control statement.

HKT2414E **RECON ID is invalid.**

Explanation

The RECON that is being added contains invalid characters.

User response

Contact IBM Software Support.

HKT2415E **Residual data buffer overflow.**

Explanation

An internal error occurred in conversion.

User response

Contact IBM Software Support.

HKT2416E **HKTRIAM service status: RC=*xxxx* Rsn=*xxxx* Func=*xxxxxxxx***

Explanation

This message displays the execution status of an internal IMS Tools Knowledge Base function.

This message might be displayed by itself or it might be displayed with other messages. In a few situations, this message might appear when the return and reason codes are both zero.

Some common error conditions:

- RC=0010 with Rsn=0035 indicates that the process was unable to connect to a repository.
- RC=001C with Rsn=00C9 indicates that the IMS Tools Knowledge Base server was not found.
- RC=001C with Rsn=00CA indicates that the IMS Tools Knowledge Base subsystem is not defined.

Possible values for the function are ADD_CONTAINER, GET_CONTAINER_LIST, INITIAL, GET_RECORD_LIST, POINT_CONTAINER, RELEASE_CONTAINER, REPLACE_RECORD_LIST, TERMINATE, and UPDATE_RECORD_LIST.

The return code and reason code are hexadecimal values.

User response

Most failures in this internal service require analysis by IBM Software Support. If other messages are displayed, refer to their suggested user responses.

If the reported error is RC=0010 with Rsn=0035, ensure that the required repositories are connected to the IMS Tools Knowledge Base server and that the repositories are not stopped.

If the reported error is RC=001C with Rsn=00C9, ensure that the requested IMS Tools Knowledge Base server is active.

If the reported error is RC=001C with Rsn=00CA, the subsystem for the repository was not initialized. This condition might occur because the SETSSI command for Subsystem FPQ2 was not issued. It might also occur because the subsystem (server) that is up is not the same as the batch jobs that are being submitted.

HKT2417E **RECON *xxxxxxxx* could not be updated. Another user may have modified it.**

Explanation

The RECON name listed could not be updated because it has been changed by another user.

User response

Try the operation again later.

HKT2418W **No RECONs found. Ensure the ITKB repository is initialized.**

User response

Run the HKTJINIT job and specify the INITITKB control statement to initialize the repository.

HKT2419I **RECON *xxxxxxxx* added.**

Explanation

The RECON name listed has been added.

User response

None. This is an informational message only.

HKT2420W **RECON *xxxxxxxx* already exists. No action taken.**

Explanation

The RECON name listed is already in the repository.

User response

None. This is an informational message only.

HKT2421W **The SYSIN DD statement is missing, so INITITKB is assumed.**

Explanation

The SYSIN DD statement failed to open. HKTJRINT processes as though an INITITKB control statement was specified.

User response

None. This message is informational only.

HKT2422E **Connect failed for repository *xxxxxxxx* due to *xxxxxxxx*.**

Explanation

The IMS Tools KB sever specified was not available. An explanation for the error is also listed.

Possible values are:

- FPQ subsystem not found
- Server not found
- Server in shutdown
- Server shutdown or failed
- Server is busy
- BUFSIZE exceeds maximum
- Repository not found
- Repository unavailable
- Insufficient authority

User response

Check the spelling of the server name and ensure that the named server is active.

HKT2423E **The input repository is not available.**

Explanation

The HKT_INPUT repository could not be accessed. Either this repository is not connected to the IMS Tools KB server, or it is stopped.

User response

Verify that the HKT_INPUT repository is connected to the server and is not stopped. You can check the repository status in the **Administration** menu on the IMS Tools Knowledge Base ISPF dialog's primary options panel.

HKT2424E **The Sensor Data Repository *xxxx* function failed. RC=*xxxx* Rsn=*xxxx***

Explanation

An error occurred while accessing the Sensor Data repository. The possible function values are INIT, CNTL, and TERM.

The return code and reason code are hexadecimal values.

User response

Refer to the reference section of the *IMS Tools Base Policy Services User's Guide and Reference* for further information about the return and reason codes.

HKT2425W **The DAYS parameter is ignored for the *xxxxxxxx* control statement.**

Explanation

The DAYS parameter is only supported on an INITSNSR control statement, but it was specified on the INITITKB or LISTRECN control statement. The DAYS parameter is ignored and execution continues.

User response

Remove the DAYS parameter from the control statement if the control statement is reused on subsequent runs.

HKT2426W **The DAYS parameter out of range, so 365 days is assumed.**

Explanation

The DAYS parameter has a value that is out of range. The valid range is 1 - 32767.

User response

Change the DAYS parameter to be within the specified range.

HKT2427E **Connect failed for ITKB server *xxxxxxxx* and the Sensor Repository.**

Explanation

The connection to the IMS Tools KB server and the Sensor Data repository failed.

User response

Ensure that the IMS Tools KB server name is spelled correctly.

Ensure that the Sensor Data repository has been properly defined.

Ensure that the Sensor Data repository has been started.

HKT2428I **The Sensor Data retention period was previously set to *nn* days.**

Explanation

The sensor data retention period was previously set and the INITSNSR function was invoked to reset this value. Processing the current INITSNSR request continues.

The sensor data retention setting that was in effect before the INITSNSR function was invoked is shown.

User response

None. This message is informational only.

HKT2429I **The INITITKB function was previously run.**

Explanation

The INITITKB function was previously run, so the current request to run INITITKB is ignored.

User response

None. This message is informational only.

HKT2430E ***nnnnnn*** **PARAMETER "*rr*" IS INCORRECT.**

Explanation

The incorrect release *rr* was specified in the source or target. In the message text:

nnnnnn
Indicates whether this is source or target.

rr
The release level. Values can be either R1 or R2.

System action

Processing is stopped.

User response

Correct the release value for the specified *nnnnnn* value of source or target.

HKT2431E **Same SOURCE and TARGET release specified.**

Explanation

Both the source and target release are set to the same release.

System action

Processing is stopped.

User response

Correct the release value for the source and target in error.

HKT2439E **No SYSIN control statements found.**

Explanation

There were no control statements found in the file specified by the SYSIN DD.

User response

Ensure that the file specified by the SYSIN DD statement contains valid HKTJRINT control statements.

HKT2440E **VSAM error *nnnnnn* RC - *rc* RS - *rs***

Explanation

A VSAM error has occurred while processing the source or target. In the message text:

nnnnnn
One of the following:

- TESTCB1 - The VSAM TESTCB failed for a VSAM OPEN of the source RID data set.
- TESTCB2 - The VSAM TESTCB failed for a VSAM OPEN of the source RMD data set.
- TESTCB3 - The VSAM TESTCB failed for a VSAM OPEN of the target RMD data set.
- TESTCB4 - The VSAM TESTCB failed for a VSAM OPEN of the target RID data set.
- MODCB1 - The VSAM MODCB failed for a VSAM PUT of a target RID.
- MODCB2 - The VSAM MODCB failed for a VSAM PUT of a target RMD.
- PUT - The VSAM PUT failed for a target RID.
- PUT2 - The VSAM PUT failed for a target RMD.

rc
The VSAM return code.

rs
The VSAM reason code.

System action

Processing is stopped.

User response

Internal error; contact IBM Software Support.

HKT2441E **VSAM open error DDNAME - *dddddddd* RC - *rc* RS - *rs***

Explanation

A VSAM OPEN operation failed. In the message text:

dddddddd
The DD name.

rc
The VSAM return code.

rs
The VSAM reason code.

System action

Processing is stopped.

User response

Check the VSAM return and reason codes to determine error. If problem persists, contact IBM Software Support.

HKT2442E **VSAM close error DDNAME - RC - *rc* RS - *rs***

Explanation

A VSAM CLOSE operation failed. In the message text:

dddddddd
The DD name.

rc
The VSAM return code.

rs
The VSAM reason code.

System action

Processing is stopped.

User response

Check the VSAM return and reason codes to determine error. If problem persists, contact IBM Software Support.

HKT2443E **Generate *nnnnnn* failed DDNAME - *dddddddd* RC - *rc* RS - *rs***

Explanation

In the message text:

nnnnnn
One of the following:

- ACB1 - The VSAM GENCB failed for a VSAM ACB for the target RID data set.
- ACB2 - The VSAM GENCB failed for a VSAM ACB for the source RID data set.
- ACB3 - The VSAM GENCB failed for a VSAM ACB for the source RMD data set.
- ACB3 - The VSAM GENCB failed for a VSAM ACB for the target RMD data set.
- RPL1 - The VSAM GENCB failed for a VSAM RPL for the target RID data set.
- RPL2 - The VSAM GENCB failed for a VSAM RPL for the Source RID data set.
- RPL3 - The VSAM GENCB failed for a VSAM RPL for the Source RMD data set.
- RPL4 - The VSAM GENCB failed for a VSAM RPL for the target RMD data set.
- EXLST1 - The VSAM GENCB failed for a VSAM EXLST for the Source RMD data set.
- MODCB1 - The VSAM MODCB failed for a VSAM EXLST of the Source RID data set.

dddddddd
The DD name.

rc
The VSAM return code.

rs
The VSAM reason code.

System action

Processing is stopped.

User response

Check the VSAM return and reason codes to determine error. If problem persists, contact IBM Software Support.

HKT2444E **RMD key table overflow.**

Explanation

An internal table buffer was not large enough and the data overflowed the allocated storage.

System action

Processing is stopped.

User response

Internal error; contact IBM Software Support.

HKT2461E **Unknown keyword - *xxxxx***

Explanation

An unknown keyword was encountered in the input. The message contains the unknown keyword.

User response

Change the unknown keyword to one of the supported keywords or remove extraneous parameter text.

HKT2462E **Unknown positional parameter - *xxxxx***

Explanation

An unknown positional parameter was encountered in the input. The message contains the unknown parameter.

User response

Change the unknown parameter to one of the supported parameters or remove extraneous parameter text.

HKT2463E **Keyword missing sub-parameter - *xxxxxx***

Explanation

A keyword was encountered without its required sub-parameters. The message contains the keyword parameter.

User response

Ensure that the keyword is specified with all required parameters.

HKT2464E **Input ended before all keywords processed**

Explanation

HKTJRINT found end-of-file before all of the specified keywords were processed.

User response

Ensure that all keywords are correct.

HKT2465E **Keyword found instead of value - *xxxxx***

Explanation

A keyword was encountered when a value was expected. The keyword is contained in the message.

User response

Ensure that the correct parameter syntax is specified.

HKT2466E **Number out of range - *xxxxx***

Explanation

A number was encountered that was out of the range allowed. The message contains the incorrect number.

User response

Ensure that the number that was specified is within the allowable range.

HKT2467E **Invalid number - *xxxxxx***

Explanation

A number was encountered that contained non-decimal digits. The message contains the incorrect number.

User response

Ensure that the number is correctly specified.

HKT2468E **Unknown keyword value - *xxxxxx***

Explanation

The value that was specified for the keyword is not one of the allowed values. The message contains the incorrect value.

User response

Ensure that the value that was specified is one of the allowed values.

HKT2469E **Keyword parameter specified more than once - *xxxxxx***

Explanation

A keyword was encountered more that once in the input. The message contains the incorrect keyword.

User response

Ensure that the keyword is specified the correct number of times.

HKT2470E **Required parameter was not found.**

Explanation

One of the required parameters was not found.

User response

Ensure that all required parameters are specified. This message will be accompanied by HKT2472I.

HKT2471E **Keyword value too long - *xxxxxx***

Explanation

The value that was specified for the keyword exceeds the maximum allowable length. The message contains the incorrect value.

User response

Ensure that the value that was specified for the keyword is correct.

HKT2472I **Required parameters are INITITKB, INITSNSR, or LISTRECN.**

Explanation

This message lists the required parameters for HKTJRINT.

User response

None. This is an informational message only.

HKT2473I **The *xxxxxxxx* function is processing for IMS Tools KB server *xxxxxxxx*.**

Explanation

Indicates the start of the selected function. The function name is INITITKB, INITSNSR, or LISTRECN.

User response

None. This message is informational.

HKT2474I **The *xxxxxxxx* function ended with RC=*xxxxx*.**

Explanation

This message shows the function's return code. The function name is INITITKB, INITSNSR, or LISTRECN. The return code is a decimal number.

User response

This message is informational only. If the return code is nonzero, refer to other messages that were issued during the function's run.

HKT2475I **The Sensor Data retention period was reset to *nn* days.**

Explanation

The INITSNSR function successfully updated the sensor data retention value. This message is shown even if the previous setting and the updated setting are the same value.

The updated sensor data retention setting is shown.

User response

None. This message is informational only.

HKT2501E **LOCID=*mmm* RC=10 RSN=01 R0=*rrrrrrrr* : LOG SPECIFICATION ERROR**

Explanation

The HKTEXST DELETE function failed to delete the requested member.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the correct member to delete was specified.

Also, ensure that the member had not previously been deleted.

HKT2502I **LOCID=*mmm* RC=04 RSN=02 R0=*rrrrrrrr* : NO PRODUCT EXTENSIONS FOUND**

Explanation

The product definition did not contain product extension data. This might or might not be an error.

If an older product definition version (prior to IMS Tools Base 1.7) did not contain product extension data, then return and reason codes are produced.

System action

Program returns to the caller with the error and reason codes.

User response

The message can be a correct result.

If you know that an extension should be expected, then the product library definitions should be reviewed with an administrator.

HKT2503E **LOCID=*mmm* RC=16 RSN=03 R0=*rrrrrrrr* : NO SERVER SUPPLIED**

Explanation

The product definition initialization program does not specify the server name for the product definition repository (HKT_REGISTRY).

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the ITKBSRVR= parameter value is correctly specified in the PARM field of the HKTAPRA0 program.

HKT2504E **LOCID=*mmm* RC=12 RSN=4 R0=*rrrrrrrr* : UNABLE TO INITIALIZE OR SYNCH WITH EXTENDED PRODUCT REPOSITORY (HKT_REGISTRY)**

Explanation

During initialization of defining a product definition, the process could not make a connection or establish a synch point with the product registry (HKT_REGISTRY).

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the correct group (server) was specified or that the server is up and running.

If the problem persists, run again with a log file and report the issue to the system administrator and/or IBM Software Support.

HKT2505E **LOCID=*mmm* RC=8 RSN=05 R0=*rrrrrrrr* : NO EXTENDED DATA TO PROCESS**

Explanation

No extended product data was passed to the extended product definition initializer.

System action

Program returns to the caller with the error and reason codes.

User response

Although there is an extended reference, the extended data passed was null.

Check the extended product definition ensure there is a correct definition.

This error might have to be reported to a system administrator.

HKT2506E **LOCID=*mmm* RC=16 RSN=6 R0=*rrrrrrrr* : INVALID EXTENDED PRODUCT PROCESSING LENGTH PARAMETER WAS PASSED**

Explanation

A bad length to an extended product specification was passed to the extended product processor.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the product definition library and/or members are correctly specified.

Additionally, ensure that there has not been any corruption to the member.

If necessary, rerun with logging and report the error to the system administrator.

HKT2507E **LOCID=*mmm* RC=8 RSN=7 R0=*rrrrrrrr* : AN EXTENDED PRODUCT ENTITY HAS TOO LONG OF A STRING VALUE CAUSING TRUNCATION STRING TRUNCATION**

Explanation

A value for an extended product variable was too long.

System action

Program returns to the caller with the error and reason codes.

User response

Check the settings of the extended product variables to ensure that they were coded correctly.

If necessary, rerun the job with a log file.

HKT2508E **LOCID=*mmm* RC=16 RSN=8 R0=*rrrrrrrr* : AN INVALID PROCESSING STATE DETECTED DUE TO OUT OF SEQUENCE COMMANDS PASSED**

Explanation

Extended product processing data was passed out of sequence to the extended product initializer.

System action

Program returns to the caller with the error and reason codes.

User response

Rerun the job with a log file and report the problem to a system administrator or IBM Software Support.

HKT2509E **LOCID=*mmm* RC=8 RSN=9 R0=*rrrrrrrr* : A LOAD LIBRARY (LLR) DDNAME SETTING IS MISSING IN THE EXTENDED PRODUCT DEFINITION**

Explanation

The required library ddname (PENU_DD, MENU_DD, SLIB_DD) was missing from the extended product definition.

Note: LOAD_DD is optional.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that all the required library ddname references are defined in the extended product definition module.

HKT2510E **LOCID=*mmm* RC=8 RSN=10 R0=*rrrrrrrr* : DSNAME EXTRACTION FAILED**

Explanation

A ddname specified for a library (LOAD_DD, PENU_DD, MENU_DD, and/or SLIB_DD) is missing in the JCL or could not be accessed.

System action

Program returns to the caller with the error and reason codes.

User response

Check to ensure that all the referenced library definitions have the corresponding JCL ddname definition.

HKT2511E **LOCID=*mmm* RC=16 RSN=11 R0=*rrrrrrrr* : LIBRARY LLR ENTRY OVERFLOW**

Explanation

The number of libraries defined exceeds the maximum allowed to hold in the repository.

There are currently four libraries: LOAD_DD, PENU_DD, MENU_DD, and SLIB_DD.

The current maximum allowed, for future expansion, is eight.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the product definition modules are correctly constructed.

If the problem persists, report the issue to a system administrator and/or IBM Software Support.

Future possible expansions might cause the maximum number to be increased.

HKT2512E **LOCID=*mmm* RC=16 RSN=12 R0=*rrrrrrrr* : PROJECT DATA IS MISSING**

Explanation

The required two (2) character project (or product) identifier is missing.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the product definition module has specified the project (or product) identifier.

HKT2513E **LOCID=*mmm* RC=16 RSN=13 R0=*rrrrrrrr* : ADD OF LRR LIBRARIES FAILED**

Explanation

The attempted add of the library (LLR) data to the registration repository failed.

System action

Program returns to the caller with the error and reason codes.

User response

This message indicates a problem with the registration repository. Rerun the job with a log file.

If the problem persists, report it to a system administrator or IBM Software Support.

HKT2514E **LOCID=*mmm* RC=16 RSN=14 R0=*rrrrrrrr* : SYNCHRONIZATION OF EXTENDED PRODUCT REGISTRY ENTRIES FAILED TO COMMIT**

Explanation

The attempted commit of the extended updates to the registration repository failed.

System action

Program returns to the caller with the error and reason codes.

User response

This message indicates a problem with the registration repository. Rerun the job with a log file.

If the problem persists, report it to a system administrator or IBM Software Support.

HKT2516E **LOCID=*mmm* RC=12 RSN=16 R0=*rrrrrrrr* : INVALID YES OR NO FLAG PASSED FROM EXTENDED PRODUCT DEFINITION**

Explanation

One of the extended product flags, such as FFDB, had a value that was other than Yes or No.

System action

Program returns to the caller with the error and reason codes.

User response

Check the extended product registration module to ensure that all the flag fields specified are defined correctly.

HKT2518E **LOCID=*mmm* RC=12 RSN=18 R0=*rrrrrrrr* : REQUIRED NAME MISSING**

Explanation

The extended product required PROGRAM name is missing.

System action

Program returns to the caller with the error and reason codes.

User response

Check the extended product registration module to ensure that the PROGRAM name has been defined.

HKT2519E **LOCID=*mmm* RC=16 RSN=19 R0=*rrrrrrrr* : ACCESS TEMPLATE FILE FAILED**

Explanation

Accessing the template file failed.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the JCL template file is specified in the JCL and has the correct attributes.

HKT2520E **LOCID=*mmm* RC=8 RSN=20 R0=*rrrrrrrr* : TEMPLATE FILE IS NULL**

Explanation

The JCL template file was NULL. It did not contain any data.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the specified JCL template file data set is correct, and that it contains the JCL template.

HKT2521E **LOCID=*mmm* RC=12 RSN=21 R0=*rrrrrrrr* : EXTENDED PRODUCT DEFINITIONS CONTAIN DUPLICATE KEY DEFINITIONS**

Explanation

The extended product definition contained duplicate definitions.

System action

Program returns to the caller with the error and reason codes.

User response

Check the extended product definition for any duplicate definitions, and remove the duplicate definition.

HKT2527E **LOCID=*mmm* RC=12 RSN=27 R0=*rrrrrrrr* : ACCESS TEMPLATE ERROR**

Explanation

The attempt by the extended product definition initializer to access the template file failed.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see the template file is correctly specified.

There might be a problem with the TEMPLATE ddname that specifies the PDS data set name.

Or there might be a problem with the PDS member name specified by the extended product definition keyword (TEMPLATE).

If the problem persists, run the initializer program with a log file and, if necessary, contact a system administrator and/or IBM Software Support.

HKT2528E **LOCID=*mmm* RC=16 RSN=27 R0=*rrrrrrrr* : INVALID INTERNAL FUNCTION**

Explanation

The internal driver function code for the extended product definition initializer was invalid.

System action

Program returns to the caller with the error and reason codes.

User response

Contact a system administrator and/or IBM Software Support.

HKT2529E **LOCID=*mmm* RC=12 RSN=29 R0=*rrrrrrrr* : INVALID EXTENDED FUNCTION**

Explanation

The extended product function passed to the initializer was invalid.

System action

Program returns to the caller with the error and reason codes.

User response

Currently the only extended function supported is LISTX.

Check the input commands to ensure that no other extended function is being called.

Note: This message does not apply to the standard functions such as ADDPROD, ADDRPT, and LIST.

HKT2530E **LOCID=*mmm* RC=8 RSN=30 R0=*rrrrrrrr* : EXTENDED FUNCTION NOT FOUND**

Explanation

This error is similar to HKT2529E.

This error is issued at a low level where the extended function cannot be found in the internal table.

System action

Program returns to the caller with the error and reason codes.

User response

Check to ensure that the extended function used is defined (as in HKT2529E).

Also, it is possible that the lower level lookup function is out of synch with the extended function processor.

In this case, the problem should be reported to a system administrator or IBM Software Support.

HKT2531E **LOCID=*mmm* RC=8 RSN=31 R0=*rrrrrrrr* : EXTENDED REPORT NOT OPEN**

Explanation

The extended output report file, OUTRPTX, could not be opened.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the OUTRPTX file is defined in the JCL with the correct attributes.

HKT2532E **LOCID=*mmm* RC=12 RSN=32 R0=*rrrrrrrr* : KEYWORD OR VALUE IS INVALID FOR THE GIVEN EXTENDED FUNCTION**

Explanation

The keyword, or keyword value, of an extended function was invalid.

System action

Program returns to the caller with the error and reason codes.

User response

Check the input file to ensure that the keywords, or keyword values, for an extended function are correctly specified.

HKT2533E **LOCID=*mmm* RC=12 RSN=33 R0=*rrrrrrrr* : DUPLICATE KEYWORD SPECIFIED**

Explanation

A duplicate keyword or value was found for an extended product function.

System action

Program returns to the caller with the error and reason codes.

User response

Remove any duplicate keyword or values from the input file.

HKT2534E **LOCID=*mmm* RC=12 RSN=33 R0=*rrrrrrrr* : DUPLICATE KEYWORD SPECIFIED**

Explanation

A required keyword or value for an extended product function was missing.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that all specified extended product function in the input file have the require keyword or value specified.

HKT2535I **LOCID=*mmm* RC=4 RSN=35 R0=*rrrrrrrr* : PRODUCTID HAS NO ENTRIES**

Explanation

There was no extended product data found for a given PRODUCTID.

System action

Program returns to the caller with the error and reason codes.

User response

This message is informational and indicates that the PRODUCTID does not have any extended data defined. A PRODUCTID is not required to contain extended data.

This message is also issued when an incorrect PRODUCTID was entered on the input command.

HKT2536E **LOCID=*mmm* RC=12 RSN=36 R0=*rrrrrrrr* : ERROR ACCESSING PRODUCT LIST**

Explanation

An attempt to access the extended PRODUCT list from the repository failed.

System action

Program returns to the caller with the error and reason codes.

User response

Many internal issues, such as a lost connection, can cause this error. Try rerunning the job with a log file to obtain details.

If the problem persists, contact a system administrator.

HKT2537E **LOCID=*mmm* RC=12 RSN=37 R0=*rrrrrrrr* : READ OF DATA RECORD FAILED**

Explanation

An attempt to read extended PRODUCT data from the repository failed.

System action

Program returns to the caller with the error and reason codes.

User response

Many internal issues, such as a lost connection, can cause this error. Try rerunning the job with a log file to obtain details.

If the problem persists, contact a system administrator.

HKT2538E **LOCID=*mmm* RC=4 RSN=38 R0=*rrrrrrrr* : DATA AREA IS NULL IN SIZE**

Explanation

The data read for an extended product was null in size.

System action

Program returns to the caller with the error and reason codes.

User response

This might not be a problem. If you suspect it is a problem, check your extended product request and rerun the job with a log file.

If the problem persists, contact a system administrator.

HKT3002E **LOCID=*mmm* RC=0C RSN=02 R0=*rrrrrrrr* : OUT OF SEQUENCE**

Explanation

An incorrect function was passed by the internal client, or the function is out of sequence.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is an internal error. Contact IBM Software Support.

HKT3003E **LOCID=*mmm* RC=0C RSN=03 R0=*rrrrrrrr* : INVALID PROCESS MODE**

Explanation

An incorrect process mode was passed by the internal client.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is an internal error. Contact IBM Software Support.

HKT3004E **LOCID=*mmm* RC=0C RSN=04 R0=*rrrrrrrr* : IAV ACCESS FAILED**

Explanation

An error occurred while the program was initializing the Autonomics Director repository environment.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

Verify that the Autonomics Director repository is connected to the server and is not stopped. If the problem persists, contact IBM Software Support.

HKT3005E LOCID=*mmm* RC=0C RSN=05 R0=*rrrrrrrr* : INVALID REQUEST

Explanation

An incorrect data request was passed by the internal client.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is an internal error. Contact IBM Software Support.

HKT3006E LOCID=*mmm* RC=0C RSN=06 R0=*rrrrrrrr* : RECON ACCESS FAILED

Explanation

An error occurred while the program was trying to obtain the list of RECON data sets that have been defined in the Input repository.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

Ensure that the RECON ID is correctly defined in the Input repository. If the problem persists, contact IBM Software Support.

HKT3007E LOCID=*mmm* RC=0C RSN=07 R0=*rrrrrrrr* : LIST MEMBER FAILED

Explanation

An error occurred while the program was trying to access the list of Autonomics Director repository members.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact IBM Software Support.

HKT3008E LOCID=*mmm* RC=0C RSN=08 R0=*rrrrrrrr* : GET MEMBER FAILED

Explanation

While the program was trying to obtain Autonomics Director repository members, an error occurred for a reason other than a "no members found" condition.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact IBM Software Support.

HKT3009W LOCID=*mmm* RC=04 RSN=09 R0=*rrrrrrrr* : GET MEMBER NOT FOUND

Explanation

An error occurred while the program was trying to access the list of Autonomics Director repository members. There are no members to obtain from the Autonomics Director repository.

System action

The program continues processing.

User response

None. This is a warning message.

HKT3010E LOCID=*mmm* RC=0C RSN=0A R0=*rrrrrrrr* : GET MEMBER FAILED

Explanation

An error occurred while the program was trying to locate Autonomics Director repository members.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact IBM Software Support.

HKT3011W **LOCID=*mmm* RC=04 RSN=0B R0=*rrrrrrrr* : GET RECORD NOT FOUND**

Explanation

No member records were found in the Autonomics Director repository.

System action

The program continues processing.

User response

None. This is a warning message.

HKT3012E **LOCID=*mmm* RC=0C RSN=0C R0=*rrrrrrrr* : RECORD DATA NOT ACQUIRED**

Explanation

An error occurred while the program was trying to obtain the data portion of member records for Autonomics Director repository members.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact IBM Software Support.

HKT3013E **LOCID=*mmm* RC=10 RSN=0D R0=*rrrrrrrr* : READ OF INPUT FAILED**

Explanation

The program detected an error while processing a request message from the internal client.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the client.

User response

This is an internal error. Contact IBM Software Support.

HKT3014E **LOCID=*mmm* RC=10 RSN=0E R0=*rrrrrrrr* : SEND BAD ENVIRONMENT**

Explanation

During environment initialization, the program detected an error while sending a response message to the internal client.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the client.

User response

This is an internal error. Contact IBM Software Support.

HKT3015E **LOCID=*mmm* RC=0C RSN=0F R0=*rrrrrrrr* : LOGGING SPECIFICATION**

Explanation

The logging function encountered an error.

System action

The program returns an error.

User response

Rerun the job, and if the problem persists, contact IBM Software Support.

HKT3016E **LOCID=*mmm* RC=10 RSN=10 R0=*rrrrrrrr* : SEND WRITE FAILED**

Explanation

An error was detected while the program was processing a response message to the internal client.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the client.

User response

This is an internal error. Contact IBM Software Support.

HKT3017E LOCID=*mmm* RC=0C RSN=11 R0=*rrrrrrrr* : MEMBER DELETE FAILED

Explanation

An error occurred while the program was trying to delete Autonomics Director repository members.

System action

The function requested by the internal client is rejected, and the return and reason codes that define the failure are returned to the internal client.

User response

This is most likely a repository system error. Rerun the job with a log file. If the problem persists, contact IBM Software Support.

Chapter 18. HKTD error messages (discovery utility)

This reference section provides detailed information about the error messages issued by the IMS Tools discovery utility.

Message format

IMS Tools discovery utility messages adhere to the following format:

```
HKTDnnnx
```

where:

HKTD
Indicates that the message was issued by IMS Tools discovery utility

nnn
Indicates the message identification number

x
Indicates the severity of the message:

A
Indicates that operator intervention is required before processing can continue.

E
Indicates that an error occurred, which might or might not require operator intervention.

I
Indicates that the message is informational only.

W
Indicates that the message is a warning to alert you to a possible error condition.

Each message also includes the following information:

Explanation:
The Explanation section explains what the message text means, why it occurred, and what its variables represent.

System action:
The System action section explains what the system will do in response to the event that triggered this message.

User response:
The User response section describes whether a response is necessary, what the appropriate response is, and how the response will affect the system or program.

HKTD101E STARTDBRC FAILURE, RC=*rc*, RSN=*rsn*

Explanation

The discovery API issued a DBRC API request with FUNC=STARTDBRC, but the DBRC API did not complete processing.

System action

The discovery API ends with a return code of 8.

User response

Check the return and reason codes in the message by referring to *IMS System Programming APIs*, fix the errors, and rerun the job. If the problem persists, contact IBM Software Support.

HKTD102E STOPDBRC FAILURE, RC=*rc*, RSN=*rsn*

Explanation

The discovery API issued a DBRC API request with FUNC=STOPDBRC, but the DBRC API did not complete processing.

System action

The discovery API ends with a return code of 8.

User response

Check the return and reason codes in the message by referring to *IMS System Programming APIs*, fix the errors, and rerun the job. If the problem persists, contact IBM Software Support.

HKTD470E HKTRERD I-call failed

Explanation

The Discovery Utility made an I-call to HKTRERD and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD471E No RECONID found in ITKB

Explanation

The Discovery Utility made an I-call to HKTRERD and no RECON ID record was found in IMS Tools Knowledge Base.

System action

The job abends with U4075.

User response

Ensure that at least one RECON ID exists in IMS Tools Knowledge Base. If the problem persists, Contact IBM Software support and provide the job log.

HKTD472E HKTRERD G-call failed

Explanation

The Discovery Utility made a G-call to HKTRERD and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD473E RECONID not found in ITKB

Explanation

The Discovery Utility could not locate a RECON ID.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD474E HKTRERD C-call failed

Explanation

The Discovery Utility made a C-call to HKTRERD and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD475E Dynamic allocation failed for *ddname* RC=*rr* RSN=*eeeeiiii*

Explanation

The Discovery Utility failed to dynamically allocate the *ddname*.

In the message text,

rr
Return code from SVC99

eeee
Error reason code (S99ERROR)

iiii
Information reason code (S99INFO)

System action

The job abends with U4075.

User response

Correct the error and rerun the job. The return codes and the reason codes are described in *z/OS MVS Programming: Authorized Assembler Services Guide*. If the problem persists, contact IBM Software support and provide the job log.

HKTD476E *nnnnnnnn* PARAMETER NOT FOUND

Explanation

The required *nnnnnnnn* parameter is not found.

System action

The job abends with U4075.

User response

Add the required parameter to the JCL and rerun the job.

HKTD477E FAIL TO CONNECT TO HKT_INPUT REPOSITORY

Explanation

The Discovery Utility failed to connect to HKT_INPUT repository.

System action

The job abends with U4075.

User response

Verify that the IMS Tools KB server name that is specified on the ITKBSERV= parameter is valid and that the IMS Tools KB server is active. If the problem persists, contact IBM software support.

HKTD478E DSI INIT-CALL FAILED

Explanation

The Discovery Utility failed to initialize the Discovery Service Interface.

System action

The job abends with U4075.

User response

Verify that the RECON data sets and DBDLIB are accessible. If the problem persists, Contact IBM Software support and provide the job log.

HKTD479E DSI DBDDIR-CALL FAILED

Explanation

The Discovery Utility called the Discovery Service Interface to retrieve the DBDLIB directory, and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD480E DSI NO BUFFER RETURN

Explanation

The Discovery Utility called the Discovery Service Interface to retrieve the DBDLIB directory entries, and no buffer was returned.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD481I NO DBD FOUND

Explanation

The Discovery Utility called the Discovery Service Interface to retrieve the DBDLIB directory entries, and the buffer did not contain any entries.

System action

Processing continues.

User response

Verify that no databases entries are defined in the DBDLIB.

HKTD482E DSI DBITKB-CALL FAILED

Explanation

The Discovery Utility called the Discovery Service Interface to create the database record ready to be stored in the IMS Tools Knowledge Base repository, and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD483E ITKB CREATE-MEMBER FAILED

Explanation

The Discovery Utility failed to create a member in the IMS Tools Knowledge Base repository.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD484E ITKB LOCATE-MEMBER FAILED

Explanation

The Discovery Utility failed to locate a member in IMS Tools Knowledge Base repository.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD485E ITKB DELETE-MEMBER FAILED

Explanation

The Discovery Utility failed to delete a member in IMS Tools Knowledge Base repository.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD486E ITKB ADD-REC FAILED

Explanation

The Discovery Utility failed to add a record to a member in IMS Tools Knowledge Base repository.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD487E ITKB WRITE-MEMBER FAILED

Explanation

The Discovery Utility failed to write a member in IMS Tools Knowledge Base repository.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD488E DSI RELBUFF-CALL FAILED

Explanation

The Discovery Utility called Discover Service Interface to release a buffer and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD489I NUMBER OF DB *action* WAS *nnnnnnnn*

Explanation

The Discovery Utility has discovered or deleted databases. In the message text:

nnnnnnnn
Number of databases

action
Discovered or deleted

System action

Processing continues.

User response

Verify that the number of databases discovered or deleted is correct.

HKTD490I NUMBER OF DBRC GROUPS *action* WAS *nnnnnnnn*

Explanation

The Discovery Utility has discovered or deleted DBRC groups. In the message text:

nnnnnnnn
Number of databases

action
Discovered or deleted

System action

Processing continues.

User response

Verify that the number of DBRC groups discovered or deleted is correct.

HKTD491E DSI GPITKB-CALL FAILED

Explanation

The Discovery Utility called the Discovery Service Interface to create the DBRC group record to be stored IMS Tools Knowledge Base repository, and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD492I

Explanation

The Discovery Utility did not find any DBRC groups defined in the RECON data sets.

System action

Processing continues.

User response

Verify that DBRC groups are not defined.

HKTD494W VALIDATION FAILED - DBD *nnnnnnnn* SKIPPED

Explanation

The Discovery Utility found an invalid DBD.

System action

The database for the invalid DBD is not stored in IMS Tools Knowledge Base INPUT repository.

User response

Fix the invalid DBD by running the DBDGEN again.

HKTD495E ITKB BEGIN_LIST FAILED

Explanation

The Discovery Utility attempted BEGLIST processing for the IMS Tools Knowledge Base repository, but the attempt failed.

System action

The job ends abnormally with abend code U4075.

User response

Contact IBM Software Support and provide them with the job log.

HKTD496E ITKB GET_LIST FAILED

Explanation

The Discovery Utility attempted to retrieve a list from the IMS Tools Knowledge Base repository, but the attempt failed.

System action

The job ends abnormally with abend code U4075.

User response

Contact IBM Software Support and provide them with the job log.

HKTD497E ITKB END_LIST FAILED

Explanation

The Discovery Utility attempted ENDLIST processing for the IMS Tools Knowledge Base repository, but the attempt failed.

System action

The job ends abnormally with abend code U4075.

User response

Contact IBM Software Support and provide them with the job log.

HKTD499E DSI PSBDIR-CALL FAILED

Explanation

The Discovery Utility called the Discovery Service Interface to retrieve the PSBLIB directory, and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD501I NO PSB FOUND

Explanation

The Discovery Utility called the Discovery Service Interface to retrieve the PSBLIB directory entries, and the buffer did not contain any entries.

System action

Processing continues.

User response

Verify that no PSB entries are defined in the PSBLIB.

HKTD502E DSI PSBITKB-CALL FAILED

Explanation

The Discovery Utility called the Discovery Service Interface to create the program record ready to be stored in the IMS Tools Knowledge Base repository, and received a non-zero return code.

System action

The job abends with U4075.

User response

Contact IBM Software support and provide the job log.

HKTD509I NUMBER OF PSB *action* WAS *nnnnnnnn*

Explanation

The Discovery Utility has discovered or deleted program specification blocks (PSB). In the message text:

nnnnnnnn
Number of PSBs

action
Discovered or Deleted

System action

Processing continues.

User response

Verify that the number of PSBs discovered or deleted is correct.

HKTD514W VALIDATION FAILED - PSB *nnnnnnnn* SKIPPED

Explanation

The Discovery Utility found an invalid PSB.

System action

The invalid PSB is not stored in IMS Tools Knowledge Base INPUT repository.

User response

Fix the invalid PSB by running the PSBGEN again.

HKTD515E INCOMPATIBLE REPOSITORIES ARE DETECTED

Explanation

Inappropriate repositories are found.

System action

The job abends with U4075.

User response

Check if the connected IMS Tools Knowledge Base server and repositories are correct. If they are correct, make sure that the repository conversion process has been properly completed. If not, migrate the repositories from IMS Tools Base 1.6 to 1.7 again.

Chapter 19. HKTM and HKTX error messages (internal data access APIs)

This reference section provides detailed information about the error messages issued by the internal data access APIs for IMS Tools Knowledge Base repositories. For information about how to troubleshoot these problems, call IBM Software Support.

Message format

Messages for the internal data access APIs for IMS Tools Knowledge Base repositories adhere to the following format:

```
HKTannnx
```

where:

HKT
Indicates that the message was issued by internal data access APIs for IMS Tools Knowledge Base repositories

a
Indicates the specific API that the message is coming from:

- **M** indicates that the message is coming from an internal import API.
- **X** indicates that the message is coming from an internal export API.

nnn
Indicates the message identification number

x
Indicates the severity of the message:

A
Indicates that operator intervention is required before processing can continue.

E
Indicates that an error occurred, which might or might not require operator intervention.

I
Indicates that the message is informational only.

W
Indicates that the message is a warning to alert you to a possible error condition.

Each message also includes the following information:

Explanation:
The Explanation section explains what the message text means, why it occurred, and what its variables represent.

System action:
The System action section explains what the system will do in response to the event that triggered this message.

User response:
The User response section describes whether a response is necessary, what the appropriate response is, and how the response will affect the system or program.

HKTM001E **LOCID=*mmm* RC=10 RSN=01 R0=*rrrrrrrr* : NULL PARAMETER LIST**

Explanation

A NULL parameter list was pass to the HKTIMST processor (for example, GPR R1=0)

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that access is through the HKTIMST macro is correctly specified.

HKTM002E **LOCID=*mmm* RC=10 RSN=02 R0=*rrrrrrrr* : ALREADY INITIALIZED**

Explanation

The caller is attempting to initialize an already initialize HKTIMST environment.

System action

Program returns to the caller with the error and reason codes.

User response

Enure that the environment is initialized once and only once.

Check to see that before the initialization call, the token is set to zero.

If an environment is terminated, ensure that the token is set to zero.

If you wish to have more than one environment active at the same time, ensure that each of these environments uses a unique token.

HKTM003E **LOCID=*mmm* RC=10 RSN=03 R0=*rrrrrrrr* : NULL LOG TOKEN FOR FUNCTION**

Explanation

The caller is attempting to process an HKTIMST function, other than an INITIAL or a TERM function, with an uninitialized environment.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the environment was initialized and not terminated prior to the function call.

HKTM004E **LOCID=*mmm* RC=10 RSN=04 R0=*rrrrrrrr* : INVALID FUNCTION SPECIFIED**

Explanation

The invocation of the call to HKTIMST contained an invalid function name.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the function name is valid or has not been corrupted.

HKTM005E **LOCID=*mmm* RC=10 RSN=05 R0=*rrrrrrrr* : BAD PROCESSING STATE**

Explanation

The state of a valid function was improperly invoked.

This probably was caused by calling a non-initial nor non-term type function without successfully initializing the HKTIMST environment.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that for all functions of a given HKTIMST environment, excluding initial or term, are issued after a successful initialization and before a termination function.

HKTM006E **LOCID=*mmm* RC=08 RSN=06 R0=*rrrrrrrr* : DATA TRUNCATED**

Explanation

The user AREA supplied in the HKTIMST ACCDATA or GETMLST function was not large enough to hold the requested data.

System action

Program returns to the caller with the error and reason codes.

User response

The application should use the COUNT field as described to determine the size that is needed and then rerun.

It is possible that this process could require multiple retries.

HKTM007E **LOCID=*mmm* RC=0C RSN=07 R0=*rrrrrrrr* : LOCATE RECORD FAILED**

Explanation

For the HKTIMST ACCDATA function, attempting to locate a record, either the first or next, failed - other than an end of records condition.

System action

Program returns to the caller with the error and reason codes.

User response

This is probably an environmental error. Ensure that the sensor data repository is still available and has not been damaged.

HKTM008E **LOCID=*mmm* RC=0C RSN=08 R0=*rrrrrrrr* : TOOL NAME IS MISSING**

Explanation

The HKTIMST initialization function is missing the TOOL value, which is needed to retrieve the instrumentation data.

System action

Program returns to the caller with the error and reason codes.

User response

Correct the initialization function to include a TOOL name.

HKTM009E **LOCID=*mmm* RC=0C RSN=09 R0=*rrrrrrrr* : DATAPART IS MISSING**

Explanation

The HKTIMST initialization function is missing the DATAPART value, which is needed to retrieve the instrumentation data.

System action

Program returns to the caller with the error and reason codes.

User response

Correct the initialization function to include a DATAPART name.

HKTM010I **LOCID=*mmm* RC=04 RSN=0A R0=*rrrrrrrr* : EMPTY MEMBER LIST**

Explanation

The HKTIMST function GETMLST or GETMEXT could not find any matching members.

System action

Program returns to the caller with the error and reason codes.

User response

This can be a valid result and no action is required.

If not, check the requested member(s) key to retrieve.

HKTM011E **LOCID=*mmm* RC=0C RSN=0B R0=*rrrrrrrr* : GROUP NAME MISSING**

Explanation

The repository GROUP name, which is used to connect to the repository that contains the instrumentation data, is missing from the HKTIMST initialization function.

During the initialization function process, a GROUP name must be supplied to connect to the repository that contains the instrumentation data.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that a valid GROUP name is included on the HKTIMST initialization function.

HKTM012E **LOCID=*mmm* RC=0C RSN=0C R0=*rrrrrrrr* : REPOSITORY INIT FAILED**

Explanation

Access or connection to the sensor data repository: BSN_SENSOR failed. Any one of the following conditions might have caused the error:

- An incorrect IMS Tools KB server XCF group name was specified.
- The specified IMS Tools KB server is inactive.
- The Sensor Data repository data set is full.
- There is an error for the specified IMS Tools KB server.
- The region size for the job is too small.

System action

Program returns to the caller with the error and reason code.

User response

Check to see that the sensor data repository has been started.

Check to see that the correct GROUP name has been supplied.

If RACF is in effect, make sure that the user has authority. Retry the program with a log file.

If the problem persists, contact the system programmer.

HKTM013E **LOCID=*mmm* RC=0C RSN=0D R0=*rrrrrrrr* : BEGIN LIST FAILED**

Explanation

Other than a null list, attempting to establish list access through the HKTIMST function BEGLIST failed.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the parameters for the BEGLIST were correctly specified.

Also, check that access to the sensor data repository was still viable. Retry the program with a log file.

If the problem persists, contact the system programmer.

HKTM014E **LOCID=*mmm* RC=0C RSN=0E R0=*rrrrrrrr* : GET MEMBER LIST ERROR**

Explanation

There was an invalid parameter, or a required parameter missing, to do an internal GETLIST function.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the parameters for ACCDATA, ACCDATA EXTENDED (ACCDEXT), ACCESS INDEX (ACCINDX), GET MEMBER LIST (GETMLIST), or GET MEMBER LIST EXTENDED (GETMEXT) were correctly specified.

Also, ensure that access to the sensor data repository was still viable. Retry the program with a log file.

If the problem persists, contact the system programmer.

HKTM015E **LOCID=*mmm* RC=0C RSN=0F R0=*rrrrrrrr* : MEMBER ACCESS ERROR**

Explanation

An attempt to access a member in an access type function failed.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the reference parameters for a member regarding ACCDATA, ACCDATA EXTENDED (ACCDEXT), or ACCESS INDEX (ACCINDX) were correctly specified.

Also, ensure that access to the sensor data repository was still viable. Retry the program with a log file.

If the problem persists, contact the system programmer.

HKTM016E **LOCID=*mmm* RC=0C RSN=10 R0=*rrrrrrrr* : COUNT MISSING**

Explanation

The required COUNT parameter was missing in a GET list type function.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the required COUNT parameter is specified for the GET MEMBER LIST (GETLIST) or the GET MEMBER LIST EXTENDED (GETMEXT) function.

HKTM017E **LOCID=*mmm* RC=0C RSN=11 R0=*rrrrrrrr* : INVALID VORDER SETTING**

Explanation

The optional VORDER (version order) parameter had an invalid value.

Valid values are H (high), L (low), or blank for default.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the VORDER specified in GET MEMBER LIST (GETMLIST) or GET MEMBER LIST EXTENDED (GETMEXT) has a correct value.

HKTM018E **LOCID=*mmm* RC=0C RSN=12 R0=*rrrrrrrr* : AREA VARIABLE ERROR**

Explanation

A required AREA parameter is missing in the current function.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the AREA variable is specified with the current function.

HKTM019E **LOCID=*mmm* RC=0C RSN=13 R0=*rrrrrrrr* : LENGTH VARIABLE ERROR**

Explanation

The required LENGTH parameter is missing or has an invalid value, such as a negative value, in the current function .

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the LENGTH variable is specified correctly with the current function.

HKTM020E **LOCID=*mmm* RC=0C RSN=14 R0=*rrrrrrrr* : COUNT VARIABLE ERROR**

Explanation

A required COUNT parameter is missing in the current function.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the COUNT variable is specified.

HKTM021E **LOCID=*mmm* RC=0C RSN=15 R0=*rrrrrrrr* : INVALID DELETE OPTION**

Explanation

The INTENT delete option with the ACCESS DATA or ACCESS DATA EXTENDED function has an invalid value.

System action

Program returns to the caller with the error and reason codes.

User response

If the INTENT option is specified, be sure the value specified is either M (for memory) or B (for both repository and memory).

HKTM022E **LOCID=*mmm* RC=0C RSN=16 R0=*rrrrrrrr* : INVALID SYNCH SPECIFICATION**

Explanation

The INTENT synchronize option with the SYNCH function has an invalid value.

System action

Program returns to the caller with the error and reason code.

User response

If the INTENT option is specified, be sure that the value specified is either **S**ynch, **R**ead lock, **U**pdate lock, **C**ommit, **B**ack out, or **T**est.

HKTM023E **LOCID=*mmm* RC=0C RSN=17 R0=*rrrrrrrr* : FIELD DESCRIPTOR EXCEPTION**

Explanation

At least one of the function FIELD parameters (FIELDS, AREA, and/or LENGTH) was missing or incorrectly defined.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that FIELD parameters are defined and have valid values.

HKTM024I **LOCID=*mmm* RC=04 RSN=18 R0=*rrrrrrrr* : NO FIELD OR DESCRIPTORS**

Explanation

Informational or warning that the count of the number of field or descriptors (HFDFLDCT in the header) requested was zero.

System action

Program returns to the caller with the error and reason codes.

User response

This is a warning/informational message.

If the user requests more than zero, then the HFDFLDCT, along with the number of fields following, should be increased.

HKTM025E **LOCID=*mmm* RC=08 RSN=19 R0=*rrrrrrrr* : NOT FOUND FIELD ENTRY**

Explanation

At least one of the FIELD entries of a FIELD request was not found.

This might or might not be an error depending on the logic of the program.

System action

Program returns to the caller with the error and reason code.

User response

If this is in error, ensure that the FIELD entry is defined.

HKTM026E **LOCID=*mmm* RC=0C RSN=1A R0=*rrrrrrrr* : DYNAMIC STORAGE EXCEPTION**

Explanation

An error occurred with internally allocated storage used by the caller.

This is storage used by GETMEXT, ACCDEXT, DELETE functions.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the reference of this storage is correct, or that the storage has been successfully allocated and not prematurely deleted (RELEASED), or that the reference address is correct.

HKTM027E **LOCID=*mmm* RC=04 RSN=1B R0=*rrrrrrrr* : RELEASE OF NULL POINTER**

Explanation

An attempt was made to release internal storage by using a NULL pointer.

A NULL pointer can be used to ensure that storage is released. The storage pointer might have been zeroed out accidentally.

System action

Program returns to the caller with the error and reason codes.

User response

This warning/informational message might or might not be correct.

You can attempt to RELEASE already released storage as a catch all.

HKTM028E **LOCID=*mmm* RC=0C RSN=1C R0=*rrrrrrrr* : HISTORY SPECIFICATION ERROR**

Explanation

An attempt to SET or GET HISTORY for pertinent members failed.

This can be, for example, due to the user's RACF authorization to SET HISTORY, or that the parameters (versions and retention periods) specification(s) were invalid.

System action

Program returns to the caller with the error and reason codes.

User response

The log file might contain extended information about the failure.

If it is due to RACF, make sure that the current user identification is authorized.

HKTM029E **LOCID=*mmm* RC=04 RSN=1D R0=*rrrrrrrr* : HISTORY NOT FOUND**

Explanation

A GET HISTORY function could not find any history settings (versions and/or retention periods settings) for the relevant repository member set.

System action

Program returns to the caller with the error and reason codes.

User response

This might or might not be an error.

If HISTORY should be set, then an authorized user such as an administrator must set the history.

HKTM030E **LOCID=*mmm* RC=0C RSN=1E R0=*rrrrrrrr* : PATTERN SPECIFICATION ERROR**

Explanation

A get member list (GETMLST) or a get member list extended (GETMEXT) specified an invalid PATTERN specification.

Valid PATTERN specifications are **Y** (Yes), **N** (No), and **S** (Super).

System action

Program returns to the caller with the error and reason codes.

User response

Check the optional PATTERN specification to ensure that one of the valid values is being used.

HKTX001E **LOCID=*mmm* RC=10 RSN=01 R0=*rrrrrrrr* : NULL PARAMETER LIST**

Explanation

A NULL parameter list was passed to the HKTXEST processor (for example, GPR R1=0).

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that access is through the HKTEXST macro and is correctly specified.

HKTX002E **LOCID=*mmm* RC=10 RSN=02 R0=*rrrrrrrr* : ALREADY INITIALIZED**

Explanation

The caller is attempting to initialize an already initialize HKTEXST environment or a non-zero token was used in an attempt to initialize the API.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the environment is initialized once and only once.

Check to see that before the initialization call, the token is set to zero.

Be sure if an environment is terminated that the token is set to zero.

If you want to have more than one environment active at the same time, each of these environments must use a unique token.

HKTX003E **LOCID=*mmm* RC=10 RSN=03 R0=*rrrrrrrr* : NULL LOG TOKEN FOR FUNCTION**

Explanation

The caller is attempting to process an HKTEXST function, other than an INITIAL or a TERM function, with an uninitialized environment.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the environment was initialized and not terminated prior to the function call.

HKTX004E **LOCID=*mmm* RC=10 RSN=04 R0=*rrrrrrrr* : INVALID FUNCTION SPECIFIED**

Explanation

The invocation of the call to HKTEXST contained an invalid function name.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the function name is valid or has not been corrupted.

HKTX005E **LOCID=*mmm* RC=10 RSN=05 R0=*rrrrrrrr* : BAD PROCESSING STATE**

Explanation

The state of a valid function was improperly invoked. This probably was caused by calling a non-initial nor non-term type function without successfully initializing the HKTEXST environment.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that for all functions of a given HKTEXST environment, excluding initial or term, are issued after a successful initialization and before a termination function.

HKTX006E **LOCID=*mmm* RC=0C RSN=06 R0=*rrrrrrrr* : INVALID LOCK SPECIFICATION**

Explanation

The LOCK function overriding INTENT specification had an invalid value.

System action

Program returns to the caller with the error and reason codes.

User response

Valid values for the INTENT value with the LOCK function are Yes or No.

HKTX007E **LOCID=*mmm* RC=10 RSN=07 R0=*rrrrrrrr* : UNABLE TO CREATE LINKAGE**

Explanation

The attempt to allow for serialization failed.

This can occur when an attempt to create a local MVS PC number fails.

System action

Program returns to the caller with the error and reason codes.

User response

Retry the process again with a log file.

If the error reoccurs, report the problem to the system programmer.

HKTX008E **LOCID=*mmm* RC=0C RSN=08 R0=*rrrrrrrr* : TOOL NAME IS MISSING**

Explanation

The HKTEXST initialization function is missing the TOOL name, which is needed to retrieve the instrumentation data.

System action

Program returns to the caller with the error and reason codes.

User response

Correct the initialization function to include a TOOL name.

HKTX009E **LOCID=*mmm* RC=0C RSN=09 R0=*rrrrrrrr* : DATAPART IS MISSING**

Explanation

The HKTEXST initialization function is missing the DATAPART name, which is needed to retrieve the instrumentation data.

System action

Program returns to the caller with the error and reason codes.

User response

Correct the initialization function to include a DATAPART name.

HKTX010E **LOCID=*mmm* RC=0C RSN=0A R0=*rrrrrrrr* : INVALID VARIABLE NAME**

Explanation

An invalid variable name was entered for an HKTEXST ADD VARIABLE (ADDVAR) function.

Either the variable name was missing or had invalid syntax.

System action

Program returns to the caller with the error and reason codes.

User response

Check the descriptor with the variable name passed on an ADDVAR to see that it conforms to the correct syntax.

Ensure there are no embedded blanks, only trailing blanks.

The name must conform to a valid data set name, except nodes can be greater than 8-characters.

HKTX011E **LOCID=*mmm* RC=0C RSN=0B R0=*rrrrrrrr* : GROUP NAME MISSING**

Explanation

The repository GROUP name, which is used to connect to the repository that contains the instrumentation data, is missing from the HKTEXST initialization function.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that a valid GROUP name is included on the HKTEXST initialization function.

HKTX012E **LOCID=*mmm* RC=0C RSN=0C R0=*rrrrrrrr* : REPOSITORY INIT FAILED**

Explanation

Access or connection to the sensor data repository: BSN_SENSOR failed.

An attempt to initialize an environment to access the instrumentation data failed. Any one of the following conditions could have caused the error:

- An incorrect IMS Tools KB server XCF group name was specified.
- The specified IMS Tools KB server is inactive.
- The Sensor Data repository data set is full.
- There is an error for the specified IMS Tools KB server.
- The region size for the job is too small.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the sensor data repository has been started.

Check to see that the correct GROUP name has been supplied.

If RACF is in effect, make sure that the user has authority. Retry the program with a log file.

If the problem persists, contact the system programmer.

HKTX013E **LOCID=*mmm* RC=0C RSN=0D R0=*rrrrrrrr* : CREATE MEMBER FAILED**

Explanation

Access to the sensor data member in the repository failed.

An attempt to create a new repository member with the FUNC=ACCUM statistics failed. Any one of the following conditions might have caused the error:

- An incorrect IMS Tools KB server XCF group name was specified.
- The specified IMS Tools KB server is inactive.
- The Sensor Data repository data set is full.
- There is an error for the specified IMS Tools KB server.
- The region size for the job is too small.

System action

Program returns to the caller with the error and reason codes.

User response

If RACF is in effect, ensure that the user has authority. Retry the program with a log file.

If the problem persists, contact the system programmer.

HKTX014E **LOCID=*mmm* RC=0C RSN=0E R0=*rrrrrrrr* : ADD RECORD FAILED**

Explanation

An attempt to add a record to the sensor data member in the repository failed.

An attempt to add a record with FUNC=ACCUM statistics failed. Any one of the following conditions might have caused the error:

- An incorrect IMS Tools KB server XCF group name was specified.
- The specified IMS Tools KB server is inactive.
- The Sensor Data repository data set is full.
- There is an error for the specified IMS Tools KB server.
- The region size for the job is too small.

System action

Program returns to the caller with the error and reason codes.

User response

If RACF is in effect, ensure that the user has authority. Retry the program with a log file.

If the problem persists, contact the system programmer

HKTX015E **LOCID=*mmm* RC=0C RSN=0F R0=*rrrrrrrr* : WRITE MEMBER FAILED**

Explanation

An attempt to add a record to the sensor data member in the repository failed.

An attempt to write a new repository member or version of the repository failed. Any one of the following conditions might have caused the error:

- An incorrect IMS Tools KB server XCF group name was specified.
- The specified IMS Tools KB server is inactive.
- The Sensor Data repository data set is full.
- There is an error for the specified IMS Tools KB server.
- The region size for the job is too small.

System action

Program returns to the caller with the error and reason codes.

User response

If RACF is in effect, ensure that the user has authority to write a member to the repository. Retry the program with a log file.

If the problem persists, contact the system programmer.

HKTX016E **LOCID=*mmm* RC=0C RSN=10 R0=*rrrrrrrr* : INVALID INTENT DETECT**

Explanation

The INTENT value on an HKTEXST initialization function was invalid.

System action

Program returns to the caller with the error and reason codes.

User response

If an INTENT value is specified on initialization, valid values are NONE (N), DEFAULT (D), or ALL (A).

HKTX017E **LOCID=*mmm* RC=0C RSN=11 R0=*rrrrrrrr* : INVALID RESERVE FIELDS**

Explanation

The descriptor block passed on a HKTEXST ADDVAR function had non-zero values in either one of the reserved bit or byte fields.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that values for the reserved fields in the variable descriptor are all zeroes.

HKTX018E **LOCID=*mmm* RC=0C RSN=12 R0=*rrrrrrrr* : INVALID VARIABLE LENGTH**

Explanation

The current function passed a null address, a null value, a negative value, or a length beyond the allowable range.

This includes variable lengths for an HKTEXST ADDVAR function.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the current HKTEXST function has correctly specified all address and/or length fields.

HKTX019E **LOCID=*mmm* RC=0C RSN=13 R0=*rrrrrrrr* : INVALID VARIABLE FORMAT**

Explanation

The format value specified for the HKTEXST ADDVAR function is invalid.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the format specified conforms to an allowable type for the variable descriptor.

Valid formats for the variable value are Binary, Character, Packed, (E) Stck, or Unsigned Packed.

HKTX020E **LOCID=*mmm* RC=0C RSN=14 R0=*rrrrrrrr* : INVALID SIGNED INDICATOR**

Explanation

The signed indicator specified for the HKTEXST ADDVAR function is invalid.

System action

Program returns to the caller with the error and reason codes.

User response

Valid values for the signed indicator for a variable descriptor is either Yes (Y) or No (N).

HKTX021E **LOCID=*mmm* RC=0C RSN=15 R0=*rrrrrrrr* : INVALID VARIABLE VALUE**

Explanation

The variable value specified for the HKTEXST ADDVAR function does not conform to the variable format specified.

For example, a stated packed number contains a non-packed digit(s).

System action

Program returns to the caller with the error and reason codes.

User response

Check the variable format and variable value for the HKTEXST ADDVAR function.

One or both are not correctly specified.

HKTX022E **LOCID=*mmm* RC=0C RSN=16 R0=*rrrrrrrr* : INVALID WRITE SPECIFICATION**

Explanation

The override INTENT specified for the HKTEXST ACCUM function, that writes data to the repository, must be No (N) or Yes (Y).

System action

Program returns to the caller with the error and reason codes.

User response

Check the value of the INTENT option specified for the HKTEXST ACCUM function. Valid values are No (N) or Yes (Y).

HKTX023E **LOCID=*mmm* RC=0C RSN=17 R0=*rrrrrrrr* : SERIALIZATION SPECIFICATION**

Explanation

The optional SERIALIZE specification on the HKTEXST INITIAL function had an invalid value. It must be either A, N, Y or blank.

System action

Program returns to the caller with the error and reason codes.

User response

Check the value of the SERIALIZE option specified for the HKTEXST ACCUM function.

Valid values are Auto (A), No (N), Yes (Y), or blank.

HKTX024E **INVALID IMS DDNAME SETTING**

Explanation

This error message is deprecated and no longer used.

System action

None.

User response

None.

HKTX025E **LOCID=*mmm* RC=0C RSN=19 R0=*rrrrrrrr* : USER PARAMETER EXCEPTION**

Explanation

The HKTEXST INITIAL function is missing the mandatory user parameter list: UPARMSTR and UPARMLEN.

These fields must be specified on the INITIAL function even if the user parameter list has a length of zero.

System action

Program returns to the caller with the error and reason codes.

User response

Add a user parameter list specification to the HKTEXST INITIAL function.

Use a zero-length parameter list for cases where a parameter list is unnecessary.

HKTX026E **LOCID=*mmm* RC=0C RSN=1A R0=*rrrrrrrr* : INVALID TREE TYPE SPECIFIED**

Explanation

The HKTEXST INITIAL, TASKLIST, and TASKLEXT functions specifying TREETYPE has an invalid value.

System action

Program returns to the caller with the error and reason codes.

User response

Check the TREETYPE specification on the HKTEXST macro.

Valid values for TREETYPE are GLOBAL (G), JOBSTEP (J), LOCAL (L), or SINGLE (S).

HKTX027E **LOCID=*mmm* RC=0C RSN=1B R0=*rrrrrrrr* : TASKLIST REQUEST EXCEPTION**

Explanation

The HKTEXST TASKLIST function did not specify an AREA or LENGTH, or the LENGTH was not big enough to hold the returned task list header.

System action

Program returns to the caller with the error and reason codes.

User response

Check the AREA and LENGTH settings for the TASKLIST function call.

HKTX028I **LOCID=*mmm* RC=04 RSN=1C R0=*rrrrrrrr* : TASK LIST NOT BIG ENOUGH**

Explanation

The HKTEXST TASKLIST function LENGTH was not big enough to hold the number of task entries to return.

The list is truncated.

System action

Program returns to the caller with the information error and reason codes.

User response

If all entries are required to be returned, ensure that the task list can hold at least as many as are returned in the TSKMAXNO member of the task list header.

The actual number of task entries returned is in the TSKCURNO member.

Between TASKLIST calls, it is possible for the number of tasks to change. Therefore, it is possible to require several iterations of calls to obtain the total number of entries.

HKTX029E **LOCID=*mmm* RC=08 RSN=1D R0=*rrrrrrrr* : AUTHORIZATION REQUIRED**

Explanation

The HKTEXST INITIAL function specified SERIALIZE=YES. However, the module issuing the INITIAL was not authorized.

System action

Program returns to the caller with the error and reason codes.

User response

If the HKTEXST environment does not need serialization, change the SERIALIZE value to NO - or explicitly, or by default, set it to AUTO.

If SERIALIZE must be YES, then ensure that at least at HKTEXST INITIAL time, the module is running APF authorized - which includes the Binder/Link Edit: SETCODE AC(1).

HKTX030E **LOCID=*mmm* RC=0C RSN=1E R0=*rrrrrrrr* : INVALID SYNCH SPECIFICATION**

Explanation

The HKTEXST SYNCH function encountered an error attempting to process a SYNCH option.

System action

Program returns to the caller with the error and reason codes.

User response

Check to see that the HKTEXST SYNCH function INTENT has a valid specification. This includes both the value and the HKTEXST current SYNCH state.

A SYNCH setting state of S, R, or U must not already have a SYNCH set state.

A SYNCH setting state of C or B must already have a SYNCH set state.

HKTX031E **LOCID=*mmm* RC=0C RSN=1F R0=*rrrrrrrr* : DYNAMIC STORAGE EXCEPTION**

Explanation

An attempt to issue an HKTEXST RELEASE function to delete storage internally allocated for the user to browse failed.

The storage pointer contained an address of the storage not recognized by the current HKTEXST environment.

This does not include a NULL valued pointer.

System action

Program returns to the caller with the error and reason codes.

User response

Check the address of the storage that is passed to be released.

Make sure the pointer or the storage has not been corrupted or invalidly referenced.

You can also let the storage be released automatically when the HKTEXST TERM function for this HKTEXST environment is issued.

HKTX032E **LOCID=*mmm* RC=04 RSN=20 R0=*rrrrrrrr* : RELEASE OF NULL POINTER**

Explanation

A NULL pointer was passed during an attempt to issue an HKTEXST RELEASE function to delete storage internally allocated for the user.

System action

Program returns to the caller with the error and reason codes.

User response

The most likely cause of this warning/error situation is an attempt to delete storage that has already been deleted.

If this is not the situation, then refer to the HKTX031E message.

HKTX033E **LOCID=*mmm* RC=0C RSN=21 R0=*rrrrrrrr* : HISTORY SPECIFICATION ERROR**

Explanation

The HISTORY setting for either the HKTEXST SETHIST or GETHIST using the HISTORY option was invalid.

System action

Program returns to the caller with the error and reason codes.

User response

Check the HISTORY option to be sure that it is set to either Yes (Y) or No (N).

HKTX034I **LOCID=*mmm* RC=04 RSN=22 R0=*rrrrrrrr* : HISTORY NOT FOUND**

Explanation

The HKTEXST GETHIST (get history) could not find any history for the specified extended sensor data members.

Setting of history (for example, retention days and maximum versions) is optional.

System action

Program returns to the caller with the error and reason codes.

User response

This is an informational message and no action is required. History settings are optional.

HKTX035E **LOCID=*mmm* RC=0C RSN=23 R0=*rrrrrrrr* : INVALID MERGE COUNT SETTING**

Explanation

The optional MERGECNT on the HKTEXST INITIAL function had an invalid explicit value.

System action

Program returns to the caller with the error and reason codes.

User response

Check the explicit merge count setting (MERGECNT) and ensure that it has a valid value of Yes (Y) or No (N).

HKTX036E **LOCID=*mmm* RC=0C RSN=24 R0=*rrrrrrrr* : USER INDEX ACCESS FAILED**

Explanation

The optional MERGECNT on the HKTEXST INITIAL function had an invalid explicit value.

System action

Program returns to the caller with the error and reason codes.

User response

Check the MERGECNT option and ensure that it has a valid value of Yes (Y) or No (N).

HKTX037E **LOCID=*mmm* RC=0C RSN=25 R0=*rrrrrrrr* : INVALID OVERRIDE EXM BLOCK**

Explanation

The HKTXTUX EXM block passed on an HKTEXST INITIAL function had an invalid format.

System action

Program returns to the caller with the error and reason codes.

User response

Verify that the EXM control block was correctly constructed using the HKTEXTM0 program.

This is includes, but is not limited to, the EXM header information, such as EXM block size, eyecatcher, and version number.

HKTX038E **LOCID=*mmm* RC=0C RSN=26 R0=*rrrrrrrr* : DELETE MEMBER ERROR**

Explanation

The HKTEXST DELETE function failed to delete the requested member.

System action

Program returns to the caller with the error and reason codes.

User response

Ensure that the correct member to delete was specified.

Also, ensure that the member had not previously been deleted.

HKTX039E **LOCID=*mmm* RC=0C RSN=27 R0=*rrrrrrrr* : INVALID EXCLUDE SYS SETTING**

Explanation

The EXECSYS on the HKTEXST INITIAL function, if specified, had an invalid value.

System action

Program returns to the caller with the error and reason codes.

User response

The only valid values allowed for the EXECSYS option are either Yes (Y) or No (N).

HKTX040E **LOCID=*mmm* RC=0C RSN=28 R0=*rrrrrrrr* : INVALID ELECTIVE KEY USAGE**

Explanation

The elective key portion indicator had an invalid value.

System action

Program returns to the caller with the error and reason codes.

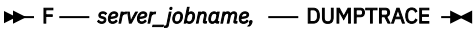
User response

This is an internal error probably due to running an invalid version of the HKTEXST process.

Chapter 20. BPE diagnostic trace

As requests flow through the Service Repository server, flow trace records are produced.

Some events also result in the creation of trace data. This is a wraparound BPE trace that can be formatted and printed by using the following **MODIFY** command:



Important: This information is not generally intended for clients or administrators. It is generated to give visibility to the server processes in order to aid problem diagnosis and Service Repository development.

The formatted trace is placed in FPQPRINT and contains the following information:

Date and time
In YY/MM/DD HH:MM:SS.thmiju format.

Type
A single event (EV) or a process (PR).

Function
The function that was initiated.

User ID
The user running the operation.

XCF or other information
XCF token or additional supporting information. For example, the DSN of data set being allocated.

Return code, reason code, and feedback
The return code, reason codes, and feedback word for the operation.

In the event of a server failure, formatted DIAG trace entries, as generated by the FPQ server DUMPTRACE command, may not be available. However, the raw BPE DIAG trace entries are available in an FPQ server dump. To assist you with dump analysis of these trace entries, the BPE Trace Format Service support is provided.

Chapter 21. IBM Service Repository abend codes

The IBM Service Repository does not have any user abend codes. The Service Repository server runs in a BPE environment, which has a number of user abend codes associated with it.

For details of BPE abend codes, refer to *IMS Messages and Codes, Volume 4: IMS Component Codes*.

Chapter 22. Gathering diagnostic documentation

The following information provides guidelines for gathering proper diagnostic documentation when reporting a problem with IMS Tools Knowledge Base to IBM Software Support.

Provide the following information for every IMS Tools Knowledge Base problem:

- Problem description.
- Product release number and the number of the last PTF (program temporary fix) that was installed.
- Load Module APAR Status report. Use the Tools Base Diagnostics Aid (HKTUDIAG) to generate a Load Module APAR Status report. For details, see *IMS Tools Base IMS Tools Common Services User's Guide and Reference*.

Additional documentation is also required for various incident types. In general, gather the suggested documentation for the following incident types:

- For online reports
  - Screen print of **Internal Error** panel
  - Job log from TSO session that encountered the abend
  - Job log from server
  - Description of the task that you were performing before the internal error occurred
- For online abend
  - Screen shot of panel that encountered the abend
  - Job log from TSO session that encountered the abend
  - Job log from server
  - Transaction dump that was generated by the abend (data set is named *user*.ITKB.* where *user* is your TSO prefix if it is set, or your TSO user ID)
  - Description of the task that you were performing before the abend occurred
- For online error message
  - Text of message
  - Description of the task that you were performing before you received the message
- For error in batch processing (Admin, Import, Export)
  - Job log
  - Print output
  - Contents of data sets that were used for the execution
- For abend during batch processing (Admin, Import, Export)
  - Job log
  - Print output
  - Contents of data sets that were used for the execution
  - Dump (if possible, an SVC dump)

Part 6. Reference

The topics in this section provide you with supplemental technical references that can help you read this document.

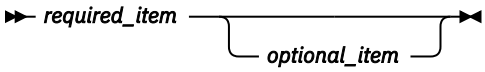
Topics:

Chapter 23. How to read syntax diagrams

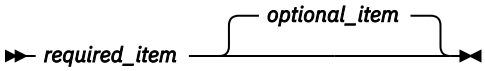
The following rules apply to the syntax diagrams that are used in this information:

- Read the syntax diagrams from left to right, from top to bottom, following the path of the line. The following conventions are used:
  - The >>--- symbol indicates the beginning of a syntax diagram.
  - The ---> symbol indicates that the syntax diagram is continued on the next line.
  - The >--- symbol indicates that a syntax diagram is continued from the previous line.
  - The --->< symbol indicates the end of a syntax diagram.
- Required items appear on the horizontal line (the main path).

- Optional items appear below the main path.

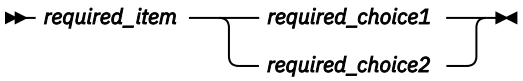


  If an optional item appears above the main path, that item has no effect on the execution of the syntax element and is used only for readability.

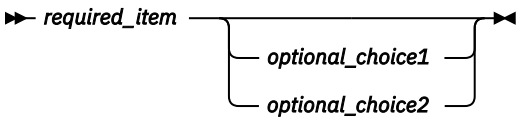


- If you can choose from two or more items, they appear vertically, in a stack.

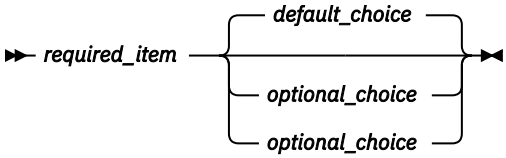
  If you *must* choose one of the items, one item of the stack appears on the main path.



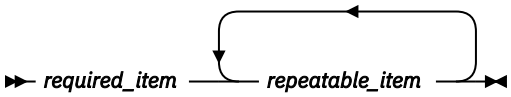
  If choosing one of the items is optional, the entire stack appears below the main path.



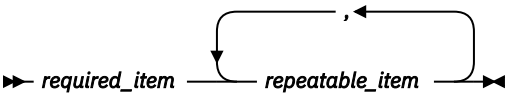
  If one of the items is the default, it appears above the main path, and the remaining choices are shown below.



- An arrow returning to the left, above the main line, indicates an item that can be repeated.



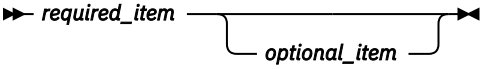
If the repeat arrow contains a comma, you must separate repeated items with a comma.



A repeat arrow above a stack indicates that you can repeat the items in the stack.

- Sometimes a diagram must be split into fragments. The syntax fragment is shown separately from the main syntax diagram, but the contents of the fragment should be read as if they are on the main path of the diagram.

fragment-name



- A b symbol indicates one blank position.
- Keywords, and their minimum abbreviations if applicable, appear in uppercase. They must be spelled exactly as shown. Variables appear in all lowercase italic letters (for example, *column-name*). They represent user-supplied names or values.
- Separate keywords and parameters by at least one space if no intervening punctuation is shown in the diagram.
- Enter punctuation marks, parentheses, arithmetic operators, and other symbols exactly as shown in the diagram.
- Footnotes are shown by a number in parentheses; for example, (1).

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