Version 2 Release 2

IBM IMS Configuration Manager for
z/OS
User's Guide
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IBM® IMS™ Configuration Manager for z/OS® (also referred to as IMS Configuration Manager) is a tool that you can use to manage IMS parameters and resources on z/OS.

These topics provide instructions for installing, configuring, and using IMS Configuration Manager.

These topics are designed to help database administrators, system programmers, application programmers, and system operators perform these tasks:
- Plan for the installation of IMS Configuration Manager
- Install and operate IMS Configuration Manager
- Customize your IMS Configuration Manager environment
- Diagnose and recover from IMS Configuration Manager problems
- Use IMS Configuration Manager with other z/OS products

You should have a working knowledge in the following areas to use these topics:
- The z/OS operating system
- ISPF
- IMS systems
- Microsoft Windows operating systems

Always check the IMS Tools Product Documentation page for the most current version of this information:

http://www.ibm.com/software/data/db2imstools/imstools-library.html
Part 1. Getting started

These topics provide an overview of IMS Configuration Manager and help you get started.
Chapter 1. IMS Configuration Manager overview

IBM IMS Configuration Manager for z/OS (also referred to as IMS Configuration Manager) is a configuration management tool that you can use to analyze, modify, and deploy IMS resources and parameters.

Easy to set up and use, IMS Configuration Manager automatically builds an inventory of your IMS topology and allows you to instantly drill down into resource and parameter details for each and every system. Use IMS Configuration Manager to assist you in your transition to dynamic resource definition (DRD) and to modernize your IMS management processes.

IMS Configuration Manager supports your entire application development and maintenance lifecycle. For your development environment, it can help you make ad-hoc changes to IMS definitions quick and straightforward. For your production environment, it can bundle and track related changes, and provides automated rollback.

IMS Configuration Manager creates a complete audit history of all changes and helps you protect your definitions with robust and granular access control.

IMS Configuration Manager helps you to achieve the following benefits:

- Automated mapping of your entire IMS environment, including resources and parameter configurations.
- Create a common, consistent configuration across your enterprise by identifying inconsistencies.
- Simpler transition to DRD. Integrate DRD with your current change control practices.
- Optimized online installation of resources.
- A unified, structured, and secure change management system and associated processes.
- A faster time-to-production for new IMS applications.
- A better understanding of your parameter configurations across all the IMS systems in your enterprise.

These benefits can be realized by using these product features:

- Autodiscovery via batch command or via the Common Services Library server.
  Discover IMSplexes, IMS systems, IMS Connect, Common Service Layer (CSL) components, resources and resource descriptors, and parameter configurations.
- Powerful ISPF-based resource and parameter editor.
- Eclipse plug-in for z/OS Explorer with intelligent resource and parameter comparison capabilities.
- Enhanced services for DRD commands, including command optimization during resource installation and automated rollback in the event of an error.
- Ability to track the installation of resource changes.
- Batch commands to automate and control your resource definitions and your change control process.
- Ability to control access to resources through your SAF-enabled security device.
- History and auditing of changes to resources and parameters.
What’s new in IMS Configuration Manager

This topic describes some of the recent developments in IMS Configuration Manager.

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.

**Autodiscovery (PM95429 and PI08303)**
Automatically discover IMSplexes, IMS systems, IMS Connect, Common Service Layer (CSL) components, resource and resource descriptors, and parameter configurations in your IMS environment. Autodiscovery allows you to:

- Rapidly map the topology of your IMS systems
- Explore and highlight configuration differences between systems
- Create an inventory of systems that are not in an IMSplex of a supported IMS version
- Centralize all of your IMSplex, system, and resource definitions in a single, easy to manage IMS Configuration Manager repository.

See “Defining systems and IMSplexes using autodiscovery” on page 45 for further detail.

**Support for IMS V14 Multiple Systems Coupling (MSC) function**
Support for the new IMS V14 Multiple Systems Coupling (MSC) function. See “Creating and adding resources to a resource group” on page 70 for further detail.

**Edit member systems and Common Service Layer (CSL) components in batch**
Batch update system definitions stored in your IMS Configuration Manager repository using the “MAINT.MEMBERS command” on page 259.

**Edit resources in batch or with the Eclipse plug-in**
Resource definitions stored in your IMS Configuration Manager repository can now be edited in batch or by using the Eclipse plug-in. See the following topics for further detail:

- Batch: “MAINT.RESOURCES command” on page 286
- Eclipse plug-in: Chapter 16, “Editing resources using the Eclipse plug-in,” on page 161

**IMS V14 PROCLIB member support**
Support for new and updated IMS V14 PROCLIB members. See Chapter 26, “PROCLIB members supported by IMS Configuration Manager,” on page 319 for further detail.

**Parameter manager support for cloned systems**
Search for parameter members that must be modified in a cloned system. See “Searching for members by their parameters and their function” on page 115 for further detail.

**Enterprise system management with the Eclipse plug-in (PM74550, PI25744, and PI26435)**
Centralized management of all systems and parameters across your entire

Changes that affect the IMS Configuration Manager Eclipse plug-in

The server component that enables the Eclipse plug-in to communicate with IMS Configuration Manager has a new name and is packaged in a new product:

- IBM Functional Support Library Server is now known as Common Services Library server.
- Common Services Library server is a component of a new product, IBM Common Services Library for z/OS (Common Services Library), V1.1.

Common Services Library server supersedes the IBM Functional Support Library Server component of IBM Tools Base for z/OS (Tools Base), V1.5.

See “Installing Common Services Library server” on page 36 for further detail.

Automatic build and deploy (PM82911)

Receive updates from external sources in the form of stage 1 source or an RDDS, and then automatically build and deploy packages with only those values that have changed. See the following topics for further detail:

- Chapter 8, “Creating automated and repeatable update processes,” on page 103
- “Example JCL for a take-up, compare, and install” on page 233

Backout (PM74549)

Manually back out the full or partial installation of a change package using the BACKOUT batch command. See the following topics for further detail:

- “Backing out a command change package using the ISPF dialog” on page 100
- “Example JCL for a backout” on page 234

Control access to IMS Configuration Manager resources

Define granular access control rules to control who can create, delete, and update definitions in the IMS Configuration Manager repository. Definitions covered by the new access control feature are IMSplexes, IMS systems, resource groups, and change packages. See “Activating IMS Configuration Manager repository access control” on page 32 for further detail.

What does IMS Configuration Manager do?

IMS Configuration Manager allows you to manage resources and parameters using an ISPF interface and an Eclipse plug-in.

The resource management features allow you to create a dynamically defined environment that simplifies the process of modifying, migrating, and installing IMS resources. IMS Configuration Manager combines the benefits of a structured and well understood traditional SYSGEN environment with the advantages of a dynamic resource definition process.

The following figure illustrates this relationship. With IMS Configuration Manager you retain the ability to structure and organize your resource definitions and
maintain the definitions offline while also gaining the benefits of DRD. IMS Configuration Manager gives you the ability to quickly introduce changes with minimal impact to running IMS systems.

The parameter management features allows you to easily find and edit parameters, coordinate parameter changes across IMSplexes, and ease migration to newer versions of IMS. IMS Configuration Manager helps ensure changes are more reliable by providing syntax and value-checking, context-sensitive help, parameter statement generation, and a history of changes.

The IMS Configuration Manager Eclipse plug-in provides an enterprise-level view of your IMSplexes and systems. The Eclipse plug-in augments the ISPF interface with powerful search and parameter comparison capabilities.

The **IMS dynamic resource definition (DRD) process**

IMS Version 10 introduced dynamic resource definition (DRD). DRD enables you to dynamically create, update, query, and delete runtime resources and resource descriptors (databases, application programs, transactions, and fast-path routing codes) without using the system definition or online change processes.

DRD means that you no longer need to perform an IMS gen for your IMS resources. You can change resources without impacting other resources on the same system, and you get better reporting on the state of runtime resources.

DRD provides the following benefits:
- Greater availability of your IMS systems.
- Simplified management of runtime resources.
- Ability to consolidate IMS systems, in particular in the development context.
- Increased flexibility of your IMS systems.

**How does IMS Configuration Manager relate to DRD?**

IMS Configuration Manager complements DRD.
While DRD provides a process for updating runtime resources, it is not intended as an end-to-end solution for managing resources offline. For example, your organization might have established processes built around offline definitions through stage 1 source. Organizations managing resources offline may perform the following tasks:

- Managing change requests.
- Annotating resources.
- Migrating changes between development and production environments.
- Requiring an approval process before implementing changes.
- Requiring different security policies for making a change as opposed to implementing a change.
- Triggering other kinds of automation at the same time that you make change requests or update resources.
- Implementing clear processes for backing out changes.

Finally, if you adopt DRD, business partners and third-party vendors might still provide you with application updates as stage 1 source. As such, you will still need to support and update your live system definitions from this source.

IMS Configuration Manager complements DRD by providing this management process and combining it with the ability to install resources against IMS systems or IMSplexes using an intelligent type-2 command interface called the resource installer.

**IMS Configuration Manager features and benefits**

IMS Configuration Manager makes your IMS environment easier to manage and audit by providing you with utilities for modifying IMS parameters and resource definitions, deploying changes to resource definitions, and recording the results for auditing purposes.

**Autodiscovery**

Use IMS Configuration Manager to automatically reveal and catalog your IMS topology.

Use the autodiscovery feature to perform the following tasks:

- Automatically reveal your IMS topology. Detect IMSplexes, IMS systems (within an IMSplex and without), IMS Connect, Common Service Layer (CSL) components, system resources and resource descriptors, and system parameter configurations.
- Securely store the results of autodiscovery in an IMS Configuration Manager repository. Use the repository to unify and control all your definitions from a single location.
- Use the DISCOVER batch command to quickly populate the IMS Configuration Manager repository with minimal initial input, or use the Common Services Library server together with the AUTODISCOVER keyword and the Eclipse plug-in to view and analyze your topology in z/OS Explorer.
Consider the following benefits of using autodiscovery:

**Map your IMS environment**

Quickly identify the topology of your IMS, IMSplex, and IMS Connect environment. Identify differences and inconsistencies across all your global sites, and provide a path forward for simplifying, consolidating, and leveraging your IMS environment.

**Prepare to use IMS Configuration Manager**

Once your IMS topology is stored in the IMS Configuration Manager repository, you are ready to use the resource and parameter management features of IMS Configuration Manager.

**Powerful system and resource management**

IMS Configuration Manager provides enhanced system and resource management with the following features.

- Unify your systems and resource definitions securely within an *IMS Configuration Manager* repository. Populate your repository using the IMS Configuration Manager autodiscovery feature, or manually import resource definitions from stage 1 source, a resource definition data set (RDDS), or an IMS resource definition (IMSRSC) repository.

- Add, update, and delete databases, programs, routing codes, and transactions stored in the IMS Configuration Manager repository using a structured ISPF dialog or via batch commands.
• Organize and group your resource updates into one or more deployable change packages. Schedule the installation of your change packages into live systems (where they can be exported to an IMSRSC repository), or use them to generate an RDDS or stage 1 source. Retain a history of changes to enable auditing.
• Automate and control your change control process using batch commands.
• Migrate resources between development and production IMS Configuration Manager repositories.
• Restrict access by securing your IMS Configuration Manager repository and by using IMS command security.

Figure 3. Working with the IMS Configuration Manager resource manager

Consider the following benefits of managing resources with IMS Configuration Manager:

Simplify your IMS environment
Quickly identify the topology of your IMS, IMSplex, and IMS Connect environment. Highlight differences and inconsistencies across sites, and provide a path forward for simplifying, consolidating, and leveraging your IMS environment.

Integrate DRD with your current change control practices
IMS Configuration Manager includes a batch utility to help incorporate DRD into your current change control processes.

Optimize online installation of resources
The IMS Configuration Manager installer dynamically evaluates how to best match the state of a live system to the resources in a change request. This includes:
• Evaluating which resources need to change before deploying those changes to live systems.
• Dynamically selecting whether to update or create resources.
• Automatically quiescing some resources, if required.
• Creating an audit log of all installation activity.
• Backing out the entire installation automatically if an error is detected, or by user request.

Provide greater autonomy to application developers
IMS Configuration Manager adds another layer of integrity checking and separation between the creation of a change request and its implementation. Using IMS Configuration Manager, you can automate the change request process and allow application developers to autonomously request new definitions. These requests can then be applied to sandbox systems at a fixed schedule or they can be approved by the IMS administrator before being migrated to another IMS Configuration Manager repository.

De-skill the process of managing resources
IMS Configuration Manager provides help and validation for the offline management of resources. Using IMS Configuration Manager, your changes become safer and if you make a mistake you can easily back it out.

Related concepts:
”Defining systems and IMSplexes” on page 43
Define IMSplexes and systems in the IMS Configuration Manager repository using the autodiscovery method, by manually creating system definitions through the ISPF dialog, or by using batch commands.

Part 2, “Resource management,” on page 53
IMS Configuration Manager simplifies the process of managing IMS resources and allows you to make the transition to dynamic resource definition (DRD). These topics provide an overview of the IMS Configuration Manager resource management features.

Advanced parameter management
The IMS Configuration Manager parameter manager provides the following features.
• A parameter smart editor that supports most IMS configuration members, including all DFS members.
• Powerful search capabilities to find parameters in any supported member using keywords. For example, identify all members with “DRD” parameters or identify all “IMS V14” parameters, just by entering those terms in a parameter search.
• Parameter listing based on your IMS topology, showing you which members are active on which systems.
• Context-sensitive help makes updating parameters easier and more efficient.

De-skill the process of managing parameters
IMS Configuration Manager provides help and validation for the offline management of parameters. Using IMS Configuration Manager, your changes become safer, you have context-sensitive help for each and every parameter, and if you make a mistake you can revert to a historical version.
Enterprise-wide system and parameter management

The IMS Configuration Manager Eclipse plug-in provides an enterprise-level view of your resources and parameters and allows you to control and manage systems.

Use the Eclipse plug-in to perform the following tasks:

- Centralize and consolidate your system and IMSplex configurations.
- Automatically reveal your IMS topology using the AUTODISCOVER keyword and the Common Services Library server.
- Manage IMS systems, resources, and parameters.
- Create, update, and delete resources stored in your IMS Configuration Manager repository.
- Compare parameters across multiple systems.
- Submit type-2 commands and view the output.
- Use filters to highlight transactions matching certain attributes.
- Identify transactions that can perform commands.
- Identify transactions with a zero queue count.
- List all active parameter members across your enterprise and drill down to parameter values.
- Export data to external spreadsheet applications for further analysis.

Consider the following benefits of using the Eclipse plug-in:

**Simplify your IMS environment**

Quickly identify the topology of your IMS, IMSplex, and IMS Connect environment. Instantly highlight differences and inconsistencies across all your global sites, and provide a path forward for simplifying, consolidating, and leveraging your IMS environment.

**Powerful resource editing**

Edit resources stored in your IMS Configuration Manager repository directly from the Eclipse plug-in. Edit resources one at a time, or perform large updates across multiple systems with easy to learn commands.

**Make your configuration easier to analyze**

The IMS Configuration Manager Eclipse plug-in makes it simpler to interrogate your resource and parameter configuration. Use the Eclipse plug-in to:

- Perform intelligent system comparisons
- Search for highlight important values and apply filters
• Export result sets to external spreadsheet applications

**IMS Configuration Manager components**

The main components of IMS Configuration Manager include the IMS Configuration Manager repository, the ISPF dialog, the Eclipse plug-in, and the batch command interface.

**IMS Configuration Manager repository**

The IMS Configuration Manager repository is a VSAM key-sequenced data set (KSDS) that contains configuration information for your IMS environment.

The IMS Configuration Manager repository contains the following information:

- Information about your IMS topology, including IMSplexes, IMS systems, IMS Connect, and Common Service Layer (CSL) members.
- Resources and resource descriptors, including databases, programs, routing codes, transactions, and multiple-systems coupling links.
- Resource groups to help you organize and deploy your resources across one or more systems.
- Deployable change packages containing information about your resource updates.
- PROCLIB parameter member change history.

The following figure shows the contents of the IMS Configuration Manager repository.
You can use the IMS Configuration Manager repository in the following ways:

- Import definitions into the IMS Configuration Manager repository using autodiscovery.
- Browse and edit the contents of the IMS Configuration Manager repository using the IMS Configuration Manager ISPF dialog or the Eclipse plug-in on page 14.
- Import, edit, compare, copy, and install resources stored in the IMS Configuration Manager repository using IMS Configuration Manager batch commands.

Related tasks:
- “Creating an IMS Configuration Manager repository” on page 30

The first time you use IMS Configuration Manager you must specify an IMS Configuration Manager repository. The IMS Configuration Manager repository is a VSAM key-sequenced data set (KSDS) that contains an inventory of IMS Configuration Manager definitions.

**ISPF dialog**

The IMS Configuration Manager ISPF dialog provides you with the ability to define and edit systems, resources, change packages, and parameters.
The following figure shows the Primary Menu of the IMS Configuration Manager ISPF dialog.

![IMS Configuration Manager Primary Menu](image)

** IMS Configuration Manager - Primary Menu 

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Profile Customize your IMS Configuration Manager profile</td>
</tr>
<tr>
<td>1</td>
<td>IMSplexes Define IMSplexes, maintain their resources and PROCLIBs</td>
</tr>
<tr>
<td>2</td>
<td>Systems Define and maintain IMS Systems, their resources and PROCLIBs</td>
</tr>
<tr>
<td>3</td>
<td>Resources Define and maintain all Resources and Resource Groups</td>
</tr>
<tr>
<td>4</td>
<td>Packages Work with all existing Change Packages</td>
</tr>
<tr>
<td>5</td>
<td>PROCLIBs Maintain IMS PROCLIB data sets</td>
</tr>
<tr>
<td>A</td>
<td>Administer Administer IMS Configuration Manager repository settings</td>
</tr>
<tr>
<td>X</td>
<td>Exit Exit IMS Configuration Manager</td>
</tr>
</tbody>
</table>

**Environment:**
Repository . . 'USR.REPOS' +

**Figure 6. The IMS Configuration Manager Primary Menu**

You can use the dialog to produce JCL to install IMS resource definitions to systems. Access control allows you to determine who can create, edit, update, or delete definitions in an "IMS Configuration Manager repository" on page 12. The parameter editor provides search capabilities, context-sensitive parameter help, syntax and value checking, and parameter change history.

**Related concepts:**
"Using the ISPF dialog" on page 24

The IMS Configuration Manager ISPF dialog is used to manage IMSplexes, IMS systems, resources, change packages, and parameters and provides access to the IMS Configuration Manager repository. The dialog uses the default Common User Access (CUA) attributes.

**Eclipse plug-in**

The IMS Configuration Manager Eclipse plug-in provides you with a consolidated view of your systems and IMSplexes, and allows you to edit resource definitions stored in your IMS Configuration Manager repository.

![Eclipse plug-in](image)

**Figure 7. The IMS Configuration Manager Eclipse plug-in**

You can use the Eclipse plug-in to compare parameters across multiple systems, list all active parameter members across your enterprise, and export data to external...
spreadsheet applications for further analysis. The Common Services Library server provides core IMS Configuration Manager services to the Eclipse plug-in.

Related tasks:
“Installing the plug-in” on page 42

The IMS Configuration Manager plug-in for IBM Explorer for z/OS (z/OS Explorer) provides a graphical user interface (GUI) to some of the functions provided by the IMS Configuration Manager ISPF dialog. The plug-in communicates with IMS Configuration Manager via Common Services Library server, which is supplied with IBM Common Services Library for z/OS (Common Services Library).

Batch commands
The batch utility (GPLUTIL) allows you to integrate IMS Configuration Manager with the batch automation used in your organization.

Related reference:
Chapter 20, “IMS Configuration Manager batch utility (GPLUTIL),” on page 223

The IMS Configuration Manager batch utility allows you to perform IMS Configuration Manager functions in batch.

Importing
The IMS Configuration Manager batch utility (GPLUTIL) allows you to import existing definitions into your IMS Configuration Manager repository.

The following batch commands can be used to import definitions:

DISCOVER
Automatically discovers your IMSplexes, IMS systems, IMS Connect, Common Service Layer (CSL) members, and resources and creates corresponding definitions in your IMS Configuration Manager repository.

TAKEUP
Takes up (imports) resource definitions from stage 1 source, an RDDS, or an IMSRSC repository into an IMS Configuration Manager repository.

MAINT
Create IMSplex, IMS, IMS Connect, CSL members, and resource definitions using a series of sub-commands. Use the MAINT.RESOURCES command to apply resource-updating IMS type-2 commands directly to an IMS Configuration Manager repository.
IMS Configuration Manager can automatically discover systems and store their PROCLIB configurations using the autodiscovery feature. You can start autodiscovery as a batch command or as an initialization option for the product whilst running under the Common Services Library server.

Before you can manage resources using IMS Configuration Manager, you must import your resource definitions into the IMS Configuration Manager repository.

**Editing**

The IMS Configuration Manager batch utility (GPLUTIL) allows you to edit objects stored in your IMS Configuration Manager repository.

The following batch commands can be used to edit the contents of the IMS Configuration Manager repository:

- **MAINT**
  - Edit IMSplex, IMS, IMS Connect, Common Service Layer (CSL) members, and resource definitions stored in an IMS Configuration Manager repository. Use the MAINT.RESOURCES command to apply resource-updating IMS type-2 commands directly to an IMS Configuration Manager repository.

- **COMPARE**
  - Compares two resource groups, create new resource groups from the result, and creates change packages based on the difference.

- **COPY**
  - Copies resources within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another.
Related tasks:

- "Defining systems and IMSplexes using the MAINT.MEMBERS batch command" on page 51
  Use the MAINT.MEMBERS batch command to update IMSplex, IMS, IMS Connect, and Common Service Layer (CSL) definitions stored in your IMS Configuration Manager repository.

- "Editing resources using the MAINT.RESOURCES command" on page 86
  Use the MAINT.RESOURCES command to update resource definitions in an IMS Configuration Manager repository in batch.

- "Comparing resource groups using the COMPARE command" on page 84
  Use the COMPARE command to compare the contents of two resource groups.

- "Copying and migrating resource groups using the COPY command" on page 84
  Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.

Deploying

The IMS Configuration Manager batch utility (GPLUTIL) allows you to deploy resources directly from your IMS Configuration Manager repository.

The following batch commands can be used to deploy resources:

**INSTALL**
Installs resource definitions stored in an IMS Configuration Manager change package into live IMS member systems.

**BACKOUT**
Backs out an installed change package.

**GEN**
Creates a system generation image (stage 1 source or RDDS) for cold-start processing.

**Related concepts:**
"Working with change packages" on page 87

There are two types of change package: command (CMD) and generate (GEN).

---

**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:


---

**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**

The IMS Tools Product Documentation web page provides current product documentation that you can view, print, and download. To locate publications with the most up-to-date information, refer to the following web page:
You can also access documentation for many IMS Tools from IBM Knowledge Center:

http://www.ibm.com/support/knowledgecenter

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

http://www.redbooks.ibm.com

The Data Management Tools Solutions website shows how IBM solutions can help IT organizations maximize their investment in IMS databases while staying ahead of today's top data management challenges:


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1. Go to http://www.ibm.com/support/mysupport
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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- Use the online reader comment form, which is located at http://www.ibm.com/software/data/rcf/
- Send your comments by email to comments@us.ibm.com. Include the name of the book, the part number of the book, the version of the product that you are using, and, if applicable, the specific location of the text you are commenting on, for example, a page number or table number.

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. See 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. Installation

These topics explain how to install and configure the IMS Configuration Manager ISPF dialog and Eclipse plug-in. The Eclipse plug-in is installed into the Common Services Library server client.

Upgrading to the latest version

If you already have an IMS Configuration Manager repository and you are upgrading to the latest version, you may need to recreate your repository or review your access control settings.

Consider the following points when upgrading to the latest version of IMS Configuration Manager:

- IMS Configuration Manager is only compatible with IMS Configuration Manager repositories created after the application of APAR PM28699. If you have an IMS Configuration Manager repository from an earlier version, you will need to consult the installation notes for the APAR before upgrading, or you will need to create a new IMS Configuration Manager repository.
- IMS Configuration Manager comes with an access control feature for IMS Configuration Manager repositories. Access control allows you to define who can access which objects in an IMS Configuration Manager repository. By default, this feature is inactive. Access control provides an additional measure of control over VSAM data set security. Users who need to update objects in the IMS Configuration Manager repository will still need UPDATE permission to the VSAM data sets used by this product.

Complete information about installation requirements, prerequisites, and procedures for IMS Configuration Manager is located in the Program Directory for IMS Configuration Manager for z/OS.

Hardware and software prerequisites

Before you install and configure IMS Configuration Manager, make sure that your environment meets the following minimum hardware and software requirements.

To install IMS Configuration Manager, you use SMP/E and standard RECEIVE, APPLY, and ACCEPT processing. For complete information about installation requirements, prerequisites, and procedures for IMS Configuration Manager, see the IMS Configuration Manager Program Directory.

Hardware prerequisites

IMS Configuration Manager V2.2 operates on any hardware configuration that supports the required software.

Software prerequisites

Installation requirements and operating system

- z/OS, V1.13 or later (5694-A01)

Mandatory operational requirements

- One of the following IMS versions:
The components of the IMS Configuration Manager dialog are delivered in these libraries.

**SGPLEXEC**
- REXX EXECs

**SGPLLINK**
- Executable load modules

**SGPLSAMP**
- Sample utility programs and user macros

**SGPLMENU**
- ISPF messages

**SGPLPENU**
- ISPF panels

**SGPLSENU**
- ISPF skeleton JCL

**SGPLTENU**
- ISPF input tables

---

### Starting IMS Configuration Manager with GPLOREXX

To start the IMS Configuration Manager ISPF dialog, run the GPLOREXX initialization module.

**About this task**

You can start IMS Configuration Manager by first installing IMS Configuration Manager libraries statically within your ISPF library setup (see “Static setup” on page 23), or you can start IMS Configuration Manager dynamically (see “Dynamic setup” on page 23). Optionally, you can add IMS Configuration Manager to an ISPF menu.

GPLOREXX accepts four parameters:

- **prefix** The data set prefix for IMS Configuration Manager data sets. For example, `GPL.V2R2M0`. Alternatively, specify `NODYNAM` to tell IMS Configuration Manager to use the existing allocation settings.

- **lang** Identifies the national language. The default is `ENU` (U.S. English). Currently, IMS Configuration Manager only supports U.S. English.

- **PASSAPPL**
  - Optional. Overrides the enforcement of the default IMS Configuration Manager application `NEWAPPL(GPLO)`. IMS Configuration Manager uses the invoking application’s APPL specification.

- **low-level qualifiers**
  - Optional. Overrides the default low-level qualifiers for the six IMS
Configuration Manager data sets. All six qualifiers must be specified in the correct order, enclosed in brackets and separated by commas. For example:

(EXEC, LINKLIB, MESSAGE, PANEL, SKELETON, TABLE)

**Dynamic setup**

The simplest way to start the IMS Configuration Manager ISPF dialog is to allow the startup REXX exec, GPLOREXX, to dynamically allocate the IMS Configuration Manager libraries. This is known as *dynamic setup*.

To start IMS Configuration Manager and have the IMS Configuration Manager libraries dynamically set up when the dialog is started, do the following tasks:

1. On the TSO command processor panel (ISPF option 6), enter:
   ```
   EX 'prefix.SGPLEXEC(GPLOREXX)' 'prefix lang'
   ```
   For example:
   ```
   EX 'GPL.V2R2M0.SGPLEXEC(GPLOREXX)' 'GPL.V2R2M0 ENU'
   ```
   If the qualifier for your installation data sets is not GPL.V2R2M0, then alter the command accordingly.

2. To add IMS Configuration Manager to an ISPF menu, set &ZSEL to:
   ```
   CMD(EX ''prefix.SGPLEXEC(GPLOREXX)'' ''prefix lang'') NOCHECK
   ```
   NOCHECK is specified to support the entry of concatenated commands through the direct option (trail). Also specify on the calling panel:
   ```
   &ZTRAIL=.TRAIL
   ```

   **Note:** Dynamic setup requires that the supplied library names are retained. These are listed under "IMS Configuration Manager libraries" on page 22.

**Static setup**

If you prefer not to have the IMS Configuration Manager libraries dynamically allocated each time you start the ISPF dialog, you can instead add the libraries to the appropriate ISPF concatenations in your TSO logon procedure. This is known as *static setup*.

To install the IMS Configuration Manager libraries statically within your ISPF library setup, do the following tasks:

1. Include the library `prefix.SGPLEXEC` in your SYSEXEC or SYSPROC concatenation. This library contains the required EXECs. It is allocated during installation with fixed-block record format and record length 80 bytes (RECFM=FB, LRECL=80).
   You must put these libraries in the SYSEXEC concatenation. However, if you want to put them in SYSPROC, it must have a record length of 80 bytes. Ensure that all libraries contained in your concatenations are in the same record format with the same block size or are in the order of decreasing block size.

2. Add the remaining libraries to your ISPF library setup:
   - Include the link/load module library `prefix.SGPLINK` in the ISPLLIB concatenation.
   - Include the message library `prefix.SGPLMENU` in the ISPMLIB concatenation.
   - Include the panel library `prefix.SGPLPENU` in the ISPPLIB concatenation.
   - Include the skeleton library `prefix.SGPLSENU` in the ISPSLIB concatenation.
   - Include the table library `prefix.SGPLTENU` in the ISPTLIB concatenation.

3. On the TSO command processor panel, enter:
To add IMS Configuration Manager to an ISPF menu, set &ZSEL to:

```
CMD('%GPLOREXX ''NODYNAM lang''') NOCHECK
```

### Overriding the default application

You can override the default IMS Configuration Manager application, **GPLO**.

**Procedure**

Use the PASSAPPL parameter in the ISPF menu &ZSEL setting:

For example:

```
CMD(EX ''prefix.SGPLEXEC(GPLOREXX)'' ''prefix lang PASSAPPL'') NOCHECK NEWAPPL/GPLZ
```

IMS Configuration Manager will then use **GPLZ** as the application rather than the default.

### Overriding the data set low-level qualifier

You can override the IMS Configuration Manager data set low-level qualifiers by specifying the required qualifiers as the last parameter in the ISPF menu &ZSEL setting.

**Procedure**

Specify the required qualifiers as the last parameter in the ISPF menu &ZSEL setting. All six qualifiers must be specified in the correct order, enclosed in brackets and separated by commas.

For example:

```
CMD(EX ''prefix.SGPLEXEC(GPLOREXX)'' ''prefix lang (EXEC, LNK, MSG, PNL, SKL, TBL)'')
```

IMS Configuration Manager will then use the following libraries:

```
prefix.EXEC
    REXX EXECs

prefix.LNK
    Executable load modules

prefix.MSG
    ISPF messages

prefix.PNL
    ISPF panels

prefix.SKL
    ISPF skeletons JCL

prefix.TBL
    ISPF input tables
```

### Using the ISPF dialog

The IMS Configuration Manager ISPF dialog is used to manage IMSplexes, IMS systems, resources, change packages, and parameters and provides access to the IMS Configuration Manager repository. The dialog uses the default Common User Access (CUA) attributes.

**Related concepts:**
The IMS Configuration Manager ISPF dialog provides you with the ability to define and edit systems, resources, change packages, and parameters.

Related tasks:
- "Creating an IMS Configuration Manager repository" on page 30

The first time you use IMS Configuration Manager you must specify an IMS Configuration Manager repository. The IMS Configuration Manager repository is a VSAM key-sequenced data set (KSDS) that contains an inventory of IMS Configuration Manager definitions.

Recommended ISPF setup

You can use ISPF standard facilities to customize the dialog. These recommendations help you use IMS Configuration Manager efficiently.

Screen size and scrolling

Set the screen size for your terminal session to 32 lines. IMS Configuration Manager panels are optimized for 32 lines, but accommodate 24 lines by scrolling with the Backward function key (F7) and the Forward function key (F8).

Point-and-shoot fields

Point-and-shoot fields perform an action when you select them. For example, when you select a column heading in a list of PROCLIB members, IMS Configuration Manager sorts the list by that column.

Tabbing to point-and-shoot fields

To make it easier to select point-and-shoot fields, you can include them in the tabbing order when you press the Tab key to skip between fields:

1. Enter the ISPF SETTINGS command to display the ISPF Settings panel.
2. Select Tab to point-and-shoot fields as shown in Figure 12 on page 27

Highlighting point-and-shoot fields

The dialog uses the default CUA attributes. However, it is recommended that you set the color of point-and-shoot fields to distinguish them from other fields:

1. Enter the ISPF CUAATTR command.
2. Scroll to the Point-and-Shoot panel element, and then enter a color name (for example, YELLOW, as shown in the following figure).

To make these fields even more distinct, you can also set their highlight attribute to REVERSE (reverse video).
Displaying the command line and long messages

IMS Configuration Manager uses both long and short messages. ISPF displays short messages at the upper right of a panel, next to the panel title. ISPF usually displays long messages in a pop-up window. However, if a long message is less than the screen width, then, by default, ISPF displays it adjacent to the command line.

Recommendation: Set the command line to appear at the top of the screen and set long messages to display adjacent to the command line, not in a pop-up. This avoids the potential for message windows to overlay data entry fields and make the field help inaccessible.

To optimize ISPF settings for IMS Configuration Manager:
1. Enter the ISPF SETTINGS command to display the ISPF Settings panel.
2. Ensure **Command line at bottom** and **Long message in pop-up** are not selected, as shown in the following figure:
ISPF dialog features

The ISPF dialog contains these features for enhanced usability.

Navigating
To navigate the ISPF dialog, you perform a combination of actions.

Navigating involves the following actions:
- Selecting menu options
- Entering line actions (one- to three-letter commands) next to items in lists
- Entering primary commands on the command line
- Pressing function keys
- Selecting an option from the action bar menu

At any point, you can find out what actions are available to you:
- To display a pop-up menu of available line actions, enter / (a forward slash) next to a list item.
- To get help on the available commands, open the Help menu, and then select Command Help.
- To get help on the available function keys, open the Help menu, and then select Keys Help.

Prompt (F4)
Some entry fields have a Prompt action that allows you to complete the field by selecting a value from a pop-up list of valid values.

Prompt fields are indicated by a plus sign (+) at the end of the field. To display the pop-up list, move the cursor to the field and press the Prompt function key (F4). A list of available values is displayed from which you can select one or more depending on the circumstance.

Prompt fields are automatically completed if you enter enough characters to make the value unique. For example, a field with allowed values YES, NO, NEVER, is automatically completed if you enter Y, NO, NE.
**Action bar**
An action bar is available at the top of panels to assist with navigation and function.

To select an option in the action bar, move the cursor to it and press Enter. A pull-down menu of choices is displayed. To select one, either move the cursor to it, or type the number of your selection, then press Enter.

The action bar options in IMS Configuration Manager are:

**File**
- File choices are New, Save, Saveas, Cancel, or Exit. File is available on all panels, but with only some of the choices depending on the function of the panel.

**Settings**
- To turn Save and Cancel confirmations on or off in your profile settings bypassing the Primary Menu. Settings is available on system definition and member edit panels.

**View**
- Controls the contents displayed in the member list; whether the members are from the PROCLIB, the IMS Configuration Manager repository, or both, or only supported members. View is available from the IMS All Members and PROCLIB member lists.

**Help**
- Displays product help information, described in “Online help” on page 29. Help is available on all panels.

**Function keys**
Function keys are used extensively throughout the IMS Configuration Manager dialog.

Until you are familiar with IMS Configuration Manager, it might be helpful to display the function key labels. To display function key labels, enter the ISPF command `PFSHOW ON`. To hide labels, enter `PFSHOW OFF`.

These are the function keys that are available in IMS Configuration Manager:

**Help** (F1)
- Displays help information for panels and keywords.

**Split** (F2)
- Splits the ISPF screen at the cursor position.

**Exit** (F3)
- Exits the current panel and saves the changes. Also, on parameter member edit panels, swaps from standard ISPF edit to assist mode.

**Prompt** (F4)
- Displays a selection list of available choices for an entry field. A plus sign (+) adjacent to a field or column heading indicates that prompt is available.

**Preview** (F5)
- Swaps from assist mode to standard ISPF edit.

**Resize** (F6)
- Removes or restores the window border.

**Backwards** (F7)
- Scrolls the list of data backwards.

**Forwards** (F8)
- Scrolls the list of data forwards.
Swap (F9)
Swaps between screens when in ISPF split-screen mode.

Left (F10)
Scrolls a section of the panel left to see more data.

Right (F11)
Scrolls a section of the panel right to see more data.

Cancel (F12)
Cancels the panel without saving changes.

Online help
IMS Configuration Manager help is context-sensitive, that is, the information displayed is appropriate to the position of the cursor when you request help.

F1 function key
Function key F1 is the default key to request help.

Extended help is available from the command line of every panel. Move the cursor to the command line and press F1 or enter the HELP command.

Field help is available on every input field. Move the cursor to the field and press F1.

Reference phrases are used to indicate that more information is available on a topic. By default, they are white and highlighted. You can use the ISPF command SETTINGS to change the attributes of reference phrases to ensure that they are easily distinguished from the surrounding text. When a help window is displayed, press the Tab key to move the cursor to a reference phrase then press F1. A pop-up window displays additional information on the topic.

Action bar help
Help in the action bar provides the following types of information to help you use IMS Configuration Manager:

Extended Help
The help information for the currently displayed panel. This describes what the panels does, and the fields that appear on the panel.

Command Help
The commands available on this panel.

Keys Help
The function keys available on this panel. The list shows the default function key assignments, but you can reassign them using the ISPF KEYS and KEYLIST commands.

About IMS Configuration Manager
Information about this release of IMS Configuration Manager.

Parameter help
On the parameter member edit panels, IMS Configuration Manager provides context-sensitive help about the parameter values. It describes the parameter’s relevance to the IMS version and control region type of the IMS system, and provides release-dependent default values and allowed values.
Creating an IMS Configuration Manager repository

The first time you use IMS Configuration Manager you must specify an IMS Configuration Manager repository. The IMS Configuration Manager repository is a VSAM key-sequenced data set (KSDS) that contains an inventory of IMS Configuration Manager definitions.

Procedure

1. On the IMS Configuration Manager Primary Menu, specify the fully qualified data set name of the IMS Configuration Manager repository data set in the Repository field. If you want to change to another IMS Configuration Manager repository, overtype the data set name or press the Prompt function key (F4) to select from a list of previously defined data sets.

   If the data set is not cataloged, you will be prompted to create it when you first attempt to access a product feature that requires the IMS Configuration Manager repository.

2. Complete the fields as required. Press the Help function key (F1) for additional details on each field. If you have selected Edit IDCAMS command, review and modify the output and then enter the command EXEC. Otherwise, press Enter.

   Note: The IMS Configuration Manager repository must be large enough to contain resource definitions, resource change history, and parameter member history. One new record is created for each resource that is processed using the INSTALL batch command. An estimate of the number of resources and the frequency of change for each resource helps determine how large an IMS Configuration Manager repository needs to be, using the contents of your longest transaction (or transaction descriptor) record as a measure of size.

Related concepts:

"IMS Configuration Manager repository" on page 12

The IMS Configuration Manager repository is a VSAM key-sequenced data set (KSDS) that contains configuration information for your IMS environment.
The IMS Configuration Manager ISPF dialog is used to manage IMSplexes, IMS systems, resources, change packages, and parameters and provides access to the IMS Configuration Manager repository. The dialog uses the default Common User Access (CUA) attributes.

Access control is an optional feature that allows you to determine who can create, edit, update, or delete objects in an IMS Configuration Manager repository.

Related tasks:

Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.

Security

You can restrict access to IMS Configuration Manager by securing your IMS Configuration Manager repository data set, and by using IMS command security.

IMS Configuration Manager honors the data set security policies you configure with your security product. The IMS Configuration Manager resource installer honors the IMS command security profile.

Configure your security product’s policies to restrict access to IMS Configuration Manager repository data sets by specific users. Use IMS command security to determine who can update live systems with DRD.

For your PROCLIB data sets, you can continue using the existing security policies for your site. IMS Configuration Manager will not bypass this security.

IMS command security

The IMS Configuration Manager TAKEUP, INSTALL, and BACKOUT commands use IMS commands to interact with your IMS systems.

In order to successfully use these commands on the IMSplex of your choice, the following authorities are required:

TAKEUP command

Resources requiring READ authority:

IMS.plexname.QRY.*

Resources requiring UPDATE authority:

IMS.plexname.EXP.DEFN (only required when using the EXPORT parameter)

INSTALL and BACKOUT commands

Resources requiring READ authority:

IMS.plexname.QRY.*

Resources requiring UPDATE authority:

IMS.plexname.DBR.DB
IMS.plexname.STA.type where type is DB and TRAN
IMS.plexname.STD.type where type is DB and TRAN
IMS.plexname.UPD.type where type is DB, DBDESC, PGM, PGMDESC, RTC, RTCDESC, TRAN, and TRANDESC
Related reference:

“TAKEUP command” on page 289
Imports resources from the IMSRSC repository, an RDDS, or stage 1 source into the IMS Configuration Manager repository. The command can also associate systems with resource groups during the take up.

“INSTALL command” on page 257
Installs resources from a command change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.

“BACKOUT command” on page 236
The BACKOUT command allows you to backout an installed command change package.

**IMS Configuration Manager access control**

Access control is an optional feature that allows you to determine who can create, edit, update, or delete objects in an IMS Configuration Manager repository.

In many cases, you do not need to use IMS Configuration Manager access control. In environments where you maintain a development IMS Configuration Manager repository and a production IMS Configuration Manager repository, simply use a combination of data set security and IMS command security. Use data set security to secure your production IMS Configuration Manager repository, and use IMS command security to prevent users from changing IMS.

You only need IMS Configuration Manager access control when you require an additional layer of control in addition to the data set and command security offered by your operational environment.

Use IMS Configuration Manager access control in the following situations:
- You want to allow users to modify IMS resources but not system definitions.
- You want to control which users can modify which resource groups within the same repository.
- You want to have specific users responsible for placing resources in change packages or performing certain actions on change packages.

For example, IMS Configuration Manager allows you to establish an access control environment where a system manager can modify IMS systems but not resource groups, or a member of the payroll team can modify payroll resource groups, but not resource groups managed by the billing team.

**Activating IMS Configuration Manager repository access control**

You can use the IMS Configuration Manager ISPF dialog to activate IMS Configuration Manager repository access control.

**Procedure**

1. If using RACF®, run each job from the SGPLSAMP library prefixed with GPLRACF in the order that they are listed. The comments on the sample jobs provide detailed information about the access control rules, how they are
implemented in RACF, and how to perform common RACF administrative functions with respect to the maintenance of these rules.

Tip: The sample jobs are designed for RACF but can be tailored to other SAF-based security managers. Specifically, you must have a SYSTEMOPTS profile defined.

2. From the IMS Configuration Manager Primary Menu, select option A **Administer**.

3. Enter / next to **Activate ICM access control checking**. You must use the SAF resource class and access key prefix you configured when using the sample security jobs.

**Security access authorities and resource names**

This topic describes the rule semantics for configuring access control.

The following table specifies the IMS Configuration Manager repository definition, the action, and the required authorization for the specified action.

<table>
<thead>
<tr>
<th>Definition type</th>
<th>Action</th>
<th>Authority</th>
<th>Resource profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repository</td>
<td>Administer repository (includes activating or deactivating access authority)</td>
<td>UPDATE</td>
<td>prod.SYSTEMOPTS</td>
</tr>
<tr>
<td>IMSplex</td>
<td>Create</td>
<td>UPDATE</td>
<td>prod.repo.PLEX.plex</td>
</tr>
<tr>
<td></td>
<td>Update</td>
<td>UPDATE</td>
<td>prod.repo.PLEX.plex</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>ALTER</td>
<td>prod.repo.PLEX.plex</td>
</tr>
<tr>
<td>System</td>
<td>Create</td>
<td>UPDATE</td>
<td>prod.repo.SYS.plex.sys</td>
</tr>
<tr>
<td></td>
<td>Update</td>
<td>UPDATE</td>
<td>prod.repo.SYS.plex.sys</td>
</tr>
<tr>
<td></td>
<td>Change IMSplex</td>
<td>UPDATE</td>
<td>prod.repo.SYS.original_plex.sys and prod.repo.SYS.target_plex.sys</td>
</tr>
<tr>
<td></td>
<td>Add or remove common resource group from system</td>
<td>UPDATE</td>
<td>prod.repo.SYS.plex.sys</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>ALTER</td>
<td>prod.repo.SYS.original_plex.sys</td>
</tr>
<tr>
<td>Resource group</td>
<td>Create</td>
<td>UPDATE</td>
<td>prod.repo.RG.plex.sys.rg</td>
</tr>
<tr>
<td></td>
<td>Update</td>
<td>UPDATE</td>
<td>prod.repo.RG.plex.sys.rg</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>ALTER</td>
<td>prod.repo.RG.plex.sys.rg</td>
</tr>
</tbody>
</table>
### Table 1. Authority for controlling access to resources (continued)

<table>
<thead>
<tr>
<th>Definition type</th>
<th>Action</th>
<th>Authority</th>
<th>Resource profile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change package</td>
<td>Create</td>
<td>UPDATE</td>
<td>prod.repo.PKG.plex.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Update change package description</td>
<td>UPDATE</td>
<td>prod.repo.PKG.plex.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Update change package name</td>
<td>UPDATE</td>
<td>prod.repo.PKG.plex.sys.original_cp and prod.repo.PKG.plex.sys.target_cp</td>
</tr>
<tr>
<td></td>
<td>Add or remove resources from package</td>
<td>UPDATE</td>
<td>prod.repo.PKG.plex.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>ALTER</td>
<td>prod.repo.PKG.plex.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Close</td>
<td>UPDATE</td>
<td>prod.repo_PKG.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Complete</td>
<td>UPDATE</td>
<td>prod.repo_PKG.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Abort</td>
<td>UPDATE</td>
<td>prod.repo_PKG.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Install</td>
<td>UPDATE</td>
<td>prod.repo_PKG.sys.cp</td>
</tr>
<tr>
<td></td>
<td>Schedule</td>
<td>UPDATE</td>
<td>prod.repo_PKG.sys.cp</td>
</tr>
</tbody>
</table>

In the preceding table, the following notes apply:

1. When referring to the Resource profile column, the following definitions apply:
   - `prod` User defined IMS Configuration Manager product prefix.
   - `repo` Optional repository prefix. Set to @NO@ if none specified.
   - **Note:** Use @NO@ when the node would otherwise be null.
   - `plex` The name of the IMSplex.
   - `sys` The name of the system.
   - `rg` The name of the IMS Configuration Manager resource group.
   - `cp` The name of the IMS Configuration Manager change package.

2. To delete an IMSplex record, you must first remove reference to it from all systems. Therefore, IMS Configuration Manager does not need to check system access authority.

3. When you delete a *common* resource group, IMS Configuration Manager only checks ALTER access to the resource group, access authority is not required for the system. When you create a *system* resource group, no system checks are performed as the system name and IMSplex are already part of the resource key.

4. *Common* resource groups have their IMSplex and System always set to @NO@ regardless of the systems with which they are associated. A *system* resource group has the system name and, optionally, the IMSplex of the system as part of the resource key.

You can reduce the number of SAF resources required by using wildcards in the resource name.

Use the character @ in place of disallowed characters such as space.
The optional change package name is used in the profile key. There is no validation of this field by IMS Configuration Manager. As a result, take care when writing rules for change packages and apply appropriate naming conventions.

**Example: Using IMS Configuration Manager to control access by system**

The following example demonstrates how to partition access authority by system. Users can perform any action on a system that they have been given access to.

A typical configuration allows users to perform any action on the systems you specify. For example, use the following permissions for your application development team:

<table>
<thead>
<tr>
<th>Resource profile</th>
<th>Authority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>prod.repo.RG.plexname.sysname.*</td>
<td>UPDATE 1</td>
<td>Allow users to create common and system-level resource groups for the system specified by sysname.</td>
</tr>
<tr>
<td>prod.repo_PKG*.plexname.sysname.*</td>
<td>UPDATE 1</td>
<td>Allow users to create and install change packages for the system specified by sysname.</td>
</tr>
<tr>
<td>prod.repo.PLEX.plexname</td>
<td>NONE or READ 2</td>
<td>Prevent users from creating, updating, or deleting the IMSplex specified by plexname.</td>
</tr>
<tr>
<td>prod.repo.SYS.plexname.sysname or prod.repo.SYS.plexname.*</td>
<td>NONE or READ</td>
<td>Prevent users from creating, updating, or deleting the system specified by sysname, or for all systems on plexname using an asterisk (*).</td>
</tr>
</tbody>
</table>

In the preceding table, the following notes apply:

**Note:**

1. To allow the user to delete the object type, change the authority to ALTER.
2. By default, all users have READ access to all objects within an IMS Configuration Manager repository that they have data set authority to access. A READ request does not generate a SAF call.

Use the following permissions for system administration:

<table>
<thead>
<tr>
<th>Resource profile</th>
<th>Authority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>prod.repo.PLEX.plexname</td>
<td>ALTER</td>
<td>Allow system administrators to create, update, or delete the IMSplex specified by plexname.</td>
</tr>
<tr>
<td>prod.repo.SYS.plexname.sysname or prod.repo.SYS.plexname.*</td>
<td>ALTER</td>
<td>Allow system administrators to create, update, or delete the system specified by sysname, or all systems on plexname using an asterisk (*).</td>
</tr>
</tbody>
</table>

**Setting IMS Configuration Manager ISPF profile options**

The IMS Configuration Manager profile allows you to set options such as whether to have a delete confirmation, and what job statement information to use when generating JCL from the dialog.
Procedure

1. From the IMS Configuration Manager Primary Menu, select option 0 Profile. The Personal Profile panel is displayed.
2. Edit your profile options as required. Press the Help function key (F1) for additional information.
3. Press the Exit function key (F3) to save the new settings.

Installing Common Services Library server

If you want to use the IMS Configuration Manager plug-in for IBM Explorer for z/OS (z/OS Explorer), you need to install Common Services Library server on z/OS. The plug-in uses Common Services Library server to communicate with IMS Configuration Manager.

About this task

Common Services Library server is a component of IBM Common Services Library for z/OS, V1.1 (Common Services Library), a no-charge product.

Other products also use Common Services Library server. If you have already installed the same release of Common Services Library server to support another product, you do not need to install the server again: skip the following procedure, and configure your existing server to support IMS Configuration Manager. You can either start separate instances of the server configured for each product, or you can configure the server to support more than one product.

Procedure

To install Common Services Library server:

1. Get Common Services Library from IBM.
2. Follow the instructions in the Common Services Library Program Directory.

Common Services Library server consists of members in the following two target libraries:

**SFUNLINK**
- Contains Common Services Library server load modules. Must be APF-authorized.

**SFUNSAMP**
- Contains sample Common Services Library server startup JCL and configuration files.

Common Services Library server introduces no installation prerequisites beyond those required by IMS Configuration Manager.

What to do next

Verify that you have successfully installed Common Services Library server.

Verifying installation of Common Services Library server

You should verify that Common Services Library server starts before you configure it to support the IMS Configuration Manager plug-in.
About this task

The following procedure describes how to start Common Services Library server. This procedure is independent of IMS Configuration Manager. Later procedures describe how to configure the server to work with IMS Configuration Manager.

Procedure

1. Copy the following three members from the Common Services Library server sample library SFUNSAMP to a data set of your choice, and then edit the copies according to the comments inside each member.

   FUNSRVST
   Startup JCL:
   //SERVER EXEC PGM=FUNSRV,
   // PARM=('BPECFG=FUNBPECF,FUNCFG=FUNCONFIG')
   //*
   //STEPLIB DD DISP=SHR,DSN=FUNHLQ.SFUNLINK
   //PROCLIB DD DISP=SHR,DSN=MY.FUN.PROCLIB
   The PARM parameter specifies the member names of the two configuration files required by Common Services Library server. These members must be in the concatenation specified by the PROCLIB DD statement. In this example, both members belong to the same data set, MY.FUN.PROCLIB.

   In this example, FUNHLQ is the high-level qualifier of the data set where you have installed the Common Services Library server load module library, SFUNLINK.

   The PROCLIB DD statement specifies the location of the Common Services Library server configuration files.

   FUNBPECF
   IMS Base Primitive Environment (BPE) configuration parameter file. Common Services Library server uses BPE services. The BPE configuration file defines the BPE execution environment settings for the server.

   Unless you have a specific requirement to set different tracing options, use the sample member as supplied.

   FUNCONFIG
   Common Services Library server configuration file.

   You must edit the sample member to specify your own site-specific values for the following parameters:

   SERVER_NAME
   The name of this Common Services Library server.

   TCP_PORT
   The TCP/IP port number on which the server listens for messages from the IMS Configuration Manager plug-in.

   For the other parameters, you can either use the default values or specify values according to your site-specific requirements.

2. Submit the startup JCL.

3. View the JESMSGLG job output data set.

   If Common Services Library server started successfully, the JESMSGLG data set contains the following message:
   FUN3226I Server start completed
4. Stop the server.
   For example, enter the following MVS™ operator command:
   
   F jobname,SHUTDOWN

What to do next

Configure the Common Services Library server startup JCL and Common Services Library server configuration file to support the IMS Configuration Manager plug-in.

**BPECFG: Common Services Library server BPE configuration file**

You need to configure the Common Services Library server by setting options in the BPECFG file.

The BPECFG file can specify the following parameters. For an example file, see member FUNBPECF of the Common Services Library server sample library SFUNSAMP.

Unless you have a specific requirement to set different tracing options, use the sample member as supplied.

**LANG=ENU**

The language of BPE and IMS component message text. ENU is for US English, which is currently the only supported language. This parameter is required.

**TRCLEV=(type,level,component,PAGES=num_pages)**

The trace level for a trace table and, optionally, the number of storage pages allocated for the trace table.

The supported values of *type* are:

- **BPE** Sets tracing options for the BPE.
- **FUN** Sets tracing options for Common Services Library server. It is recommended that you leave these trace levels at high.

**FUNCTIONS: Common Services Library server configuration file**

You need to configure the Common Services Library server by setting parameters in the FUNCTIONS file.

The FUNCTIONS file can contain the following parameters. For an example configuration file, see member FUNFUNCTIONS in the Common Services Library server sample library SFUNSAMP.

**SERVER_NAME=** name

1 - 8 alphanumeric character server name. The name must be unique across the sysplex. This is a required parameter.

**PRODUCT=** prd

A 3-character product code representing a product to be supported by the server. For example, GPL for IMS Configuration Manager. A server can support multiple products. Specify a PRODUCT parameter for each product. If you do not specify any products, then you will only have access to basic server administration functions.
TCP_NAME=name
A 1 - 8 character name of the TCP/IP stack. If this parameter is omitted or
blanks are specified, the server uses the default TCP/IP stack.

TCP_PORT=port
The TCP/IP port number that the server listens on: 1 - 65535. This
parameter is required. Consult your network administrator to identify a
suitable (not in use) port.

TCP_THREADS=threads
The maximum number of threads that can accept client connections
concurrently: 0 - 64. The default is 16.

TCP_MAXSOC=sockets
The maximum number of TCP sockets available for concurrent client
connections: 50 - 2048. The default is 50.

TCP_IPV6=Y|N
Whether the server supports IPv6 clients. Specify Y to allow IPv6 clients to
connect to the server. Your TCP/IP stack must be configured for IPv6; if it
is configured to also allow IPv4 clients, then the server will support both.
The default is N: the server supports only IPv4 clients, regardless of the
stack configuration.

CCSID=ccsid
Specifies the coded character set identifier (CCSID) for the server: 1 -
65533. The CCSID must specify a single-byte character set (SBCS) that is
supported by z/OS Unicode Services. The special identifiers 0, 65534, and
65535 are not supported. The default is 37.

SAF_CLASS=class
The 1 - 8 character SAF security class name, used for product access
authorization. If this parameter is omitted or explicitly set to blanks, then
product access authorization is not performed.

SDA_BARLIM=kilobytes
The Session Data Area (SDA) bar limit size in kilobytes: 64 - 4096. An SDA
is used to hold any incoming client request data and subsequently any
outgoing client response data generated for the request. An SDA of a
length that exceeds the SDA_BARLIM will reside above the bar. If this
parameter is omitted, the default is 2048 kilobytes.

SDA_MAXLEN=megabytes
The Session Data Area (SDA) maximum length in megabytes: 4 - 100. An
SDA is used to hold incoming client request and outgoing client response
data. A client request with data that exceeds the SDA_MAXLEN will fail. If
this parameter is omitted the default is 32 megabytes.

Common Services Library server security
Common Services Library server can check whether users are authorized to use a
product. Common Services Library server performs actions according to the
authority of the client user ID.

Access authorization for basic server functions
In addition to the products that are specified by the PRODUCT parameter in the
Common Services Library server configuration file, Common Services Library
server starts its own default product, with product code FUD, that provides basic
functions such as verifying connections with clients. If the Common Services
Library server configuration file specifies a SAF_CLASS parameter, the server performs a security check for that default product using the following general resource profile:

FUNPRD.FUD

If the user has at least READ access for this resource profile, Common Services Library server allows access to the basic functions.

Users of the GPL plug-in must have at least READ access to this resource profile.

**Product access authorization**

Products running under Common Services Library server manage authorization internally, within the constraints of the Common Services Library server environment.

Optionally, Common Services Library server can restrict access to each product. If the Common Services Library server configuration file specifies a SAF_CLASS parameter, the server performs a security check using the following general resource profile:

FUNPRD.product

where *product* is one of the 3-character product codes specified by the PRODUCT parameter in the Common Services Library server configuration file. For example, GPL is the product code for IMS Configuration Manager.

If the user has at least READ access for this resource profile, Common Services Library server allows access to that product. Otherwise, Common Services Library server denies access to that product.

Users of the GPL plug-in must have at least READ access to this resource profile.

**Client user ID authentication**

Common Services Library server authenticates the client user ID when a client establishes a connection with the server. Client request threads running in the target product are associated with the user ID of the connected client.

**Starting Common Services Library server**

To start Common Services Library server, you submit an MVS batch job.

**Procedure**

1. Customize the JCL in the FUNSRVST member of the Common Services Library server sample library SFUNSAMP.
2. Submit the batch job.

**Stopping Common Services Library server**

To stop an instance of Common Services Library server, you stop the corresponding MVS batch job.
Procedure

Enter one of the following MVS operator MODIFY (F) or STOP (P) commands:

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>F  <code>jobname</code>,SHUTDOWN</td>
<td>Quiesce the server before shutting down. The server rejects new client request threads and shuts down when all active client request threads have completed.</td>
</tr>
<tr>
<td>F  <code>jobname</code>,SHUTDOWN FORCE</td>
<td>Force the server to shut down immediately, cancelling any active client request threads. You can upgrade a quiesce shut down to a forced shut down; see the following command SHUTDOWN FORCE command.</td>
</tr>
<tr>
<td>P  <code>jobname</code></td>
<td>Quiesce the server before shutting down. This STOP command is a shorthand alternative to F  <code>jobname</code>,SHUTDOWN, with the following difference: the server will not respond to subsequent MODIFY commands, so you cannot upgrade this request to a forced shut down.</td>
</tr>
</tbody>
</table>

where `jobname` refers to the batch job for the instance of the server that you want to stop.

Common Services Library server administrative functions

Common Services Library server provides administrative functions that allow you to control the server and the products it runs.

The Common Services Library server accepts operator commands to perform many operations. The format of the command is:

F `servername`, command

Where the commands include the following

- **DISPLAY PRODUCT `product_code`**
  Displays information about a particular product.

- **RESTARTIP**
  Restarts the TCP/IP layer.

- **SHUTDOWN**
  Shuts down the server, waiting for any products to complete their functions.

- **SHUTDOWN FORCE**
  Forces shut down even if some products have not responded.

- **START PRODUCT `product_code`**
  Starts a product with the given code.

- **STOP PRODUCT `product_code`**
  Stops a product with the given code.
Installing the plug-in

The IMS Configuration Manager plug-in for IBM Explorer for z/OS (z/OS Explorer) provides a graphical user interface (GUI) to some of the functions provided by the IMS Configuration Manager ISPF dialog. The plug-in communicates with IMS Configuration Manager via Common Services Library server, which is supplied with IBM Common Services Library for z/OS (Common Services Library).

Before you begin
- Install Common Services Library server on z/OS.
- Install z/OS Explorer on your PC.

About this task

The following figure shows how the environment required to run the plug-in spans systems.

![Diagram showing the environment required to run the plug-in](image)

Figure 14. IMS Configuration Manager plug-in environment

Procedure

1. Configure Common Services Library server to support IMS Configuration Manager:
   a. Add the parameter `PRODUCT=GPL` to the Common Services Library server configuration file, `FUNCFG`.
   b. Customize the server startup job to include the IMS Configuration Manager link library and IMS RESLIB in the STEPLIB concatenation. Add each IMS Configuration Manager repository you want to view with the IMS Configuration Manager Eclipse plug-in. In the following example, replace label placeholders as required:

   ```csh
   //FUNSRV JOB (ACCOUNT), 'NAME'
   //SERVER EXEC PGM=FUNSRV,
   // PARM=('BPECFG=BPECONFG
   //,FUNCFG=FUNCONFG')
   //*
   //STEPLIB DD DISP=SHR,DSN=
   // DD DISP=SHR,DSN=IMSHLQ.SDFSRESL
   //PROCLIB DD DISP=SHR,DSN=FUNHLQ.SFUNSAMP <-- BPE and FUN config.
   /*
   //GPLPRINT DD SYSOUT=*<--- GPL product control parms
   where:
   ```
1. The IMS Configuration Manager link library.

**Note:** The IMS Configuration Manager link library, and all other libraries in the STEPLIB, must be APF-authorized to successfully start the Common Services Library server.

2. The IMS RESLIB.

3. One or more IMS Configuration Manager repositories you want to view in the IMS Configuration Manager Eclipse plug-in.

**Note:** Duplicate IMSplex member systems must not exist across multiple IMS Configuration Manager repositories. Any duplicate IMSplex member system will be reported at start-up time and the corresponding repositories will be closed. See “GPL7312E” on page 201.

2. Follow the instructions in the readme supplied with IMS Configuration Manager in member GPLREAD of library SGPLGENU.

**Related concepts:**

- “Eclipse plug-in” on page 14
  - The IMS Configuration Manager Eclipse plug-in provides you with a consolidated view of your systems and IMSplexes, and allows you to edit resource definitions stored in your IMS Configuration Manager repository.

- Chapter 12, “Key features of the Eclipse plug-in,’’ on page 137
  - The IMS Configuration Manager Eclipse plug-in has several powerful features that can help you improve your understanding of your environment.

**Related tasks:**

- “Enabling autodiscovery” on page 46
  - Enabling the autodiscovery feature instructs IMS Configuration Manager to automatically detect IMS systems and resources and update the IMS Configuration Manager repository with the definitions when the server first starts up.

---

**Getting started**

This topic explains how to get started with the IMS Configuration Manager Eclipse plug-in.

**Procedure**

1. Double-click the z/OS Explorer shortcut.
2. Select Window > Open Perspective > Other.
3. Select IMS Configuration Manager, and then click OK.
4. Follow the prompts to complete the User ID and Password fields using the TSO credentials you normally use when using the IMS Configuration Manager ISPF dialog.

**What to do next**

The first time that the IMS Configuration Manager Eclipse plug-in is run, none of your systems are displayed. See “Connecting to a Common Services Library server” on page 44 to connect the IMS Configuration Manager Eclipse plug-in with one or more running instances of the Common Services Library server.

**Related concepts:**

- Chapter 13, “Exploring your environment,” on page 139
  - Use the IMS Configuration Manager Eclipse plug-in to explore your systems, list
active parameter members, edit resources, and to view change packages.

**Connecting to a Common Services Library server**

The IMS Configuration Manager Eclipse plug-in requires a connection to a running instance of the Common Services Library server.

**Procedure**

1. In the Navigation view, click , and then click **Common Services Library server**.
2. Enter the details of your Common Services Library server as follows:
   - **Server Name**
     The name of the Common Services Library server. This field is descriptive only, but must be unique.
   - **Host Name**
     The host name or IP address of the Common Services Library server.
   - **Host Port**
     The TCP/IP port of the Common Services Library server.
   - **Connection Profile**
     The **Connection Profile** is a predefined user name and password combination. If you leave this field blank, the default connection profile is used. To create a new connection profile or to change the default connection profile, click the **View Menu** icon, click **Preferences**, and then click **Connection Profiles**.
   - **Test connection**
     Tests that the client is able to connect to the server.

The new server is displayed in the Common Services Library server section of the Navigation panel. If you cannot see the Common Services Library server, you might need to expand the Common Services Library server section of the Navigation view.

**Tip:** The IMS Configuration Manager Eclipse plug-in can be configured to connect to several servers at once. Use this feature to create a unified view of all your z/OS images across your global sites.

**Related tasks:**

- “Exploring the topology of your systems” on page 139

The IMS Configuration Manager Eclipse plug-in allows you to explore the topology of your systems using the Navigation view.
Chapter 3. First steps

Once you have installed IMS Configuration Manager, it is time to populate your IMS Configuration Manager repository with system definitions.

Defining systems and IMSplexes

Define IMSplexes and systems in the IMS Configuration Manager repository using the autodiscovery method, by manually creating system definitions through the ISPF dialog, or by using batch commands.

If you have not already done so, create an IMS Configuration Manager repository before proceeding.

Defining systems and IMSplexes using autodiscovery

IMS Configuration Manager can automatically discover systems and store their PROCLIB configurations using the autodiscovery feature. You can start autodiscovery as a batch command or as an initialization option for the product whilst running under the Common Services Library server.

Related concepts:
“Defining systems and IMSplexes using the ISPF dialog” on page 47
You can use the IMS Configuration Manager ISPF dialog to manually define IMSplexes and systems.

Discovering systems using the DISCOVER batch command

The DISCOVER batch command discovers IMS systems, IMS Connect systems, and IMSplex components, and updates the IMS Configuration Manager repository with the definitions.

About this task

The DISCOVER command can identify all systems registered to XCF across MVS images. It can also identify systems that are running outside of an IMSplex on the MVS image that the utility runs on.

Note: Only the DISCOVER command can discover systems running outside of a IMSplex. It cannot be done using the AUTODISCOVER keyword in the Common Services Library server startup job.

Procedure

Run the “DISCOVER command” on page 253. Use the optional RESOURCES parameter to add resource definitions discovered by IMS Configuration Manager. Results are stored in the specified IMS Configuration Manager repository.

Related tasks:
“Importing resources using the DISCOVER command” on page 55
You can import resource definitions from live systems into the IMS Configuration Manager repository using the DISCOVER command.

Related reference:
“Example JCL for discovering systems and IMSplexes” on page 224
This JCL uses the DISCOVER batch command to automatically discover IMS
components for use in IMS Configuration Manager.

"Example JCL for discovery and resource take up” on page 224
This JCL uses the DISCOVER batch command to automatically discover IMS systems and to take up resources associated with those systems.

Chapter 22, “Understanding the result of the discovery process,” on page 303
Results of the IMS Configuration Manager autodiscovery process are summarized in the log.

**Autodiscovery using the Common Services Library server**

You can configure the Common Services Library server to automatically discover systems and IMSplexes.

**Enabling autodiscovery:**

Enabling the autodiscovery feature instructs IMS Configuration Manager to automatically detect IMS systems and resources and update the IMS Configuration Manager repository with the definitions when the server first starts up.

**Before you begin**

Ensure that the Common Services Library server has been installed and configured successfully. See “Installing the plug-in” on page 42.

**Procedure**

1. Customize the Common Services Library server startup job to include the AUTO DISCOVER keyword.

```
//GPLCNTL DD *
   REPOSITORY NAME=REPONAME,
       DESC=(MYREPOSITORY),
       DSN=TEST.REPOS,
       AUTO DISCOVER 1
```

2. Submit the server startup job. The results of autodiscovery are stored in the log. See Chapter 22, “Understanding the result of the discovery process,” on page 303.

**What to do next**

- To rediscover systems and components, restart the server or the IMS Configuration Manager product component (GPL) running under the server.
- To limit the scope of discovery to certain systems and member types, or to discover MODBLK resources, you can specify additional parameters. See "REPOSITORY keyword” on page 299 for additional details.
- To manage systems and parameters across your enterprise, see Part 4, "Enterprise system management with the Eclipse plug-in,” on page 135.

**Related tasks:**

“Installing the plug-in” on page 42

The IMS Configuration Manager plug-in for IBM Explorer for z/OS (z/OS Explorer) provides a graphical user interface (GUI) to some of the functions provided by the IMS Configuration Manager ISPF dialog. The plug-in communicates with IMS Configuration Manager via Common Services Library server, which is supplied with IBM Common Services Library for z/OS (Common Services Library).

**Related reference:**


Disabling autodiscovery:

Disabling the autodiscovery feature instructs IMS Configuration Manager to stop detecting IMS systems automatically.

Procedure

Customize the server startup job to remove the AUTODISCOVER keyword and any associated parameters.

What to do next

Systems can be manually defined using the ISPF dialog. For more information, see “Defining systems and IMSplexes using the ISPF dialog.”

Defining systems and IMSplexes using the ISPF dialog

You can use the IMS Configuration Manager ISPF dialog to manually define IMSplexes and systems.

Related concepts:

“Defining systems and IMSplexes using autodiscovery” on page 45

IMS Configuration Manager can automatically discover systems and store their PROCLIB configurations using the autodiscovery feature. You can start autodiscovery as a batch command or as an initialization option for the product whilst running under the Common Services Library server.

Defining an IMSplex

You can use the IMS Configuration Manager ISPF dialog to manually define an IMSplex.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 1 IMSplexes. The IMSplex panel is displayed.
2. On the command line, enter NEW. The New IMSplex dialog is displayed.
3. Enter a name and description for the new IMSplex definition. If you intend to use the "INSTALL command" on page 257, the name must match the IMSPLEX parameter in the DFSCGxxx member. See "Resource installation with command change packages" on page 94.

New IMSplex

Press PF3 to create the Plex, PF12 to cancel

IMSplex . . . PLXXX
Description . . My IMSplex

Figure 15. Creating a new IMSplex
4. To finalize the creation of the new IMSplex definition, press the Exit function key (F3).

What to do next

Add member systems to the new IMSplex. See “Defining an IMS system.”

Defining an IMS system

You can use the IMS Configuration Manager ISPF dialog to manually define an IMS system.

Before you begin

If the IMS system belongs to an IMSplex, you must first define that IMSplex. See “Defining an IMSplex” on page 47.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 2 Systems. The System Member List panel is displayed.
2. On the command line, enter NEW. The New System Member dialog is displayed.
3. Type a name for the system.
5. Complete the form as required. To use command change packages, the IMS system must be part of an IMSplex and you must select BOTH or CMD as the CP Type Allowed. See Chapter 7, “Deploying resources using change packages,” on page 87.
6. To finalize the creation of the new IMS system definition, press the Exit function key (F3).

What to do next

Add resources to your IMS system definitions. See Part 2, “Resource management,” on page 53.

Defining an IMS Connect system

You can use the IMS Configuration Manager ISPF dialog to manually define an IMS Connect system.
About this task

Defining an IMS Connect system allows you to track the initialization parameters and configuration members used, and the IMSplex connections for each IMS Connect system.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 2 Systems. The System Member List panel is displayed.
2. On the command line, enter NEW. The New System Member dialog is displayed.
3. Type a name for the system. Enter 2 to specify an IMS Connect system and press Enter. The IMS Connect Settings form is displayed.
4. Select an IMS Connect system and press Enter. The IMS Connect Settings form is displayed.
5. Complete the form as required. Specify the names of the IMS Connect and BPE configuration members in the PROCLIB as well as the PROCLIB data set name. If you have IBM IMS Connect Extensions for z/OS installed, you can also specify the host name and port number of the IMS Connect Extensions console. If you want to add this system to an IMSplex, press the Right function key (F11) and complete the relevant fields.

File Help
File Help

EDIT IMS Connect Settings IMSC Row 1 of 1 More: <>
Command ====> Scroll ====> PAGE

IMS Connect . . . : IMSC  Version . . . . . . 13.1 +
Description . . . . My IMS Connect system

Configuration Member Names:
HWSCFG . . . HWS CFG00 IMS Connect configuration
BPECFG . . . BPECFG11 Base Primitive Environment configuration

IMS Connect Extensions console (optional):
Host . . . . .
Port number . .

/ PROCLIB Data Set
GPL220.HWS.PROCLIB

Figure 17. Creating a new IMS Connect system definition

6. To finalize the creation of the new IMS Connect system definition, press the Exit function key (F3).

Results

If the IMS Connect system belongs to an IMSplex, the name of the IMSplex is displayed in the IMSplex column. If it belongs to more than one plex, a plus sign (+) is displayed followed by the number of IMSplex associations. An empty field in the IMSplex column signifies that the IMS Connect system does not belong to an IMSplex.
Defining a CSL member
You can use the IMS Configuration Manager ISPF dialog to manually define a Common Service Layer (CSL) member.

Procedure
1. From the IMS Configuration Manager Primary Menu, select option 2 Systems. The System Member List panel is displayed.
2. On the command line, enter NEW. The New System Member dialog is displayed.

3. Type a name for the member. Different member types have different name validation rules.
4. Select the type of CSL member you want to create from the list and press Enter. A form corresponding to the system you selected is displayed.
5. Complete the form. Press the Help function key (F1) on any field to see additional information.
6. Press the Exit function key (F3).

**Deleting a system or IMSplex**
You can use the IMS Configuration Manager ISPF dialog to delete an IMSplex, an IMS system, or an IMS Connect system through the ISPF dialog.

**Before you begin**
If you are using the autodiscovery feature, any discoverable systems and IMSplexes you delete will be re-added when the Common Services Library server is restarted. For more information, see "Defining systems and IMSplexes using autodiscovery" on page 45.

**About this task**
When an IMS system is deleted, the following items are also deleted:

- All associated change packages
- All system-specific resource groups

Common resource groups are not deleted.

If you want to delete an IMSplex, it must not be referenced by any member systems. This reference can be eliminated by deleting the referenced systems or by moving them to another IMSplex.

**Procedure**
1. From the IMS Configuration Manager Primary Menu, select option 1 **IMSplexes** or option 2 **Systems**.
2. Enter line action **D** next to the item you want to delete.
3. If **Delete Confirmation** is enabled in your profile options, press Enter to confirm deletion of the system. See "Setting IMS Configuration Manager ISPF profile options" on page 35.

**Defining systems and IMSplexes using the MAINT.MEMBERS batch command**
Use the MAINT.MEMBERS batch command to update IMSplex, IMS, IMS Connect, and Common Service Layer (CSL) definitions stored in your IMS Configuration Manager repository.

**Procedure**
Run the **MAINT.MEMBERS command** on page 259, specifying the objects in your systems to update in your IMS Configuration Manager repository.

**Related tasks:**
"Editing resources using the MAINT.RESOURCES command" on page 86

Use the MAINT.RESOURCES command to update resource definitions in an IMS Configuration Manager repository in batch.

**Related reference:**
"Example JCL for editing systems and IMSplexes" on page 228
This JCL examples uses the MAINT.MEMBERS batch command to create and edit IMSplexes, IMS systems, and Common Service Layer (CSL) component definitions stored in the IMS Configuration Manager repository.
Exploring IMS Configuration Manager

Now that your IMS Configuration Manager repository contains system definitions, several options become available.

Continue reading from one of the following sections for further information.

If you are interested in learning more about the resource management features of IMS Configuration Manager, see Part 2, “Resource management,” on page 53. In this section, you will learn how to perform the following tasks:

• Import resource definitions from a variety of sources into an IMS Configuration Manager repository.
• Edit and deploy those definitions to live systems using the ISPF dialog and batch commands.
• Customize your use of IMS Configuration Manager, and create a workflow for your particular IMS environment.

If you are interested in learning more about the parameter management features of IMS Configuration Manager, see Part 3, “Parameter management,” on page 107. In this section, you will learn how to perform the following tasks:

• List and search parameter members using the ISPF dialog.
• Create and edit parameter members.
• Insert parameters based on a model.
• Use the syntax checker.
• View context-sensitive help for parameters.
• View parameter change history.

If you are interested in learning more about the features of the Eclipse plug-in, see Part 4, “Enterprise system management with the Eclipse plug-in,” on page 135. In this section, you will learn how to perform the following tasks:

• Explore your IMSplexes and IMS systems, view resources, and drill down into active parameter members.
• Edit resources.
• Submit IMS type-2 commands.
• Filter, search, save, and export results to CSV.
• Compare systems and their parameter values.
Part 2. Resource management

IMS Configuration Manager simplifies the process of managing IMS resources and allows you to make the transition to dynamic resource definition (DRD). These topics provide an overview of the IMS Configuration Manager resource management features.
Chapter 4. Importing resource definitions into IMS Configuration Manager

Before you can manage resources using IMS Configuration Manager, you must import your resource definitions into the IMS Configuration Manager repository.

IMS Configuration Manager provides you with the following options for importing resources:

- To import resource definitions and systems from live systems, use the DISCOVER command.
- To import resource definitions directly from an IMSRSC repository, an RDDS, or from stage 1 source, use the TAKEUP command.
- To import resource definitions using an IMS type-2 command deck, use the MAINT.RESOURCES command.

The method you select will depend on your IMS environment. Before you begin, you will need to understand how you currently manage resources in your IMS environment.

Importing resources using the DISCOVER command

You can import resource definitions from live systems into the IMS Configuration Manager repository using the DISCOVER command.

Before you begin

Create an IMS Configuration Manager repository. See “Creating an IMS Configuration Manager repository” on page 30.

About this task

This procedure performs a system autodiscovery before resources are imported into the IMS Configuration Manager repository. If you want to import resources without importing system definitions, see “Importing resources using the TAKEUP command” on page 56.

Procedure

1. Run the “DISCOVER command” on page 253, specifying the RESOURCES keyword. Results are stored in the specified IMS Configuration Manager repository.
2. From the Primary Menu of the IMS Configuration Manager ISPF dialog, select option 3 Resources to display a list of resources imported into the IMS Configuration Manager repository.

Related tasks:

“Discovering systems using the DISCOVER batch command” on page 45

The DISCOVER batch command discovers IMS systems, IMS Connect systems, and IMSplex components, and updates the IMS Configuration Manager repository with the definitions.

Related reference:
Importing resources using the TAKEUP command

You can import resource definitions into an IMS Configuration Manager repository from stage 1 source, an RDDS, or an IMSRSC repository using the TAKEUP command.

Before you begin

- Create an IMS Configuration Manager repository. See “Creating an IMS Configuration Manager repository” on page 30.
- If you want to import definitions from live IMS systems instead, see “Importing resources using the DISCOVER command” on page 55.
- If you are importing stage 1 source, determine how resources should be assigned to resource groups. Depending on your choice, you might need to edit your stage 1 source. See Chapter 23, “Retaining the logical organization of your resource definitions,” on page 307.

About this task

IMS Configuration Manager repositories do not store IMS macros that do not relate to application resources. It is the user’s responsibility to maintain these macros outside of IMS Configuration Manager if they are required.

Procedure

1. Run the IMS Configuration Manager “TAKEUP command” on page 289. Depending on your import strategy, you might need to execute the command several times.

2. From the Primary Menu of the IMS Configuration Manager ISPF dialog, select option 3 Resources to display a list of resources imported into the IMS Configuration Manager repository.

What to do next

Review the results of the TAKEUP command in the SYSPRINT output data set. Note the return code (RC) and see the ASMPRINT log for additional information if required.

Tip: To quickly find reported errors, page down to the end of the ASMPRINT data set and enter FIND ’MNOTE’ PREV. Errors are also marked with asterisks. For example: ASMA254I *** MNOTE *** 1147+ 2,ERROR - GPSB REQUIRES LANG.

Related tasks:

“Creating resource groups” on page 68

Related reference:

IMS Configuration Manager User’s Guide
Defining resources using the **MAINT.RESOURCES command**

Use the MAINT.RESOURCES command to create resource definitions in an IMS Configuration Manager repository in batch.

**Before you begin**

Create an IMS Configuration Manager repository. See “Creating an IMS Configuration Manager repository” on page 30.

**About this task**

The MAINT.RESOURCES command allows you to apply IMS type-2 commands directly to an IMS Configuration Manager repository. If you currently update your resources in this fashion, you can use this command to quickly recreate your online environment in IMS Configuration Manager.

The MAINT.RESOURCES command does not submit type-2 commands to the IMS Common Service Layer (CSL). Your IMS systems will not be affected.

**Procedure**

1. Create and submit a job containing the **MAINT.RESOURCES command** on page 286. Be sure to specifying the data set name that contains a list of resource-defining sub-commands in type-2 command format.
2. From the Primary Menu of the IMS Configuration Manager ISPF dialog, select option 3 **Resources** to display a list of resources in the IMS Configuration Manager repository.
3. Select the resources that were updated by the batch command to review your changes.
Chapter 5. Planning your workflow

IMS Configuration Manager unifies all of your resource and descriptor definitions across IMSplexes into a single IMS Configuration Manager repository. Once your definitions are established in an IMS Configuration Manager repository, you can use IMS Configuration Manager powerful resource editing features to modify those definitions, and then control and structure the deployment of those changes to live systems, an IMS resource definition (IMSRSC) repository, a resource definition data set (RDDS), or stage 1 source.

IMS Configuration Manager is designed to complement DRD and non-DRD environments. The following topics demonstrate just a few of the ways in which IMS Configuration Manager can be integrated with your environment and your existing procedures.

Dynamic resource definition (DRD) workflows

Dynamic resource definition (DRD) allows you to create, update, and delete certain IMS runtime resource definitions (database, application programs, Fast Path routing codes, and transactions) and descriptors using type-2 commands and add these resources to IMS dynamically. DRD eliminates the need to use the system generation or online change processes. There are two methods in IMS for storing runtime resource definitions using DRD: using resource definition data sets (RDDS) or by using the IMS resource definition (IMSRSC) repository.

Working with IMS resource definition (IMSRSC) repositories

The IMS resource definition (IMSRSC) repository is a set of data sets for storing resource and descriptor definitions. It enables an IMSplex to use a single shared repository to store these resource definitions for all the members of an IMSplex.

A typical workflow using IMS Configuration Manager with an IMSRSC repository is as follows:

1. Add, update, and delete resource definitions in your IMS Configuration Manager repository using the ISPF dialog, Eclipse plug-in, or "MAINT.RESOURCES command" on page 286.

2. Bundle your resource changes into command change packages using the ISPF dialog.

3. Deploy the change packages to the relevant IMS systems using the ISPF dialog and the "INSTALL command" on page 257.

4. Use the IMS EXPORT type-2 command to export runtime resource and descriptor definitions from the online IMS system to the IMSRSC repository.

The following diagram describes this process.
Repeat this process each time you need to update your resources. Using this structured methodology, you can safely edit your resource definitions offline and review changes before they are deployed to live systems.

Related concepts:

- Chapter 6, “Editing resources stored in an IMS Configuration Manager repository,” on page 67
- Chapter 7, “Deploying resources using change packages,” on page 87

Working with resource definition data sets (RDDS)

A resource definition data set (RDDS) stores the resource and descriptor definitions for one local IMS only.

If you want to deploy your resource changes to a live IMS system that uses an RDDS, a typical workflow using IMS Configuration Manager is as follows:

Figure 20. Using IMS Configuration Manager to manage resources stored in an IMS resource definition (IMSRSC) repository.
1. Add, update, and delete resource definitions in your IMS Configuration Manager repository using the ISPF dialog, Eclipse plug-in, or "MAINT.RESOURCES command" on page 286.

2. Bundle your resource changes into a change package using the ISPF dialog.

3. Deploy the change package to the relevant IMS systems using the ISPF dialog and the "INSTALL command" on page 257.

4. Use the AUTOEXPORT parameter to automatically export definitions to the RDDS at the next system checkpoint.

If you want to deploy your resource changes directly to an RDDS, a typical workflow using IMS Configuration Manager is as follows:

1. Add, update, and delete resource definitions in your IMS Configuration Manager repository using the ISPF dialog, Eclipse plug-in, or "MAINT.RESOURCES command" on page 286.

2. Bundle your resource changes into a change package using the ISPF dialog.

3. Create a system RDDS using the ISPF dialog and the "GEN command" on page 255.

4. Use the IMS IMPORT type-2 command to import runtime resource and descriptor definitions from the RDDS to the online IMS system.

The following diagram describes these processes.
Repeat either of these processes each time you need to update your resources. Using a structured methodology, you can safely edit your resource definitions offline and review changes before they are deployed to live systems.

**Related concepts:**

- Chapter 6, “Editing resources stored in an IMS Configuration Manager repository,” on page 67
- Chapter 7, “Deploying resources using change packages,” on page 87

The IMS Configuration Manager repository contains your system and resource definitions. To add, update, and delete resources stored in the IMS Configuration Manager repository, use the IMS Configuration Manager ISPF dialog and the IMS Configuration Manager batch utility.

Non-DRD workflow

IMS Configuration Manager can be used with IMS systems that do not have dynamic resource definition (DRD) enabled.

A typical workflow using IMS Configuration Manager without dynamic resource definition is as follows:
1. Add, update, and delete resource definitions in your IMS Configuration Manager repository using the ISPF dialog, Eclipse plug-in, or "MAINT.RESOURCES command" on page 286.

2. Bundle your resource changes into a *generate change packages* using the ISPF dialog.

3. Create stage 1 source using the ISPF dialog and the "GEN command" on page 255.

4. Save your IMSCTRL and IMSGEN macros, together with any non-resource-related macros. Stage 1 output from IMS Configuration Manager does not contain everything needed to perform a SYSGEN. To ensure that your stage 1 macro works as expected, take care to concatenate the required IMSGEN macros in the appropriate order.

The following diagram describes this process.

*Figure 22. Using IMS Configuration Manager without DRD*

Repeat this process each time you need to update your resources. This structured methodology offers a transparent transition to DRD and a standardized, supported solution for updating your resources.

**Related concepts:**
- Chapter 7, “Deploying resources using change packages,” on page 87
- Resources stored in the IMS Configuration Manager repository are deployed to IMS systems using change packages.
Chapter 6, “Editing resources stored in an IMS Configuration Manager repository,” on page 67

The IMS Configuration Manager repository contains your system and resource definitions. To add, update, and delete resources stored in the IMS Configuration Manager repository, use the IMS Configuration Manager ISPF dialog and the IMS Configuration Manager batch utility.

Chapter 8, “Creating automated and repeatable update processes,” on page 103

IMS Configuration Manager provides you with the ability to create automated and repeatable system update processes by combining several batch commands in one run.

Related reference:

“Example JCL for generating stage 1 source” on page 234

This JCL generates stage 1 source from all resource groups assigned to a system using the GEN batch command. For another example, see GPLGEN in SGPLSAMP.

**Hybrid workflow**

IMS Configuration Manager can be used with DRD and with MODBLKS in a hybrid model. This option is only appropriate if you want to continue using stage 1 source for some applications while introducing new applications in a more dynamic way without a system cold start.

You can use IMS Configuration Manager to augment your MODBLKS-based resource definitions with IMS Configuration Manager repository-based resource definitions. If your IMS systems use DRD and the MODBLKS data set, use the IMS Configuration Manager to edit new resources stored in IMS Configuration Manager repository whilst continuing to use MODBLKS to stage 1 source as desired.

A typical workflow using IMS Configuration Manager with a hybrid approach is as follows:

1. Add, update, and delete resource definitions in your IMS Configuration Manager repository using the ISPF dialog or “MAINT.RESOURCES command” on page 286.
2. For resources related to dynamically-introduced applications:
   - Bundle your resource changes into change packages using the ISPF dialog.
   - Deploy the change packages to the relevant IMS systems using the ISPF dialog and the “INSTALL command” on page 257.
3. For all other resources:
   - Bundle your resource changes into change packages using the ISPF dialog.
   - Create stage 1 source using the ISPF dialog and the “GEN command” on page 255.
   - Save your IMSCTRL and IMMSGEN macros, together with any non-resource-related macros. Stage 1 output from IMS Configuration Manager does not contain everything needed to perform a SYSGEN. To ensure that your stage 1 macro works as expected, take care to concatenate the required IMMSGEN macros in the appropriate order.

The following diagram describes this process.
Repeat this process each time you need to update your resources. Using this structured methodology, you can safely edit your resource definitions offline and review changes before they are deployed to live systems.

Related concepts:
- Chapter 6, “Editing resources stored in an IMS Configuration Manager repository,” on page 67
  The IMS Configuration Manager repository contains your system and resource definitions. To add, update, and delete resources stored in the IMS Configuration Manager repository, use the IMS Configuration Manager ISPF dialog and the IMS Configuration Manager batch utility.
- Chapter 7, “Deploying resources using change packages,” on page 87
  Resources stored in the IMS Configuration Manager repository are deployed to IMS systems using change packages.
- Chapter 8, “Creating automated and repeatable update processes,” on page 103
  IMS Configuration Manager provides you with the ability to create automated and repeatable system update processes by combining several batch commands in one run.
Custom workflows

Use the utilities provided with IMS Configuration Manager to create your own customized workflow centered on the IMS Configuration Manager repository.

You can use the IMS Configuration Manager to perform the following tasks:
- Convert between formats.
- Export to multiple formats at once.
- Transition your systems to DRD by converting from stage 1 source to either an IMS resource definition (IMSRSC) repository or a resource definition data set (RDDS).
- Automatically discover your IMS runtime resource definitions and export them as desired.

The following figure demonstrates how resources can be easily converted from one format to another using IMS Configuration Manager.

Figure 24. Working with the IMS Configuration Manager repository

IMS Configuration Manager gives you the flexibility to work with multiple formats in any way you desire. The IMS Configuration Manager repository serves as a central location which you can then use to control your definitions.
Chapter 6. Editing resources stored in an IMS Configuration Manager repository

The IMS Configuration Manager repository contains your system and resource definitions. To add, update, and delete resources stored in the IMS Configuration Manager repository, use the IMS Configuration Manager ISPF dialog and the IMS Configuration Manager batch utility.

Resource groups

Resource groups help to identify resources that are related to each other. A resource group can contain any number of resources of any supported type. Every resource must belong to a resource group.

If you have used stage 1 source, you might have used PDS members to logically separate groups of resources. A resource group provides you with similar capability. The following figure illustrates the function of resource groups.

There are two types of resource group:

Common

A common resource group can be associated with multiple systems.

System-level

A system-level resource group is a resource group that can only belong to one system. A system-level resource group can be used to override resources defined in a common resource group.

When you associate a resource group with an IMS system, you are specifying to IMS Configuration Manager that the resources within the resource group can be deployed to that system, and any other systems with which the resource group is associated.
There are several methods for retaining the logical organization of your resource definitions when using the TAKEUP command to import resources into an IMS Configuration Manager repository.

**Editing resources using the ISPF dialog**

You can use the IMS Configuration Manager ISPF dialog to edit resources defined inside your IMS Configuration Manager repository.

**Creating resource groups**

IMS Configuration Manager stores resource definitions inside resource groups. You can use the IMS Configuration Manager ISPF dialog to manually define new resource groups in the IMS Configuration Manager repository.

**Before you begin**

- If you want to import resources and resource groups instead of creating them manually, see Chapter 4, “Importing resource definitions into IMS Configuration Manager,” on page 55.
- If you want to migrate resources from one repository to another, see “Copying and migrating resource groups using the COPY command” on page 84.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 3 Resources. The Resource Groups panel is displayed.
2. On the command line, enter NEW name where name is the name of your new resource group. The New Resource Group panel is displayed with the chosen name.
3. To create a system-level resource group, enter an IMS system identifier in the IMSID field, or press the Prompt function key (F4) to see a list of options. To create a common resource group, do not assign a value to the IMSID field. To learn more about system-level and common resource groups, see “Resource groups” on page 67.

4. Optional: To automatically add resources using the “TAKEUP command” on page 289, select Add resources via Takeup and complete the relevant fields. The macro file list must contain the SGPLSAMP library, plus any libraries containing COPY members referenced by the stage 1 input.

5. To create the new resource group, press the Exit function key (F3). If Add resources via Takeup was selected, JCL to perform the take-up is displayed.

**Important:** If you want to submit the JCL generated by the ISPF dialog, be sure to populate your profile JCL information. See “Setting IMS Configuration Manager ISPF profile options” on page 35 for details.

**Tip:** To add additional commands, save the commands generated by the ISPF dialog to an external file. See Chapter 8, “Creating automated and repeatable update processes,” on page 103.
Results

**What to do next**

Add resources to your new resource group, or edit your imported definitions. See “Creating and adding resources to a resource group.”

**Related tasks:**

“Importing resources using the TAKEUP command” on page 56
You can import resource definitions into an IMS Configuration Manager repository from stage 1 source, an RDDS, or an IMSRSC repository using the TAKEUP command.

**Creating and adding resources to a resource group**

You can use the IMS Configuration Manager ISPF dialog to manually create a resource and then add that resource to a resource group.

**Before you begin**

- If you want to import resources and resource groups instead of creating them manually, see Chapter 4, “Importing resource definitions into IMS Configuration Manager,” on page 55. After you have imported your definitions, use the procedure in this section to add additional resource definitions.
- If you have not yet defined a resource group, see “Creating resource groups” on page 68.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 3 Resources. The Resource Groups panel is displayed.
2. To add resources, enter line action S next to the resource group. The Resources panel is displayed, showing a list of resources (if any) assigned to the selected resource group.
3. On the command line, enter NEW. The New Resource panel is displayed.

4. Enter a **Resource Name**, and then select one of the options displayed. When complete, press Enter to create the new resource. A panel is displayed that contains attributes relevant to the chosen resource type.
5. Enter a description for your resource, and define it using the attributes provided. Notes can be added to the resource using the **Notes** point-and-shoot field.

6. To create the new resource and assign it to the resource group, press the Exit function key (F3).

### Results

**Figure 30. Updating a resource definition.**

**Figure 31. A resource group consisting of a single resource named TRAN**

Entries in the **Type** column can contain one of the following values:

- **DB** Database or database descriptor.
- **PGM** Program or program descriptor.
- **RTC** Routing code or routing code descriptor.
- **TRN** Transaction or transaction descriptor.
MSL  Multiple Systems Coupling (MSC) logical link between two MSC-enabled IMS systems.

MSP  MSC physical link between two MSC-enabled IMS systems.

MSN  MSC logical link path between a local IMS system and a remote IMS system.

LTM  MSC remote logical terminal (LTERM) assigned to a MSC logical link path between two IMS subsystems.

If a resource is a descriptor, a Y is displayed in the D column.

**What to do next**

Additional actions you can perform on the Resources panel:

* Create a new resource with the same attributes as an existing resource by entering line action N next to the resource you want to model.
* To update an existing resource, enter line action E next to the resource.

**Related tasks:**

[“Associating common resource groups with IMS systems” on page 76](#)

You can use the IMS Configuration Manager ISPF dialog to associate common resource groups with IMS systems.

**Using the resource filter when viewing a resource group**

When the number of resource definitions in a resource group grows, you might want to filter which resources appear in the resource group list. You can filter resources by common criteria, such as type, name, user ID or you can filter resources based on the value of any of their type-specific attributes by first filtering by type.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 3 Resources. The Resource Groups panel is displayed.
2. Enter line action S next to the resource group you want to browse. The Resources panel is displayed.
3. Enter one or more filtering criteria below the column headings. For example:
   - To view all resource definitions containing the letters DB in the name, enter
     *DB* below the Name column and press Enter.

   - To view only those resource definitions created on a particular date, enter the
     date below the Created column and press Enter.

4. To filter resources by their type-specific attributes:
   a. Enter a resource definition type in the Type column so that only resource
      definitions of a particular type are displayed.
b. Press the Scroll function key (F11) until the type-specific attribute columns are displayed.

c. Enter your filter criteria below each column heading.

Adding notes (annotations) to resource definitions and resource groups

You can use the IMS Configuration Manager ISPF dialog to add notes to individual resource definitions and resource groups.

Before you begin

You can also import notes from stage 1 source using the "TAKEUP command" on page 289.

About this task

Notes describe the resource definition. Notes are converted into comments when using the "GEN command" on page 255.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 3 Resources. The Resource Groups panel is displayed.

2. Use line action S to navigate through the ISPF dialog until you find the resource or resource group you are interested in.
3. Place your cursor on the Notes point-and-shoot field and press Enter.
4. Type a description for the resource or resource group.
5. Press the Exit function key (F3) to save and exit.

**Important:** Ensure that you save the definition before exiting. If you cancel, the notes will not be saved.

### Copying resource groups

You can use the IMS Configuration Manager ISPF dialog to copy a resource group.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 3 Resources. The Resource Groups panel is displayed.
2. To copy a resource group, enter line action C next to the resource group. The Copy Resource Group panel is displayed.

![Copy Resource Group panel](image)

3. Enter a Name and a Description for the new resource group. When complete, press the Exit function key (F3) to copy the resource group.

**Related tasks:**

“Copying and migrating resource groups using the COPY command” on page 84

Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.

### Associating common resource groups with IMS systems

You can use the IMS Configuration Manager ISPF dialog to associate common resource groups with IMS systems.

**About this task**

Only common resource groups are manually associated with IMS systems. A system-level resource group is automatically associated with the IMS system to which it is assigned. See “Resource groups” on page 67.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 2 Systems. The IMS Systems List panel is displayed.
2. Enter line action S next to the system to which you want to add the common resource group. The IMS System panel is displayed.
3. Select option 2 Resources. The IMS System Resource Groups panel is displayed.

4. On the command line, enter ADD to add an existing common resource group to the system. A list of common resource groups is displayed.

5. Enter line action S next to each common resource group you want to add.

6. Press the Exit function key (F3) to create the association. The resource groups you added appear in the list.

Related tasks:
- "Creating and adding resources to a resource group" on page 70

You can use the IMS Configuration Manager ISPF dialog to manually create a resource and then add that resource to a resource group.

Disassociating common resource groups from IMS systems

You can use the IMS Configuration Manager ISPF dialog to disassociate common resource groups from IMS systems.

About this task
- Disassociating a common resource group from an IMS system deletes all resources contained within the group from that system.
- Only common resource groups are manually disassociated from IMS systems. A system-level resource group must be deleted to remove its association from a system. See "Deleting resource groups" on page 82.

Procedure
1. From the IMS Configuration Manager Primary Menu, select option 2 Systems. The IMS Systems List panel is displayed.
2. Enter line action S next to the system to which you want to remove the common resource group association. The IMS System panel is displayed.
3. Select option 2 Resources. The IMS System Resource Groups panel is displayed.
4. Enter line action D next to the common resource group you want to disassociate. If **Delete Confirmation** is enabled in your profile options, press Enter again to confirm the disassociation of the resource group. See "Setting IMS Configuration Manager ISPF profile options" on page 35.

5. If you are disassociating a common resource group that is associated with one or more systems that supports command change packages, the Resource Group Deletion Request panel is displayed. This panel allows you to add resource deletion commands to a **change package** which, when installed, will delete the resources in that resource group from your live IMS system. Press Enter to add resource deletion commands to a command change package.

**Important:** Even if you do not add the deleted resources to a change package, they are still deleted from the IMS Configuration Manager repository. The resource remains on your live systems but it is no longer displayed by IMS Configuration Manager. Consider your resource management strategy carefully before choosing this option.

6. Enter a change package option for each affected system. Press the Help function key (F1) for additional information.

7. Press the Exit function key (F3).

**What to do next**

If you added the resource deletions to a command change package, install the new change package to delete the resources from the target IMS system. Until you install the change package, the resources are only deleted from the IMS Configuration Manager repository.

To install the change package containing your resource deletion requests, see "Scheduling a command change package for installation" on page 96.

**Deleting resources**

You can use the IMS Configuration Manager ISPF dialog to delete resources from the IMS Configuration Manager repository.

**Related tasks:**
The IMS Configuration Manager profile allows you to set options such as whether to have a delete confirmation, and what job statement information to use when generating JCL from the dialog.

**Deleting resources via the systems view**

Use the systems view to delete a resource from a system stored in your IMS Configuration Manager repository.

**About this task**

If a resource is in both a *system-level* resource group and a *common* resource group, IMS Configuration Manager deletes the resource in the system-level resource group, but leaves the resource in the common resource group in place. Deleting a system-level resource removes the overrides specific for that system.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 2 *Systems*. The IMS Systems List panel is displayed.
2. Enter line action S next to the system from which you want to delete a resource. The IMS System panel is displayed.
3. Select option 2 *Resources*. The IMS System Resource Groups panel is displayed.
4. In the View field, select option 2 *All System Resources*.
5. Enter line action D next to the resource you want to delete. If Delete Confirmation is enabled in your profile options, press Enter again to confirm deletion of the resource. See “Setting IMS Configuration Manager ISPF profile options” on page 35.
6. If you are deleting a resource that is associated with one or more IMS systems that support *command change packages*, the Resource Deletion Request panel is displayed. This panel allows you to add a resource deletion command to a
change package which, when installed, will delete the resource from your live IMS system. Press Enter to add the resource deletion command to a command change package.

**Important:** Even if you do not add the deleted resource to a change package, it is still deleted from the IMS Configuration Manager repository. The resource remains on your live systems but it is no longer displayed by IMS Configuration Manager. Consider your resource management strategy carefully before choosing this option.

7. Enter a change package option for each affected system. Press the Help function key (F1) for additional information.

8. Press the Exit function key (F3).

---

**What to do next**

If you added the resource deletion to a command change package, install the new change package to delete the resource from the target IMS system. Until you install the change package, the resource is only deleted from the IMS Configuration Manager repository.

To install the change package containing your resource deletion requests, see “Scheduling a command change package for installation” on page 96.

**Deleting resources via the resources view**

Use the resources view to delete a resource from a specific resource group.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 3 **Resources**. The Resource Groups panel is displayed.

2. Enter an `S` next to the resource group from which you want to delete a resource. The Resources panel is displayed.
3. Enter line action D next to the resource you want to delete. If Delete Confirmation is enabled in your profile options, press Enter again to confirm deletion of the resource. See “Setting IMS Configuration Manager ISPF profile options” on page 35.

4. If you are deleting a resource that is associated with one or more IMS systems that support command change packages, the Resource Deletion Request panel is displayed. This panel allows you to add a resource deletion command to a change package which, when installed, will delete the resource from your live IMS system. Press Enter to add the resource deletion command to a command change package.

**Important:** Even if you do not add the deleted resource to a change package, it is still deleted from the IMS Configuration Manager repository. The resource remains on your live systems but it is no longer displayed by IMS Configuration Manager. Consider your resource management strategy carefully before choosing this option.

5. Enter a change package option for each affected system. Press the Help function key (F1) for additional information.

6. Press the Exit function key (F3).
What to do next

If you added the resource deletion to a command change package, install the new change package to delete the resource from the target IMS system. Until you install the change package, the resource is only deleted from the IMS Configuration Manager repository.

To install the change package containing your resource deletion requests, see “Scheduling a command change package for installation” on page 96.

Resources shared between resource groups

When a resource exists in both a system-level resource group and a common resource group of the same name, the result of a deletion depends upon which resource is being deleted.

If the resource in the system-level resource group is deleted, then the deletion is converted to an update using the resource definition in the common resource group.

If the resource in the common resource group is deleted, no delete action takes place for the system having a system-level resource group. IMS Configuration Manager assumes the system-level resource is the active resource.

Tip: Use this technique if you want to delete a resource from all but a select number of systems. Create a system-level resource group for each system you want to preserve, copy the resource to that system-level resource group, and then delete the resource from the common resource group.

To delete the resource completely from a system, the resource must be deleted from both the common and the system-level resource groups. When IMS Configuration Manager determines that the resource has been deleted from both groups, an ISPF panel is displayed, prompting you to add the resource deletion to a new command change package which you can then schedule for installation.

Deleting resource groups

You can use the IMS Configuration Manager ISPF dialog to delete resource groups from the IMS Configuration Manager repository.

Before you begin

If you want to restore deleted resource groups, use an archival repository. See “Copying and migrating resource groups using the COPY command” on page 84.

About this task

Deleting a resource group deletes all resources in the group, and any references from systems to that group.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 3 Resources.
2. Enter line action D next to the resource group you want to delete. If Delete Confirmation is enabled in your profile options, press Enter again to confirm deletion of the resource group. See “Setting IMS Configuration Manager ISPF profile options” on page 35.
3. If you are deleting a resource group that is associated with one or more systems that supports command change packages, the Resource Group Deletion Request panel is displayed. This panel allows you to add resource deletion commands to a change package which, when installed, will delete the resources in that resource group from your live IMS system. Press Enter to add resource deletion commands to a command change package.

**Important:** Even if you do not add the deleted resources to a change package, they are still deleted from the IMS Configuration Manager repository. The resource remains on your live systems but it is no longer displayed by IMS Configuration Manager. Consider your resource management strategy carefully before choosing this option.

4. Enter a change package option for each affected system. Press the Help function key (F1) for additional information.

5. Press the Exit function key (F3).

**What to do next**

If you added the resource deletions to a command change package, install the new change package to delete the resources from the target IMS system. Until you install the change package, the resources are only deleted from the IMS Configuration Manager repository.

To install the change package containing your resource deletion requests, see "Scheduling a command change package for installation" on page 96.

**Related tasks:**

- “Setting IMS Configuration Manager ISPF profile options” on page 35

The IMS Configuration Manager profile allows you to set options such as whether to have a delete confirmation, and what job statement information to use when generating JCL from the dialog.

**Copying resource groups**

You can use the IMS Configuration Manager ISPF dialog to copy a resource group.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 3 Resources. The Resource Groups panel is displayed.
2. To copy a resource group, enter line action C next to the resource group. The Copy Resource Group panel is displayed.
Enter a Name and a Description for the new resource group. When complete, press the Exit function key (F3) to copy the resource group.

Related tasks:

- "Copying and migrating resource groups using the COPY command"
- Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.

Comparing resource groups using the COMPARE command

Use the COMPARE command to compare the contents of two resource groups.

About this task

The COMPARE command can only be used on resource groups that are stored in one or more IMS Configuration Manager repositories. See Chapter 4, “Importing resource definitions into IMS Configuration Manager,” on page 55.

Procedure

1. Run the "COMPARE command” on page 238, specifying the names of the resource groups you want to compare.
2. View the results of the comparison in the output data set.

Related tasks:

- "Creating a command change package using the COMPARE command” on page 92
- Use the COMPARE command to create a command change package using the differences between two resource groups. The compared resource groups can be stored within the same IMS Configuration Manager repository, or the can be stored in two different repositories.

Related reference:

- "COMPARE command” on page 238
- The COMPARE command allows you to compare the content of two resource groups. Additional options allow you to create new resource groups and change packages based on the differences.

Copying and migrating resource groups using the COPY command

Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.
Before you begin

If your destination IMS Configuration Manager repository does not yet exist, you must first create it. See “Creating an IMS Configuration Manager repository” on page 30.

About this task

The COPY command preserves the associations between resource groups and your IMS system definitions. As such, it allows you to safely copy resource groups within a single repository, to an archive repository, or between a development repository and a production repository.

The COPY command allows you to create a development environment where you can create and test your applications prior to deployment. Use a dedicated IMS system to test an application in your development repository before it is deployed to all systems on the IMSplex. Once your application is ready, use the COPY command to transmit the changes to the resource group to the new repository whilst retaining the associations between systems.

Figure 46. Copying resources from a development repository to a production repository

Procedure

1. Run the “COPY command” on page 243, specifying the source and destination IMS Configuration Manager repositories, and the details for any objects you wish to copy.
2. If you have copied resource groups from one repository to another, type the new data set name in the Repository field on the Primary Menu of the IMS Configuration Manager ISPF dialog to see the results.

Related concepts:
You can restrict access to IMS Configuration Manager by securing your IMS Configuration Manager repository data set, and by using IMS command security.

Related tasks:
- “Copying resource groups” on page 76
- “Creating a command change package using the COMPARE command” on page 92

Related reference:
- “Example JCL for copying resource groups” on page 231

Editing resources using the MAINT.RESOURCES command

Use the MAINT.RESOURCES command to update resource definitions in an IMS Configuration Manager repository in batch.

About this task

The MAINT.RESOURCES command allows you to apply IMS type-2 commands directly to an IMS Configuration Manager repository. If you currently update your resources in this fashion, you can use this command to quickly recreate your online environment in IMS Configuration Manager.

Procedure

1. Create and submit a job containing the MAINT.RESOURCES command. Be sure to specifying the data set name that contains a list of resource-defining sub-commands in type-2 command format.
2. From the IMS Configuration Manager Primary Menu, select option 3 Resources to display a list of resources in the IMS Configuration Manager repository.
3. Select the resources that were updated by the batch command to review your changes.

Related tasks:
- “Defining systems and IMSplexes using the MAINT.MEMBERS batch command” on page 51

Related reference:
- “Example JCL for editing resources” on page 230

These examples use the MAINT.RESOURCES batch command to edit resources in the IMS Configuration Manager repository.
Chapter 7. Deploying resources using change packages

Resources stored in the IMS Configuration Manager repository are deployed to IMS systems using change packages.

Working with change packages

There are two types of change package: command (CMD) and generate (GEN).

Command change packages contain a selection of resource changes that are installed to live systems using the "INSTALL command" on page 257. Command change packages can be backed out using the "BACKOUT command" on page 236.

Generate change packages contain an entire system image. Use generate change packages with the "GEN command" on page 255 to generate stage 1 source or an RDDS.

Figure 47. Installing a command (CMD) change package
Command change packages and generate change packages are created, edited, and deployed in different ways.

In the following table, the check mark (√) indicates that the task can be performed on the specified change package.

**Table 4. Task that can be performed on each type of change package**

<table>
<thead>
<tr>
<th>IMS Configuration Manager task</th>
<th>Command (CMD) change package</th>
<th>Generate (GEN) change package</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Creating a change package using the ISPF dialog” on page 89</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>“Creating a command change package using the COMPARE command” on page 92</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>“Modifying a command change package using the ISPF dialog” on page 93</td>
<td>√</td>
<td>See note 1</td>
</tr>
<tr>
<td>“Installing a command change package using the ISPF dialog” on page 94</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>“Backing out a command change package using the ISPF dialog” on page 100</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>“Generating stage 1 or an RDDS from a generate change package using the ISPF dialog” on page 98</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>“Marking a change package as complete using the ISPF dialog” on page 99</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>“Aborting a change package using the ISPF dialog” on page 101</td>
<td>√</td>
<td></td>
</tr>
<tr>
<td>“Deleting a change package using the ISPF dialog” on page 101</td>
<td>√</td>
<td></td>
</tr>
</tbody>
</table>

where:

1. You cannot modify the contents of a generate change package. Instead,
update your resource definitions in the IMS Configuration Manager repository first, and then re-create the change package. See Chapter 6, “Editing resources stored in an IMS Configuration Manager repository,” on page 67.

Related concepts:
- “Determining the status of a change package” on page 311

Change packages created in IMS Configuration Manager consist of a status field and a condition field. As you create and install change packages, it is important to understand these fields in order to correctly manage your systems and to understand the lifecycle of a change package.

Chapter 8, “Creating automated and repeatable update processes,” on page 103
IMS Configuration Manager provides you with the ability to create automated and repeatable system update processes by combining several batch commands in one run.

Creating a change package

There are several ways to create a change package using IMS Configuration Manager.

Creating a change package using the ISPF dialog

You can use the IMS Configuration Manager ISPF dialog to bundle your resource changes into a change package.

Before you begin

If required, finalize any updates to your resource definitions. See Chapter 6, “Editing resources stored in an IMS Configuration Manager repository,” on page 67.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 4 Packages. The All Change Packages panel is displayed.
2. Enter the NEW name command where name is the name of your new change package. Surround the name in quotation marks if it contains spaces. The Create System Change Package panel is displayed with the chosen name.

![Create System Change Package](image)

Figure 49. Defining a new change package named MYCHANGEPACKAGE

3. Select your target IMS system using the IMSID field.

Chapter 7. Deploying resources using change packages 89
Note: Only one change package can be open for a selected system at a time. If you have existing change packages for this system with a status of OPEN, you must close them first by using line action C in order to successfully create the new change package.

4. Select either a command change package, or a generate change package. If you have selected a generate change package, you must also select your required output type.

Tips:
• Create a command change package if you want to update your systems MODBLKS using the DRD type-2 command interface. Command change packages are created in the OPEN state, meaning that you can edit and add resources to the change package before it is closed.
• Generate change packages are created with a status of CLOSED. Generate change packages cannot be edited, but can be re-created if required.
• For more information, see “Working with change packages” on page 87.

5. To create the new change package, press the Exit function key (F3).

Results

<table>
<thead>
<tr>
<th>File</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command ===&gt;</td>
<td>All Change Packages</td>
</tr>
<tr>
<td>Scroll ===&gt;</td>
<td>PAGE</td>
</tr>
</tbody>
</table>

Enter NEW to create a new IMS System Change Package

<table>
<thead>
<tr>
<th>Create Date/Time</th>
<th>Change Package Name</th>
<th>IMS Status</th>
<th>Cond</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013-10-15 16.28.04</td>
<td>MYCHANGEPACKAGE</td>
<td>IABC</td>
<td>OPEN</td>
<td>NOTESCHED CMD</td>
</tr>
</tbody>
</table>

Figure 50. A new, empty command change package created in IMS Configuration Manager

What to do next
• If you have created a command change package, you must add resources. See “Modifying a command change package using the ISPF dialog” on page 93.
• If you have created a generate change package, you can now create stage 1 source or an RDDS. See “Generating stage 1 or an RDDS from a generate change package using the ISPF dialog” on page 98.

Creating change packages for an entire IMSplex
You can use the IMS Configuration Manager ISPF dialog to simultaneously create a new change package for each system in an IMSplex.

Before you begin
If required, finalize any updates to your resource definitions. See Chapter 6, “Editing resources stored in an IMS Configuration Manager repository,” on page 67.

About this task
Change packages created using this method have identical timestamps. Use the SCOPE(*) parameter of the INSTALL command on page 257 to install these
change packages in a single job. See “Scheduling a command change package for
installation” on page 96 for details.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 1
   **IMSplexes**. The IMSplex panel is displayed.
2. Enter line action 5 next to the IMSplex for which you want to generate change
   packages. The IMSplex - Member Systems panel is displayed.
3. In the View field, select option 2 **Change Packages**. The Change Packages -
   Plex View panel is displayed.

4. Enter the **NEW** name command where *name* is the name to give each new change
   package. Surround the name in quotation marks if it contains spaces. The
   Create Plex Change Package panel is displayed with the chosen name.

5. Select either command change package, or generate change package. If you
   have selected generate change package, you must also select your required
   output type.

**Tips:**
- Create command change packages if you want to update your systems
  MODBLKS using the DRD type-2 command interface. Command change
  packages are created in the **OPEN** state, meaning that you can edit and add
  resources to the change package before it is closed.
• Generate change packages are created with a status of CLOSED. Generate change packages cannot be edited, but can be re-created if required.

6. To create the change packages, press the Exit function key (F3).

Results

![Image of Change Packages - Plex View]

**File Help**

**VIEW** Change Packages - Plex View Change Package added

Command ===> Scroll ===> PAGE

Enter NEW to create a new IMSplex Change Package

**IMSplex... : PLABC**

**Description:**

<table>
<thead>
<tr>
<th>Create Date/Time</th>
<th>IMS Change Package Name</th>
<th>Status</th>
<th>Cond</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-05-21 16:32:07</td>
<td>IABC PLEXCP</td>
<td>OPEN</td>
<td>NOTSCHED</td>
<td>CMD</td>
</tr>
<tr>
<td>2015-05-21 16:32:07</td>
<td>IDEF PLEXCP</td>
<td>OPEN</td>
<td>NOTSCHED</td>
<td>CMD</td>
</tr>
</tbody>
</table>

Figure 53. New, empty command change packages created in IMS Configuration Manager

**What to do next**

If you have created a command change package, you must add resources. See “Modifying a command change package using the ISPF dialog” on page 93.

**Creating a command change package using the COMPARE command**

Use the COMPARE command to create a command change package using the differences between two resource groups. The compared resource groups can be stored within the same IMS Configuration Manager repository, or they can be stored in two different repositories.

**Procedure**

1. Run the “COMPARE command” on page 238, specifying the names of the resource groups you want to compare, and the name of the command change package you want to create.

2. From the IMS Configuration Manager Primary Menu, select option 4 Packages to display a list of change packages in the IMS Configuration Manager repository. The name you selected is displayed in the list.

**Related concepts:**

Chapter 8, “Creating automated and repeatable update processes,” on page 103

IMS Configuration Manager provides you with the ability to create automated and repeatable system update processes by combining several batch commands in one run.

**Related tasks:**

“Copying and migrating resource groups using the COPY command” on page 84

Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.

**Related reference:**
“COMPARE command” on page 238
The COMPARE command allows you to compare the content of two resource
groups. Additional options allow you to create new resource groups and change
packages based on the differences.

Modifying a command change package using the ISPF dialog

Use the IMS Configuration Manager ISPF dialog to add resources to a command
change package.

About this task
- Only command change packages in the OPEN state can be edited. If your change
  package is CLOSED and you no longer want your changes, abort the change
  package. See “Aborting a change package using the ISPF dialog” on page 101.
- Generate change packages cannot be edited, only re-created if required. See
  “Creating a change package using the ISPF dialog” on page 89.

Procedure
1. From the IMS Configuration Manager Primary Menu, select option 4 Packages.
   The All Change Packages panel is displayed.
2. Enter line action E next to the command change package you want to edit. The
   Change Package Resources panel is displayed.
3. To add resources to the change package, enter the PICK command. The Select
   Change Package Resources panel is displayed.
4. Select the required resources. A list of resource groups is displayed. To add an
   entire resource group, use line action S. If you want to view and add individual
   resources (instead of an entire resource group), set the View to 2 and select
   your resources. When you have finished, press the Exit function key (F3).

Tips:
- When selecting resources, only those resources that need to be updated,
  created, or deleted on the live IMS system will be used during the resource
  installation process.
- It is likely that you will want to add resources that have been recently changed. To view the most recently changed resources, sort the list by modification date by placing the cursor on the **Changed** column heading and then pressing Enter.

The resources you selected are displayed in the Change Package Resources panel. Select a field in the list of resources and press the Help function key (F1) for additional information.

![Resource list table](image)

**Figure 55. Listing resources in a command change package**

5. Enter line action `/` next to a resource to perform additional actions.

**Note:** When you delete a resource from the IMS Configuration Manager repository, the ISPF dialog prompts you to add the resource deletion request to a command change package. These deletion requests are displayed in the resources list using a `Y` in the **Del** column.

If you no longer want to delete the resource from your live IMS system, remove the resource deletion request from the change package entirely using line action `D`. If you choose this option, you must re-create the resource in your IMS Configuration Manager repository if you want to keep your repository and your live systems synchronized. See “Creating and adding resources to a resource group” on page 70 and “Deleting resources” on page 78 for additional information.

6. To finish editing the change package, press the Exit function key (F3).

**Related tasks:**

- “Scheduling a command change package for installation” on page 96
- “Viewing change packages” on page 142

The IMS Configuration Manager Eclipse plug-in allows you to view a list of change packages.

---

**Installing a command change package using the ISPF dialog**

You can use the IMS Configuration Manager ISPF dialog to install command change packages on live IMS systems.

**Resource installation with command change packages**

*Command* change packages are installed using the INSTALL command. The INSTALL command automatically determines which DRD commands are required to create and update resource definitions on your live IMS system.

Resource installation consists of several phases:
System check phase

The "INSTALL command" on page 257 dynamically assesses exactly what needs to change in order to add the resources in the group to each of the live IMS systems within the scope of the installation. This involves determining which resources require a CREATE and which require an UPDATE; for those resources that require an UPDATE the command determines exactly which attributes need to change.

Because the optimal commands are evaluated dynamically, you do not need to be concerned about whether resources in the group exist on the target IMS system or which attributes have changed. IMS Configuration Manager records exactly what changes it made and reports to you what occurs during the installation process.

Installation and conditioning phase

The INSTALL command runs IMS type-2 commands against each IMS system within the scope of the installation. Before installation begins, the IMS systems are placed in a state that allows installation to proceed. As the installation proceeds, the IMS Configuration Manager repository is updated with before and after image records, and other runtime information is captured for future reference.

If the ONFAILURE(CONTINUE) parameter is specified, the INSTALL command attempts to install all resources in the change package despite any installation errors it encounters. This can result in a partially installed change package.

Rollback phase

If the ONFAILURE(ROLLBACK) parameter is specified and an installation error occurs, the INSTALL command will attempt to roll back all successful changes and revert all systems to their pre-installation states. This involves dynamically evaluating the command set necessary to restore each system to its original image.

Report phase

The installation utility writes a report summarizing all install activity. For further details, see “Install/backout report reference” on page 316.
If the report points to installation errors caused by environmental problems, reinstall the change package after the environmental problems are resolved.

Command change packages that have been installed or partially installed can be backed out using the "BACKOUT command" on page 236.

Scheduling a command change package for installation

After a command change package has been created and defined, it is ready to be installed. Use the IMS Configuration Manager ISPF dialog to generate and submit JCL immediately, or to schedule the job for later.

**Before you begin**

In order to successfully execute an INSTALL command, your user account must have the IMS authorization to submit a number of type-2 commands on the IMS systems specified by the **SCOPE** parameter. See "IMS command security" on page 31.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 4 **Packages**. The All Change Packages panel is displayed.

2. If the command change package you want to install is not yet closed, enter line action C next to the package to close it. Press the Enter key again to confirm the closure of the change package.

   **Restriction**: A change package must be closed before it can be scheduled for installation. After a change package is closed, it cannot be reopened, and only its name and description can be edited.

3. Enter line action SCH next to the command change package you want to install. The scheduling panel is displayed.

   **Figure 57. Scheduling a command change package**

4. Enter your required scheduling options. Select a field and press the Help function key (F1) for additional information.
5. When you are finished, press the Exit function key (F3). JCL to perform the installation is displayed.

Tips:

- If you want to submit the JCL generated by the ISPF dialog, be sure to populate your profile JCL information. See “Setting IMS Configuration Manager ISPF profile options” on page 35 for details. If you choose not to submit the job immediately, edit your JCL and submit the job outside of IMS Configuration Manager.
- The “INSTALL command” on page 257 includes change package validation which ensures that change packages are installed in the order that they are created. If you want to run a change package outside of this sequence, use the FORCE parameter to override this validation.
- If you want use the INSTALL command to install the most recent change package for the IMSID specified in the SCOPE parameter, use CPDATE($LATEST). In this scenario, only one IMSID may be specified in SCOPE.
- If you want use the INSTALL command to install all change packages for an IMSplex in a single run, change the SCOPE(member-name) parameter to SCOPE(*). When using this option, all the change packages you want to install must have identical timestamps. See “Creating change packages for an entire IMSplex” on page 90 for details.

What to do next

Review the results of the job to verify a successful installation.

Related tasks:
- “Backing out a command change package using the ISPF dialog” on page 100
  A previously installed command change package can be backed out of associated IMS systems if you wish to undo your changes.

Related reference:
- “INSTALL command” on page 257
  Installs resources from a command change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.
- “Change package condition codes reference” on page 312
  The condition (Cond) field provides information about the outcome of processing applied to a change package. This condition code is displayed on the All Change Packages panel when you select option 4 Packages from the IMS Configuration Manager Primary Menu.

When not all resources can be installed

For various reasons, the INSTALL function might fail to install all requested resources.

When a failure is detected, the “INSTALL command” on page 257 attempts to return the affected resource to its pre-installation state.

If there are any failures during installation, IMS Configuration Manager writes message “GPL6004E” on page 171 to the SYSPRINT DD.

You then need to identify the cause of the error and, depending on the cause, rerun the installation job. During an installation, IMS Configuration Manager only
performs the commands that are required. As a result, running the same installation job more than once is unlikely to introduce new errors.

1. Start by examining the SYSPRINT output of the installation job.

2. If the return code of the job is greater than 4, you will need to search for additional error messages in the output. If the failure is the result of one or more resources not being installed then the return code is set to 8. See [Chapter 17, “IMS Configuration Manager messages,” on page 169] for additional information.

3. Open the REPORT output data set and scroll through the installation report section searching for a non-zero return code (RC).

4. When you have identified a non-zero return code, scroll right if required to get the output and response from the Common Service Layer (CSL). The following example shows a IMS type-2 command generated by IMS Configuration Manager that failed because of an invalid program name.

```
04 CREATE RTC NAME(TRN1R2) SET( INQ(Y) PGM(PGMNAME1) )
CSL RC=0200000C/00003004
CSLN024I No requests were successful.
MBR RC=00000008/00002123
Invalid program name
```

5. When you have identified the cause of the error, correct it and rerun the job.

**Tip:** To ensure that all valid resource updates are done, use the ONFAILURE(CONTINUE) parameter with your INSTALL command. Any remaining errors can be resolved in a new change package. To do this, see [“Marking a change package as complete using the ISPF dialog” on page 99](#).**

**Related reference:**
[Chapter 25, “Interpreting INSTALL and BACKOUT reports,” on page 315](#) Information about the status of installation and backout jobs can be found within the SYSPRINT log and the corresponding REPORT data set.

---

**Generating stage 1 or an RDDS from a generate change package using the ISPF dialog**

Use the IMS Configuration Manager ISPF dialog to create JCL that generates stage 1 source or an RDDS from a generate change package.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 4 Packages. The All Change Packages panel is displayed.

2. Enter line action SCH next to the generate change package you want to use. The scheduling panel is displayed.
3. Enter your required scheduling options. Select a field and press the Help function key (F1) for additional information.

4. When you are finished, press the Exit function key (F3). IMS Configuration Manager generates JCL to perform the generation using the "GEN command" on page 255.

**Important:** If you want to submit the JCL generated by the ISPF dialog, be sure to populate your profile JCL information. See "Setting IMS Configuration Manager ISPF profile options" on page 35 for details.

**What to do next**

If required, mark your change package as complete. See "Marking a change package as complete using the ISPF dialog."

**Related tasks:**

"Creating a change package using the ISPF dialog" on page 89

You can use the IMS Configuration Manager ISPF dialog to bundle your resource changes into a change package.

---

**Marking a change package as complete using the ISPF dialog**

Under certain circumstances, change packages that have been installed need to be marked as complete. Marking a change package as complete allows you to install subsequent change packages.

**About this task**

Change packages must be marked as complete when one of the following conditions occur:

- The change package is a *command* change package where some, but not all of the resources were installed via the ONFAILURE(CONTINUE) parameter of the INSTALL command, and the user wants to move on to a new change package to address any failures. Marking a command change package with a status of INSTPART as
the status changing to COMPART, and will allow subsequent change packages to be installed without having to use the FORCE parameter.

- The change package is a generate change package, and the installation of the resources took place outside of IMS Configuration Manager.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 4 Packages. The All Change Packages panel is displayed.
2. Enter line action COM next to the change package you want to mark as complete.

**What to do next**

Create your next change package.

**Related reference:**

"Change package condition codes reference" on page 312

The condition (Cond) field provides information about the outcome of processing applied to a change package. This condition code is displayed on the All Change Packages panel when you select option 4 Packages from the IMS Configuration Manager Primary Menu.

---

**Back out a command change package using the ISPF dialog**

A previously installed command change package can be backed out of associated IMS systems if you wish to undo your changes.

**Before you begin**

To successfully execute a BACKOUT command, your user account must have the IMS authorization to submit a number of type-2 commands on the IMS systems specified by the SCOPE parameter. See "IMS command security" on page 31.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 4 Packages. The All Change Packages panel is displayed.
2. Enter line action SCH next to the command change package you want to back out. The scheduling panel is displayed.
3. Enter your required scheduling options. Select a field and press the Help function key (F1) for additional information.
4. When you are finished, press the Exit function key (F3). JCL to perform the backout is displayed.

**Important:** If you want to submit the JCL generated by the ISPF dialog, be sure to populate your profile JCL information. See "Setting IMS Configuration Manager ISPF profile options" on page 35.

**Related tasks:**

"Scheduling a command change package for installation" on page 96

After a command change package has been created and defined, it is ready to be installed. Use the IMS Configuration Manager ISPF dialog to generate and submit JCL immediately, or to schedule the job for later.

**Related reference:**

Chapter 25, "Interpreting INSTALL and BACKOUT reports," on page 315

Information about the status of installation and backout jobs can be found within the SYSPRINT log and the corresponding REPORT data set.
Abort a change package using the ISPF dialog

There might be times when you have created and closed a change package but, before it has been scheduled for installation, the changes are canceled. Since IMS Configuration Manager requires that change packages be installed or reinstalled in the order of their creation, you must perform an abort on the change package you no longer need in order to continue installing subsequent packages.

Before you begin

Change packages can only be aborted if they are in the CLOSED state, have not been previously installed, or have been installed and then completely backed out. If you want to remove a change package in the OPEN state, delete the package instead. See “Deleting a change package using the ISPF dialog” for further details.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 4 Packages. The All Change Packages panel is displayed.
2. Enter an A next to the change package you want to abort and press Enter.

Note: An abort action cannot be undone.

Deleting a change package using the ISPF dialog

Open change packages that have been created in IMS Configuration Manager can be deleted if no longer required. Change packages cannot be deleted if they are closed or scheduled for installation.

Before you begin

• Change packages can only be deleted if they are in the OPEN state, or its condition is ABORTED. If you want to cancel the changes in a closed change package before installation, abort the package first. See “Abort a change package using the ISPF dialog” for further details.
• IMS Configuration Manager prevents deletion of a closed change package to ensure that necessary changes for the target IMS system are not accidentally lost.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 4 Packages. The All Change Packages panel is displayed.
2. Enter a D next to the change package you want to delete and press Enter. If Delete Confirmation is enabled in your profile options, press Enter again to confirm deletion of the change package. See “Setting IMS Configuration Manager ISPF profile options” on page 35.

Related tasks:

“Setting IMS Configuration Manager ISPF profile options” on page 35

The IMS Configuration Manager profile allows you to set options such as whether to have a delete confirmation, and what job statement information to use when generating JCL from the dialog.
Chapter 8. Creating automated and repeatable update processes

IMS Configuration Manager provides you with the ability to create automated and repeatable system update processes by combining several batch commands in one run.

Related concepts:
“Working with change packages” on page 87
There are two types of change package: command (CMD) and generate (GEN).

Related tasks:
“Creating a command change package using the COMPARE command” on page 92
Use the COMPARE command to create a command change package using the differences between two resource groups. The compared resource groups can be stored within the same IMS Configuration Manager repository, or the can be stored in two different repositories.

Automated updated processes

Using the IMS Configuration Manager batch utility, it is possible to create JCL that can automate your system update process.

The following example demonstrates an automated update process using stage 1 source, the resource groups already stored in your IMS Configuration Manager repository, and commands from the IMS Configuration Manager batch utility:

1. The “TAKEUP command” on page 289 imports your stage 1 source into IMS Configuration Manager into new resource groups.
2. The “COMPARE command” on page 238 performs the following actions:
   a. Compares your existing (old) resource group with your new resource group.
   b. Creates a command change package from the differences between the old and new resource groups.
   c. Updates your existing resource group with the changes, keeping the IMS Configuration Manager repository up to date.
3. The “INSTALL command” on page 257 installs the new command change package into your IMS system using type-2 commands.
To repeat this process, all one has to do is resubmit the JCL against the new stage 1 source. As the COMPARE command has updated your old resource group, the next execution of this process will automatically compare the new stage 1 with your previous installation.

**Automating updates using the batch utility**

Use this method if your resource updates arrive as stage 1 source from a third-party vendor. All execution steps described here can be run in one execution of the GPLUTIL batch utility.

**Before you begin**

- Import an initial set of resources into your IMS Configuration Manager repository. See Chapter 4, “Importing resource definitions into IMS Configuration Manager,” on page 55.

**Procedure**

1. Import your stage 1 source into the IMS Configuration Manager repository using the "TAKEUP command" on page 289.
2. Create a new command change package based on the differences between your old and new resource groups, and update the IMS Configuration Manager repository with the differences using the "COMPARE command" on page 238 and the UPDCP and UPDRG parameters.

3. Install your newly created command change package into your target IMS system using the "INSTALL command" on page 257 and the CDATE($LATEST) parameter.

**What to do next**

Review the results of running commands by viewing the SYSPRINT log.

**Related reference:**
"Example JCL for a take-up, compare, and install" on page 233

This JCL demonstrates a take-up and install using the COMPARE batch command. Use this method if your resource updates arrive as stage 1 source from a third-party vendor.
Part 3. Parameter management

IMS Configuration Manager helps control and manage the specification of IMS startup PROCLIB members.

The following topics provide information about how to use the IMS Configuration Manager ISPF dialog to manage PROCLIB members.

Related concepts:

“Advanced parameter management” on page 10

The IMS Configuration Manager parameter manager provides the following features.
Chapter 9. Listing and searching parameter members using the ISPF dialog

Use the IMS Configuration Manager ISPF dialog to list and search parameter members based on the systems on which they are active or within a specific PROCLIB.

Regardless of which way you choose to list parameters, IMS Configuration Manager automatically detects and shows placeholders for missing parameter members, allows you to perform semantic searches for parameters and their values, and provides context-sensitive help for each parameter member.

Adding PROCLIB data set names to system definitions

If you want to list parameter members by system or IMSplex, you must first add the PROCLIB data set names to your system definitions.

About this task

The procedure presented here describes how to use the ISPF dialog to add PROCLIB data set names to system definitions. Alternatively, you can use autodiscovery to add the data set names. See “Defining systems and IMSplexes using autodiscovery” on page 45.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 2 Systems. The IMS Systems List panel is displayed.
2. In the system list, enter an S next to the required system. The IMS System panel is displayed.
3. Select 4 Parameters. The IMS System PROCLIB Parameters panel is displayed.
4. Enter your required configuration options. Press the Help function key (F1) to obtain additional information about each field.
5. Specify the PROCLIB data sets used by this system. IMS Configuration Manager uses the information you supply to parse these PROCLIBs and identify the members used by this IMS system within them.

Note: The PROCLIB data sets must be entered in the order in which they appear in the Control Region STEPLIB DD.
6. Press the Exit function key (F3) to save the new settings.

**Listing parameter members for all systems in the IMSplex**

The IMS Configuration Manager ISPF dialog allows you to view only those parameter members that are currently in use by each IMS system in the IMSplex using the ISPF dialog.

**Before you begin**

To view active members, you must specify your PROCLIB settings in the system definition. For details, see "Adding PROCLIB data set names to system definitions" on page 109.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 1 **IMSplaxes** to display the IMSplex list. The IMSplex panel is displayed.
2. Enter line action **P** next to the IMSplex you want to examine.

**Results**

The active member list shows all active parameter members for that system that are in all PROCLIBs defined for that system.
Listing parameter members that are used by a system

The IMS Configuration Manager ISPF dialog enables the IMS administrator to work with only those parameter members that are currently in use for a particular IMS system.

Before you begin

To view active members, you must specify your PROCLIB settings in the system definition. See “Adding PROCLIB data set names to system definitions” on page 109.

Procedure

1. From the IMS Configuration Manager Primary Menu, select option 2 Systems to display the IMS System List panel. The IMS Systems List panel is displayed.

Figure 61. Viewing active parameter members within the entire IMSplex
2. Enter line action P next to the system you wish to examine.

**Results**

As shown in the following figure, the active member list displays all active parameter members for that system that are in all PROCLIBs defined for that system.

```
File Help
EDIT IMS Active Members Row 1 of 24
Command ==> Scroll ==> PAGE
IMS System ID . . : SYSX  Version (VV.R) . : 12.1
Description : . : 
IMSPlex . . . . : IPLEX

Search . .

Member         Prompt Lib Size Created    ---- Changed ----  ID
-------------   ------ ----- ---------           ---------      ----
CQSIP0HV 1      11 2014/05/21 2014/05/21 13:21:18 USR
CQSGO5HV 1      
CQSSL________
DBFMSDEB______
DFSCG0HV 2      7 2014/03/07 2014/03/07 12:43:39 VIP
DFSDC038 2      6 2014/03/07 2014/03/07 12:43:49 VIP
DFSDDF______    
DFDSRF_______   
DFDSOCM8 2      69 2014/03/07 2014/03/07 12:43:49 VIP
DFSDSCCT8 2      45 2014/03/07 2014/03/07 12:43:51 VIP
```

*Figure 62. The IMS Active Members panel*

Placeholder member names in the list can appear with one or more underscores (_) as a suffix or display the text *missing* in the Prompt field. These members do not exist, but are put into the list so that you can easily create them. Members that display the *missing* text represent a problem in the system definition.

**Listing parameter members in a PROCLIB**

The IMS Configuration Manager ISPF dialog PROCLIB view allows you to browse all members in a PROCLIB data set.

**Procedure**

1. From the IMS Configuration Manager Primary Menu, select option 5 **PROCLIBs**. The IMS PROCLIBs panel is displayed.
2. Enter line action **S** next to an existing PROCLIB, or use line action **I** to insert a new row and type the name of a new PROCLIB.

**Results**

As shown in the following figure, the PROCLIB member list displays all members in the PROCLIB.

**Figure 63. The IMS PROCLIBs panel**

2. Enter line action **S** next to an existing PROCLIB, or use line action **I** to insert a new row and type the name of a new PROCLIB.

**Results**

As shown in the following figure, the PROCLIB member list displays all members in the PROCLIB.

**Figure 64. PROCLIB view of parameter members**

**Tip:** You can also view the PROCLIB data sets associated with a particular system by selecting a system using Primary Menu option 1 **IMSplexes**, followed by option 4 **Parameters**.

**What to do next**

Comprehensive help on the correct usage and meaning of each member of the IMS PROCLIB data set can be viewed by accessing the online help:

1. Position the cursor on the **Command** line and then press F1.
2. Position the cursor on **PROCLIB member help** and then press F1.
The IMS Configuration Manager ISPF dialog supports a large number of PROCLIB members.

Filtering parameter members

The IMS Configuration Manager ISPF dialog allows you to specify masking characters to filter the parameter member list.

Before you begin

Display a list of parameter members.

Procedure

Enter a filter in the member column heading.

These are some of the patterns you can use:

* (asterisk)
The * matches zero or more characters, no matter what they are. The * can be used alone (to display all members) or in combination with other characters. For example:

**DFS**

Displays all members starting with DFS.

**DFS*01**

Displays all members starting with DFS and ending with 01. For example, DFSCG01, DFSINT01, and DFSPB001.

% (percent sign)
The % matches exactly one character, no matter what it is. For example:

%%%%%%

Displays all members of exactly 6 characters.

**DFS**

Displays all 8-character members starting with DFS.

**DFS**01

Displays all 8-character members starting with DFS and ending with 01. For example, DFSVM01, DFSINT01, and DFSSPM01.
Results

The IMS Configuration Manager Eclipse plug-in has a filtering function that allows you to filter and highlight entries according to specified criteria.

Related tasks:
“Using the list filter” on page 147

Figure 66. Displaying all parameter members starting with DFS

Searching for members by their parameters and their function

Search is available from an active member list for an IMS system, a group, or a PROCLIB using the IMS Configuration Manager ISPF dialog.

About this task

Search scans all the members in the list, then displays only those members with parameters that match the specified search arguments.

An example of searching for parameters related to dynamic resource definition (DRD) is shown in the following figure by entering DRD into the Search prompt.
The preceding search finds all parameters related to DRD. If there is a value for the parameter, the value is shown (1). Parameters where the member does not yet exist are also shown (2). To display help for a parameter, enter line action H next to the parameter.

More examples of search arguments include:

**ODBM or OPEN DATABASE**
Finds all parameters related to IMS Open Database implementation.

**VTAM**
All parameters related to VTAM®.

**IOBF 1024**
The 1 KB OSAM subpool definition.

**FP DATABASE**
All fast-path database related parameters.

**WHATSNEW V14**
All new and changed parameters in IMS V14, useful when migrating to a new release.

**WHATSNEW RACF**
All new and changed parameters related to RACF for all releases of IMS.

**APPC**
All parameters related to APPC.

**APPC=**
The APPC parameter in the PB member. The equal sign searches for an exact parameter match.

**CLONING**
All parameters that need to be changed in a cloned system.

Figure 67. Searching for DRD parameters using the IMS Configuration Manager ISPF dialog
Most common IMS terms are supported as search arguments, and abbreviations are supported. For example, FP, FASTPATH, and FAST PATH are all allowed arguments for fast path.

Clear the search arguments to reset back to the original member list.

To rebuild the displayed results after you have selected and changed a parameter, use the REFRESH command.

Related concepts:
“Searching for values” on page 148

The IMS Configuration Manager Eclipse plug-in has two search functions that make finding values easier.
Chapter 10. Modifying PROCLIB parameters using the ISPF dialog

IMS Configuration Manager allows you to modify parameters using the ISPF dialog.

Related reference: Chapter 26, “PROCLIB members supported by IMS Configuration Manager,” on page 319

The IMS Configuration Manager ISPF dialog supports a large number of PROCLIB members.

Creating and editing parameter members

IMS Configuration Manager allows you to create new parameter members, or to edit existing members.

Procedure

1. Browse and locate the parameter set you are interested in. See Chapter 9, “Listing and searching parameter members using the ISPF dialog,” on page 109 for details.
2. Select from one of the following options:
   - Edit an existing member by entering line action S next to the parameter member.
   - Create a new member by enter $ memname on the command line.

What to do next

The IMS Configuration Manager parameter editor provides many of the features of ISPF edit but with the following additional features:

- The CHECK command, to check the syntax of a member and highlight syntax errors in context.
- The MODEL command, to insert parameters based on a model.
- The HELP command, and context-sensitive help for parameters by placing the cursor on the item of interest and pressing the Help function key (F1).
- The Backup facility, and retaining a history of your edits.

Inserting parameters based on a model

IMS Configuration Manager allows you to quickly insert new parameters by using template models. A template model contains a fragment of correctly formed parameter syntax that contains default and placeholder values that you can replace as you see fit.

Procedure

1. Edit the parameter member you are interested in. See “Creating and editing parameter members.”
2. Enter A on a line to insert a model template after that line (A), or B to insert before that line.
3. On the command line, enter `MODEL` (2), or select the point-and-shoot `MODEL` (3) field. A list of parameter descriptions is displayed.

**Note:** An asterisk (*) beside a parameter indicates that it is not valid for the specified IMS release of the PROCLIB.

4. Enter an S next to each parameter model you want to insert. When you have finished, press the Exit function key (F3) to insert the parameter models you have selected. The model that has been inserted produces messages that provide additional assistance.
5. Replace the default and placeholder values in the model as required.

   **Tip:** To clear all line actions, error messages, and explanatory notes, enter RESET on the command line.

### Checking the syntax of a member

To highlight syntax errors in the parameter member that you are editing, enter the primary command CHECK or use the point-and-shoot CHECK field.

**Procedure**

1. Edit the parameter member you are interested in. See "Creating and editing parameter members" on page 119.

2. On the command line, enter CHECK, or select the CHECK point-and-shoot field. Find errors by scanning the text for the ==MSG> prefix which contains additional information about the error. The position of the error is marked with a + in the previous line.
The IMS Configuration Manager ISPF dialog supports a large number of PROCLIB members.

**Viewing context-sensitive help for parameters**

IMS Configuration Manager contains context-sensitive parameter help that allows you to quickly look up information about parameters.

**Procedure**

1. Edit the parameter member you are interested in. See "Creating and editing parameter members" on page 119.
2. Select an item and press the Help function key (F1).

**Example**

The following example shows what happens when you press the Help function key (F1) with the cursor positioned on the RDDSERR parameter of the DFSDFxxx member:
Saving and backing up a member

IMS Configuration Manager allows you to make a backup of the parameter members that you edit.

About this task

The first time that you save a supported member during an edit session, you are prompted to perform a backup of the member. A backup contains a snapshot of the member before the first save in the session.

Procedure

To save and backup a member:

1. Edit the parameter member you are interested in using the procedure described in "Creating and editing parameter members" on page 119.
2. Press the Exit function key (F3) to save your changes. The Confirm Member Save dialog is displayed.
3. Complete the form as required. The Confirm Member Save panel supplies the following information:

   Figure 73. An example of context-sensitive parameter help

   Figure 74. The Confirm Member Save dialog
Member to be saved
This is indicated by the first field in the panel, which specifies the member you are saving and its PROCLIB. This information cannot be changed.

Perform backup of member prior to save
Enter / next to this field to backup the member. If this field is not selected, all other fields are ignored.

Data Set Name
To save the backup member in an alternative PROCLIB data set, overtype the name of the PROCLIB data set or press the Prompt function key (F4) to select from a list of available PROCLIBs.

Member Suffix
You must enter the suffix for the backup member. Depending on the age of the backup member, a default suffix might have been obtained from the PROCLIB Members list. You can overtype this suffix.

Last Changed
The time stamp of the last time the backup member was saved to the PROCLIB.

Replace like-named member
Enter / next to this field to replace an existing backup if it has the same name as the member about to be saved.

4. Press Enter to confirm the save and backup.

Viewing the history of a member
The history function allows you to examine the contents of back level members, and retrieve old history members to edit and save them back into a PROCLIB.

Before you begin
History is only available for members that have been previously edited with IMS Configuration Manager.

Procedure
1. Use the ISPF dialog to find the member you are interested in. See Chapter 9, “Listing and searching parameter members using the ISPF dialog,” on page 109.
2. Enter line action H next to a PROCLIB member.
   You can view any member in the history but you cannot edit a history member. To restore a history member use standard ISPF member edit functions to copy the contents of the member to a new member or to overwrite the existing member.
3. Enter line action S next to the version that you want to view.

## Deleting a member

IMS Configuration Manager also allows you to delete a member from a PROCLIB data set.

### Procedure

1. Use the ISPF dialog to find the member you are interested in. See Chapter 9, "Listing and searching parameter members using the ISPF dialog," on page 109 for further information.

2. Enter line action D next to the PROCLIB member you want to delete and press Enter. If Delete Confirmation is enabled in your profile options, press Enter again to confirm deletion of the resource group. See "Setting IMS Configuration Manager ISPF profile options" on page 35.

### Related tasks:

- "Setting IMS Configuration Manager ISPF profile options" on page 35

The IMS Configuration Manager profile allows you to set options such as whether to have a delete confirmation, and what job statement information to use when generating JCL from the dialog.
Chapter 11. Managing parameters to improve IMS performance

You can use IMS Configuration Manager with IMS Performance Analyzer to improve IMS performance.

IBM IMS Performance Analyzer for z/OS (program number 5655-R03) is an ISPF application to assist with IMS system performance monitoring and tuning, resource utilization, transaction transit analysis, capacity planning, and management reporting.

IMS Performance Analyzer provides a comprehensive set of reports that help you identify performance problems. Some of the reports can highlight problems that can be solved by modifying IMS setup and performance parameters that are managed by IMS Configuration Manager. For example:

- **Database buffers** on page 128
  - IRUR: OSAM Buffer Pool Statistics

- **VSAM buffers** on page 130
  - IRUR: VSAM Buffer Pool Statistics

- **Logging and checkpoints** on page 131
  - IRUR: Logger Statistics
  - System Checkpoint report

You can use IMS Configuration Manager to search across a system, group of systems, or a PROCLIB to quickly find and easily change parameters that can impact IMS system performance. For example, you can search for all VSAM BUFFER parameters.
You can then use IMS Performance Analyzer to provide an insight into the effect on system performance of particular parameter settings.

Database buffers

The PROCLIB member DFSVSMxx defines VSAM, OSAM, and Fast Path DEDB buffer pools.

DFSVSMxx includes the following parameters:

- **VSAM buffer pools**
  - VSRBF
  - POOLID/DBD
  - RESVPOOL
  - OPTIONS
- **OSAM buffer pools**
  - IOBF
  - DBD
**IMS Performance Analyzer IRUR: OSAM Buffer Pool Statistics**

This report provides information related to the activity in each OSAM subpool. Subpools with no activity in the reporting period are not reported on. The final report contains cumulative statistics for all of the OSAM buffer pools. This report is similar to the Database Buffer Pool report produced by the IMS DB Monitor.

<table>
<thead>
<tr>
<th>Enhanced OSAM Buffer Pool Statistics</th>
<th>Count /Transact /Second</th>
<th>Interval: 20.00 (HHHH.MM.SS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subpool ID: OS4K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fix options: Prefix/Buffers N/N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffer Size 4,096</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffer count 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locate-type calls 64,456 7.35 53.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requests to create new blocks 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffer alter calls 554 .06 .46</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purge calls 457 .05 .38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locate-type calls, data already in pool 57,137 6.51 47.61 88.64% of locate calls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffers searched by all locate-type calls 72,957 8.32 60.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Read I/O requests 7,317 .83 6.10 93.34% of OSAM I/O operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single block writes by buffer steal routine 0 .00 .00 .00% of OSAM I/O operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks written by purge 522 .06 .43 6.66% of OSAM I/O operations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total count of OSAM I/O operations 7,839 .89 6.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locate calls waited due to busy ID 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locate calls waited due to busy write 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locate calls waited due to busy read 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffer steal/purge waiting for ownership release 12 .00 .01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffer steal requests waited for buffers 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total I/O errors for this subpool 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffers locked due to write errors 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks Read from CF 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks expected but not Read 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks written to CF (Prime) 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks written to CF (Changed) 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks not written; Storage Class full 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blocks invalidated with XI 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>XI Calls issued 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SB Immediate (Sync) Sequential Reads 0 .00 .00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SB Anticipatory Reads 0 .00 .00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 77. IMS Performance Analyzer IRUR: OSAM Buffer Pool Statistics**

A key performance indicator for an OSAM Buffer Pool is the percentage of locate calls where the data was already in the buffer. A high percentage indicates that the OSAM Buffer Pool is satisfying most requests without the need for database I/O.

You can use the report to calculate how many I/O operations were required to read to or write from the OSAM buffer pool. To decrease the number of I/O operations, try increasing the buffer pool size. If the number of I/O operations is increasing over time, you might need to reorganize the database.

When data sharing in IMSplex database environments, there needs to be a balance between maximizing the requests satisfied in the pool and minimizing the occurrence of buffer invalidation.
VSAM buffers

The PROCLIB member DFSVSMxx defines single or multiple VSAM buffer pools.

DFSVSMxx includes the following parameters:
- Reserve pools
- VSAM local shared resource pools
- VSAM shared pools and subpools, linked by Pool ID
- Allocation of data sets to pools, linked by Pool ID
- VSAM performance options such as background write, maximum concurrent requests, fixed blocks

**IMS Performance Analyzer IRUR: VSAM Buffer Pool Statistics**

One of the Internal Resource Utilization reports (IRUR) is the VSAM Buffer Pool Statistics report. This report provides information related to the activity in each VSAM subpool. Subpools with no activity in the reporting period are not reported on. The final report contains cumulative statistics for all of the VSAM buffer pools. This report is similar to the VSAM Buffer Pool report produced by the IMS DB Monitor. See the *IMS Utilities Reference: Database Manager* for a description of the meaning of the fields and the uses for this report.

<table>
<thead>
<tr>
<th>Enhanced VSAM Buffer Pool Statistics</th>
<th>Count /Transact /Second</th>
<th>Interval : 1.00.59 (HHHH/MM/SS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared resource pool ID/type VSBK/D</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fix option: index/block/data N/Y/Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buffer size</td>
<td>8,192</td>
<td></td>
</tr>
<tr>
<td>Buffers in subpool</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>HS buffers in subpool</td>
<td>75</td>
<td></td>
</tr>
<tr>
<td>Write errors</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Largest number of write errors</td>
<td>0  .00  .00</td>
<td></td>
</tr>
<tr>
<td>Retrieve by RBA calls</td>
<td>43,821  4.92  10.59</td>
<td>63.08% of retrieve calls</td>
</tr>
<tr>
<td>Retrieve by Key calls</td>
<td>25,452  2.98  6.20</td>
<td>36.92% of retrieve calls</td>
</tr>
<tr>
<td>Total retrieve calls</td>
<td>69,474  7.81  16.78</td>
<td></td>
</tr>
<tr>
<td>Logical records inserted into ESDS</td>
<td>1  .00  .00</td>
<td>.07% of update requests</td>
</tr>
<tr>
<td>Logical records inserted into KSDS</td>
<td>7  .00  .00</td>
<td>.46% of update requests</td>
</tr>
<tr>
<td>Logical records altered in this subpool</td>
<td>1,524  .17  .37</td>
<td>99.48% of update requests</td>
</tr>
<tr>
<td>Total number of updates</td>
<td>1,532  .17  .37</td>
<td></td>
</tr>
<tr>
<td>Nbr of background write requests</td>
<td>9  .00  .00</td>
<td>.01% of calls to VSAM</td>
</tr>
<tr>
<td>Nbr of Sycnch calls</td>
<td>624  .07  .15</td>
<td>.94% of calls to VSAM</td>
</tr>
<tr>
<td>Nbr of VSAM get calls</td>
<td>65,581  7.37  15.84</td>
<td>99.03% of calls to VSAM</td>
</tr>
<tr>
<td>Nbr of VSAM search buffer calls</td>
<td>7  .00  .00</td>
<td>.01% of calls to VSAM</td>
</tr>
<tr>
<td>Total Nbr of VSAM calls</td>
<td>66,221  7.44  16.00</td>
<td></td>
</tr>
<tr>
<td>Nbr of times VSAM found CI in pool</td>
<td>54,853  6.16  13.25</td>
<td>83.63% of VSAM buffer requests added</td>
</tr>
<tr>
<td>Nbr of times VSAM read CI from DASD</td>
<td>10,738  1.21  2.59</td>
<td>94.19% of VSAM I/O operation</td>
</tr>
<tr>
<td>Nbr of writes initiated by IMS</td>
<td>686  .07  .15</td>
<td>5.32% of VSAM I/O operation</td>
</tr>
<tr>
<td>Nbr of writes initiated by VSAM</td>
<td>56  .01  .01</td>
<td>.49% of VSAM I/O operation</td>
</tr>
<tr>
<td>Total VSAM I/O operations</td>
<td>11,400  1.28  2.75</td>
<td></td>
</tr>
<tr>
<td>Nbr of successful VSAM reads from HS</td>
<td>4,218  .47  1.02</td>
<td></td>
</tr>
<tr>
<td>Nbr of successful VSAM writes to HS</td>
<td>14,957  1.68  3.61</td>
<td></td>
</tr>
<tr>
<td>Nbr of failed VSAM reads from HS</td>
<td>0  .00  .00</td>
<td></td>
</tr>
<tr>
<td>Nbr of failed VSAM writes to HS</td>
<td>0  .00  .00</td>
<td></td>
</tr>
<tr>
<td>Nbr of PLH waits</td>
<td>0  .00  .00</td>
<td></td>
</tr>
</tbody>
</table>

Figure 78. IMS Performance Analyzer IRUR: VSAM Buffer Pool Statistics

A key performance indicator for a VSAM Buffer Pool is the number of times VSAM found the CI in the pool, rather than reading the CI from DASD.

When data sharing in IMS sysplex database environments, there needs to be a balance between maximizing the requests satisfied in the pool and minimizing the occurrence of buffer invalidation.
Logging and checkpoints

The parameters affecting the performance of logging are spread across two PROCLIB members, PB and VSAM.

DFSPBxxx
- CPLOG
  - WADS

DFSVSMxx
- WADSDEF
  - OLDSDEF

IRUR: Logger Statistics

The Logger Statistics report is one of the Internal Resource Utilization reports (IRUR) and provides various statistics describing the performance of the IMS log and write-ahead data set (WADS).

I/O counts and Buffer Wait counts can be used to see if any performance problems are being caused by bad logger or WADS I/O times.

Note: MSC incurs additional forced writes to the log.

<table>
<thead>
<tr>
<th>Logger Statistics</th>
<th>Count</th>
<th>/Transact</th>
<th>/Second</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logical Logger:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Records written</td>
<td>212,075</td>
<td>24.18</td>
<td>176.73</td>
</tr>
<tr>
<td>Check write requests</td>
<td>15,400</td>
<td>1.76</td>
<td>12.83</td>
</tr>
<tr>
<td>Waits for writes</td>
<td>20</td>
<td>.00</td>
<td>.02</td>
</tr>
<tr>
<td>Buffer waits: chkpt invokers</td>
<td>8</td>
<td>.00</td>
<td>.01</td>
</tr>
<tr>
<td>Buffer waits: non-chkpt invokers</td>
<td>1</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Awe submitted on wrt</td>
<td>0</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Physical Logger:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WADS EXCPVRs</td>
<td>8,607</td>
<td>.98</td>
<td>7.17</td>
</tr>
<tr>
<td>2K segment writes initiated</td>
<td>24,482</td>
<td>2.79</td>
<td>20.40</td>
</tr>
<tr>
<td>OLDS writes initiated</td>
<td>1,766</td>
<td>.20</td>
<td>1.47</td>
</tr>
<tr>
<td>OLDS reads initiated</td>
<td>2</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Internal checkpoint requests</td>
<td>6</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td>Accumulative mtwt wait time</td>
<td>2,125</td>
<td>.24</td>
<td>1.77</td>
</tr>
</tbody>
</table>

Figure 79. IMS Performance Analyzer IRUR: Logger Statistics

A key performance indicator is the number of Logical Logger Buffer waits for non-checkpoint invokers. A high value might indicate that the Log Buffer allocation might be too low.

System Checkpoint report

The second part of the System Checkpoint report summarizes checkpoint activity, including:
- Average checkpoint duration and frequency
- Record counts by subtype

The following figure shows an example of a Checkpoint Summary report.
A Checkpoint Summary report is produced for each IMS Subsystem ID and contains the following information:

**Completed Checkpoints**
Number of completed Checkpoints found in the log file. A complete checkpoint is one that starts with a 4001 record and ends with a 4098 record.

**Average Checkpoint Duration**
The average elapsed time per checkpoint in the format `hhhh.mm.ss.ths`.

If there are insufficient completed checkpoints to allow a meaningful calculation, the following message is printed: Insufficient Checkpoints to calculate.

**Average Checkpoint Frequency**
The average time between Checkpoints, or how frequently Checkpoints are taken, in the format `hhhh.mm.ss.ths`.

If there are insufficient completed checkpoints to allow a meaningful calculation, the following message is printed: Insufficient Checkpoints to calculate.

**CPLOG**
Checkpoint frequency. The average number of log records written between checkpoints.

**Checkpoint**
Start: Checkpoint start date and time.

---

**Figure 80. IMS Performance Analyzer: System Checkpoint Summary report**

A Checkpoint Summary report is produced for each IMS Subsystem ID and contains the following information:

**Completed Checkpoints**
Number of completed Checkpoints found in the log file. A complete checkpoint is one that starts with a 4001 record and ends with a 4098 record.

**Average Checkpoint Duration**
The average elapsed time per checkpoint in the format `hhhh.mm.ss.ths`.

If there are insufficient completed checkpoints to allow a meaningful calculation, the following message is printed: Insufficient Checkpoints to calculate.

**Average Checkpoint Frequency**
The average time between Checkpoints, or how frequently Checkpoints are taken, in the format `hhhh.mm.ss.ths`.

If there are insufficient completed checkpoints to allow a meaningful calculation, the following message is printed: Insufficient Checkpoints to calculate.

**CPLOG**
Checkpoint frequency. The average number of log records written between checkpoints.

**Checkpoint**
Start: Checkpoint start date and time.
End: Checkpoint end date and time.
Number: Checkpoint number.

Subtype
Checkpoint record subtype.

Description
Subtype description.

Count Total number of Checkpoint records of this subtype.
Bytes Total bytes of Checkpoint records of this subtype.
%Total Percentage of records of this subtype over all Checkpoint records.

Total
Count Total number of records in the Checkpoint.
Bytes Total number of bytes of all records in the Checkpoint.
%Total Should always be 100.00.

Adjusting parameters to tune system performance

IMS Performance Analyzer helps you monitor key performance indicators. As a result, you might determine that you need to tune your IMS systems by adjusting startup parameters. You can use the search and locate facilities of IMS Configuration Manager to quickly find the relevant parameters.

Before you begin

Ensure that you are familiar with the procedures described in Chapter 9, “Listing and searching parameter members using the ISPF dialog,” on page 109 and Chapter 10, “Modifying PROCLIB parameters using the ISPF dialog,” on page 119.

Procedure

1. On the IMS Configuration Manager Primary Menu, select option 2 Systems. The IMS Systems List panel is displayed.
2. Enter line action P next to the system you want to adjust. The IMS Active Members panel is displayed.
3. Enter the search argument for the key performance parameter from the IMS Performance Analyzer report, such as CPLOG, the checkpoint frequency. You can enter the search argument CHECKPOINT to achieve the same result.
4. Enter line action S next to the CPLOG parameter and press Enter.
5. Adjust the **CPLOG** parameter value.
6. Exit and save changes.
7. After running your IMS systems with the changes, rerun the IMS Performance Analyzer reports to monitor whether the changes achieved the required results.
Part 4. Enterprise system management with the Eclipse plug-in

IMS Configuration Manager allows you to manage systems and parameters across your enterprise with the IMS Configuration Manager Eclipse plug-in.

Related concepts:
“Enterprise-wide system and parameter management” on page 11

The IMS Configuration Manager Eclipse plug-in provides an enterprise-level view of your resources and parameters and allows you to control and manage systems.
Chapter 12. Key features of the Eclipse plug-in

The IMS Configuration Manager Eclipse plug-in has several powerful features that can help you improve your understanding of your environment.

Perform the following tasks with the IMS Configuration Manager Eclipse plug-in:
- Centralize and consolidate your system and IMSplex configuration
- Manage IMS systems, resources, and parameters
- Compare parameters across multiple systems
- Submit IMS commands and view the output
- Use filters to highlight transactions matching certain attributes
- Identify transactions that can perform commands
- Identify transactions with a zero queue count
- List all active parameter members across your enterprise and drill down to parameter values
- Export data to external spreadsheet applications for further analysis

Online help is available throughout the plug-in by clicking the Help button ( ).

Related tasks:
- “Installing the plug-in” on page 42

The IMS Configuration Manager plug-in for IBM Explorer for z/OS (z/OS Explorer) provides a graphical user interface (GUI) to some of the functions provided by the IMS Configuration Manager ISPF dialog. The plug-in communicates with IMS Configuration Manager via Common Services Library server, which is supplied with IBM Common Services Library for z/OS (Common Services Library).
Chapter 13. Exploring your environment

Use the IMS Configuration Manager Eclipse plug-in to explore your systems, list active parameter members, edit resources, and to view change packages.

Related tasks:

“Getting started” on page 43

This topic explains how to get started with the IMS Configuration Manager Eclipse plug-in.

Exploring the topology of your systems

The IMS Configuration Manager Eclipse plug-in allows you to explore the topology of your systems using the Navigation view.

Before you begin

Complete the steps described in the following topics:

1. “Installing Common Services Library server” on page 36
2. “Installing the plug-in” on page 42
3. “Defining systems and IMSplexes” on page 45

Procedure

Find the system you are interested in by expanding the items in the Navigation view.

1. Click the icon next to the All Sources entry to see its contents. IMS, IMS Connect, and IMSplex categories are displayed.
2. Continue to expand the entries in the Navigation view until you find the system you are interested in.
3. Double-click an entry to view additional details.

Results

Status icons may appear next to IMSplex, IMS Connect, and IMS entries displayed in the Navigation view.

Green circle (●)

The IMSplex, IMS, or IMS Connect is available.

Red square (■)

The IMSplex, IMS, or IMS Connect is unavailable. For an IMSplex, this can occur if the IMSplex is down, or there is no Operations Manager (OM) available for communication between the IMSplex and the Common Services Library server.

No status (blank)

The status of the IMSplex, IMS, or IMS Connect cannot be determined. This can occur in one of the following situations:

- the system is not in an IMSplex
- the system is in an IMSplex that is not available
• the system is not found within the IMSplex

Status information is only displayed for IMS Connect systems that are part of an IMSplex. IBM IMS Connect Extensions for z/OS can extend the status display for systems that are not part of the IMSplex.

Figure 82. Navigating the topology of your systems using the plug-in

What to do next
• Search for a particular IMS system, IMS Connect system, or IMSplex by typing search terms into the search list. A history of search terms can be accessed by clicking the arrow.
• Navigation items can be filtered by selecting an item from the source types list. By default, the Navigation view shows <All Source Types>.

Related concepts:
“Defining systems and IMSplexes” on page 45
Define IMSplexes and systems in the IMS Configuration Manager repository using the autodiscovery method, by manually creating system definitions through the ISPF dialog, or by using batch commands.

Related tasks:
“Connecting to a Common Services Library server” on page 44
The IMS Configuration Manager Eclipse plug-in requires a connection to a running
Listing active parameter members across your enterprise

The IMS Configuration Manager Eclipse plug-in allows you to list all active parameter members from across your enterprise.

Procedure
1. From the Navigation view, double-click All Sources. The All Sources tab is displayed.
2. Click the Refresh button (้ว) to load parameters into the All Sources tab.

![Figure 83. Listing active parameter members across your enterprise](image)

What to do next
- To sort a column, click the column heading. For example, clicking ChangeTimestamp will sort the entries by the date and time that a parameter was modified.
- Right-click an item to reveal additional options.

Viewing system resources

The IMS Configuration Manager Eclipse plug-in allows you to list resources for individual systems or IMSplexes.

Procedure
1. From the Navigation view, double-click a system or IMSplex. The system or IMSplex is displayed in a new tab. Additional tabs are displayed: Resources (selected), Parameters, and Commands.
2. In the Type list, select All to show all resource types.
3. In the Show list, select Config. Repository to show the current state of the IMS Configuration Manager repository.
4. Click the Refresh button (autoload) to load resources into the Resources tab.
What to do next

- To filter the list by resource type, select the resource type in the Type list and then click the Refresh button ().
- To sort a column, click the column heading. For example, clicking RepTimeUpdate will sort the entries by the date and time that the listed item was updated in the IMS Configuration Manager repository.
- Right-click an item to reveal additional options.

Related concepts:
- Chapter 14, “Filtering, searching, and saving,” on page 147

Use the IMS Configuration Manager Eclipse plug-in to filter and search table entries, and to save commonly used displays.

Viewing change packages

The IMS Configuration Manager Eclipse plug-in allows you to view a list of change packages.

Procedure

1. From the Navigation view, double-click a system. The system is displayed in a new tab. Three additional tabs are displayed: Resources (selected), Parameters, and Commands.
2. In the Type list, select Change Packages to show all change packages associated with the selected system or IMSplex.
3. In the Show list, select Config. Repository to show the current state of the IMS Configuration Manager repository.
4. Click the Refresh button () to load any associated change packages into the Resources tab.
5. Right-click a listed change package and select Databases, Programs, Routing Codes, or Transactions to view the contents of the change package.

What to do next

- To sort a column, click the column heading. For example, clicking RepTimeUpdate will sort the entries by the date and time that the listed item was updated in the IMS Configuration Manager repository.

Related concepts:
- Chapter 14, “Filtering, searching, and saving,” on page 147

Use the IMS Configuration Manager Eclipse plug-in to filter and search table entries, and to save commonly used displays.

Related tasks:
Viewing members of an IMSplex

The IMS Configuration Manager Eclipse plug-in allows you to view the members of your IMSplex.

Procedure

1. From the Navigation view, double-click an IMSplex. The IMSplex is displayed in a new tab. Additional tabs are displayed: Resources (selected), Parameters, and Commands.
2. In the Type list, select Members to show all members of the selected IMSplex.
3. In the Show list, select Config. Repository to show the current state of the IMS Configuration Manager repository.
4. Click the Refresh button ( ). The members of the IMSplex are displayed. The Type column states if the member is an IMS system, IMS Connect system, or one of several possible Common Service Layer (CSL) components.
5. To view further detail on a CSL member, right-click the member and select Open.

Related concepts:

Chapter 14, “Filtering, searching, and saving,” on page 147

Use the IMS Configuration Manager Eclipse plug-in to filter and search table entries, and to save commonly used displays.

Viewing parameters for individual systems

The IMS Configuration Manager Eclipse plug-in allows you to view parameters for individual systems.

Procedure

1. From the Navigation view, double-click a system. The system is displayed in a new tab. Additional tabs are displayed: Resources, Parameters, and Commands.
2. Click the Parameters tab.
3. Click the Refresh button ( ) to load parameters into the Parameters tab.
4. To view more detail on a particular item, right-click the item and select Show Configuration.
5. Optional: For members that support overrides, such as DFSPB, filter the results by selecting an option from the Show list:
   - INEFFECT
     Display a combination of the JCL overrides with the base member to present only values that are “in effect”.
   - JCLOVERRIDES
     Display only the JCL overrides.
   - MEMBER
     Display the value directly in the member.
XIMSGEN
   Extract IMSGEN-specific parameters.

ALL    Show all of the options at once. This results in multiple entries for each
        member.

The ParmSource column identifies where the value was obtained from.

What to do next
* To sort a column, click the column heading. For example, clicking MemberName
  will sort the entries by the name of the member.
* To access a history of your selections, click the list in the upper-left corner.

Related concepts:
[Chapter 14, “Filtering, searching, and saving,” on page 147]

Use the IMS Configuration Manager Eclipse plug-in to filter and search table
entries, and to save commonly used displays.

Submitting IMS commands

The IMS Configuration Manager Eclipse plug-in allows you to submit IMS
command to individual systems or IMSplexes.

About this task

The Eclipse plug-in issues commands through the Operations Manager (OM) API,
which supports all type-2 commands, and many type-1 commands. For a complete
list of commands, see the IMS documentation on commands and keywords
supported by the OM API.

Procedure
1. From the Navigation view, double-click a system. A new tab is displayed
   showing the system or IMSplex you have selected. Additional tabs are
displayed: Resources, Parameters, and Commands.
2. Click the Commands tab.
3. Type your command in the Command box. For example, QUERY IMSPLEX
   SHOW(ALL).

   Note: Commands are submitted with the TSO credentials used to connect to
   the Common Services Library server. This TSO userid must be authorized to
   run the commands using the appropriate IMS command access authority

4. Press Enter, or click the Refresh button ( ). The results of the query are
displayed in the table.
What to do next

- To sort a column, click the column heading. For example, clicking **Status** will sort the entries by their reported status.
- A history of commands can be found by clicking the **Command** list list.
- Right-click an item to reveal additional options.

**Related concepts:**

- Chapter 14, “Filtering, searching, and saving,” on page 147

Use the IMS Configuration Manager Eclipse plug-in to filter and search table entries, and to save commonly used displays.
Chapter 14. Filtering, searching, and saving

Use the IMS Configuration Manager Eclipse plug-in to filter and search table entries, and to save commonly used displays.

Using the list filter

The IMS Configuration Manager Eclipse plug-in has a filtering function that allows you to filter and highlight entries according to specified criteria.

Procedure

1. Select a system, IMSplex or IMS Connect system, and then load resources, parameters, or command results into the corresponding tab. See Chapter 13, “Exploring your environment,” on page 139 for details.

2. Click the Manage/Define List Filters button ( ). The Manage List Filters dialog is displayed.

3. Click New to create a new filter. Enter a description for the new list filter and click OK. The new list filter is displayed in the list.

4. Select the check box to activate the filter. The conditions for the list filter can be entered in the space below.

5. Click New to create a new condition for the filter. The conditions you enter take the form of an equation and determine how the list will be filtered or highlighted.

6. Click each column to enter the terms of your condition:
   a. Select a Field (a column heading from your input data set), an Operator, and a Value to use.
   b. Select Highlight if you want to apply a colored highlight to list entries that match this condition.
   c. Select Case Sensitive if you want to apply case-sensitivity to the Value field.
7. Click **Save Filter**.
8. Click **OK** to apply the list filter. The results of the filter are displayed in the table.

![Figure 86. Managing list filters in the plug-in](image)

![Figure 87. Highlighting items in type-2 command output using the plug-in list filter](image)

**Related tasks:**

- "Filtering parameter members" on page 114

The IMS Configuration Manager ISPF dialog allows you to specify masking characters to filter the parameter member list.

**Searching for values**

The IMS Configuration Manager Eclipse plug-in has two search functions that make finding values easier.
Find value buttons (🔍 and 🔶)

Allows you to search for rows with any column matching the value you specify.

Related tasks:
“Searching for members by their parameters and their function” on page 115

Search is available from an active member list for an IMS system, a group, or a PROCLIB using the IMS Configuration Manager ISPF dialog.

Saving the display

The IMS Configuration Manager Eclipse plug-in allows you to save commonly used resource, parameter, and command displays of your systems. Saving your display allows you to quickly access the data you use most without the need to re-input all of your settings.

Procedure

1. Select a system, IMSplex or IMS Connect system, and then load resources, parameters, or command results into the corresponding tab. See Chapter 13, “Exploring your environment,” on page 139 for details.

2. Click the **Save the Current Display** button (🔍). The **Save Display** dialog is displayed.

3. Enter a name for your saved display.

   ![Save Display dialog](image)

   *Figure 88. Entering a name for the saved display in the plug-in*

4. Click **OK** to create the saved display. The name is displayed in the history list.
What to do next

- Click the **Export** button (.gb) to export displayed results to a comma-separated values (CSV) file for further analysis.

- If you no longer want the saved display, click the **Delete** button ( .gb) to delete it.
Chapter 15. Comparing systems and parameters

The IMS Configuration Manager Eclipse plug-in comparator allows you to perform comparisons across your enterprise. You can use the comparator to compare systems, parameters, resources, saved views, and the results of IMS type-2 commands with pre-configured comparison criteria, or you can perform your own customized comparisons. The comparator can be configured to ignore inconsequential differences between two result sets so you can focus on functionally significant differences within your IMS environment.

Using the comparator with a single data source

Compare data displayed in a results tab of the IMS Configuration Manager Eclipse plug-in with the comparator.

About this task

When using the comparator, a data source refers to the data presented in a tab or saved display of the IMS Configuration Manager Eclipse plug-in. The comparator can compare data within a single data source, or across multiple data sources.

This procedure demonstrates a simple comparison using a single data source. For additional examples using single and multiple data sources, see “Common uses of the Eclipse plug-in comparator” on page 153. For additional information on comparing data sources, see “Comparison criteria” on page 157.

Procedure

1. List resources, parameters, or the results from submitting an IMS command. See Chapter 13, “Exploring your environment,” on page 139 for details.

   In the following examples, the comparison is based on list of parameters associated with a particular IMSplex.

   ![Figure 90. Viewing the parameters tab using the plug-in](image)

2. Click the Compare button ( ). The Configure Comparison Criteria dialog is displayed, providing suggested comparison criteria based on the result set you selected in step 1. This result set is referred to in the dialog as Data Source 1. The columns contained within that result set are listed as follows.
3. Customize the output of your comparison. For additional detail on the Configure Comparison Criteria dialog, see "Comparison criteria" on page 157.

4. Click OK to perform the comparison.

The results of the comparison are displayed in the Compare tab. Highlights draw your attention to columns where adjacent cells contain different values. Differences in ignored columns are not highlighted.

In the preceding example, the following information is displayed:
- A highlight is shown in the DESC column to indicate the change in values from row 1 (7) to row 2 (empty).
- No highlight is shown in the CSLG or DC columns as they have been ignored using the Configure Comparison Criteria dialog.
What to do next

- Click the Compare button ( ) in this tab to change the comparison criteria.
- Use the Previous Difference ( ) and Next Difference ( ) buttons to jump between differences and to quickly examine the result set.

Related tasks:
“Saving the display” on page 149

The IMS Configuration Manager Eclipse plug-in allows you to save commonly used resource, parameter, and command displays of your systems. Saving your display allows you to quickly access the data you use most without the need to re-input all of your settings.

Common uses of the Eclipse plug-in comparator

The following section describes common uses of the comparator.

Identifying parameter differences across your enterprise

The IMS Configuration Manager Eclipse plug-in comparator allows you to identify parameter differences across your entire enterprise.

Procedure

1. From the Navigation view, double-click All Sources. The Navigation view is usually located on the left side of the screen but can be relocated if required. The All Sources tab is displayed.
2. Click the Refresh button ( ) to load parameters into the All Sources tab.
3. Right-click an item in the MemberName column and then click Show Configuration.
4. Click the Compare button ( ). The Configure Comparison Criteria dialog is displayed.
5. Click OK to perform the comparison using the suggested settings. The results of the comparison are displayed in the Compare tab. A highlight is displayed over two cells within a column where the value changes between rows.

![Figure 93. Comparing parameters across your enterprise using the plug-in comparator](image-url)
Identifying resource differences between IMS systems in the IMS Configuration Manager repository

Use the IMS Configuration Manager Eclipse plug-in comparator to display resource differences between two or more IMS systems stored in your IMS Configuration Manager repository.

Procedure

1. List the resources for an IMS system. See “Viewing system resources” on page 141 for details.

2. List the resources for a second IMS system.

3. Click the Compare button ( ). The Configure Comparison Criteria dialog is displayed.

4. Add your IMS systems as data sources:
   a. Click Add/Remove Data Sources. The Select Data Sources dialog is displayed.
   b. Select the systems you opened in steps 1 and 2.
c. Click OK.
5. Select your comparison criteria. An example is provided in Figure 97 on page 156.
   • To compare resources, enter 1 next to Name and then enter 2 next to ResourceType in the Key Sequence column. Selecting these fields as the keys instructs Eclipse plug-in to treat a resource as the pairing of its name and type.
   • Click Show Unmatched Keys to display resources that are present in one IMS system but not the other.
   • Select Hide to remove the column from the comparison output.
6. Click OK to perform the comparison. The results of the comparison are displayed in the Compare tab.

What to do next

- To change your comparison criteria, click the Compare button ( ). To learn more about the Configure Comparison Criteria dialog, see “Comparison criteria” on page 157.
- To add additional IMS systems to the comparison, open new resources tabs and then add them as new data sources at step 4 on page 154. Alternatively, use a saved display in your comparison. To create a saved display, see “Saving the display” on page 149.
Comparison criteria

Use the Configure Comparison Criteria dialog to customize the result of your comparison.

Click the Compare button ( ) to display the dialog.

Figure 99. The Configure Comparison Criteria dialog

Data sources:

In the Eclipse plug-in, a data source is the name given to a set of results displayed in a tab. A data source can be one of the following:

- A tab you have opened containing a set of resources, parameters, or the results return from an IMS command. See Chapter 13, “Exploring your environment,” on page 139.
- A tab you have saved. See “Saving the display” on page 149.

The comparator can compare data within a single data source, or between two or more data sources. When you click the Compare button, Data Source 1 is automatically assigned to the open tab.

Comparing with a single data source allow you to compare between the rows of a result set. Highlighting is applied over table cells where the value between rows has changed. For an example of a single data source comparison, see “Using the comparator with a single data source” on page 151.

Comparing with multiple data sources allows you to compare across different open tabs and saved displays. To add additional data sources to your comparison, use the following procedure:

1. Click Add/Remove Data Sources.
2. Select your data sources. The list is derived from the results tabs you currently have open in the Eclipse plug-in and any saved displays you have.
3. Click OK.
For examples using multiple data sources, see “Common uses of the Eclipse plug-in comparator” on page 153.

Table options:

<table>
<thead>
<tr>
<th>Label</th>
<th>Items in the Label column will appear as column headings in your comparison output. By default they are derived from the column names of Data Source 1, but can be renamed if desired.</th>
</tr>
</thead>
</table>
| Key Sequence | The Key Sequence column controls your comparison output in two important ways:
| • It allows you to bind related items together to form a comparison key.
| • It allows you to sort the output by defining a sequence.
| To sort the output by a particular column, place a 1 in the Key Sequence column next to the label. For example, enter 1 next to the RepTimeUpdate label in [Figure 99 on page 157](#) to sort the output chronologically by repository update time.
| To sort and group related items together, number the items sequentially. For example, resources are uniquely identified by their Name and ResourceType. To bind these items together, enter 1 and 2 next to their respective labels, as shown in [Figure 99 on page 157](#). When a new comparison is first created, the Eclipse plug-in suggests default values based on the content of Data Source 1. You can override these values as desired. |
| Ignore | By default, the comparator places a highlight over two cells in a column that have different values. Select the check box in the Ignore column to disable highlighting in that column. |
| Hide | Select the check box in the Hide column to remove that column from the output. |
| Data Source n | A list of column headings in the selected data source. Add additional data sources by clicking the Add/Remove Data Sources button. |

**Advanced:** Use the drop-down lists to perform the following tasks:

| • Change the column ordering.
| • Change the mapping between columns in your data sources. Use this technique if two data sources contain the same data, but use different naming conventions for column headings. |

**Key matching options:**

These options allow you to define the behaviour of the comparator when it searches your data sources for the specified Key Sequence.

**Show Matched Keys**

Displays items where the key sequence is found in all data sources. For example, if Show Matched Keys was selected in [Figure 99 on page 157](#) the comparison result would show a list of resources that are present in both IMS systems.

**Show Unmatched Keys**

Displays items where the key sequence is not found in all data
sources. For example, the selections in Figure 99 on page 157 will list all resources, identified as the pairing of Name and ResourceType, that are present in one IMS system but not the other.

Show All
Displays the combination of selecting both Show Matched Keys and Show Unmatched Keys.
Chapter 16. Editing resources using the Eclipse plug-in

You can use the IMS Configuration Manager Eclipse plug-in to edit resources defined inside your IMS Configuration Manager repository.

Related concepts:
“Editing resources using the ISPF dialog” on page 68
You can use the IMS Configuration Manager ISPF dialog to edit resources defined inside your IMS Configuration Manager repository.

Creating resources

The IMS Configuration Manager Eclipse plug-in allows you to create new resource definitions in the IMS Configuration Manager repository.

Procedure
1. From the Navigation view, double-click a system or IMSplex.
2. From the Type list, select Resource Groups to show all resource groups.
3. From the Show list, select Config. Repository to show the current state of the IMS Configuration Manager repository.
4. Click the Refresh button ( ) to load resources into the Resources tab.
5. Right-click a resource group, and then click Create. Your resource will be added to the selected resource group.

6. Select a resource group in which to store the new resource, and then select a resource type from the Resource Type list.
7. Click Next.
8. Configure your resource by entering a name, a description, and by selecting additional properties from the relevant list.
9. Optional: If you want to enter additional notes to describe your resource:
   a. Click Next.
   b. Type a description for the resource in the Notes field.
10. To create your resource, click Finish.

Related tasks:
    "Creating resource groups" on page 68

IMS Configuration Manager stores resource definitions inside resource groups. You can use the IMS Configuration Manager ISPF dialog to manually define new resource groups in the IMS Configuration Manager repository.

Creating resources using a model

The IMS Configuration Manager Eclipse plug-in allows you to model the creation of a resource definition on an existing resource.
Procedure

1. Select a system or IMSplex, and then load resources into the resources tab. See "Viewing system resources" on page 141 for details.

2. Right-click the resource you want to use as a model, and then click Create From Model.

3. Select a resource group in which to store the new resource, and then click Next.

4. Configure your resource by entering a name, a description, and by selecting additional properties from the relevant list. The default selections for resource properties have been copied from the resource you selected in step 2.

5. Optional: If you want to enter additional notes to describe your resource:
   a. Click Next.
   b. Type a description for the resource in the Notes field.

6. To create your resource, click Finish.

Related tasks:
"Creating resource groups" on page 68
IMS Configuration Manager stores resource definitions inside resource groups. You can use the IMS Configuration Manager ISPF dialog to manually define new resource groups in the IMS Configuration Manager repository.

Updating resources

The IMS Configuration Manager Eclipse plug-in allows you to update resource definitions stored in an IMS Configuration Manager repository.

About this task

You can use this procedure to update one resource, or you can use it to apply a single update across multiple resources.

Procedure

1. Select a system or IMSplex, and then load resources into the resources tab. See "Viewing system resources" on page 141 for details.

2. Select one or more resources to update.

   Note: If you select more than one resource, they must all be of the same resource type.
3. Right-click the resource list, and then select **Update**.

4. Modify the properties of your resource. If you selected multiple resources in step 2 on page 164, you can choose which properties to update by selecting the appropriate check boxes and entering new values.

5. Optional: If you want to update resource notes:
   a. Click **Next**.
   b. Type a new description for the resource in the **Notes** field.

6. To update your resource, click **Finish**.
Part 5. Troubleshooting

Use these topics to diagnose and correct problems that you experience with IMS Configuration Manager.
Chapter 17. IMS Configuration Manager messages

This topic describes the messages issued by IMS Configuration Manager batch utilities.

Return codes

IMS Configuration Manager sets the following return codes:

0 Operation was successful.
4 Operation completed, but a warning (W) message was issued during processing.
8 Operation may be incomplete. A failure (F) message was issued and IMS Configuration Manager continues processing.
12 Operation may be incomplete. An error (E) condition caused premature termination.
16 Operation is incomplete. A severe error (S) condition occurred.

Message format

IMS Configuration Manager messages begin with a unique message identifier, followed by message text which might contain variable information to identify the particular circumstance that caused the message.

The message identifier has the format GPLnnnnx or FUNnnnnx where:

GPL or FUN
Three-character prefix to identify the origin of the message.
GPL refers to errors associated with parameter processing or errors associated with IMS Configuration Manager components.
FUN refers to functional support messages issued by IMS Configuration Manager.

nnnn Represents a four-digit message number. The preceding three-character prefix combined with this number uniquely identifies the message.

x Represents a single-letter severity level that indicates the return code, the purpose of the message, and the type of response required from you. The severity levels, from least to most severe, are:
I Information. No action is required.
W Warning. IMS Configuration Manager detected a possible error condition that you should evaluate.
F Failure. IMS Configuration Manager detected a failure condition that you should evaluate.
E Error. Your action is required before IMS Configuration Manager can continue processing.
S Severe. IMS Configuration Manager processing is suspended until you have taken action.
GPL5001F • GPL6002E

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.

**GPL-prefixed messages**

This topic describes messages with the GPLnnnx message identifier format.

---

GPL5001F  **Selected repository (dsn) is not suitable for this product**

**Explanation:**
The named IMS Configuration Manager repository is from an older version of IMS Configuration Manager and is not supported.

**System action:**
No IMS Configuration Manager functions can be used.

**User response:**
Create a new IMS Configuration Manager repository data set, or specify an existing data set supported by this version of IMS Configuration Manager and retry the request.

GPL5002F  **Member (mem), identified by RGSUE, had parameters that were not able to be parsed. Use List of all members (L) to edit member and correct problem**

**Explanation:**
The named member contains syntax errors.

**System action:**
The list of applicable members is not built.

**User response:**
Obtain a list of PROCLIB members via the L line command. Select the named member and correct the syntax errors then retry.

GPL5003F  **Access denied to parameter data set dsn**

**Explanation:**
The user does not have access to the named repository data set.

**System action:**
The requested product function fails.

**User response:**
Refer the error to your security administrator and request access to the named data set. Alternatively, specify a data set to which you have access.

GPL5004F  **Invalid parameter data set dsn**

---

GPL5100F  **Proclib dsn Member mem IMS Release insr Function func**

**Explanation:**
A failure has occurred.

**System action:**
The utility stops.

**User response:**
Contact IBM Software Support.

GPL6000I  **line ctlcd**

**Explanation:**
A line of the SYIN utility parameter file is displayed along with its relative line number within the file.

**System action:**
None. Informational message only.

**User response:**
None. Informational message only.

GPL6001I  **TAKEUP started for typ input DD=ddname**

**Explanation:**
The TAKEUP utility is starting using stage 1 or RDDS input from the ddname displayed.

**System action:**
None. Informational message only.

**User response:**
None. Informational message only.

GPL6002E  **Leading spaces not allowed in Resource Group name**
Explanation: The resource group name (RG) cannot have leading spaces.

System action: The utility stops.

User response: Correct the resource group name and rerun the utility.

GPL6003I cmd completed RC=rc
Explanation: The utility has ended with the displayed return code.

System action: If the return code is greater than 4 then the utility stops. Otherwise the utility will process the next defined utility command.

User response: If the return code is greater than 4, review prior messages in SYSPRINT to determine the recovery action.

GPL6004E Utility command cmd failed, RC=rc
Explanation: The utility has ended with the displayed return code.

System action: If the return code is greater than 4 then the utility job stops. Otherwise the utility will process the next defined utility command.

User response: If the return code is greater than 4, review prior messages in SYSPRINT to determine the recovery action.

GPL6005E Error in the SYSIN control cards, RC=rc
Explanation: The utility has detected a parameter error.

System action: The utility stops.

User response: Review prior messages in SYSPRINT, correct the indicated error, and rerun the utility.

GPL6006E No parameters in the SYSIN control cards, RC=rc
Explanation: The utility has detected that there are no SYSIN parameters.

System action: The utility stops.

User response: Enter utility parameters and rerun the IMS Configuration Manager utility.

GPL6007E Processing error rsn. INFO=infoinfo2
Explanation: The utility has detected an error in a sub component.

System action: The utility stops.

User response: Save all files and job logs. Contact IBM Software Support.

GPL6008W SET MAXCC=mrc, command processing continues
Explanation: The utility has modified the return code from the prior utility command to the MAXCC value.

System action: Processing continues.

User response: None required. This is a warning message only.

GPL6009E PLEX parameter is required for 'cmd'
Explanation: The PLEX parameter is required for the INSTALL and BACKOUT utility.

System action: The utility stops.

User response: Supply the PLEX parameter and rerun the utility.

GPL6010I COPY started from DD=ddname1 to DD=ddname2
Explanation: The utility job is starting to copy from ddname1 to ddname2.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6011E rg must be alphabetic, numeric, rational, "_", " ", or space characters. The first character must not be a space
Explanation: A resource group parameter or NEWNAME contains invalid characters.

System action: The utility stops.

User response: Correct the resource group parameter or NEWNAME parameter so that it contains only uppercase letters and numbers without leading spaces.

GPL6013I DISCOVER started output to DD=ddname
Explanation: The DISCOVER utility is starting. Output will be to the IMS Configuration Manager repository ddname.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6014I BACKOUT started for unit-of-work 'uw'
Explanation: The BACKOUT utility command is starting for the unit-of-work uw.

System action: None. Informational message only.

User response: None. Informational message only.
<table>
<thead>
<tr>
<th>Message Number</th>
<th>Message Text</th>
<th>Explanation</th>
<th>System action</th>
<th>User response</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL6015I</td>
<td>GEN started from DD=ddname1 to DD=ddname2</td>
<td>Explaination: The GEN utility command is starting to GEN from ddname1 to ddname2.</td>
<td>System action: None. Informational message only.</td>
<td>User response: None. Informational message only.</td>
</tr>
<tr>
<td>GPL6019E</td>
<td>SYSTEM and RG parameters are mutually exclusive</td>
<td>System action: The utility stops.</td>
<td>User response: Use either the SYSTEM or RG parameters and rerun the GEN utility.</td>
<td></td>
</tr>
<tr>
<td>GPL6020E</td>
<td>DName ddname not found</td>
<td>System action: The utility stops.</td>
<td>User response: Supply the required ddname and resubmit the IMS Configuration Manager utility.</td>
<td></td>
</tr>
<tr>
<td>GPL6021E</td>
<td>Leading spaces not allowed in prm</td>
<td>System action: The utility stops.</td>
<td>User response: Correct the parameter and resubmit the utility.</td>
<td></td>
</tr>
<tr>
<td>GPL6022E</td>
<td>Error act DName ddn system code cde</td>
<td>System action: The utility stops.</td>
<td>User response: Add the CPDATE and CPTIME and resubmit.</td>
<td></td>
</tr>
<tr>
<td>GPL6023E</td>
<td>Duplicate typ in list: obj</td>
<td>System action: The utility stops.</td>
<td>User response: Remove the duplicate resource group or NEWNAME and resubmit the utility.</td>
<td></td>
</tr>
<tr>
<td>GPL6024E</td>
<td>Resource Group is required for TAKEUP if no RG macros or unnamed RG macros in the input STAGE1 deck</td>
<td>System action: The utility stops.</td>
<td>User response: If TAKEUP is from an RDDS or the IMSRSC repository, then add an RG parameter to the utility SYST1 parameters. If TAKEUP is from STAGE1, then either add the RG parameter to the utility SYST1 parameters or an RG MACRO to the stage 1 deck. If you are using RG macros in your stage 1 deck, and one of your RG MACROS does not have an RG name, then you must supply a default RG name in the SYST1 parameters.</td>
<td></td>
</tr>
<tr>
<td>GPL6026E</td>
<td>prm must be one alphabetic character followed by alphanumeric characters</td>
<td>System action: The utility stops.</td>
<td>User response: Correct the parameter and resubmit the utility.</td>
<td></td>
</tr>
<tr>
<td>GPL6029E</td>
<td>CPDATE and CPTIME are required parameters</td>
<td>System action: The utility stops.</td>
<td>User response: Add the CPDATE and CPTIME and resubmit.</td>
<td></td>
</tr>
<tr>
<td>GPL6030E</td>
<td>IMSID is required for TAKEUP</td>
<td>System action: The utility stops.</td>
<td>User response: Add the IMSID and resubmit the utility.</td>
<td></td>
</tr>
</tbody>
</table>
GPL6031E  Change Package date invalid
Explanation:  The CPDATE parameter is in error. The format of CPDATE is YYYY.MM.DD (year, month, day).
System action:  The utility stops.
User response:  Fix the CPDATE parameter and resubmit the job.

GPL6032E  Change Package time invalid
Explanation:  The CPTIME parameter is in error. The format of CPTIME is HH.MM.SS (hours, minutes, seconds).
System action:  The utility stops.
User response:  Fix the CPTIME parameter and resubmit the job.

GPL6034I  COMPARE started
Explanation:  A compare of IMS Configuration Manager repository objects has started.
System action:  None. Informational message only.
User response:  None. Informational message only.

GPL6035I  Change Package cmd started. CP timestamp "cpdate cptime"
Explanation:  The INSTALL or BACKOUT utility command is starting for the named change package.
System action:  None. Informational message only.
User response:  None. Informational message only.

GPL6036E  MBRNAME can contain only one trailing asterisk
Explanation:  When copying a generic resource group or change package, only one asterisk at the end of the MBRNAME is allowed.
System action:  The run stops.
User response:  Remove the extra or embedded asterisk and resubmit the COPY.

GPL6037E  MBRNAME is required for MBRTYPE(RG)
Explanation:  MBRNAME must contain the resource group name when copying a resource group.
System action:  The run stops.
User response:  Add the MBRNAME parameter and resubmit COPY.

GPL6038E  MBRTYPE(RG) requires a MBRNAME less than 15 characters
Explanation:  COPY MBRTYPE(RG) requires a MBRNAME less than 15 characters.
System action:  The run stops.
User response:  Fix the length of MBRNAME and resubmit COPY.

GPL6039E  MBRNAME is required to COPY MBRTYPE(RGE)
Explanation:  MBRNAME must be supplied to copy a resource group element (RGE).
System action:  The run stops.
User response: Add the MBRNAME parameter and resubmit COPY.

GPL6046E Resource Group name in the RGNAME parameter required to COPY an RGE
Explanation: A resource group name must be supplied in the RGNAME parameter to copy MBRTYPE RGE.
System action: The utility stops.
User response: Add the resource group name to the RGNAME parameter.

GPL6047E Invalid characters in RGE MBRNAME
Explanation: RGE name must conform to IMS resource naming conventions with the exception that a single trailing asterisk can be used to denote a generic RGE copy.
System action: The utility stops.
User response: Correct the MBRNAME and resubmit COPY.

GPL6048E SCOPE required for INSTALL
Explanation: The SCOPE parameter provides the names of IMS systems where the change package will be installed.
System action: The utility stops.
User response: Add the SCOPE parameter and resubmit INSTALL.

GPL6049I TAKEUP started from the IMS repository
Explanation: The TAKEUP from IMSRC repository utility is starting.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6050I Issuing DRD command 'cmd'
Explanation: A DRD command is being issued by the utility.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6051E Resource Group is required for TAKEUP from an RDDS or the IMSrepos
Explanation: A resource group parameter is required for TAKEUP from RDDS or the IMSRC repository.
System action: The utility stops.
User response: Add the RG parameter and rerun the utility.

GPL6052E prm 'plx' must conform to IMSplex naming conventions. One optional trailing asterisk is allowed for generic selection
Explanation: The parameter contains invalid characters. The parameter value must be one alphabetic character followed by alphanumeric characters. One trailing asterisk is allowed for generic IMSplex selection.
System action: The utility stops.
User response: Correct the parameter and resubmit the utility.

GPL6053I TAKEUP started from active IMS system
Explanation: TAKEUP from an active IMS system utility is starting.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6054E The RESOURCES parameter can only be specified with DISCOVER PLEX
Explanation: The RESOURCES parameter of DISCOVER is only a allowed with the PLEX parameter.
System action: The DISCOVER utility stops.
User response: Remove the RESOURCES parameter and rerun the utility.

GPL6055I cmd processing started for DD=dd, target repository DD=ddname
Explanation: The MAINT utility is starting. Output will be to the repository ddname.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6056E Resource Group is required for MAINT.RESOURCES processing.
Explanation: The name of an existing resource group is required for MAINT.RESOURCES processing.
System action: The utility stops.
User response: Add the RG parameter and rerun the utility.
**GPL6100I** Stage 1 assembly started

**Explanation:** The assembly of the IMS stage 1 deck has begun.

**System action:** None. Informational message only.

**User response:** None. Informational message only.

**GPL6101I** Stage 1 assembly ended, RC=rc, see ASMPRINT for listing

**Explanation:** The assembly of the stage 1 deck has completed and the return code is being displayed.

**System action:** The utility will stop if the return code is greater than 4.

**User response:** If the return code is greater than 4 then the TAKEUP utility will stop. Review the assembly listing for the reason why the assembly failed, fix the problem, and rerun TAKEUP.

**GPL6102E** Duplicate res resource dup

**Explanation:** The TAKEUP stage 1 input deck contains a duplicate resource.

**System action:** The TAKEUP utility stops.

**User response:** Remove the duplicate resource from the stage 1 deck and rerun TAKEUP.

**GPL6103E** Resource group 'rg' IMSID 'ims' already exists and REPLACE not specified

**Explanation:** The IMS Configuration Manager repository already contains the resource group. The resource group is not replaced because the TAKEUP parameters do not include the REPLACE parameter.

**System action:** The utility stops.

**User response:** Add the REPLACE parameter to your TAKEUP parameters and rerun TAKEUP.

**GPL6104I** TAKEUP has act resource group 'rg' IMSID 'sys'

**Explanation:** The resource group has been either created or replaced in the IMS Configuration Manager repository depending on if it already existed.

**System action:** None. Informational message only.

**User response:** None. Informational message only.

**GPL6105I** Counts: DB=dbc PGM=pgc RTC=rtc TRAN=trc SKIP=skp

**Explanation:** The number of database, program, route codes, and transaction resources that have been taken-up are displayed. Also displayed is the number of resources skipped because of the INCLUDE parameter.

**System action:** None. Informational message only.

**User response:** None. Informational message only.

**GPL6106E** TAKEUP card in error: card

**Explanation:** The ASMPUNCH output from the stage 1 assembly is displayed when there is an internal TAKEUP error.

**System action:** The utility stops.

**User response:** Save all files and job logs. Contact IBM Software Support.

**GPL6107E** Repository call call failed, RC=rc RSN=rsn RG='rg'

**Explanation:** An error has been encountered accessing the IMS Configuration Manager repository. The type of access is displayed along with the return and reason code and the resource group being processed.

**System action:** The utility stops.

**User response:** Save all job logs. Contact IBM Software Support.

**GPL6108E** Resource res of type typ

**Explanation:** An error has been encountered accessing the IMS Configuration Manager repository. The name and type of resource that was being processed is displayed.

**System action:** The utility stops.

**User response:** Save all job logs. Contact IBM Software Support.

**GPL6109I** Resources without RG=nrs

**Explanation:** This message displays the count of resources not taken up because the RG parameter was omitted and an inline RG MACRO was not provided in the stage 1 input.

**System action:** None. Informational message only.

**User response:** None. Informational message only.

**GPL6110E** No resource group information. Either provide the RG keyword/parameter in the SYSIN or RG macro in the stage1 input

**Explanation:** This message is issued when a resource group was not specified in the SYSIN parameters or using the RG macro in the stage 1 input.

**System action:** TAKEUP stops.

**User response:** Either supply the RG parameter in the TAKEUP SYSIN parameters or insert the RG macro in the stage 1 input.

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Chapter 17. IMS Configuration Manager messages 175
GPL6111E • GPL6123E

GPL6111E The input RDDS data set does not begin with a valid header record

Explanation: The TAKEUP utility is trying to read an input RDDS data set that does not have a valid header record.

System action: TAKEUP stops.

User response: Rerun the TAKEUP utility with a valid RDDS file.

GPL6112W No resource definitions were taken up

Explanation: The TAKEUP RDDS utility did not find any resources that can be taken up.

System action: TAKEUP ends.

User response: If you are using the INCLUDE parameter consider changing your selection criteria to include resources.

GPL6113E IMS system record not found.

Explanation: The TAKEUP RDDS utility did not find the IMS system record for an IMSID named in the ASSOCIATE or IMSID parameter.

System action: TAKEUP stops.

User response: Define the IMS system record in the IMS Configuration Manager ISPF dialog and rerun the job.

GPL6115E IMSID is required for RGS MACRO, resource group "rg"

Explanation: An IMSID parameter must be supplied in the TAKEUP SYSIN parameters if you supplied an RGS macro in your stage 1 deck.

System action: The utility stops.

User response: Add the IMSID and resubmit the utility.

GPL6116E The IMSplex is not connected to the IMS repository

Explanation: The IMSplex specified in the PLEX parameter is not connected to the IMSRSC repository.

System action: The utility stops.

User response: Connect the IMSplex to the IMSRSC repository and resubmit the utility.

GPL6117E GPLEX name is required when taking up resources from the IMSrepos or using EXPORT before an RDDS TAKEUP

Explanation: The IMSplex name is required when taking up resources from an IMSRSC repository or when using EXPORT before using TAKEUP with an RDDS.

System action: The utility stops.

User response: Supply an IMSplex name in the utility parameters and resubmit the utility job.

GPL6118I Replacing default for resource nam of type typ

Explanation: A default resource is being replaced with an IMS specific resource definition.

System action: Processing continues.

User response: None. Informational message only.

GPL6119I Counts: DBDESC=dbc PGMDESC=pgc RTCDESC=rtc TRANDESC=trc SKIP=skp

Explanation: The number of database, program, route codes, and transaction descriptor that have been taken-up are displayed. Also displayed is the number of descriptor skipped because of the INCLUDE parameter.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6120I There are no resource descriptors of type typ - TAKEUP continues

Explanation: There are no descriptors defined for the resource type.

System action: Processing continues.

User response: None. Informational message only.

GPL6121E RDDS dynamic typ error - DDname=ddn DSN=dsn

Explanation: Dynamic allocation failed for the named RDDS. One or more dynamic allocation messages precede this message.
System action: The TAKEUP utility stops.
User response: Determine the cause of the dynamic allocate failure. Correct and restart the utility.

GPL6124E  EXPORT DRD command failed
Explanation: The EXPORT DRD command has failed.
System action: The TAKEUP utility stops.
User response: Review the DRD return and reason code displayed in the subsequent message "GPL6201I" on page 178. The EXPORT return and reason code are documented in the IMS command manual.

GPL6125E  IMS must be at least Version 12 to use TAKEUP from IMSrepos
Explanation: The IMS SSID specified in the IMSID parameter of TAKEUP from IMSRSC repository must be for an IMS system of at least version 12.
System action: The TAKEUP utility stops.
User response: Correct the IMSID parameter and resubmit the job.

GPL6126E  Descriptors in INCLUDE parameter not allowed with TAKEUP from STAGE1
Explanation: IMS resource descriptors are not in the IMS STAGE1 deck.
System action: The TAKEUP utility stops.
User response: Correct the INCLUDE parameter and resubmit the job.

GPL6127I  Resource Discovered
Explanation: This message displays the number of resources discovered.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6128I  -----------
Explanation: This message displays the number of resources discovered.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6129I  res cnt
Explanation: This message shows the number of IMS resources that were discovered for each resource type.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6130I  Resource Group "rg" IMSID "ims" already exists. Discovered Resource Groups cannot be replaced
Explanation: The IMS Configuration Manager repository already contains the resource group. The resource group is not replaced because autodiscovery does not replace existing resource groups.
System action: Discovery for resources for this IMS stops.
User response: Delete the resource group and restart autodiscovery.

GPL6131I  MSC Counts: MSLINK=msl MSPLINK=msp MSNAME=msn LTERM=ltm SKIP=skp
Explanation: The number of database, program, route codes, and transaction resources that have been taken-up are displayed. Also displayed is the number of resources skipped because of the INCLUDE parameter.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6132E  Takeup failed for resource group "rg", update(s) in progress
Explanation: The TAKEUP utility was unable to replace the named resource group as one of the resources in the group is in use by the IMS Configuration Manager dialog or another batch job.
System action: The utility stops. The named resource group is partially removed.
User response: If another batch job is running then wait until it completes and resubmit the request. If the IMS Configuration Manager dialog is locking the resource make sure that you exit the system edit session and then resubmit the request.

GPL6200W  DRD error for IMS system "ims" resource nam of type typ. REPORT sequence number seq
Explanation: The INSTALL/BACKOUT utility has encountered a DRD error. See REPORT for IMSID and Sequence number for more details.
System action: The utility job will attempt to continue depending on the severity of the error and the run time parameter options.
User response: Review the REPORT entry identified by the IMSID and Sequence number and previous error messages in the SYSOUT. Take appropriate action using the REPORT and SYSOUT information.
GPL6201I  Service exception processing IMS system ims resource res of type typ.

Diagnostic feedback: mod RC=rc
RSN=rsn INFO=info INFO2=info2

Explanation: A call to a low-level service routine has returned an error response.

System action: Depending on the severity of the error and the ONFAILURE parameter options the job may stop. If this message follows "GPL6200W" on page 177, use the sequence number in that message to navigate to the REPORT entry for the resource in error where further error information will be displayed.

User response: Look at the REPORT entry associated with this message and message "GPL6200W" on page 177 that is also sometimes issued. The report shows the IMS error messages and condition codes. The IBM documentation for these should provide you with the information to resolve the error.

GPL6203E  IMSplex plex does not have any IMS systems defined

Explanation: An attempt to query the IMS systems in an IMSplex has failed: there are no IMS systems defined.

System action: The utility stops.

User response: Consult your IMS systems programmer to see why there are no IMS systems defined.

GPL6204E  No eligible IMS system or Change Package found

Explanation: The INSTALL/BACKOUT utility did not find an eligible IMS system or change package to process.

System action: The utility stops.

User response: See prior messages in SYSOUT for reasons why no change packages were processed.

GPL6206I  Change Package element res of type typ for IMS system ims is committed but its INSTALL history is from another CP

Explanation: The INSTALL/BACKOUT utility is processing a change package element that has been previously committed but its last INSTALL/BACKOUT history in the IMS Configuration Manager repository is from a different change package. This may occur if INSTALL and BACKOUT are run with the FORCE parameter since this allows regression of resources.

System action: Processing continues.

User response: None. Informational message only.

GPL6207W  IMS system ims is not in an appropriate state to receive INSTALL requests

Explanation: The named IMS system was not in a READY state when its status was queried during the INSTALL process. If the NOTREADY(STOP) input control statement was supplied to the INSTALL request, this condition will cause the INSTALL request to fail and a message to that effect issued.

System action: The utility stops.

User response: Ensure the system is in the ready state and resubmit the request.

GPL6208I  Possible change detected outside of ICM for IMS system ims resource res of type typ. Reason: rsn

Explanation: INSTALL/BACKOUT has detected that an IMS MODBLK status is different than what IMS Configuration Manager expects based on what is recorded in its repository. This could be because the resource was changed outside of IMS Configuration Manager, for example using the IMS SPOC or INSTALL or BACKOUT was run using FORCE and the MODBLKS have been regressed.

System action: Processing continues.

User response: None. Informational message only.

GPL6209E  IMS XML parse error: text

Explanation: An attempt to parse the response XML from a type-2 command has failed.

System action: The utility stops.

User response: Examine the error, determine the cause, rectify the problem and rerun the utility. If you are unable to resolve the error, contact IBM Software Support.

GPL6210E  Attempt to construct an IMS type-2 command failed. Error offset ‘eoff’

Explanation: An attempt to construct the appropriate type-2 command to effect a resource definition change has failed.

System action: The utility stops.

User response: Examine the error, determine the cause, rectify the problem and rerun the utility. If you are unable to resolve the error, contact IBM Software Support.

GPL6211E  Cannot connect to IMSplex plex

Explanation: An IMS Configuration Manager utility attempted to register itself as a DRD client in the named IMSplex. The attempt was not successful.

System action: The utility stops.
User response: Examine the error, determine the cause, rectify the problem and rerun the utility. The most likely reason is that the named IMSplex is either not specified correctly or is inactive. Another reason may be that the IMS RESLIB is not in the utility’s STEPLIB or in LINKLST.

GPL6212E IMS system ims does not belong to IMSplex plex
Explanation: An IMS system specified in the SCOPE parameter is not a member of the IMSplex in the IMS Configuration Manager repository.
System action: The utility stops.
User response: Either remove the IMSID from the SCOPE parameter or connect the IMS system to the PLEX using the IMS Configuration Manager ISPF dialog.

GPL6213E Serious error occurred when executing a Type 2 IMS command
Explanation: The INSTALL utility submitted a type-2 command for execution and received an unaccepted response. Message “GPL6211I” on page 178 which follows this message has the return and reason codes from the IMS Configuration Manager type-2 command processor.
System action: The utility stops.
User response: Examine the error, determine the cause, rectify the problem and rerun the utility. This is likely to be an internal error in which case report the problem to IBM support.

GPL6214E Serious CSL error returned from DRD command
Explanation: IMS Configuration Manager submitted a type-2 command for execution and received an error from IMS DRD. Message “GPL6211I” on page 178 which follows this message has the return and reason codes from the type-2 command processor.
System action: The utility stops.
User response: Examine the error, determine the cause, rectify the problem and rerun the utility.

GPL6215E Change Package for IMS system ims cannot be backed out because a more recent CP is not backed out or aborted
Explanation: The BACKOUT utility cannot back out the requested change package because a more recent change package for this IMS system is not backed out or aborted. See the subsequent message “GPL6218E” for the timestamp of the blocking change package.
System action: The utility stops.
User response: The blocking change package must be either backed out or aborted before the requested change package can be backed out.

GPL6216E IMSplex plex has no member systems
Explanation: An IMS system that was required for processing was not in a suitable state for DRD processing. The input directive NOTREADY(STOP) was specified, which resulted in the utility stopping.
System action: The utility stops.
User response: Examine the error, determine the cause, rectify the problem, and rerun the utility. If you want the utility to ignore the processing error and continue processing, specify ONFAILURE(CONTINUE).

GPL6217I IMS system ims resource nam of type typ, REPORT sequence number seq - Retrying after a sec second wait. Last CC=cc Time=tim
Explanation: The parameter RETRYCNT has been specified. INSTALL or BACKOUT is retrying the failed DRD command. The command being retried can be found in the REPORT by looking for the sequence number in the message. The DRD condition that is being retried is displayed as well as the time the command was issued.
System action: The utility job retries the DRD command until it succeeds or the number of retries exceeds the value of RETRYCNT. Between retries the utility job will wait the amount of time specified in the parameter RETRYWAIT.
User response: None. Informational message only.

GPL6218E Change Package 'cpdate cptime' for IMS system ims must be backed out or aborted first
Explanation: This message follows “GPL6216E” and is issued to identify the change package that is blocking the requested change package from being backed out.
System action: The utility stops.
User response: Back out the change package that is stopping the current change package from being backed out or use the FORCE parameter to ignore error.

GPL6219E Change Package for IMS system ims cannot be backed out because its in 'stat' state
Explanation: A change package cannot be backed out because it is not in a state that can be backed out. In order for a change package to be backed out it must be in one of the following status as reported on the IMS Configuration Manager dialog change package panel: INSTOK, INSTPART, BACKPART, BACKOUT, or BACKFAIL.
System action: The utility stops.
GPL6220W The FORCE parameter is in effect. Prior error ignored, processing continues.

Explanation: The FORCE parameter is causing INSTALL or BACKOUT to continue past a condition that would normally cause an error.

System action: Processing continues.

User response: None required. This is a warning message only.

GPL6221E Unrecoverable DRD error and ONFAILURE(STOP)

Explanation: The INSTALL or BACKOUT utility is stopping because of a DRD command that cannot be completed.

System action: The utility stops.

User response: The error is described in detail in the REPORT file. Correct the problem and rerun or change ONFAILURE(CONTINUE) to bypass the problem.

GPL6222W IMS system ims resource nam of type typ, REPORT sequence number seq - Skipping due to DRD error and ONFAILURE(CONTINUE)

Explanation: A DRD command cannot complete due to errors. The command is being skipped. See the section in the REPORT output data set containing the listed Sequence number and IMSID.

System action: The utility job continues because of the parameter ONFAILURE(CONTINUE).

User response: None required. This is a warning message only.

GPL6223W IMS system ims is not Version 10 or higher - DRD is not supported

Explanation: The named IMS system was not a support DRD version. The IMS system must be V10 or later.

System action: The utility stops.

User response: Remove the IMS system from the SCOPE list.

GPL6224E IMS system ims in repository is not active in IMSplex plex

Explanation: The named IMS system is not active in the IMSplex.

System action: The utility stops.

User response: Remove the IMS system from the SCOPE list.

GPL6225I Change Package element res of type typ for IMS system ims is in phase-1 status

Explanation: A change package element is in phase 1 status. The INSTALL/BACKOUT utility will attempt to repair it and continue.

System action: The utility job continues.

User response: None. Informational message only.

GPL6227I Change Package element res of type typ for IMS system ims is being reset

Explanation: The change package element is being reset to its initial, uninstalled state. This can occur if a previous INSTALL or BACKOUT did not complete.

System action: The utility job continues.

User response: None. Informational message only.

GPL6228I IMS system ims is not ready. Processing continues

Explanation: The named IMS system is not in a READY state. NOTREADY(IGNORE) has been specified resulting in the process continuing without this system.

System action: The utility job continues.

User response: Remove the IMS system from the SCOPE list if not required.

GPL6229E IMS system ims is not ready. Processing terminates

Explanation: The named IMS system is not in a READY state. NOTREADY(STOP) has been specified resulting in the process terminating.

System action: The utility job terminates.

User response: Remove the IMS system from the SCOPE list.

GPL6230I The latest INSTALL history is being deleted for IMS system ims resource nam of type typ because a prior update did not complete

Explanation: A prior INSTALL/BACKOUT utility did not complete. The prior history is being deleted because it was not completed.

System action: The utility job continues.

User response: None. Informational message only.
### GPL6231W
IMS system `ins` resource `nam` of type `typ`, REPORT sequence number `seq` - UNDO command is CREATE but MODBLK exists. UPDATE will be issued.

**Explanation:** The BACKOUT command for a previous delete of a MODBLK should be CREATE but the MODBLK already exists.

**System action:** The utility job changes the CREATE to an UPDATE to restore the MODBLK to its image before it was deleted. The job continues.

**User response:** This message probably means that updates are being made to resources outside the control of IMS Configuration Manager or the INSTALL or BACKOUT utility is being run with `FORCE`.

### GPL6232E
Authorization failure during query. IMSplex `plex`

**Explanation:** The security manager has rejected the request with an authorisation failure.

**System action:** The utility stops.

**User response:** Grant the userid access to the IMSplex.

### GPL6233W
IMS system `ins` resource `nam` of type `typ`, REPORT sequence number `seq` - UNDO command is UPDATE but MODBLK does not exist. CREATE will be issued.

**Explanation:** The BACKOUT command for a previous UPDATE of a MODBLK should be another UPDATE but the MODBLK does not exist. BACKOUT will re-CREATE the MODBLK to its state before the first change by this change package.

**System action:** The utility job changes the UPDATE to a CREATE to restore the MODBLK to its image before it was modified. The job continues.

**User response:** This message probably means that updates are being made to resources outside the control of IMS Configuration Manager or the INSTALL or BACKOUT utility is being run with `FORCE`.

### GPL6234E
IMSplex `plex` is not active

**Explanation:** The `PLEX` parameter cannot specify a generic name. The following examples are all invalid: (`*`), (`*name`), (`na%e`).

**System action:** The utility stops.

**User response:** Correct the `PLEX` parameter.

### GPL6235E
IMS system `ins` not found in repository

**Explanation:** An IMS system name that is in the `SCOPE` parameter is not defined in the IMS Configuration Manager repository.

**System action:** The utility stops.

**User response:** Correct the `SCOPE` parameter.

### GPL6237W
IMS system `ins` resource `nam` of type `typ`, REPORT sequence number `seq` - DRD command is `cmd`. Last command was `lst`.

**Explanation:** The current INSTALL/BACKOUT utility has calculated the DRD command needed to appropriately update a MODBLK identified in the REPORT by IMSID and Sequence number. However the calculated next DRD command does not follow logically from the last successful DRD applied to the same resource. For example, the last successful command was CREATE but INSTALL is going to issue another CREATE DRD command since the MODBLK does not exist.

**System action:** The utility job issues the calculated command.

**User response:** This message probably means that updates are being made to resources outside the control of IMS Configuration Manager or the INSTALL or BACKOUT utility is being run with `FORCE`.

### GPL6238I
IMS system `ins` resource `nam` of type `typ`, has been queued for subsequent delete

**Explanation:** Programs that are to be deleted are queued and deleted after all transactions and ROUTCODEs in the change package. Databases are queued until programs are deleted.

**System action:** Processing continues.

**User response:** None. Informational message only.

### GPL6239I
Attempting DELETE of PGM `pgm` for IMS system `ins` after deleting its `trn` TRAN and `rtc` RTC resources

**Explanation:** An attempt is being made to delete a PROGRAM after any transactions or ROUTCODEs owned by the program in this change package have been deleted.

**System action:** Processing continues.

**User response:** None. Informational message only.
GPL6241E  Change Package 'cpd cpt' not found for IMS system ims
Explanation: The change package specified could not be found in the IMS Configuration Manager repository.
System action: The utility stops.
User response: Correct the CPDATE/CPTIME parameters.

GPL6242E  Change Package 'cp' does not match the name specified
Explanation: The change package specified has a name that does not match the CPNAME specified as a parameter.
System action: The utility stops.
User response: Correct the CPNAME parameter.

GPL6243E  Change Package 'cpd cpt' for IMS system ims is not a command package
Explanation: The change package specified in the INSTALL or BACKOUT command is not a command change package. Only command change packages are supported.
System action: The utility stops.
User response: Specify a command change package and retry the request.

GPL6244E  Change Package 'cpd cpt' for IMS system ims is not closed
Explanation: The change package specified is not closed. A change package must be closed before it can be installed.
System action: The utility stops.
User response: Close the change package and retry the request.

GPL6245E  Earlier change package 'cpd cpt' for IMS system ims is open
Explanation: The change package specified has an earlier change package for the same IMS system that has an OPEN status.
System action: The utility stops.
User response: Close the open package.

GPL6246E  Resource res in later Change Package 'cpd cpt' is installed
Explanation: The resource specified has a version in a later change package (for the same IMS system) that has already been installed. This may cause regression.
System action: The utility stops.

User response: Use the FORCE option if you want this package installed without regard to the later updates.

GPL6247E  Earlier Change Package 'cpd cpt' for IMS system ims is not installed
Explanation: The change package specified has an earlier change package (for the same IMS system) that has not been installed. This may cause regression.
System action: The utility stops.
User response: Use the FORCE option if you want this package installed without regard to the earlier package.

GPL6248I  TRAN EXPRTIME is not supported for IMS system ims and will be omitted
Explanation: A change package is being installed into or backed out of an IMS system that does not support the EXPRTIME transaction keyword. The keyword will be omitted.
System action: The utility job continues.
User response: None. Informational message only.

GPL6249E  Repository call call failed, RC=rc RSN=rsn DD=dd
Explanation: An error was encountered accessing the IMS Configuration Manager repository. The type of access is displayed along with the return and reason code and the ddname of the IMS Configuration Manager repository in error.
System action: The utility stops.
User response: Save all job logs. Contact IBM Software Support.

GPL6250E  Change Package 'cpd cpt' for IMS system ims is in use
Explanation: The change package specified is in use by the IMS Configuration Manager ISPF dialog or another batch job.
System action: The utility stops.
User response: If another batch job is running then wait until it completes and resubmit the INSTALL utility. If the IMS Configuration Manager ISPF dialog is locking the change package make sure that you exit your JCL editing session and then resubmit the INSTALL utility.

GPL6251E  Change Package 'cpd cpt' for IMS system ims is ABORTED
Explanation: The change package specified has been ABORTED. An ABORTED change package cannot be installed.
System action: The utility stops.
User response: Create a new change package.

GPL6252E You are not authorized to INSTALL
Change Package 'cp' for IMS system ims

Explanation: You are not authorized to install this change package.

System action: The utility stops.

User response: Contact your SAF administrator to request the ability to install this change package.

GPL6253E SAF error attempting to authorize
Change Package 'cp' for IMS system ims

Explanation: An attempt to check your ability to INSTALL this change package has failed.

System action: The utility stops.

User response: The return code (R15) from the RACROUTE MACRO is displayed in message "GPL6201I" on page 178 in the INFO variable. Contact your SAF administrator for the reason why the RACROUTE call has failed.

GPL6254I IMS system ims resource nam of type typ - Change history -num status is 'sta', job nam job

Explanation: INSTALL/BACKOUT is searching backwards in its change history for the last change to the resource. Displayed are the history entries before the change.

System action: The utility job continues.

User response: None. Informational message only.

GPL6255I Beginning ROLLBACK for IMS system ims

Explanation: The current INSTALL/BACKOUT utility is waiting for a resource to complete its work before updating or deleting it.

System action: The utility job continues.

User response: None. Informational message only.

GPL6256I ONFAILURE(ROLLBACK) but nothing to ROLLBACK for IMS system ims

Explanation: INSTALL/BACKOUT has entered rollback processing but there is nothing to rollback.

System action: The utility job terminates rollback.

User response: None. Informational message only.
be installed. Resubmit the utility.

GPL6262E Use of the $LATEST keyword is invalid with BACKOUT

Explanation: The $LATEST keyword only applies to the INSTALL utility.

System action: The utility stops.

User response: For BACKOUT you must use the explicit CPDATE and CPTIME parameters to specify the change package to backout. Add these parameters and resubmit the job.

GPL6261I Change Package 'cpd cpl' for IMS system ins selected as the latest CP

Explanation: This is the latest change package for the IMS system that was selected for INSTALL.

System action: The INSTALL utility installs the change package.

User response: None. Informational message only.

GPL6299I Additional Text. Module=mod ErrorID=loc Function=func

Explanation: The utility has detected an error. Additional debugging information is provided for the error.

System action: The utility stops.

User response: Check for additional messages "GPL6200W" on page 177.

GPL6300I Copying obt 'obn' ob2

Explanation: The object is being copied.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6301I To target obt 'obn' ob2

Explanation: The resource group is being copied to a new resource group name.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6302E The NEWNAME parameter or NEWSYSTEM parameter is required when copying a resource group to the same repository

Explanation: The same resource group can’t be copied to the same IMS Configuration Manager repository.

System action: The COPY utility stops.

User response: If copying a common resource group, add the NEWNAME parameter with a different resource group name. If copying a system resource group, specify a new resource group name in the NEWNAME parameter or a new IMSID in the NEWSYSTEM parameter.

GPL6303W obt 'obn' ob2 exists and REPLACE not specified. Not copied

Explanation: The IMS Configuration Manager repository already contains the object. The object is not replaced because the COPY parameters do not include the REPLACE parameter.

System action: The copy of the object is skipped.

User response: Add the REPLACE parameter to your parameters and rerun COPY.

GPL6304I COPY has act obt 'obn' ob2

Explanation: The object has been either created or replaced in the IMS Configuration Manager repository depending on if it already existed.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6305I Counts: DB=dbc PGM=pgc RTC=rtc TRAN=trc SKIP=skp

Explanation: The number of database, program, route codes and transaction resources that have been copied are displayed.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6306E The NEWNAME or NEWSYSTEM parameter must be different from the MBRNAME or SYSTEM name when copying to the same repository

Explanation: The COPY NEWNAME parameter must not be the same as the resource group name when copying a common resource group to the same IMS Configuration Manager repository. When copying a system-level resource group either the NEWNAME must be different or the NEWSYSTEM must specify a different system.

System action: The utility stops.

User response: Correct the RG and NEWSYSTEM parameters and rerun COPY.

GPL6307E Repository call call failed, RC=rc RSN=rsn DD=dd

Explanation: An error has been encountered accessing the IMS Configuration Manager repository. The type of access is displayed along with the return and reason code and the ddname of the IMS Configuration
Manager repository in error.

**System action:**  The utility stops.

**User response:**  Save all job logs and report problem to IBM support.

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GPL6308E  Resource 'obn','ob2','res' of type obt

**Explanation:**  An error has been encountered accessing the IMS Configuration Manager repository. The name and type of resource that was being processed is displayed.

**System action:**  The utility stops.

**User response:**  Save all job logs and report problem to IBM support.

---

GPL6309E  The **NEWSYSTEM** parameter is required when copying an IMS system to the same repository

**Explanation:**  IMS systems cannot be copied to the same IMS Configuration Manager repository unless they are going to be renamed.

**System action:**  The utility stops.

**User response:**  Add a new system name in the **NEWSYSTEM** parameter and rerun the utility.

---

GPL6310E  Generic COPY is not allowed to the same repository

**Explanation:**  Generic COPY cannot be used when copying resource groups to the same IMS Configuration Manager repository.

**System action:**  The utility stops.

**User response:**  Change the **TO** ddname to another IMS Configuration Manager repository and rerun the utility.

---

GPL6311W  No Resource Groups were selected for copy

**Explanation:**  The COPY utility did not copy any resource groups. This message can be issued if there is a prior error or if the generic RG mask values did not match any resource groups.

**System action:**  The utility stops.

**User response:**  If you are using a generic RG you may need to adjust your mask values so that resource groups are selected.

---

GPL6312W  No resource definitions copied for obt 'obn'/ob2

**Explanation:**  The COPY utility did not copy any resource group elements for this object. This message can be issued if there was a prior error or if the MBRNAME mask did not match any resources.

**System action:**  The utility stops.

**User response:**  Correct the SYSTEM or **NEWSYSTEM** parameter and rerun COPY.
GPL6319E  The NEWPLEX parameter is required when copying an IMSplex to the same repository

Explanation:  The NEWPLEX parameter is required when copying a new IMSplex to the same IMS Configuration Manager repository.

System action:  The COPY utility stops.

User response:  Add the NEWPLEX parameter and rerun COPY.


GPL6320E  Resource obn of type obt

Explanation:  An error has been encountered accessing the repository for MAINT processing. The name and type of the object that was being processed is displayed.

System action:  The utility stops.

User response:  Save all job logs. Contact IBM Software Support.


GPL6321E  IMSplex plx not found in DDname=dd

Explanation:  The COPY utility did not find the IMSplex name in the file that was requested for copy.

System action:  The utility stops.

User response:  Correct the PLEX name parameter and rerun COPY.


GPL6322W  No Change Package was selected for COPY

Explanation:  The COPY utility did not copy any change packages. This message can be issued if there is a prior error or if the a generic change package mask in the MBRNAME parameter match any resource groups.

System action:  The utility stops.

User response:  If you are using a generic mask you may need to adjust your mask value so that change packages are selected.


GPL6324I  COPY has act IMSplex plx

Explanation:  The IMSplex has been either created or replaced in the IMS Configuration Manager repository depending on if it already existed.

System action:  None. Informational message only.

User response:  None. Informational message only.


GPL6325E  The NEWSYSTEM parameter is required when copying a Change Package to the same repository

Explanation:  The NEWSYSTEM parameter is required when copying a change package to the same IMS Configuration Manager repository.

System action:  The COPY utility stops.

User response:  Use the NEWSYSTEM parameter with a different IMSID value to copy a change package to the same IMS Configuration Manager repository.


GPL6326E  The NEWSYSTEM parameter is required when copying a new system to the same repository

Explanation:  The NEWSYSTEM parameter is required when copying a system to the same IMS Configuration Manager repository.

System action:  The COPY utility stops.

User response:  Add the NEWSYSTEM parameter and rerun COPY.


GPL6328E  The NEWSYSTEM parameter(s) must be different from the SYSTEM name when copying to the same repository

Explanation:  The COPY NEWSYSTEM parameter must not be the same as the SYSTEM name when copying to the same IMS Configuration Manager repository.

System action:  The utility stops.

User response:  Correct the SYSTEM and NEWSYSTEM parameters and rerun COPY.


GPL6329E  The NEWSYSTEM new IMSID name must be different from the old SYSTEM name when copying a Change Package to the same repository

Explanation:  The new NEWSYSTEM IMSID name must not be the same as the IMSID name when copying to the same IMS Configuration Manager repository.

System action:  The utility stops.

User response:  Correct the SYSTEM and NEWSYSTEM parameters and rerun COPY.


GPL6330E  The NEWNAME parameter or NEWRGNAME parameter with different parameter values is required when copying an IMS resource to the same repository

Explanation:  The same IMS resource can't be copied to the same IMS Configuration Manager repository unless it is renamed or copied to a different resource group.

System action:  The COPY utility stops.

User response:  Use the NEWNAME to rename the resource or the NEWRGNAME to change the resource group name.
The NEWSYSTEM parameter must have the same number of IMSID names as the SYSTEM parameter.

**Explanation:** The NEWSYSTEM parameter, if used, must have the same number of IMSIDs specified as the SYSTEM parameter.

**System action:** The COPY utility stops.

**User response:** Change the NEWSYSTEM parameter so that there is one new IMSID name for each IMSID in the SYSTEM parameter. Use a comma for any IMSID name you do not want to rename.

The NEWSYSTEM parameter cannot be specified when SYSTEM(*)

**Explanation:** The NEWSYSTEM parameter cannot be used with a generic SYSTEM parameter.

**System action:** The COPY utility stops.

**User response:** Remove the NEWSYSTEM parameter and resubmit COPY.

No matching mbr found in DDname=d

**Explanation:** No members matching the MBRTYPE were found in the input file.

**System action:** The job ends.

**User response:** Correct the COPY selection parameters and resubmit the job.

mbr copied=cnt

**Explanation:** The number of PLEX and SYSTEMs copied are displayed.

**System action:** None. Informational message only.

**User response:** None. Informational message only.

Copy 'FROM' and 'TO' data set names are the same and a new name not specified

**Explanation:** COPY to the same data set cannot be performed unless a new name for the objects is provided.

**System action:** COPY stops.

**User response:** Add the appropriate NEWPLEX, NEWSYSTEM or NEWNAME parameter and resubmit COPY.

SYSTEM parameter or COMMON(YES) is required to copy Resource Groups

**Explanation:** To successfully COPY a resource group either specify a SYSTEM parameter to match system-level resource groups or specify COMMON(YES). A COMMON(YES) and a SYSTEM parameter can also be specified together to copy both common and system-level resource groups.

**System action:** COPY stops.

**User response:** Add the SYSTEM parameter, the COMMON(YES) parameter or both and resubmit COPY.

The NEWSYSTEM parameter cannot be specified without a SYSTEM parameter

**Explanation:** The NEWSYSTEM parameter of the COPY utility can not out specified without the SYSTEM parameter. The NEWSYSTEM parameter is used to change the name of a system during the COPY operation.

**System action:** COPY stops.

**User response:** Remove the NEWSYSTEM parameter and resubmit COPY.

Your userid is not authorized to modify a ICM repository object

**Explanation:** An attempt to change an object in a IMS Configuration Manager repository has been denied by IMS Configuration Manager access control.

**System action:** Utility stops.

**User response:** Contact your SAF administrator for more information.

A SAF error has been detected trying to authorize access to an ICM repository object, SAF RC=rc

**Explanation:** An attempt to change an object in a IMS Configuration Manager repository has resulted in a SAF error.

**System action:** The utility stops.

**User response:** Contact your SAF administrator for more information.

SAF Entity: ent

**Explanation:** This message follows “GPL6338E” and “GPL6339E” to display the RACROUTE entity that failed.

**System action:** The utility stops.

**User response:** Contact your SAF administrator for more information.

The NEWPLEX parameter cannot be used with a generic PLEX copy

**Explanation:** The COPY NEWPLEX parameter cannot be used with PLEX(*).

**System action:** The utility stops.
User response: Remove the NEWPLEX parameter and rerun COPY.

GPL6342E The PLEX(*) parameter cannot be used to copy to the same repository

Explanation: The COPY PLEX(*) parameter cannot be used to copy to the same IMS Configuration Manager repository.

System action: The utility stops.

User response: Correct the PLEX parameter and rerun COPY.

GPL6403W Program pgm not found for rge resource nam

Explanation: The GEN utility could not find the program that is associated with the TRANSACT or RTCODE resource.

System action: The utility stops.

User response: Add the program to your IMS Configuration Manager repository and rerun the utility.

GPL6404I Change Package generated for IMS system ims

Explanation: The change package for the IMS system has been created.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6405W No resource definitions generated for IMSID ims

Explanation: The GEN utility did not generate any resource definitions for this IMSID. This message can be issued if there was a prior error or if the include masks did not match any resources.

System action: The utility stops.

User response: Save all job logs and report the problem to IBM support.

GPL6406E Plex (plx) not found in the repository

Explanation: The IMSplex name was not found in the IMS Configuration Manager repository.

System action: The utility stops.

User response: Correct the PLEX parameter and resubmit the utility.

GPL6402W No resource definitions generated for IMSID ims

Explanation: The GEN utility did not generate any resource definitions for this IMSID. This message can be issued if there was a prior error or if the include masks did not match any resources.

System action: The utility stops.

User response: If you are using the INCLUDE parameter to select certain resource definitions you will need to modify the filter mask so that elements are selected.
System action: The utility stops.
User response: None. Informational message only.

GPL6409W No Change Package was selected for generation
Explanation: The GEN utility did not generate any change packages. This message can be issued if there is a prior error.
System action: The utility stops.
User response: Save all job logs. Contact IBM Software Support.

GPL6410E Change Package for IMS system ins not found in fil
Explanation: The GEN utility did not find the change package in the repository that was requested for GEN.
System action: The utility stops.
User response: Review prior error messages, fix the problems and resubmit GEN.

GPL6411W No Change Package assigned to Plex (plx) in the repository
Explanation: There are no change packages in the repository that are associated with this PLEX.
System action: The utility ends.
User response: Correct the PLEX parameter and resubmit the GEN utility.

GPL6414W res resource ren reassigned to Change Package for IMS system ins
Explanation: The TRAN or RTC has been reassigned to a program in another IMS change package. This can happen if there was not a matching program in the current change package or the program in the current change package was ignored because it duplicated a program in a previous change package.
System action: The resource is assigned to the new program.
User response: None required. This is a warning message only.

GPL6415I Reprocessing unmatched resources in Change Package for IMS system ins
Explanation: There are TRAN or RTC resources that did not have a matching PROGRAM resource when the change package was first read. The utility is trying to match the resources to PROGRAMS in other change packages.
System action: None. Informational message only.

GPL6416W Resource name name is not valid for type type
Explanation: A new resource name was specified that is not valid for the specified resource type.
User response: Specify a valid resource name and rerun.

GPL6417I Counts: DBDESC=dbc PGMDESC=pgc RTCDESC=rtc TRANDESC=trc SKIP=skp DUP=dup
Explanation: The number of database, program, route codes, and transaction resources that have been generated are displayed. Also displayed is the number of resources skipped because of the INCLUDE parameter and the number of duplicate resources not generated.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6500E Error reading inp RC=rc RSN=rsn
Explanation: An error was encountered reading one of the COMPARE inputs.
System action: The COMPARE stops.
User response: Review prior SYSOUT messages for the reason for the error. Correct and resubmit the utility.

GPL6501E Only one RG or CP disposition allowed
Explanation: When defining resource group and change package COMPARE outputs only one of CREATE or REPLACE is allowed on the UPDCP and UPDRG statements.
System action: The COMPARE stops.
User response: Decide if you want to CREATE or REPLACE the resource group or change package COMPARE output object and code the appropriate value.

GPL6502I Change Package act for IMS system ins, CP timestamp 'cpd cpt'
Explanation: A change package is being created or updated by the COMPARE utility.
System action: None. Informational message only.
User response: None. Informational message only.
GPL6503I Resource Group 'rg' actfimsims
Explanation: A resource group is being created or updated by the COMPARE utility.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6504E The IMSID in the 'prm' parameter is not in repository, DDname=dd
Explanation: The IMSID specified in either the UPDCP or UPDRG parameter of the COMPARE utility does not exist in the IMS Configuration Manager repository.
System action: The COMPARE utility stops.
User response: Define the IMS system using the IMS Configuration Manager ISPF dialog and resubmit the job.

GPL6505E The UPDRG parameter cannot be specified without the UPDCP parameter
Explanation: The COMPARE utility UPDRG parameter cannot be specified without the UPDCP parameter.
System action: The COMPARE utility stops.
User response: Define the UPDCP parameter and resubmit the job.

GPL6506E IMS system imsi not found in repository. DDname=dd
Explanation: An IMS system name that is in the SCOPE parameter is not defined in the IMS Configuration Manager repository.
System action: The utility stops.
User response: Correct the SCOPE parameter.

GPL6507E Resource Group 'rgfimsims' not found in repository DDname=dd
Explanation: An input resource group is not found in the IMS Configuration Manager repository by the COMPARE utility.
System action: The utility stops.
User response: Specify an input resource group that exists and rerun the COMPARE utility.

GPL6508E 'RG' is required for INPUT1, INPUT2
Explanation: An RG parameter is required for COMPARE on INPUT1 and INPUT2.
System action: The utility stops.
User response: Enter the RG parameter and rerun the COMPARE utility.

GPL6509E IMSID parameter is required for UPDCP
Explanation: An IMSID parameter is required when the UPDCP parameter is coded for the COMPARE utility.
System action: The utility stops.
User response: Enter the IMSID parameter and rerun the COMPARE utility.

GPL6510E Resource Group 'NAME' parameter is required for UPDRG
Explanation: A NAME parameter is required for UPDRG.
System action: The utility stops.
User response: Enter the NAME parameter and rerun the COMPARE utility.

GPL6600I Beginning command file processing
Explanation: MAINT processing has begun.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6601I Restype Created Updated Deleted Notfound DupRec Skipped
Explanation: This message summarizes MAINT processing results.
When summarizing MAINT.RESOURCES command results, the possible values of Restype are DB, PGM, TRAN, RTC, DDDESC, PGMDESC, TRANDESC, and RTCDESC.
When summarizing MAINT.MEMBERS command results, the possible values of Restype are PLEX, IMS, IMSCON, ODBM, REPO, OM, RM, and SCI.
Counted are the number of each type of object created, updated, deleted, not found (on a create or delete operation), and a duplicate found (on a CREATE). Also displayed is the number of commands that were not executed because of errors in their syntax or values.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6602I ------- ------- ------- ------- -------- ------ -------
Explanation: This line is part of the total resources processed by the MAINT utility.
System action: None. Informational message only.
User response: None. Informational message only.
Explanation: This message summarizes the actions taken on an object during MAINT processing. A description of each column is provided by "GPL6601I" on page 190.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6604E Resource name of type typ already exists - CREATE rejected

Explanation: MAINT processing has rejected a CREATE command since the resource already exists.

System action: MAINT processing continues with the next command.

User response: Use the DELETE command and then the CREATE command, or use the UPDATE command to change an existing resource.

GPL6605E Resource name of type typ was not found - cmd rejected

Explanation: MAINT processing has rejected an UPDATE or DELETE command since the resource does not exist.

System action: MAINT processing continues with the next command.

User response: If an UPDATE command failed, use CREATE command to insert the resource in the resource group. A failed DELETE command requires no response.

GPL6606E Resource name of type typ is in use - cmd rejected

Explanation: The resource specified is in use by the IMS Configuration Manager ISPF dialog or by another batch job.

System action: Processing continues.

User response: If another batch job is running then wait until it completes and resubmit the request. If the IMS Configuration Manager ISPF dialog is locking the resource make sure that you exit the system edit session and then resubmit the request.

GPL6607I line cmd

Explanation: A line of the MAINT.RESOURCES utility command file is displayed along with its relative line number within the file.

System action: None. Informational message only.

User response: None. Informational message only.

GPL6608E No commands found in the MAINT command file, RC=rc

Explanation: The MAINT utility has detected that there are no commands in the command input file.

System action: The utility stops.

User response: Enter type-2 commands in the input command file and rerun the utility.

GPL6609E Error in the MAINT command file, RC=rc

Explanation: The MAINT utility has detected a command error in the input command file.

System action: The utility stops.

User response: Review messages in SYSPRINT, correct the error, and rerun the utility.

GPL6610E Resource Group 'rg' IMSID ims not found in repository. MAINT process terminating

Explanation: MAINT.RESOURCES processing requires that the target resource group already exist in the IMS Configuration Manager repository.

System action: The utility stops.

User response: Add or choose an existing resource group to be the target of MAINT.RESOURCES processing and rerun.

GPL6611E Invalid command NAME field value.

Name='name'

Explanation: The NAME field in the MAINT command must match IMS resource naming conventions. This includes a asterisk and percent signs for generic UPDATE and DELETE commands. Only alphanumeric and national characters are allowed in the name field of a CREATE command.

System action: The utility stops.

User response: Correct the NAME field and rerun.

GPL6612I Skipping cmd resource nam of type typ on line line

Explanation: A command is being skipped because of an error. See prior error messages for the reason.

System action: The MAINT utility continues with the next command.

User response: Correct the error and rerun the command.
GPL6613E  Generic names are not allowed on CREATE commands
Explanation: CREATE commands do not support generic substitution characters in the NAME field.
System action: The utility continues with the next command.
User response: Correct the error and rerun the command.

GPL6614E  No resources of type typ are defined - cmd rejected
Explanation: UPDATE and DELETE commands with a GENERIC NAME will fail because there are no resource records matching the NAME mask.
System action: The MAINT utility continues with the next command.
User response: Correct the error and rerun the command.

GPL6615I  Generic name 'msk' matches 'typ nam' - Processing cmd request
Explanation: A command name mask matches an existing resource or descriptor in the resource group, The UPDATE or DELETE command will be processed.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6616E  LIKE statement model name of type typ not found - Skipping CREATE request
Explanation: MAINT:RESOURCES processing has rejected a CREATE using a LIKE parameter because the named resource or descriptor is not found in the resource group.
System action: MAINT:RESOURCES processing continues with the next type-2 command.
User response: Correct the command and rerun MAINT:RESOURCES.

GPL6617E  No resources matched the NAME specification - cmd rejected
Explanation: MAINT processing has rejected an UPDATE or DELETE command since no resources could be found that matched the NAME specification.
System action: MAINT continues with the next command.
User response: Correct the NAME and rerun MAINT.

GPL6618E  NAME='name' is invalid. typ system names must end in 'suf'
Explanation: The NAME field in the MAINT:MEMBERS command with a CREATE subcommand must match IMS resource naming conventions, where:
- ODBM system names must end in “OD”
- REPO system names must end in “RP”
- OM system names must end in “OM”
- RM system names must end in “RM”
- SCI system names must end in “SC”
System action: MAINT processing terminates.
User response: Correct the NAME field and rerun.

GPL6619E  Skipping CREATE command. RES or DESC required in the LIKE parameter
Explanation: A CREATE command is being skipped because the LIKE parameter is missing a RES or DESC sub parameter.
System action: The utility continues with the next command.
User response: Correct the parameters and rerun MAINT:RESOURCES.

GPL6620E  Skipping CREATE command. RES or DESC are mutually exclusive in the LIKE parameter
Explanation: A CREATE command is being skipped because the LIKE parameter is invalid. RES and DESC sub parameters are both present.
System action: The utility continues with the next command.
User response: Correct the parameters and rerun MAINT:RESOURCES.

GPL6621E  err
Explanation: MAINT:RESOURCES processing has found an error validating a resource or descriptor.
System action: The utility continues with the next command.
User response: Correct the command and rerun MAINT:RESOURCES.

GPL6622E  Error validating resource, RC=rc RSN=rsn
Explanation: MAINT:RESOURCES processing has found an error validating a resource or descriptor.
System action: The utility continues with the next command.
User response: Correct the command and rerun MAINT.RESOURCES.

GPL6623E Resource version check mismatch - UPDATE rejected
Explanation: MAINT processing has rejected an update because the resource has been changed by another user since the last time it was read.
System action: MAINT processing continues with the next command.
User response: Correct the command and rerun MAINT.

GPL6624E Resource version checking is not supported when generic NAME values are used
Explanation: MAINT processing has rejected an update because generic names were used and resource version checking was requested.
System action: MAINT processing continues with the next command.
User response: Correct the command.

GPL6625E The number of resource version check values must equal the number of NAME values
Explanation: MAINT processing has rejected an update because resource version checking has been requested but the number of resource names in the command does not match the number of version check values.
System action: MAINT processing continues with the next command.
User response: Correct the command.

GPL6626I Skipping cmd obj command on line line. Command N/A to resources
Explanation: The MAINT.RESOURCES utility command file contains a command which is not applicable to a resource group update and has therefore been ignored.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6627I Parameter kwd is N/A and will be ignored. cmd obj command on line line
Explanation: The MAINT.RESOURCES utility command file contains a command which specifies a parameter keyword that is not applicable to resource group update, which has therefore been ignored.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6628I Command successful - Resource Group 'rg*fimsims'
Explanation: The Eclipse plug-in command specified a command to be performed against a given resource group. The command was successful. However, informational message data was returned from the MAINT.RESOURCES utility.
System action: None. Informational message only.
User response: None. Informational message only.

GPL6629E Command failed - Resource Group 'rg*fimsims'
Explanation: The Eclipse plug-in command specified a command to be performed against a given resource group. The command has failed.
System action: The command is rejected with a response that includes this information message and additional messages from the MAINT.RESOURCES utility which will identify the reason for the failure.
User response: Correct and resubmit the request.

GPL6630E Skipping cmd obj command on line line. No typ NAME is specified
Explanation: A subcommand being driven for a MAINT.MEMBERS or MAINT.RESOURCES command has been found to have no NAME parameter values. At least one NAME value is required to identify the target member or resource respectively.
System action: MAINT processing continues with the next subcommand.
User response: Correct the subcommand.

GPL6631I Resource UPDATE request ignored as it does not alter the existing definition
Explanation: MAINT processing has ignored an update because the existing resource will not be altered by applying the update.
System action: Processing continues.
User response: None. Informational message only.

GPL6632I The cmd command on line line ran successfully for resource nam of type typ
Explanation: The given command has run successfully.
System action: Processing continues.
GPL7000I • GPL7010E

User response: None. Informational message only.

GPL7000I  Processing IMSplex nam...
Explanation: This message displays the IMSplex names discovered and processed by autodiscovery.
System action: None. Informational message only.
User response: None. Informational message only.

GPL7001I  act IMSplex nam
Explanation: This message displays the IMSplex names discovered or skipped by autodiscovery.
System action: None. Informational message only.
User response: None. Informational message only.

GPL7002I  Discovered obj job job, XCF member mem in IMSplex plx on os - Version ver
Explanation: This message displays the IMS objects discovered by autodiscovery.
System action: None. Informational message only.
User response: None. Informational message only.

GPL7003I  IMSplex plx has no active or eligible IMS components
Explanation: There are no active IMS components for this IMSplex or none match the MBRTYPE criteria.
System action: Autodiscovery continues with the next IMSplex.
User response: None. Informational message only.

GPL7004I  txt
Explanation: A request to the JES subsystem to process a job has failed. The message describes the system service and error codes associated with the problem.
System action: Autodiscovery stops.
User response: Check the JES service error codes to determine the reason for the problem. Common problems include:
  • For Function=SSST, see SYS1.MACLIB(IAZSSST) for errors returned in STATREAS. Common errors are:
    =08 Invalid job id - not in “JOB01234” format
    =2C Invalid job name
  • For Function=SSJI, see SYS1.MACLIB(IAZSSJI or IAZSPLIO) for errors returned in SSJIRETN. Common errors are:
    =28 RACF authorization error.

GPL7005W  Address space job not found
Explanation: The address space named in a QUERY IMSPLEX DRD command is no longer active.
System action: Autodiscovery continues with the next member.
User response: Determine why the job has abended and restart the IMS component and rerun autodiscovery.

GPL7006I  JESJCL file in address space job not found
Explanation: The JESJCL file in a job cannot be found.
System action: Autodiscovery continues with the next member.
User response: None. Informational message only.

GPL7007I  act obj object nam
Explanation: This message displays the IMS objects added or updated in the IMS Configuration Manager repository during autodiscovery.
System action: None. Informational message only.
User response: None. Informational message only.

GPL7008I  PARM = prm
Explanation: This message displays the PARM= string from the IMS component discovered by autodiscovery.
System action: None. Informational message only.
User response: None. Informational message only.

GPL7009I  typ= dsn
Explanation: This message displays the data set names from the IMS component discovered by autodiscovery.
System action: None. Informational message only.
User response: None. Informational message only.

GPL7010E  TYPE 'ALL' and 'PLEX' are mutually exclusive and are not allowed with other types
Explanation: DISCOVER parameter TYPE values ALL and PLEX are mutually exclusive and cannot be entered with any other TYPE values like IMS or IMSCON, etc.
System action: The DISCOVER utility stops.
User response: Correct the TYPE parameter and rerun the utility.
GPL7011I Searching for IMSCON jobs in the XCF group xcf which is associated with IMS system ims.

Explanation: Autodiscovery is looking for IMSCON regions in an XCF group from the IMS PB XCF group name.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7012I Discovered obj, job, XCF member mem in XCF group xcf

Explanation: This message displays the IMS objects discovered by autodiscovery outside of an IMSplex.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7013I Beginning DISCOVER update phase...

Explanation: This message indicates that DISCOVER is starting the phase when discovered IMS components are added to the IMS Configuration Manager repository.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7014I obj object nnn, job job, XCF member mem - Object sta

Explanation: This message displays the IMS objects to be updated, added or ignored by autodiscovery.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7015I MBRTYPE Discovered Added Updated No change Skipped Error

Explanation: This message is the header row for a table that summarizes the results of autodiscovery.

MBRTYPE
The type of component that has been discovered by IMS Configuration Manager. Possible values are PLEX (IMSplex), IMS, IMSCON (IMS Connect), 00BM (Open Database Manager), REPO (Repository Server (RS)), OM (Operations Manager), RM (Resource Manager) and SCI (Structured Call Interface).

Discovered
The number of components of each MBRTYPE found.

Added
The number of components that were new to the IMS Configuration Manager repository.

Updated
The number of components that were already in the IMS Configuration Manager repository and were changed.

No change
The number of components already in the IMS Configuration Manager repository but are unchanged since the last time autodiscovery was executed.

Skipped
The number of components that were not processed. There are several reasons a component may be skipped:
1. An IMSplex does not have any active components.
2. An IMS is in an IMSplex but NOPLEX processing is being done.
3. The version of a component cannot be determined.
4. An IMS Connect (IMSCON) is not associated with any IMS system that has been discovered.

Error
The number of components that could not be processed further because of an error. Some reasons why a component can't be processed further are:
1. The component address space is not found.
2. JESJCL cannot be parsed.
3. A PROCLIB member cannot be read.
4. A component parameter string cannot be parsed.
5. Component STEPLIB tables cannot be loaded.

System action: None. Informational message only.

User response: None. Informational message only.

Related reference:
Chapter 22, “Understanding the result of the discovery process,” on page 303
Results of the IMS Configuration Manager autodiscovery process are summarized in the log.

GPL7016W No IMS components discovered

Explanation: This message indicates that DISCOVER did not discover any IMS components.

System action: None required. This is a warning message only.

User response: None required. This is a warning message only.
**GPL7017I • GPL7027I**

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7017I</td>
<td>Reading IMS Proclib member pmb for obj job job</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>This message is issued when autodiscovery is reading an IMS proclib member.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>None. Informational message only.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>None. Informational message only.</td>
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<tbody>
<tr>
<td>GPL7018E</td>
<td>Proclib member 'pmb' not found for obj job job</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>This message is issued if a PROCLIB member cannot be read from the data sets on an IMS component JOB's PROCLIB DD statement.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>Autodiscovery continues.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Determine why the PROCLIB member is not in the data sets specified on the JOB's PROCLIB DD statement and rerun autodiscovery.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7019I</td>
<td>------- ---------- ----- ------- --------- ------- -----</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>This message displays the number of objects discovered, added, and updated.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>None. Informational message only.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>None. Informational message only.</td>
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</table>

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<tr>
<th>Message ID</th>
<th>Message Description</th>
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</thead>
<tbody>
<tr>
<td>GPL7020I</td>
<td>obj dct act act uct nccg skp err</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>This message displays the number of objects discovered, added, update, not changed, skipped and in error.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>None. Informational message only.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>None. Informational message only.</td>
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<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
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<tbody>
<tr>
<td>GPL7021E</td>
<td>Dynamic typ error - DDname=ddn DSN=dsn</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>Dynamic allocation failed for the named STEPLIB dataset. One or more dynamic allocation messages precede this message.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>Autodiscovery continues with the next component.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Determine the cause of the dynamic allocate failure. Correct and restart the utility.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7022E</td>
<td>Error opening DDname ddn system code cde</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>An error has been encountered opening or closing an IMS component's STEPLIB.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>Autodiscovery stops.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Correct the problem described in the MVS system code and resubmit the utility.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7023I</td>
<td>obj object nam, job job, XCF member mem - Object is sta</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>This message displays the status of IMS objects viewed in the IMS Configuration Manager repository by autodiscovery.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>None. Informational message only.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>None. Informational message only.</td>
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</table>

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<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7024I</td>
<td>Checking for discovered IMS components in the ICM repository...</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>This message indicates that DISCOVER is starting the phase when the IMS Configuration Manager repository is checked for existence of previously discovered IMS components.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>None. Informational message only.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>None. Informational message only.</td>
</tr>
</tbody>
</table>

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<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7025W</td>
<td>No IMSplex discovered</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>DISCOVER did not find any IMSplexes in the sysplex. This can occur if the PLEX parameter is used and none of the specified IMSplexes are defined in XCF.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>The autodiscovery stops.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Correct the PLEX parameter and rerun.</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7026I</td>
<td>Load of IMS table 'tab' from 'ddn' failed. RC=rc RSN=rsn</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>A load of an IMS table out of an IMS component's library failed.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>Autodiscovery continues with the next component.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Return code 4 indicates that the IMS table is not in the library of the IMS component that is being discovered. Add the library with the module that is missing to the IMS component's STEPLIB and rerun autodiscovery.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Message ID</th>
<th>Message Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPL7027I</td>
<td>CQS job job, XCF member mem on os is associated with IMS system ims in IMSplex plx</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>A CQS component is being associated with an IMS region in the same plex on the same OS image.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>None. Informational message only.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>None. Informational message only.</td>
</tr>
</tbody>
</table>
GPL7028E Only MBRTYPES 'IMS' and 'IMSCON' allowed with the NOPLEX option

Explanation: The NOPLEX option only captures IMS and IMSCON components that are not part of an IMSplex.

System action: Autodiscovery stops.
User response: Correct the MBRTYPE parameter and rerun.

GPL7029E The PLEX parameter cannot be specified with the NO PLEX option

Explanation: The NOPLEX and PLEX parameters can not be combined in a single command.

System action: Autodiscovery stops.
User response: Remove one of the parameters and rerun.

GPL7030I Discovered IMS job job, IMSID ims in subsystem name table

Explanation: This message displays the IMS regions found through the MVS Subsystem Name Table.

System action: None. Informational message only.
User response: None. Informational message only.

GPL7031I IMS system ims is in IMSplex plx and is therefore being skipped

Explanation: The NOPLEX option of autodiscovery ignores IMS systems that are in an IMSplex.

System action: The IMS is skipped. Autodiscovery continues.
User response: None. Informational message only.

GPL7032I The suffix of parameter member mbr* is not available in the PARM or PB member of IMS system ims

Explanation: Autodiscovery is skipping reading of this parameter member because the suffix is not in IMS parameters or PB member.

System action: None. Informational message only.
User response: None. Informational message only.

GPL7033I CQS PROCLIB DSN=dsn txt ims PROCLIB DD

Explanation: Autodiscovery is skipping or adding a CQS PROCLIB dataset to the IMS PROCLIB concatenation based on if the CQS PROCLIB is already in the IMS PROCLIB concatenation.

System action: None. Informational message only.
User response: None. Informational message only.

User response: None. Informational message only.
<table>
<thead>
<tr>
<th><strong>GPL7039I</strong></th>
<th><strong>GPL7050I</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GPL7039I</strong></td>
<td>The name token for CQSSN=cqs could not be located</td>
</tr>
<tr>
<td><strong>Explanation:</strong></td>
<td>Autodiscovery is unable to retrieve the name token for a CQS address space.</td>
</tr>
<tr>
<td><strong>System action:</strong></td>
<td>Autodiscovery continues but cannot retrieve CQS information for the IMS system.</td>
</tr>
<tr>
<td><strong>User response:</strong></td>
<td>Start the CQS region and rerun autodiscovery.</td>
</tr>
</tbody>
</table>

| **GPL7040I** | IMS system ims is not connected to a CQS system |
| **Explanation:** | The IMS system discovered does not have a CQSID defined in the SQ or DF members of the IMS PROCLIB. |
| **System action:** | None. Informational message only. |
| **User response:** | None. Informational message only. |

| **GPL7041I** | Discovered CQS job, XCF member mem, CQSSN=cqs |
| **Explanation:** | This message displays the CQS region found through Name/Token services. |
| **System action:** | None. Informational message only. |
| **User response:** | None. Informational message only. |

| **GPL7042I** | CQS job job, XCF member mem, CQSSN=cqs is associated with IMS system ims |
| **Explanation:** | A CQS component is associated with an IMS region not in an IMSplex. |
| **System action:** | None. Informational message only. |
| **User response:** | None. Informational message only. |

| **GPL7043I** | IMS system ims is in IMSplex plx. Checking CQS connection |
| **Explanation:** | The NOPLEX option of autodiscovery is checking an IMS that is an IMSplex for a CQS connection on the OSNAME that autodiscovery is running. |
| **System action:** | None. Informational message only. |
| **User response:** | None. Informational message only. |

| **GPL7044I** | IMSCON job job is connected to IMS system ims |
| **Explanation:** | Autodiscovery has found that an ICON region is connected to a IMS region though the TMEMBER name in the HWS DATASTORE parameter. The IMS system is not part of a IMSplex. |
| **System action:** | None. Informational message only. |

| **GPL7045I** | IMS job job, IMSID ims is being selected to find connected IMSCON jobs |
| **Explanation:** | Autodiscovery is selecting an IMS job to try and find IMSCON regions connected to it. |
| **System action:** | None. Informational message only. |
| **User response:** | None. Informational message only. |

| **GPL7046I** | Obj job job selected for further processing |
| **Explanation:** | Autodiscovery is selecting this object for further processing. |
| **System action:** | None. Informational message only. |
| **User response:** | None. Informational message only. |

| **GPL7047I** | IXCQUERY error. RC=rc RSN=rsn, XCF group grp |
| **Explanation:** | A XCF query command has failed. The IXCQUERY return and reason code are displayed and the XCF group name. |
| **System action:** | Autodiscovery continues. |
| **User response:** | Fix the problem indicated by the IXCQUERY return and reason codes displayed in message and rerun autodiscovery. |

| **GPL7048I** | txt |
| **Explanation:** | Autodiscovery has encountered an error issuing an XCF QUERY. |
| **System action:** | Autodiscovery continues with the next IMSplex. |
| **User response:** | Fix the problem indicated by the IXCQUERY return and reason codes displayed in message and rerun autodiscovery. |

| **GPL7049I** | Found rcn DSN=dsn in DBRC ddn for IMSID ims |
| **Explanation:** | Autodiscovery has found a RECON dataset for an IMSID by loading MDA blocks from STEPLIB or IMSDALIB in the DBRC region. |
| **System action:** | None. Informational message only. |
| **User response:** | None. Informational message only. |

| **GPL7050I** | Discovered obj job job is associated with IMS system ims |
| **Explanation:** | This message displays the DBRC region that is associated with an IMS system. |
| **System action:** | None. Informational message only. |

User response: None. Informational message only.
GPL7051I Found ddn DSN=dsn in DBRC job job

Explanation: Autodiscovery has found a RECON dataset for an IMSID in the DBRC region’s JCL.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7052I Error finding IMSplex associations for IMSCON hws. Feedback: RC=rc
RSN=rsn

Explanation: An attempt to find the IMSplex for an IMSCON has failed. The return and reason codes are displayed.

System action: Autodiscovery continues.

User response: Save all job logs. Contact IBM Software Support.

GPL7053I IMSCON hws has IMSplex associations with 'plx'

Explanation: This message shows the first five IMSplex and IMSplex member associations with the IMSCON region whose name is displayed.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7054I obj job job in IMSplex plx on os - Version is zero, skipping object

Explanation: A discovered object has a zero version.

System action: The object is skipped.

User response: When autodiscovery detects a zero version for a discovered object, it is usually because the IMSplex is in an unstable state. Processing for this object is skipped. The user should rerun autodiscovery for the IMSplex, when the IMSplex environment is stable, to ensure completeness.

GPL7055I Loading SCD module scl from the IMS job STEPLIB

Explanation: Autodiscovery is loading the suffixed SCD module.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7056I Reading CQS Proclib member pmb for obj job job

Explanation: This message is issued when autodiscovery is reading a CQS proclib member.

System action: None. Informational message only.

GPL7057I To discover the CQSSN cqs connected to IMS system ims, autodiscovery must be run on os

Explanation: This message is issued when autodiscovery is trying to discover a CQS system not in an IMSplex and not on the same OS system as autodiscovery.

System action: The CQS information is not captured but autodiscovery continues.

User response: Run autodiscovery on the OS named in the message.

GPL7058I Searching for CQS connections to IMS systems...

Explanation: This message is issued when autodiscovery is beginning to search for CQS connection to IMS systems.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7059E A work RDDS must be supplied on a GPLRDDS DD card to discover IMS resources

Explanation: This message is issued when autodiscovery is trying to discover IMS resources but a work RDDS has not been supplied.

System action: Autodiscovery terminates.

User response: Add a work RDDS to the JCL and rerun autodiscovery.

GPL7060I Discovering resources for IMS system ims, IMSplex plx

Explanation: This message is issued when autodiscovery is about to discover resources for an IMS system.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7061E Error processing an IMS SCD 'scl'.
RC=rc RSN=rsn

Explanation: An attempt to extract the IMSGEN parameters from the SCD has failed.

System action: Autodiscovery continues.

User response: Save all job logs. Contact IBM Software Support.
GPL7062I IMS system *ims* is searching for a CQS using CQSSN=*ssn*

Explanation: An attempt is being made to connect an IMS system to a CQS as part of autodiscovery.

System action: None. Informational message only.

User response: None. Informational message only.

GPL7063E Error parsing a spool buffer. INFO=ed

Explanation: An unexpected condition was encountered while parsing a spool buffer.

System action: Autodiscovery skips the affected spool buffer and continues.

User response: Save all files and job logs. Contact IBM Software Support.

GPL7300E Unable to open file *ddn* - DD statement missing

Explanation: DD statement is missing from the JCL.

System action: IMS Configuration Manager fails to initialize.

User response: Add the missing DD card to the server JCL.

GPL7301E No valid repositories defined

Explanation: GPLCNTL contains no IMS Configuration Manager repository definitions.

System action: IMS Configuration Manager fails to initialize.

User response: Define at least one IMS Configuration Manager repository via GPLCNTL.

GPL7302E Required load module *mod* not found

Explanation: The required load module was not found.

System action: IMS Configuration Manager fails to initialize.

User response: Add the required library to the server STEPLIB.

GPL7303E Syntax error(s) in GPLCNTL control cards

Explanation: GPLCNTL contains invalid control cards.

System action: IMS Configuration Manager fails to initialize.

User response: The cause of the syntax errors is described in earlier messages. Correct and restart the server.

GPL7304E Dynamic allocation failed for repository *rep, data set* *dsn*

Explanation: Dynamic allocation failed for the named IMS Configuration Manager repository. One or more dynamic allocation messages precede this message.

System action: IMS Configuration Manager initialization continues but the named IMS Configuration Manager repository is not available.

User response: Determine the cause of the dynamic allocate failure. Correct and restart the product.

GPL7305I *rep* repository *act*, data set *dsn*

Explanation: The named IMS Configuration Manager repository data set was successfully allocated, freed, closed or initialized.

System action: Processing continues..

User response: None. Informational message only.

GPL7306E Repository *typ* *dup* is a duplicate

Explanation: The IMS Configuration Manager repository name or data set name has been duplicated.

System action: IMS Configuration Manager fails to initialize.

User response: Remove the duplicate specification.

GPL7307E Initialization failed for repository *rep, data set* *dsn*

Explanation: Initialization failed for the named IMS Configuration Manager repository. One or more messages precede this message.

System action: IMS Configuration Manager initialization continues but the named IMS Configuration Manager repository is not available.

User response: Determine the cause of the IMS Configuration Manager repository failure. Correct and restart the product.

GPL7308I IMS Configuration Manager product *act*

Explanation: Information messages regarding the state of the product.

System action: Processing continues..

User response: None. Informational message only.

GPL7309I line GPLCNTL: card

Explanation: Information message echoing the GPLCNTL input control cards.

System action: Processing continues..

User response: None. Informational message only.
GPL7310I  Unable to load CSLSRG00
Explanation:  An IMS Configuration Manager Eclipse plug-in IMSCOMMAND for the given IMSplex name cannot be performed as the load module CSLSRG00 is not available.
System action:  The command is rejected.

GPL7311I  Repository unavailable - name
Explanation:  An IMS Configuration Manager Eclipse plug-in command specified an IMS Configuration Manager repository which is not known to the Common Services Library server, or is unavailable.
System action:  The command is rejected.

GPL7312E  Repositories rep1 and rep2 have duplicate systems: imsplex
Explanation:  The two named IMS Configuration Manager repositories have duplicate entries. The IMS ID and IMSplex names are the same. This is not supported.
System action:  Both IMS Configuration Manager repositories are flagged in error and are not available for processing.

GPL7313I  No records found
Explanation:  The server received a valid request but no data was found to match the specified parameters.
System action:  A null response (including the error message and headers) is returned.

GPL7314I  Response length exceeds the server's configured maximum length of maxlenM
Explanation:  The server is unable to respond to the command as the response length exceeds the server's configured maximum length.
System action:  A null response (including the error message and headers) is returned.

GPL7315I  Invalid command - type
Explanation:  An IMS Configuration Manager Eclipse plug-in command is invalid for a given reason.
System action:  The command is rejected with a response that includes this information message.
User response:  Probable user error. Correct and retry the request.

GPL7316I  The typ entered has invalid syntax or contains an invalid keyword
Explanation:  An IMS Configuration Manager Eclipse plug-in command failed in the command parser.
System action:  The command is rejected with a response that includes this information message.
User response:  Correct and retry the request.

GPL7317I  SCI is not active for IMSplex plex
Explanation:  An IMS Configuration Manager command for the given IMSplex name failed as the IMSplex is not active.
System action:  The command is rejected.

GPL7318E  SCI registration error for IMSplex plex - macro RC=rc RSN=rs
Explanation:  The server was unable to register/deregister the named IMSplex with SCI.
System action:  No type-2 commands can be issued.

GPL7319E  Processing error rsn, INFO=info/inf2
Explanation:  Generic error message capturing the error module, reason and associated feedback information.
System action:  Processing continues..

GPL7320E  Conversation subtask initialization error. Subtask: tskid
Explanation:  Product subtask initialization has encountered an error.
System action:  Product subtask will be stopped and the associated request will be rejected.

GPL7321I  Repository rep AUTODISCOVER(PLEX(xnm)) duplication ignored
Explanation:  The AUTODISCOVER parameter on the given repository's GPLCNTL card has a duplicate PLEX name listed. The duplicate name value will be ignored.
System action:  Initialization for the IMS Configuration Manager repository continues.
User response:  Remove the duplicate specification to avoid this message in the future.
Repository rep
AUTODISCOVER(MBRTYPE(ALL)) specified. Other MBRTYPE values ignored

Explanation: The AUTODISCOVER parameter on the given repository's GPLCNTL card has MBRTYPE(ALL) as well as other MBRTYPE values listed. MBRTYPE(ALL) incorporates all other values, so the other specified values are ignored.

System action: Initialization for the IMS Configuration Manager repository continues.

User response: Remove the duplicate specification to avoid this message in the future.

Autodiscovery of RESOURCES request ignored - RDDS name is required

Explanation: AUTODISCOVER(RESOURCES) was requested but the GPLRDDS DD is already allocated to the server. The request for autodiscovery of resources will be ignored.

System action: IMS Configuration Manager initialization for the IMS Configuration Manager repository continues.

User response: Remove the GPLRDDS DD from the server JCL and restart the server, or remove the RESOURCES specification to avoid this message in the future.

Autodiscovery of RESOURCES request ignored - DDname GPLRDDS is in use

Explanation: AUTODISCOVER(RESOURCES) was requested but allocation failed for the given RDDS name. One or more dynamic allocation messages preceeded this message. The request for autodiscovery of resources will be ignored.

System action: IMS Configuration Manager initialization for the IMS Configuration Manager repository continues.

User response: Correct the specification of the RDDS name and restart the product, or remove the RESOURCES specification to avoid this message in the future.
GPL7331I  RDDS for autodiscovery of RESOURCES has been act, data set dsn

**Explanation:** The RDDS specified for autodiscovery of IMS resources in the named IMS Configuration Manager repository was successfully allocated or freed.

**System action:** Processing continues.

**User response:** None. Informational message only.

### FUN-prefix messages

This topic describes messages with the `FUNnnnnx` message identifier format.

**FUN1003I**  Processing event at time

**Explanation:** These are startup and shutdown information messages. event identifies 'started' or 'ended'.

**System action:** The job continues.

**User response:** None. Informational message only.

**FUN1004I**  Message file DD ddbname reason - records action

**Explanation:** The output message file is in error or cannot be found and the records have been suppressed or lost. ddbname identifies the output file, reason identifies 'not found' or 'in error' and action the action taken with the records.

**System action:** The job continues.

**User response:** None. Informational message only.

**FUN1005W**  Message data with destination dest has been lost

**Explanation:** Output message data for the specified destination dest has been lost.

**System action:** The job continues.

**User response:** None required. This is a warning message only.

**FUN1006S**  Internal logic error rsn, INFO=info/info2

**Explanation:** The functional support environment has detected an internal error and is about to quiesce its functionality.

**System action:** The functional support environment quiesces.

**User response:** Gather the following documentary evidence at the time the problem occurs: copy of the job output, the PRINT data set and a portion of the JES syslog. Contact IBM Software Support.

**FUN1008E**  JCL parameter parm is missing or invalid

**Explanation:** There is a missing parameter for this job.

**System action:** The job will not run.

**User response:** See the instructions for running the job and then resubmit the job.

**FUN1009E**  Unable to function module name.

**INFO=info**

**Explanation:** The functional support environment could not find the specified module. function identifies the function being performed and name the module name. info identifies the reason code.

**System action:** The functional support environment quiesces.

**User response:** Gather the following documentary evidence at the time the problem occurs: copy of the job output, the PRINT data set and a portion of the JES syslog. Contact IBM Software Support.

**FUN1010E**  Insufficient storage available.

**INFO=info/info2**

**Explanation:** The functional support environment was unable to acquire sufficient storage. info identifies the amount of storage requested.

**System action:** The functional support environment quiesces.

**User response:** Increase the region size parameter for the job and restart.

**FUN2051E**  Error on VSAM file dsnname, VSAM request is func, return code = rc, reason code = rsn

**Explanation:** The functional support environment has detected an error with the specified VSAM file dsnname. func identifies the VSAM macro that failed, for example
OPEN, GET, PUT, ERASE.  rc and rsn identify the
VSAM Macro return and reason codes.

**System action:**  The functional support environment
stops processing.

**User response:**  Ensure the file is a valid VSAM file
and resubmit the job. If it fails repeatedly, see the
DFSMS/MVS Macro Instructions for Data Sets
(SC26-4913) for an explanation of the VSAM Macro
Return and Reason Codes. If you cannot correct the
problem, contact the IBM Support Centre.

---

**FUN2052E**  Unable to open VSAM file ddname - DD
statement missing

**Explanation:**  The functional support environment
cannot open a VSAM file because the DD statement is
missing.  ddname identifies the VSAM file.

**System action:**  The functional support environment
stops processing.

**User response:**  Ensure the file is defined and resubmit
the job.

---

**FUN2053E**  dsname is not a VSAM KSDS

**Explanation:**  The functional support environment has
identified that the specified file dsname is not a VSAM
file.

**System action:**  The functional support environment
stops processing.

**User response:**  Ensure the file is defined correctly as a
VSAM file and resubmit the job.

---

**FUNCTIONS**  VSAM file dsname data component has
shareoptions dataopt1 dataopt2, index has
idxopt1 idxopt2

**Explanation:**  The functional support environment has
identified that the shareoptions for the data component
and the index component are not the same.  dsname
identifies the VSAM file, dataopt1 and dataopt2 the
shareoptions for the data component and idxopt1 and
idxopt2 the shareoptions for the index component.

**System action:**  The functional support environment
stops processing.

**User response:**  The shareoptions must be the same for
the data and index components. Ensure the file is
defined correctly and resubmit the job.

---

**FUN2055E**  DSAM file dsname defined with
shareoptions opt1 opt2 instead of (4 3)

**Explanation:**  The functional support environment has
identified that the VSAM file has been specified with
incorrect shareoptions.  dsname identifies the VSAM file
and opt1 and opt2 the shareoptions. The shareoptions
must be defined (4 3).

**System action:**  The functional support environment
stops processing.

**User response:**  Ensure the file is defined with the
correct shareoptions and resubmit the job.

---

**FUN2060E**  VSAM file dsname defined with
incorrect key length offset instead of (64 0)

**Explanation:**  The functional support environment has
identified an incorrect key for the VSAM file.  length
and offset identify the invalid key values.

**System action:**  The functional support environment
stops processing.

**User response:**  Ensure the file is defined with a key of
(64 0) and resubmit the job.

---

**FUN2100F**  Failed to format a message. The
Message ID is messageid. Reason: reason

**Explanation:**  The functional support environment
failed to format a message.

**System action:**  Processing continues.

**User response:**  Gather the following documentary
evidence at the time the problem occurs: copy of the
job output, the PRINT data set and a portion of the JES
syslog. Contact IBM Software Support.

---

**FUN2210F**  Syntax error at end of input: string or
comment terminator missing

**Explanation:**  The Parameter Parser has reached the
end of the input parameters while trying to locate the
end of a string or a comment.

**System action:**  The Parameter Parser stops processing.

**User response:**  Add the missing delimiter and
resubmit the job.

---

**FUN2211F**  Syntax error at line record: the input
command is not a known command

**Explanation:**  The Parameter Parser has detected an
unexpected command.  command identifies the command
and record identifies the record number containing the
unexpected command.

**System action:**  The Parameter Parser continues.

**User response:**  None. Informational message only.

---

**FUN2212F**  Syntax error at end of input: record
continuation on last record

**Explanation:**  The Parameter Parser encountered a
continuation character on the last record of the input
parameters.

**System action:**  The Parameter Parser stops processing.
User response: Remove the incorrect continuation and resubmit the job.

**FUN2213I** Syntax error at line record: input does not match known keywords or positional parameters. Input string: input

Explanation: The Parameter Parser has detected an unexpected parameter. input identifies the unknown parameter or keyword, and record identifies the record number where the error was found.

System action: The Parameter Parser stops processing.

User response: Remove the multiple entries and resubmit the job.

**FUN2214F** Syntax error: the command command is required

Explanation: The Parameter Parser has detected a missing mandatory command. command identifies the input containing the missing command.

System action: The Parameter Parser stops processing.

User response: Add the mandatory command and resubmit the job.

**FUN2215F** Syntax error: required keyword/parameter is not present. Option: option

Explanation: The Parameter Parser has detected a missing mandatory option. option identifies the input containing the missing option.

System action: The Parameter Parser stops processing.

User response: Add the mandatory option and resubmit the job.

**FUN2216F** Syntax error at line record: the command command may not be repeated

Explanation: The Parameter Parser has detected multiple commands command where only a single command is allowed. record identifies the record number where the second or subsequent command was found.

System action: The Parameter Parser stops processing.

User response: Remove the multiple entries and resubmit the job.

**FUN2217F** Syntax error at line record: the keyword/parameter option may not be repeated

Explanation: The Parameter Parser has detected multiple keywords or parameters option where only a single keyword or parameter is allowed. record identifies the record number where the second or subsequent keyword or parameter was found.

**FUN2218F** Syntax error at line record: invalid length for option. Value=input.

Explanation: The Parameter Parser has detected input values that do not match expected length parameters. option identifies the option where the invalid length was found, input identifies the input string containing the invalid value, and record identifies the record number where the error was found. length identifies the length specified, and min and max respectively identify the minimum and maximum allowable lengths of the string.

System action: The Parameter Parser stops processing.

User response: Correct the value to conform to the expected length and resubmit the job.

**FUN2219F** Syntax error at line record: Invalid datatype for option. Value=input.

Explanation: The Parameter Parser has detected an input parameter option with a specified value that has an invalid data type.

System action: The Parameter Parser stops processing.

User response: Correct the value to conform to the expected data type and resubmit the job.

**FUN2220F** Syntax error at line record: input value does not match the allowed syntax for option. Input=input.

Explanation: The Parameter Parser has detected parameter option that has invalid syntax. input indicates the string in error and record identifies the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Edit the input and resubmit the job.

**FUN2221F** Syntax error at line record: invalid value for option. Value=input.

Explanation: The Parameter Parser has detected parameter option that has been specified with an invalid value. input indicates the string containing the invalid value and record indicates the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Correct the parameter to specify a valid value and resubmit the job.
FUN2222F Syntax error at line record: number of values for parameter option exceed the list limit.

Explanation: The Parameter Parser has detected a larger number of items in a list than expected. option identifies the input string containing the items, and record identifies the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Edit the list of items and resubmit the job.

FUN2223F Syntax error at line record: invalid value for option.

Explanation: The Parameter Parser has detected an invalid parameter. option identifies the input string containing the error, and record identifies the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Edit the input and resubmit the job.

FUN2224F Syntax error at line record: unmatched parenthesis. Input: input.

Explanation: The Parameter Parser has detected a missing parenthesis. input identifies the input string containing the missing parenthesis, and record identifies the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Add the missing parenthesis and resubmit the job.

FUN2225F Syntax error at line record: unexpected data command expected. Input: input.

Explanation: The Parameter Parser has detected a missing command. input identifies the input string containing the missing command, and record identifies the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Add the missing command and resubmit the job.

FUN2226F Syntax error at line record: command command is out of sequence.

Explanation: The Parameter Parser has detected an out of sequence command. command identifies the input string containing the sequence error, and record identifies the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Put the command in sequence and resubmit the job.

FUN2227F Syntax error at line record: invalid delimiter for option. Value=val.

Explanation: The Parameter Parser has detected an invalid delimiter. command identifies the input string containing the error, and record identifies the record where the error was detected.

System action: The Parameter Parser stops processing.

User response: Put the command in sequence and resubmit the job.

FUN2300F Load of resource class cls failed, SAF return code=safrc/rafcrcl/rafrcf

FUN2301F RACROUTE saffc failed, SAF return code=safrc/rafcrcl/rafrcf

FUN3001E Server terminating due to an error condition.

Feedback: feedback1: module_id/rsn_code

User response: Contact IBM Software Support.

FUN3002E The server experienced an error condition.

Feedback: feedback1: module_id/rsn_code

User response: Contact IBM Software Support.

FUN3003E Unable to load module module: description.

Explanation:

module Name of the module that could not be loaded.

description One of the following:

- Module not found
As part of server or product initialization, a LOAD for a required load module failed.

**System action:** If the routine is a required server module, the server will issue a FUN3001E error message and will terminate.

If the routine is a product-based required module, the product will fail initialization and will be stopped.

**User response:** If possible, resolve the condition and restart the server or product. Otherwise, contact IBM Software Support.

---

**Explanation:** A DUMPTRACE modify command was issued but the optional destination FUNDIAG DD is not present in the server job, so the command has been ignored.

**System action:** The command is ignored. The server continues.

**User response:** Information only; no response needed.

---

**Explanation:** A DUMPSTATS modify command was issued but the optional destination FUNSTATS DD is not present in the server job, so the command has been ignored.

**System action:** The command is ignored. The server continues.

**User response:** Information only; no response needed.

---

**Explanation:** The server has recovered from an abend in a product task.

**System action:** The product will be stopped. Server processing will continue.

**User response:** Contact IBM Software Support.

---

**Explanation:** A command was issued after the server had reached the final termination phase. Command processing is suspended for the server when it is in this final phase, so the command has been ignored.

**System action:** The command is ignored. Server termination continues.

**User response:** Information only; no response needed.

---

**Explanation:** A MEMLIMIT error condition 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:** Raise the MEMLIMIT value for the address space to accommodate its storage needs. The server MEMLIMIT must match, or exceed, the server configuration specification for SDA_MAXLEN.

---

**Explanation:** A modify command was issued and has been acknowledged by the server.

**System action:** Server command processing continues.

**User response:** Information only; no response needed.

---

**Explanation:** Due to events external to the server, the Listener socket connection has dropped out.

**System action:** Without the Listener socket connection, the server is unable to accept new client connections. Existing client connections may be able to continue depending on the event that has caused the Listener socket to be dropped. For example, if the cause was
that TCP has ended, then all client connections will have been dropped too.

**User response:** Use the RESTARTIP command, or recycle the server in order to reestablish the Listener socket connection.

---

**FUN3012I Insufficient access authority - UserID=x**

**SAF class:** SAF class **Access intent:** access intent

**Resource:** resource profile

**Explanation:** This message is issued when the server detects an unauthorized request (a violation) made by a user.

**System action:** The user request will be rejected.

**User response:** Follow the security procedures established for your installation. If no such procedures have been established, report the complete text of this message to the security administrator.

---

**FUN3013E Maximum initialization time exceeded for product 'product code'**

**Explanation:** The server has attempted to start the given product. However, the product failed to initialize in the maximum time allowed.

**System action:** The product will be stopped. Server processing will continue.

**User response:** Attempt to identify the cause of the product initialization delay in order to correct the issue. If possible, resolve the condition and restart the server or product. Otherwise, contact IBM Software Support.

---

**FUN3014I DISPLAY PRODUCT product code**

**Status . . . . . . : status indicator**

**Explanation:** Result of a console DISPLAY command:

F server,DISPLAY PRODUCT product

**System action:** None.

**User response:** Information only; no response needed.

---

**FUN3015I In-core user security profiles refreshed**

**Explanation:** Result of a console SECURITY command:

F server,SECURITY REFRESH

**System action:** None.

**User response:** Information only; no response needed.

---

**FUN3101E Configuration error: description**

**Explanation:** An error in the JCL initialization script prevented the server from initializing. The error can be one of the following:

- FUNCFG parameter missing, check PARM in JCL
- FUNCFG parameter must specify a PDS member name

**System action:** The server will terminate.

**User response:** Review the startup JCL and ensure that all parameters are valid and rerun the job.

---

**FUN3102E Error processing PROCLIB member member**

**Description: description**

**Explanation:** The server configuration parameter member is in error. The error can be one of the following:

- PROCLIB OPEN failed
- PROCLIB not in fixed format
- Member not found
- Member read failed
- Unsupported record format
- PROCLIB not LRECL=80
- Member too large

**System action:** The server will terminate.

**User response:** Review the startup JCL and ensure that all parameters are valid and rerun the job.

---

**FUN3104E TCP_PORT is a required parameter. Specify a value in the range 1 through 65535**

**Explanation:** The TCP_PORT server configuration parameter value was not specified, or was specified as zero. A value is required and must be in the range 1 - 65535.

**System action:** The server will terminate.
User response: Correct the parameter value and rerun the job.

**FUN3105E** Invalid maximum number of TCP input-threads: \( n \). Valid range is 1 through 64

Explanation:

\( n \) The TCP_THREADS value specified in the server configuration member

The TCP_THREADS server configuration parameter value is invalid. If specified, the value must be in the range 1 - 64. The default is 16.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3106E** Invalid server CCSID: **CCSID** - description

Explanation:

**CCSID** The CCSID value specified in the server configuration member

The CCSID server configuration parameter value is invalid. This represents the CCSID used by the server and is utilized for SDA data translation, when applicable. If specified, the CCSID must represent a single byte character set (SBCS) supported by z/OS Unicode Services. By default, a value of of 37 is used. That is, COM EUROPE EBCDIC.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3107E** Invalid SDA bar-limit: \( n \). Valid range is 64 - 4096 KB

Explanation:

\( n \) The SDA_BARLIM value specified in the server configuration member

The SDA_BARLIM server configuration parameter value is invalid. If specified, the value must be in the range 64 - 4096 KB. By default, a limit value of 2048 KB is used.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3108E** Invalid maximum SDA size: \( n \). Valid range is 4 - 100 MB

Explanation:

\( n \) The SDA_MAXLEN value specified in the server configuration member

The SDA_MAXLEN server configuration parameter value is invalid. If specified, the value must be in the range 4 - 100 MB. By default, a maximum value of 32 MB is used.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3109E** Invalid SAF class name: **name**

Explanation:

**name** The SAF_CLASS value specified in the server configuration member

The specified SAF class is not a valid SAF class name.

System action: The server will terminate.

User response: Ensure that SAF_CLASS is a valid SAF class name and specifies a defined resource class.

**FUN3110E** SAF class not defined: **name**

Explanation:

**name** The SAF_CLASS value specified in the server configuration member

The SAF class could not be identified. Possible reasons:

- SAF-enabled security (RACF or similar) is not installed.
- The class was not defined.

System action: The server will terminate.

User response: Correct the server configuration member if the SAF class is not as expected, or ensure that the SAF class is defined.

**FUN3111E** Invalid SERVER_NAME value: **name**

Explanation:

**name** The SERVER_NAME value specified in the server configuration member

The specified server name is not a valid name. A name must be 1 - 8 alphanumeric characters with no embedded blanks. However, the name cannot start with a numeric character. The characters @, #, and $ are also allowable and are treated as alphabetic.

System action: The server will terminate.
User response: Correct the parameter value and rerun the job.

**FUN3112E** Invalid maximum number of TCP sockets: \( n \). Valid range is 50 through 2000

Explanation:
\( n \) The TCP_MAXSOC value specified in the server configuration member

The TCP_MAXSOC server configuration parameter value is invalid. If specified, the value must be in the range 50 - 2000. The default is 50.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3119E** Invalid TCP_SNDTIMEO value: \( n \). Valid are 0 (no limit), or 100000 through 1000000 microseconds

Explanation:
\( n \) The TCP_SNDTIMEO value specified in the server configuration member

The TCP_SNDTIMEO server configuration parameter value is invalid. If specified, the value must be 0 (no limit), or in the range 100,000 - 1,000,000. By default a value of 250,000 is used (0.25 seconds).

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3113I** Duplicate PRODUCT code 'code' will be ignored

Explanation:
\( code \) The PRODUCT value specified in the server configuration member

The specified PRODUCT code is a duplicate of an earlier configuration parameter and will be ignored.

System action: The server will continue.

User response: Remove the duplicate parameter value to avoid this notification.

**FUN3114E** Invalid or unsupported PRODUCT code: 'code'

Explanation:
\( code \) The PRODUCT value specified in the server configuration member

The specified PRODUCT code is invalid, or at least does not represent a product supported by the server.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3120E** Invalid PRD_MAXCNVQ# value: \( n \). Use a value in the range 1 through 255

Explanation:
\( n \) The PRD_MAXCNVQ# value specified in the server configuration member

The PRD_MAXCNVQ# server configuration parameter value is invalid. If specified, the value must be in the range 1 - 255. By default a value of 64 is used.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.

**FUN3121E** Server instance is already active for SERVER_NAME=name

Explanation:
\( name \) The SERVER_NAME value specified in the server configuration member

A server instance with the same SERVER_NAME is already active. The server name must be unique across the sysplex.

System action: The server will terminate.

User response: Correct the parameter value and rerun the job.
**FUN3122E** SERVER_NAME is a required parameter. Specify a 1 to 8 character name.

**Explanation:** The SERVER_NAME server configuration parameter value was not specified, or was specified as blanks. A 1 - 8 alphanumeric character name is required.

**System action:** The server will terminate.

**User response:** Correct the parameter value and rerun the job.

**FUN3125E** Invalid TCP_NAME value: name

**Explanation:**

name The TCP_NAME value specified in the server configuration member

The specified TCP/IP stack name is not a valid name. A name must be 1 - 8 alphanumeric characters with no embedded blanks. However, the name cannot start with a numeric character. The characters @, #, and $ are also allowed and are treated as alphabetic.

**System action:** The server will terminate.

**User response:** Correct the parameter value and rerun the job.

**FUN3126E** Invalid TCP_IPV6 value: 'value'. Use Y/N

**Explanation:**

value The TCP_IPV6 value specified in the server configuration member

The specified TCP_IPV6 value is invalid. Specify Y or N.

**System action:** The server will terminate.

**User response:** Correct the parameter value and rerun the job.

**FUN3205I** Shutdown command received, server terminating

**Explanation:**

The server has received a SHUTDOWN command or console stop request and has commenced termination.

**System action:** Server termination continues.

**User response:** Information only; no response needed.

**FUN3206I** SHUTDOWN FORCE command received, server terminating

**Explanation:**

The FORCE option immediately terminates any outstanding client conversations that might be responsible for delaying server termination.

**System action:** Server termination continues.

**User response:** Information only; no response needed.

**FUN3208E** TCP address space name is not available, server terminating

**Explanation:**

name The TCP address space name specified in the server configuration member

The given TCP address space name is invalid.

**System action:** The server will terminate.

**User response:** Make the TCP address space available, or change the TCP_NAME parameter of the configuration member to the name of a TCP address space that is available. Alternatively the TCP_NAME configuration parameter can be removed, which will result in the system's default TCP address space being selected.

**FUN3209E** TCP/IP port n in use

**Explanation:**

n The TCP/IP port number value specified in the server configuration member

The specified TCP/IP port is currently in use.

**System action:** Server continues without TCP/IP support.

**User response:** Retry as TCP/IP can take up to 2 minutes to free a port. Change the TCP_PORT parameter of the configuration member.

**FUN3210I** TCP/IP using port n

**Explanation:**

n The given TCP/IP port is being used by the server.

**System action:** None. Server continues.

**User response:** None. Information only.

**FUN3211E** Shutdown command rejected, shutdown in progress

**Explanation:**

The server has received a SHUTDOWN command after it had already commenced server termination.

**System action:** Server termination continues.
**FUN3212I • FUN3223E**

**User response:**  Information only; no response needed.

---

**FUN3212I**  
**RESTARTIP initiated**  
**Explanation:** The server has initiated the process to perform a RESTARTIP action.  
**System action:** The asynchronous process to perform the RESTARTIP action continues.  
**User response:** Information only; no response needed.

---

**FUN3213I**  
**SECURITY REFRESH initiated**  
**Explanation:** The server has initiated the process to perform a SECURITY REFRESH action.  
**System action:** The asynchronous process to perform the SECURITY REFRESH action continues.  
**User response:** Information only; no response needed.

---

**FUN3214I**  
**Product code stop initiated**  
**Explanation:** The server has initiated the process to perform a product STOP action for the named product.  
**System action:** The asynchronous process to perform the STOP action continues.  
**User response:** Information only; no response needed.

---

**FUN3215I**  
**Product code stopped**  
**Explanation:** The named product has been stopped.  
**System action:** None.  
**User response:** Information only; no response needed.

---

**FUN3216I**  
**Unable to stop product code, status: state**  
**Explanation:** The server cannot STOP the named product at this time due to the product's given status.  
**System action:** The asynchronous process to perform the STOP action terminates.  
**User response:** Information only; no response needed.

---

**FUN3217I**  
**Unable to start product code, shutdown in progress**  
**Explanation:** The server cannot START the named product at this time as the server is shutting down.  
**System action:** The asynchronous process to perform the START action terminates.  
**User response:** Information only; no response needed.

---

**FUN3218I**  
**Unable to start product code, status: state**  
**Explanation:** The server cannot START the named product at this time due to the product's given status.  
**System action:** The asynchronous process to perform the START action terminates.  
**User response:** Information only; no response needed.

---

**FUN3220I**  
**Product code start initiated**  
**Explanation:** The server has initiated the process to perform a product START action for the named product.  
**System action:** The asynchronous process to perform the START action continues.  
**User response:** Information only; no response needed.

---

**FUN3221I**  
**Product code started**  
**Description ...: description**  
**Version .......: version.release.number (modification)**  
**Interface Level: interface module APAR level/modified sublevel**  
**Explanation:** The named product has been started.  
**System action:** None.  
**User response:** Information only; no response needed.

---

**FUN3222I**  
**Unable to start product code, status: state**  
**Explanation:** The server cannot START the named product at this time due to the product's given status.  
**System action:** The asynchronous process to perform the START action terminates.  
**User response:** Information only; no response needed.

---

**FUN3223E**  
**DISPLAY|START|STOP command failed due to an invalid product specification**  
**Valid products: products**  
**Explanation:** The command could not be performed because the product specification is invalid, or at least does not identify one of the products configured for the server.  

The message text “Valid products: NONE” is possible for START or STOP commands where no products have been configured for the server.  
**System action:** None.  
**User response:** Correct the product specification and reissue the command.
FUN3224I Command ignored, product code status: state
Explanation: The command has been ignored as it is not applicable to the current state of the given product.
System action: None.
User response: Information only; no response needed.

FUN3225I command command ignored, shutdown in progress
Explanation: The command has been ignored as it is not available during server shutdown.
System action: None.
User response: Information only; no response needed.

FUN3226I Server start completed
Explanation: The server is now ready to accept client connections.
System action: None.
User response: Information only; no response needed.

FUN3227I Product code initialization failed
Explanation: Initialization has failed for the named product. This could be due to a number of reasons:
- Load failure for required product programs.
- Product CPROG rejected product INIT or failed.
- FUN definition or environment error.
Earlier messages should have been written identifying the cause of the initialization failure.
System action: The product will be stopped.
User response: Information only; no response needed.

FUN3228I Product code stopping
Explanation: The server has commenced the process of stopping the named product.
System action: Product STOP processing continues. Note that a product cannot stop while active request threads are outstanding, so the STOP process can be prolonged. No new external client requests will be accepted for the product at this stage.
User response: Information only; no response needed.

FUN3231E UNIX System Services callable service name not found
Explanation: The named USS callable service could not be found. This is a z/OS environmental error.
System action: Server processing continues.

FUN3232E UNIX System Services callable service service (function) RETURN_CODE return code, REASON_CODE reason code
Explanation:
function The TCP/IP function that was attempted
service The function’s USS callable service
return code The return code as a decimal number
reason code Further qualifies the RETURN_CODE value, given as a hexadecimal value ccccrrrr. cccc is a halfword reason code qualifier generally used to identify the issuing module and rrrr is the halfword reason code as described in the UNIX System Services Messages and Codes manual.

FUN3233E Unexpected TCP/IP response. IP operation function received ERRNO error
Explanation:
function The TCP/IP function that was attempted
error The TCP/IP error number

FUN3234E PassTicket generation failed RC=RC - Class=PTKTDATA, UserID=UserID, ApplName=ApplName
Explanation: A PassTicket generation request has failed.
RC Return code from the RACF routine:
04 Incorrect PassTicket.
08 No PTKTDATA profile found for the application.

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No task or address space ACEE
found.
Caller is not authorized.
The RACF PTKTDATA class is not
active.
Error in the session key generator
process.

The user ID associated with the failed request.
The application name associated with the
failed request.

The processing thread that requested
the PassTicket is terminated.
Contact IBM Software Support.

Information messages regarding the state
of the server’s default product (FUD).
Processing continues.
None.

The required load module was not
found.
The server’s default product (FUD)
will be stopped and the server will terminate.
Add the required library to the server
STEPLIB.

The GUI client command is invalid for a
given reason.
The command is rejected with a
response that includes this error message.
Probable syntax error. Correct and
redrive the request.

GUI client command specified failed in
the command parser.
The command is rejected with a
response that includes this error message.
 Probable syntax error. Correct and
redrive the request.

For a server submit command the
specified JCLIN data set was found not to be a
card-image (LRECL=80) PDS.
The server submit command fails.
Specify a card-image PDS and retry
the request.

For a server submit command the
requesting user is not authorized to read from the
JCLIN data set.
System action: The server submit command fails.
User response: Correct the user authorization or modify the data set specification and retry the request.

FUN3310E JCLIN member mbr not found, or found to be empty
Explanation: For a server submit command the specified JCLIN data set member was not found, or was found but had no records.
System action: The server submit command fails.
User response: Modify or respecify the JCLIN member and retry the request.

FUN3311E JCL submitted to INTRDR but no job resulted
Explanation: For a server submit command the specified JCLIN data set member was tailored and submitted. However, no job resulted, which is indicative of invalid JCL with no JOB card.
System action: The server submit command fails.
User response: Modify or respecify the JCLIN member and retry the request.

FUN3312I Job jobid submitted
Explanation: Job submission has been successful. The job identifier for the submitted job is given. However, if multiple jobs were submitted via a single JCLIN member, then only the last job identifier is returned.
System action: None.
User response: None.

FUN3399E Processing error rsn. INFO=info/info2
Explanation: Generic error message capturing the error module, reason and associated feedback information.
System action: Processing continues.
Chapter 18. How to look up message explanations

You can use several methods to search for messages and codes.

**Searching an information center**

In the search box that is located in the top left toolbar of any Eclipse help system, such as the IBM Information Management Software for z/OS Solutions Information Center, enter the number of the message that you want to locate. For example, you can enter DFS1065A in the search field.

Use the following tips to improve your message searches:

- You can search for information on codes by entering the code; for example, enter -327.
- Enter the complete or partial message number. You can use the asterisk wildcard character (*) to represent multiple characters, and you can use the question mark wildcard character (?) to represent a single character.

The information center contains the latest message information for all of the Information Management products that are included in the information center.

**Searching for messages on the web**

You can use any of the popular search engines that are available on the web to search for message explanations. When you type the specific message number or code into the search engine, you are presented with links to the message information in IBM information centers.
Chapter 19. Gathering diagnostic information

Before you report a problem with IMS Configuration Manager to IBM Software Support, you need to gather the appropriate diagnostic information.

Procedure

Provide the following information for all IMS Configuration Manager problems:
• A clear description of the problem and the steps that are required to re-create the problem
• All messages that were issued as a result of the problem
• Product release number and the number of the last program temporary fix (PTF) that was installed
• The version of DB2/IMS that you are using and the type and version of the operating system that you are using

Provide additional information based on the type of problem that you experienced:

For online abends, provide the following information:
• A screen capture of the panel that you were using when the abend occurred
• The job log from the TSO session that encountered the abend
• The job log from the server
• A description of the task that you were doing before the abend occurred

For errors in batch processing, provide the following information:
• The complete job log
• Print output
• Contents of the data sets that were used during the processing
Part 6. Reference

These topics provide reference information for IMS Configuration Manager
Chapter 20. IMS Configuration Manager batch utility (GPLUTIL)

The IMS Configuration Manager batch utility allows you to perform IMS Configuration Manager functions in batch.

The GPLUTIL batch utility includes the following commands:

**BACKOUT**
Backs out an installed change package.

**COMPARE**
Compares two resource groups, create new resource groups from the result, and create change packages based on the difference.

**COPY**
Copies resources within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another.

**DISCOVER**
Automatically discovers your IMS environment and creates corresponding IMSplex, IMS, IMS Connect, CSL, and resource definitions in your IMS Configuration Manager repository.

**GEN**
Creates a system generation image as stage 1 source or an RDDS for cold-start processing.

**INSTALL**
Installs resources via command change packages from an IMS Configuration Manager repository to live IMS member systems. INSTALL requires IMS V11 or later.

**MAINT.MEMBERS**
Create, update, and delete IMSplexes, IMS systems, and CSL component definitions stored in an IMS Configuration Manager repository.

**MAINT.RESOURCES**
Create, update, and delete resource definitions stored in the IMS Configuration Manager repository.

**TAKEUP**
Takes up (imports) resources from stage 1 source, an RDDS, or an IMSRSC repository into an IMS Configuration Manager repository.

Related concepts:
"Batch commands" on page 15

The batch utility (GPLUTIL) allows you to integrate IMS Configuration Manager with the batch automation used in your organization.

JCL specifications and examples

This topic provides example JCL for the various commands the IMS Configuration Manager utility supports. Some commands require specific DD statement placement to work. However, you can combine all commands in a single job as long as you specify the DD statements required for all the commands that you are running.
Example JCL for discovering systems and IMSplexes

This JCL uses the DISCOVER batch command to automatically discover IMS components for use in IMS Configuration Manager.

```
//GPLUTIL EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR,DSN=HLQ.V2R2M0.SGPLLINK
// DD DISP=SHR,DSN=HLQ.VnRnMn.SDFSRESL
//SYSIN DD *
* DISCOVER MBRTYPE(imscomponenttype) +
  TO(REPOSITORY,GPLREPOS) +
  PLEX(plex)
/*
//GPLREPOS DD DISP=SHR,
// DSN=HLQ.V2R2M0.REPOSITORY
//SYSPRINT DD SYSOUT=*  
```

where:

1. The IMS Configuration Manager link library.

Note: The IMS Configuration Manager link library, and all other libraries in the STEPLIB, must be APF-authorized.

2. The IMS RESLIB.

3. The IMS Configuration Manager repository to use to store your definitions.

Related tasks:
“Discovering systems using the DISCOVER batch command” on page 45
The DISCOVER batch command discovers IMS systems, IMS Connect systems, and IMSplex components, and updates the IMS Configuration Manager repository with the definitions.

Related reference:
“DISCOVER command” on page 253
Automatically discover IMS components and resources for use in IMS Configuration Manager.

Example JCL for discovery and resource take up

This JCL uses the DISCOVER batch command to automatically discover IMS systems and to take up resources associated with those systems.

```
//GPLUTIL EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR,DSN=HLQ.V2R2M0.SGPLLINK
// DD DISP=SHR,DSN=HLQ.VnRnMn.SDFSRESL
//SYSIN DD *
* DISCOVER MBRTYPE(imscomponenttype) +
  TO(REPOSITORY,GPLREPOS) +
  PLEX(plex)
  RESOURCES
/*
//GPLREPOS DD DISP=SHR,
// DSN=HLQ.V2R2M0.REPOSITORY
//GPLRDDS DD DISP=SHR,
// DSN=HLQ.WORK.RDDS
//SYSPRINT DD SYSOUT=*  
```

where:

1. The IMS Configuration Manager link library.
**Note:** The IMS Configuration Manager link library, and all other libraries in the STEPLIB, must be APF-authorized.

1. The IMS RESLIB.
2. Use RESOURCES to discover IMS resources associated with discovered systems and add them to the IMS Configuration Manager repository.
3. The IMS Configuration Manager repository to use to store your definitions.
4. When using the RESOURCES parameter, a work RDDS must be supplied on a GPLRDDS DD card. IMS must also be given authorization to write to the work RDDS.

**Related tasks:**

- "Discovering systems using the DISCOVER batch command" on page 45
- "Importing resources using the DISCOVER command" on page 55

**Related reference:**

- "DISCOVER command" on page 253

Automatically discover IMS components and resources for use in IMS Configuration Manager.

### Example JCL for performing a take-up of an IMSRSC repository

This JCL example shows how to use the TAKEUP command with an IMS resource definition (IMSRSC) repository.

```jcl
//GPLUTIL EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR,DSN=HLQ.V2R2M0.SGPLLINK
// DD DISP=SHR,DSN=IMSHLQ.RESLIB
//SYSIN DD *
TAKEUP FROM(IMSREPOS) TO(REPOSITORY,OUTREPOS) RG('Your RG IMSREPOS','Takeup of IMS repository') PLEX(plex) IMSID(imsid) DEFRGLVL(SYSTEM) REPLACE
/*
//OUTREPOS DD DISP=SHR,
// DSN=HLQ.V2R2M0.REPOSITORY
//SYSPRINT DD SYSOUT=* 
```

where:

1. The EXEC program name: GPLUTIL. Place the IMS Configuration Manager link library in the STEPLIB DD statement.
2. The IMS RESLIB.
3. The "TAKEUP command" on page 289 requesting take up from an IMSRSC repository.
4. The IMS Configuration Manager repository to use when storing the definitions found within the IMSRSC repository. You can use any ddname but you must reference that ddname in the TO keyword of the TAKEUP command.
Related tasks:

“Importing resources using the TAKEUP command” on page 56

You can import resource definitions into an IMS Configuration Manager repository from stage 1 source, an RDDS, or an IMSRSC repository using the TAKEUP command.

Related reference:

“Taking up an IMSRSC repository” on page 289

Take up resources from an IMSRSC repository using the TAKEUP command and the FROM(IMSREPOS) option.

Example JCL for performing a take-up of an RDDS

This JCL example shows how to use the TAKEUP command with a resource definition data set (RDDS).

```plaintext
//GPLUTIL EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR, DSN=HLQ.V2R2M0.SGPLLINK
//SYSIN DD *
TAKEUP FROM(RDDS,MYRDDS) +
   TO(REPOSITORY,MYREPOS) +
   DEFRLVL(SYSLEVEL) +
   PLEX(plexname) +
   IMSID(imsid) +
   EXPORT +
   RG('Your RG RDDS', 'Takeup of RDDS')

/*
//MYRDDS DD DISP=SHR,
   DSN=HLQ.RDDS01
//MYREPOS DD DISP=SHR,
   DSN=HLQ.V2R2M0.REPOSTRY
//SYSPRINT DD SYSOUT=* 
```

where:

1. The EXEC program name: GPLUTIL. Place the IMS Configuration Manager link library in the STEPLIB DD statement.
2. The IMS RESLIB.
3. The "TAKEUP command" on page 289, requesting take up from an RDDS.
4. Issue an IMS DRD EXPORT command to populate the IMS RDDS specified by FROM with resources from the active IMS region before take-up into the IMS Configuration Manager repository. When using this option, you must specify the IMS RESLIB in the STEPLIB concatenation.
5. The RDDS to take up into IMS Configuration Manager. You can use any ddname but you must reference that ddname in the FROM keyword of the TAKEUP command.
6. The IMS Configuration Manager repository to use when storing the definitions found within the RDDS. You can use any ddname but you must reference that ddname in the TO keyword of the TAKEUP command.

Related tasks:

“Importing resources using the TAKEUP command” on page 56

You can import resource definitions into an IMS Configuration Manager repository from stage 1 source, an RDDS, or an IMSRSC repository using the TAKEUP command.

Related reference:
Take up resources from a resource definition data set (RDDS) using the TAKEUP command and the FROM(RDDS, ddname) option.

Example JCL for performing a take-up of stage 1 source

This JCL example shows how to use the TAKEUP command with stage 1 source. For another example, see GPLTAKUP in SGPLSAMP.

```jcl
//IMSCM EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR,DSN=HLQ.V2R2M0.SGPLINK
//SYSPRINT DD SYSOUT=*  
//停滞 DD DISP=SHR,
// DSN=HLQ.V2R2M0.REPOSTRY
//停滞 DD DISP=SHR,
// DSN=stage1.source
//停滞 DD DISP=SHR,
// DSN=stage1.source
//停滞 DD DISP=SHR,
// DSN=HLQ.V2R2M0.SGPLSAMP
//停滞 DD DISP=SHR,
// DSN=HLQ.REPOSTERY
//停滞 DD DISP=SHR,
// DSN=SYSPUNCH
//停滞 DD DISP=SHR,
// DSN=ASMPRINT
//SYSIN DD *
TAKEUP+
   RG(RES_GRP_1)
   FROM(STAGE1,STAGE1DD)
   TO(REPOSITORY,REPOSDD)
//*
```

where:

1. The EXEC program name: GPLUTIL. Place the IMS Configuration Manager link library in the STEPLIB DD statement.

2. The name of the IMS Configuration Manager repository into which you are taking up the definitions. You can use any ddname but you must reference that ddname in the TO keyword of the TAKEUP command.

3. The name of the file containing the definitions you are taking up, in stage 1 macro format. You can use any ddname but you must reference that ddname in the FROM keyword of the TAKEUP command.

4. You must create an ASMLIB DD statement containing the IMS Configuration Manager sample library (SGPLSAMP). If the definitions you are taking up contain copy statements, then also include the names of any libraries from which macros are copied here.

5. SYSUT1, ASMPUNCH, and ASMPRINT are all libraries that are required by the take-up assembly process. You must use the ddnames shown.

6. Shown is an example of the "TAKEUP command" on page 289. The command uses the file specified in the STAGE1DD DD statement as input and puts resource definitions into the IMS Configuration Manager repository specified by the REPOSDD DD statement. Resource definitions are imported into resource group RES_GRP_1.

Related tasks:

"Importing resources using the TAKEUP command" on page 56

You can import resource definitions into an IMS Configuration Manager repository from stage 1 source, an RDDS, or an IMSRSC repository using the TAKEUP command.
Related reference:

"Taking up stage 1 source" on page 295

Take up resources from stage 1 source using the TAKEUP command and the FROM(STAGE1,ddname) option. The TAKEUP command supports source for IMS V9 onward.

Example JCL for editing systems and IMSplexes

This JCL examples uses the MAINT.MEMBERS batch command to create and edit IMSplexes, IMS systems, and Common Service Layer (CSL) component definitions stored in the IMS Configuration Manager repository.

```plaintext
//GPLUTIL EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR,DSN=HLQ.V2R2M0.SGPLINK
//GPLREPOS DD Disp=SHR,DSN=HLQ.V2R2M0.REPOSITORY
//SYSPRINT DD SYSOUT=*  // 2
//SYSPRINT DD SYSOUT=*  // 2

MAINT.MEMBERS TO(REPOSITORY,GPLREPOS) +  // 3
FROM(DDNAME,CMDLIST)

/*
//CMDLIST DD *
CREATE PLEX NAME(PLXTT) SET(DSCR(IMSPLEX PLXTT))  // 5
CREATE IMS NAME(TEST) SET(VER(12.1),
PLEX(PLXTT),
RGSUF(IMS))
CREATE IMSCON NAME(TESTIC) SET(VER(12.1),
DSCR(TEST IMS CONNECT),
HWSCFG(HWSCFG01),
BPECFG(BPECFG01))
CREATE ODBM NAME(TESTOD) SET(VER(1.4),
DSCR(TEST OPEN DATABASE MANAGER),
PLEX(PLXTT),
ODBMINIT(000),
BPECFG(BPECFG22))
CREATE REPO NAME(TESTRP) SET(VER(1.3),
DSCR(TEST REPOSITORY SERVER),
Plex(PLEX01),
FRPSCFG(FRPSCFG01),
BPECFG(BPECFG11))
CREATE OM NAME(TESTM) SET(VER(1.5),
DSCR(TEST OPERATIONS MANAGER),
PLEX(PLEX01),
OMICCFG(000),
BPECFG(BPECFG11))
CREATE RM NAME(TESTRM) SET(VER(1.7),
DSCR(TEST RESOURCE MANAGER),
PLEX(PLEX01),
RMCFG(000),
BPECFG(BPECFG11))
CREATE SCI NAME(TESTSC) SET(VER(1.6),
DSCR(TEST SCI),
PLEX(PLEX01),
SCIINIT(000),
BPECFG(BPECFG11))
UPDATE IMS NAME(TEST) SET(VER(13.1),
DSCR(TEST IMS),
CPTYPE(CMD))
UPDATE IMSCON NAME(TESTIC) SET(HWSCFG(HWSCFG00),
BPECFG(BPECFG11),
IMSPLEX(TMEMBER(PLXTT),
MEMBER(ICM00DP)))
CREATE PLEX NAME(PLXTT) SET(DSCR(IMSPLEX PLXTT))
UPDATE IMSCON NAME(TESTIC) SET(HWSCFG(HWSCFG00),
BPECFG(BPECFG11),
IMSPLEX(TMEMBER(PLXTT),
MEMBER(ICM00DP)))
```
BPECFG(BPECFG11),
IMSPLEX(TMEMBER(PLXTT,PLXT2) +
MEMBER(MBRPLXTT,MBRPLXT2)))

*/

where:

1. The IMS Configuration Manager link library.

   Note: The IMS Configuration Manager link library, and all other libraries
   in the STEPLIB, must be APF-authorized.

2. The IMS Configuration Manager repository to use to store your definitions.

3. Uses the "MAINT.MEMBERS command" on page 259 to edit the IMS
   Configuration Manager repository.

4. The ddname of a DD statement that contains your subcommands.

5. Subcommands that edit the IMS Configuration Manager repository. The
   subcommands in this example perform the following tasks:
   1. Create an IMSplex named PLXTT.
   2. Create an IMS named TEST and associate it with PLXTT.
   3. Create an IMS Connect system named TESTIC.
   4. Create an Open Database Manager (ODBM) Common Service Layer
      (CSL) component named TESTOD and associate it with PLXTT.
   5. Create a Repository Server (RS) CSL component named TESTRP and
      associate it with PLXTT.
   6. Create an Operations Manager (OM) CSL component named TESTOM
      and associate it with PLXTT.
   7. Create a Resource Manager (RS) CSL component named TESTRM and
      associate it with PLXTT.
   8. Create a Structured Call Interface (SCI) CSL component named
      TESTSC and associate it with PLXTT.
   9. Update several properties of the IMS named TEST.
  10. Update several properties of the IMS Connect system named TESTIC.
      Associate it with the IMSplex named PLXTT (member name
          ICM100DP).
  11. Create an IMSplex named PLXT2. Update the IMS Connect system
      named TESTIC to replace the current IMSplex association(s) with two
      new associations, PLXTT (member name MBRPLXTT) and PLXT2
      (member name MBRPLXT2).

Related tasks:
"Defining systems and IMSplexes using the MAINT.MEMBERS batch command"
on page 51
Use the MAINT.MEMBERS batch command to update IMSplex, IMS, IMS Connect,
and Common Service Layer (CSL) definitions stored in your IMS Configuration
Manager repository.

Related reference:
"MAINT.MEMBERS command” on page 259
Edits IMSplexes, IMS systems, and CSL component definitions stored in an IMS
Configuration Manager repository.
Example JCL for editing resources

These examples use the MAINT.RESOURCES batch command to edit resources in the IMS Configuration Manager repository.

Example 1

Type-2 commands can be submitted to the IMS Configuration Manager repository as shown in the following JCL:

```
//GPLUTIL EXEC PGM=GPLUTIL
STEPLIB DD DISP=SHR,DSN=HLQ.V2R2M0.SGPLLINK
//GPLREPOS DD DISP=SHR,DSN=HLQ.V2R2M0.REPOSITORY
//SYSPRINT DD SYSOUT=* 
//SYSIN DD *
      MAINT.RESOURCES TO(REPOSITORY,GPLREPOS) + 
               FROM(DDNAME,RSCCMDS) + 
               RGNAME('AUTODISCOVERY FOR ICDQ',ICDQ)
      /*
      RSCCMDS DD *
        CREATE DB NAME(DBTEST) 
        CREATE PGM NAME(PGMTEST) SET(TRANSTAT(Y)) 
        CREATE RTC NAME(RTCTEST) SET(PGM(PGMTEST) INQ(Y)) 
        CREATE TRAN NAME(TRNTEST) SET(AOCMD(CMD) PGM(PGMTEST)) + 
                XSET(NOTES(Test Transaction - Please Ignore)) 
        CREATE DBDESC NAME(DBDTEST) SET(ACCTYPE(READ) + 
                                      DEFAULT(Y) + 
                                      RESIDENT(Y)) 
        CREATE PGMDESC NAME(PGMDTEST) XSET(DSCR(Test Program Descriptor)) 
        CREATE RTCDESC NAME(RTCDTEST) 
        CREATE TRANDESC NAME(TRNDESCTEST) SET(DCLWA(Y)) 
        EXPORT DEFN 
        UPDATE RTC NAME(RTCTEST) SET(PGM(NAMEVAL) INQ(Y)) + 
                XSET(DSCR(Description of routing code A1)) /*
```

where:

1. The IMS Configuration Manager link library.

   **Note:** The IMS Configuration Manager link library, and all other libraries in the STEPLIB, must be APF-authorized.

2. The "MAINT.RESOURCES command" on page 286, specifying the IMS Configuration Manager repository.

3. The ddname of a DD statement that contains your subcommands.

4. The resource group you want to modify, surrounded by quotation marks. In this scenario, the resource group named AUTODISCOVERY FOR ICDQ was created by autodiscovery. ICDQ signifies the IMS system associated with this resource group.

5. Creates a transaction named TRNTEST. The optional XSET parameter expands on the IMS type-2 command format to allow you to add additional metadata in the IMS Configuration Manager repository.

6. The "MAINT.RESOURCES command" on page 286 tolerates the presence of many non-resource specific type-2 commands and will issue message "GPL6626I" on page 193 to indicate that the command has been ignored by IMS Configuration Manager.

7. Updates the routing code named RTCDESC.
Example 2

Commands can be specified in a data set name that contains your resources commands:

```
//GPLUTIL EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR, DSN=HLQ.V2R2M0.SGPLLINK
//SYSIN DD *

MAINT.RESOURCES RGNAME(GROUP1, IADP) +
   FROM(DDNAME, INTYPE2) +
   TO(REPOSITORY, OUTREPOS)
```

where:

1 and 2 Specify a data set name that contains your commands. This can be useful if you have a data set containing a series of IMS type-2 commands that you use to update live systems. You can use that data set to recreate those updates directly in your IMS Configuration Manager repository.

3 The IMS Configuration Manager repository to use to store your definitions.

Related tasks:

- "Editing resources using the MAINT.RESOURCES command" on page 86

Use the MAINT.RESOURCES command to update resource definitions in an IMS Configuration Manager repository in batch.

Related reference:

- "MAINT.RESOURCES command" on page 286

Create, update, and delete resources and resource descriptors stored in an IMS Configuration Manager repository.

Example JCL for copying resource groups

This JCL copies resource groups from one IMS Configuration Manager repository to another IMS Configuration Manager repository using the COPY batch command. The FROM and TO repositories can be the same repository. For more examples, see GPLCOPY in SGPLSAMP.

```
//IMSCM EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR, DSN=HLQ.V2R2M0.SGPLLINK
//SYSIN DD *
COPY MBRTYPE(RG) +
   MBRNAME(oldname) +
   FROM(REPOSITORY, INREPOS) +
   TO(REPOSITORY, OUTREPOS) +
   NEWNAME(newname) +
   REPLACE

//INREPOS DD DISP=SHR,
//   DSN=input.repos
//OUTREPOS DD DISP=SHR,
//   DSN=output.repos
//SYSPRINT DD SYSOUT=*```

Related tasks:
Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.

Related reference:

“COPY command” on page 243

Copies objects between two IMS Configuration Manager repositories or within a single IMS Configuration Manager repository. Use this command to migrate definitions or to create backups and snapshots of your definitions.

Example JCL for installing resources

This JCL uses the INSTALL batch command to install one command change package into one IMS system. For another example, see GPLINSTL in SGPLSAMP.

```
//USR1J1 JOB (ACCOUNT), 'ICM INSTALL',
//    CLASS=T,
//    MSGLEVEL=(1,1),
//    REGION=8M,
//    MSGCLASS=X
//IMSCM EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR, DSN=GPL220.SGPLINK
//IHMREPOS DD DISP=SHR,
//    DSN=ICM.REPOSITORY
//SYSPRINT DD SYSOUT=* 
//REPORT DD SYSOUT=* 
//SYSIN DD *
/* COMMENT - THIS JOB INSTALLS ONE CP FOR ONE IMS INSTALL 
CPNAME('CREATE MFG APP') 
CPDATE(2012.09.17) 
CPTIME(10.36.03) 
Plex(PLXXX) 
SCOPE(IXXX) 
NOTREADY(STOP) 
ONFAILURE(CONTINUE) 
RETRYWAIT(1) 
RETRYCNT(10) 
FORCE 
FROM(REPOSITORY,ICMREPOS)
```

where:

1. The EXEC program name: GPLUTIL. Place the IMS Configuration Manager link library in the STEPLIB DD followed by the SDFSRESL library for the highest IMS version into which you are installing.

2. The name of the IMS Configuration Manager repository containing the definitions you are installing. You can use any ddname but you must reference that ddname correctly in the FROM keyword.

3. The command provides a report of all actions taken during install. You must specify a report DD statement for this output.

4. An example of the “TAKEUP command” on page 289. The command uses the change package with the matching date and time in the ICMREPOS as input and puts those resource definitions into the assigned system on PLXXX.

5. To install all change packages for an IMSplex that have the same date-timestamp, use SCOPE(*). See “Creating change packages for an entire IMSplex” on page 90 for details.
Related reference:

“INSTALL command” on page 257

Installs resources from a command change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.

Example JCL for a take-up, compare, and install

This JCL demonstrates a take-up and install using the COMPARE batch command. Use this method if your resource updates arrive as stage 1 source from a third-party vendor.

TAKEUP FROM(STAGE1,STAGE1DD) +
  TO(REPOSITORY,GPLREPOS) +
  RG(new rg name) +
  DEFRGLVL(COMMON) +
  REPLACE

COMPARE INPUT1(RG(new rg name),
  DONDAME(REPOSITORY,GPLREPOS)),
  INPUT2(RG(existing rg name),
  DONDAME(REPOSITORY,GPLREPOS)),
  UPDCP(NAME(new cp name),
  IMSID(IMSI),
  UPDREPOS(INPUT2)),
  UPDRG(NAME(existing rg name),
  UPDREPOS(INPUT2),
  REPLACE)

INSTALL CDATE($LATEST) +
  CPTIME(IGNORED) +
  FROM(REPOSITORY,GPLREPOS) +
  ONFAILURE(ROLLBACK) +
  PLEX(IMSPLEX) +
  SCOPE(IMSID) +

*/
   //GPREPOS DD DISP=SHR,
   // DSN=HLQ.V2R2M0.REPOSTRY
   //STAGE1DD DD DISP=SHR,
   // DSN=HLQ.STAGE1.SOURCE(member)
   //SYSPRINT DD SYSOUT=* //REPORT DD SYSOUT=*  
*/

where:

1 Uses the “TAKEUP command” on page 289 to input the stage 1 source into a new resource group.

2 Uses the “COMPARE command” on page 238 to perform the following actions:

2a Specifies UPDCP to create a command change package with the differences.

2b Specifies UPDRG to update the original resource group with the changes.

3 Uses the “INSTALL command” on page 257 to install the change package you created in 2.

Submit a COMPARE (2) and INSTALL (3) for each IMS system.

Related tasks:
Use this method if your resource updates arrive as stage 1 source from a third-party vendor. All execution steps described here can be run in one execution of the GPLUTIL batch utility.

**Related reference:**

“INSTALL command” on page 257
Installs resources from a command change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.

“Taking up stage 1 source” on page 295
Take up resources from stage 1 source using the TAKEUP command and the FROM(STAGE1,ddname) option. The TAKEUP command supports source for IMS V9 onward.

“COMPARE command” on page 238
The COMPARE command allows you to compare the content of two resource groups. Additional options allow you to create new resource groups and change packages based on the differences.

**Example JCL for a backout**
This JCL performs a backout of an installed or partially installed change package using the BACKOUT batch command.

```
//GPLUTIL EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR,DSN=HLQ.V2R2M0.SGPLLINK
// DD DISP=SHR,DSN=HLQ.VnRnMn.SDFSRESL
//SYSIN DD *
//BACKOUT
     CPNAME('name') +
     CPDATE(YYYY.MM.DD) +
     CPTIME(HH.MM.SS) +
     PLEX(plex) +
     SCOPE(imsid) +
     NOTREADY(STOP) +
     ONFAILURE(STOP) +
     FROM(REPOSITORY,GPLREPOS) /*
//GPLREPOS DD DISP=SHR,
//          DSN=HLQ.V2R2M0.REPOSTRY
//SYSPRINT DD SYSOUT=*  
//REPORT DD SYSOUT=**/
```

**Related reference:**

“BACKOUT command” on page 236
The BACKOUT command allows you to backout an installed command change package.

**Example JCL for generating stage 1 source**
This JCL generates stage 1 source from all resource groups assigned to a system using the GEN batch command. For another example, see GPLGEN in SGPLSAMP.

```
//IMSCM EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR,DSN=hlq.SGPLLINK
//SYSIN DD *
GEN CPDATE(2013.11.11) +
     CPTIME(12.22.55.12) +
     FROM(REPOSITORY,INREPOS) +
     TO(STAGE1,OUTFILE) /*
//INREPOS DD DISP=SHR,
```
Example JCL for generating an RDDS

This JCL generates an RDDS from all resource groups assigned to a system using the GEN batch command.

```plaintext
//IMSCM EXEC PGM=GPLUTIL
//STEPLIB DD DISP=SHR, DSN=hlq.SGPLLINK
//SYSIN DD *
GEN CPDATE(2014.11.11) +
   CPTIME(12.22.55.12) +
   FROM(REPOSITORY,INREPOS) +
   TO(SYSRDDS,OUTFILE)
/*
  //INREPOS DD DISP=SHR,
  // DSN=input.repostry
  //OUTFILE DD DISP=SHR,
  // DSN=output.file
  //SYSPRINT DD SYSOUT=* 
*/
```

Use the TO(SYSRDDS,OUTFILE) option to create a system RDDS that contains all your resource definitions. Copy the RDDS to an IMS system RDDS with the option to update the RDDS header date set to YES. This copy and time stamp update must be done after the system is brought down so that the date in the system RDDS to use in the cold start has the most recent time stamp of all the RDDSs. When the system comes up, it looks for the most recent time stamp and uses that RDDS to read in the resource definitions.

Related reference:
"GEN command" on page 255
Allows you to generate stage 1 source or an RDDS from a generate change package.
BACKOUT command

The BACKOUT command allows you to backout an installed command change package.

Syntax

```
BACKOUT CPDATE(yyyy.mm.dd) CPTIME(hh.mm.ss) CPNAME(cpname)
```

```
FROM(REPOSITORY,ddname) PLEX(imsplex)
```

```
RETRYCNT(number) RETRYWAIT(seconds) ONFAILURE(STOP)
```

```
NOTREADY(STOP) CMDTIMEOUT(seconds)
```

Parameters

**CPDATE(yyyy.mm.dd)**
- The date of the command change package to backout.

**CPTIME(hh.mm.ss)**
- The time of the command change package to backout.

**CPNAME(cpname)**
- The name of the command change package to backout. The cpname specified must match the name of the change package in the IMS Configuration Manager repository exactly or it will not be processed.

**FROM(REPOSITORY,ddname)**
- Specifies the ddname of the IMS Configuration Manager repository containing the command change package and resource definitions. For example:
  ```
  FROM(REPOSITORY,GPLDD)
  ```

**PLEX(imsplex)**
- The name of the IMSplex that contains the system or systems that are being updated by the command change package.

**SCOPE(parameters)**
- A list of one or more systems to update.
  Specify one of the following values:
  * Update all systems in the IMSplex specified by PLEX.

  ```
  member-name,...
  ```
  - Update only the specified systems.
  - Systems that do not have a change package with the specified CPDATE and CPTIME are skipped.
If you omit the SCOPE parameter, IMS Configuration Manager uses the contents of the change package to determine which systems require updates.

**RETRYCNT**: 
(number)  
The number of times to retry the command if a failure occurs. Default: 3.

**RETRYWAIT**: (seconds)  
The number of seconds to wait before retrying the command after a failure occurs. Seconds must be an integer. Default: 1 second.

**NOTREADY**: (STOP | IGNORE)  
The action to perform if the system being updated reports that it is “not ready”. Specify one of the following values:

- **STOP**  
  Stop the update and perform no further processing. This is the default behavior.

- **IGNORE**  
  Ignore the “not ready” error and process the next system defined in the SCOPE parameter, if one exists.

**ONFAILURE**: (STOP | CONTINUE | ROLLBACK)  
The action to perform if the system reports a failure. Possible values are:

- **STOP**  
  Stop the update. Changes made successfully before the failure occurred are retained. This is the default behavior.

- **CONTINUE**  
  Skip errors and continue the update with the next resource in the change package.

- **ROLLBACK**  
  Stop the update and roll back the system. Changes made successfully before the failure occurred are rolled back to a state before the job began. Other systems listed in the SCOPE parameter are unaffected.

**CMDTIMEOUT**: (seconds)  
The number of seconds to wait before aborting the update if no response has been received by the system. Seconds must be an integer. Default: 300 second.

**CHECK**  
When specified, CHECK instructs the batch utility to dynamically evaluate and report on the type-2 commands required to create and update resource definitions without modifying your live systems. Use CHECK to conduct a “dry run” that allows you to review proposed actions prior to submitting the final job.

**FORCE**  
*Use with caution.* Bypass IMS Configuration Manager pre-validation checks and proceed with resource updates. By default, IMS Configuration Manager ensures that change packages are installed in the order of their creation, and backed out in the reverse order of their installation. The FORCE parameter allows you to override the default behavior.

**Related concepts:**
- [“IMS command security” on page 31](#)
- The IMS Configuration Manager TAKEUP, INSTALL, and BACKOUT commands use IMS commands to interact with your IMS systems.

**Related tasks:**
A previously installed command change package can be backed out of associated IMS systems if you wish to undo your changes.

**Related reference**

- **"SYSPRINT install/backout log reference" on page 315**
  The SYSPRINT log provides summary status of the INSTALL or BACKOUT job.

- **"Install/backout report reference" on page 316**
  This topic provides a general overview of the REPORT data set. This report is generated by the INSTALL and BACKOUT commands.

- **"Example JCL for a backout" on page 234**
  This JCL performs a backout of an installed or partially installed change package using the BACKOUT batch command.

- **"INSTALL command" on page 257**
  Installs resources from a command change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.

---

**COMPARE command**

The COMPARE command allows you to compare the content of two resource groups. Additional options allow you to create new resource groups and change packages based on the differences.

**Syntax**

```plaintext
COMPARE Resource group 1 Resource group 2

-update change package
-update resource group

Resource group 1:

INPUT1(RG(rgname1),IMSID(imsid),DDNAME(REPOSITORY,ddname))

Resource group 2:

INPUT2(RG(rgname2),IMSID(imsid),DDNAME(REPOSITORY,ddname))

Update change package:

UPDCP(NAME(cpname),IMSID(imsid),MATCH(INPUT1),MATCH(INPUT2),
NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES)),NOMATCH(INPUT2(CREATE_RES),INPUT1(DELETE_RES)))
```
Update resource group:

\[\text{UPDRG}(\text{--NAME}(\text{rgname}), \text{IMSID}(\text{imsid}), \text{MATCH}(\text{INPUT1}), \text{MATCH}(\text{INPUT2}), \text{NOMATCH}(\text{INPUT2(DELETE\_RES)}), \text{INPUT1(CREATE\_RES)}), \text{NOMATCH}(\text{INPUT2(DELETE\_RES)}), \text{INPUT1(CREATE\_RES)})]\]

Parameters

\(\text{INPUTn()}\)

The COMPARE command compares the resource group specified in the \text{INPUT1} statement with the resource group specified in the \text{INPUT2} statement. Both the \text{INPUT1} and \text{INPUT2} statements must be present, and their command syntax is the same. The following options are available for an \text{INPUT1} or \text{INPUT2} statement:

\(\text{RG}(\text{rgname})\)

The name of the common or system-level resource group to be compared. If specifying a system-level resource group, the IMSID parameter is required.

\(\text{IMSID}(\text{imsid})\)

Only specify the IMSID if you have specified a system-level resource group in the RG parameter. Do not include the IMSID parameter if the resource group is simply associated with a particular IMS system.

\(\text{DDNAME(REPOSITORY,ddname)}\)

Identifies the ddname of the IMS Configuration Manager repository containing the specified resource group. For example, if the ddname of the IMS Configuration Manager repository is specified as:

\[
\text{DDNAME(REPOSITORY,GPLREPOS})
\]

then specify:

\(\text{DDNAME(REPOSITORY,GPLREPOS})\)

The following example demonstrates a COMPARE command that uses the INPUT1 and INPUT2 statements:

Example

\[
\text{COMPARE \text{INPUT1(RG('UPDATED'), + DDNAME(REPOSITORY,REPOS1)), + INPUT2(RG('ORIGINAL'), + IMSID(ICXX), + DDNAME(REPOSITORY,REPOS1))}
\]
UPDCP()

The UPDCP parameter creates a new *command* change package based on the difference between the resource group specified in INPUT1 statement, and the resource group specified in the INPUT2 statement. The following options are available for a UPDCP statement:

**NAME(cpname)**

The *NAME* parameter is an optional statement that allows you to place a description of your change package within the command. Change packages are automatically named with the current date and time by IMS Configuration Manager.

**IMSID(imsid)**

The ID of the IMS system on which to deploy the newly created change package.

**MATCH(INPUTn)**

Specify which input resource group (INPUT1 or INPUT2) takes priority when a resource is found in both groups with the same name and type, but with different attributes. For example, if the INPUT1 and INPUT2 resource groups have a number of matching resources, specify MATCH(INPUT2) to select the resources from INPUT2 for use in the change package.

Default: INPUT1

**NOMATCH(INPUT2(action),INPUT1(action))**

When comparing resource groups, situations can occur where resources might be present in one group but not the other (for example, a new resource is added to the INPUT1 resource group which is not present in the existing resource group, INPUT2). When the COMPARE command encounters a resource that is found in one group but not the other, the NOMATCH parameter is used to specify the user's required course of action when creating the change package.

The NOMATCH parameter requires the user to specify an action for both the INPUT2 and INPUT1 resource groups. The action specified for each group instructs IMS Configuration Manager on how to handle a resource when it is found within that group. Users have two options for action:

**CREATE_RES**

Create an entry in the change package that adds the resource from the input resource group.

**DELETE_RES**

Create an entry in the change package that will delete the resource.

For example, to create a change package that adds all the “new” resources in INPUT1 and removes all the “old” resources in INPUT2, use NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES)).

Default: NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES)) if NOMATCH parameter not specified.

**UPDREPOS(INPUTn)**

The IMS Configuration Manager repository (specified as INPUT1 or INPUT2) in which to store the new change package.

Default: INPUT2
The following examples demonstrate COMPARE commands that use the UPDCP statement:

**Example 1**
```
COMPARE INPUT1(RG('NEW TAKEUP'), +
  DDNAME(REPOSITORY,ICMREP01)), +
INPUT2(RG('EXISTING RG'), +
  DDNAME(REPOSITORY,ICMREP01)), +
UPDCP(NAME('IMSC CP 2013 JAN'), +
  IMSID(IMS1), +
  UPDREPOS(INPUT2))
```

**Example 2**
```
COMPARE INPUT1(RG('UPDATED'), +
  DDNAME(REPOSITORY,REPOS1)), +
INPUT2(RG('ORIGINAL'), +
  IMSID(ICXX), +
  DDNAME(REPOSITORY,REPOS1)), +
UPDCP(NAME('UPDATED CP'), +
  IMSID(ICXX), +
  MATCH(INPUT1), +
  NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES)), +
  UPDREPOS(INPUT1))
```

**UPDRG()**

The UPDRG parameter creates a new resource group (or updates an existing one) based on the difference between the resource group specified in INPUT1 statement, and the resource group specified in the INPUT2 statement. When using the UPDRG parameter, an UPDCP statement must also be present.

**NAME(rgname)**

The name of the new resource group.

**IMSID(imsid)**

The ID of the IMS system on which to deploy the newly created (or updated) resource group.

**MATCH(INPUTn)**

Specify which input resource group (INPUT1 or INPUT2) takes priority when a resource is found in both groups with the same name and type, but with different attributes. For example, if the INPUT1 and INPUT2 resource groups have a number of matching resources, specify MATCH(INPUT2) to select the resources from INPUT2 for use in the new (or updated) resource group.

Default: INPUT1

**NOMATCH(INPUT2(action),INPUT1(action))**

When comparing resource groups, situations can occur where resources might be present in one group but not the other (for example, a new resource is added to the INPUT1 resource group which is not present in the existing resource group, INPUT2). When the COMPARE command encounters a resource that is found in one group but not the other, the NOMATCH parameter is used to specify the users required course of action when creating the new (or updated) resource group.

The NOMATCH parameter requires the user to specify an action for both the INPUT2 and INPUT1 resource groups. The action specified for each group instructs IMS Configuration Manager on how to handle a resource when it is found within that group. Users have two options for action:

**CREATE_RES**

Adds the resource to the new resource group.
DELETE_RES
Delete the resource from the new resource group.

For example, to create a new (or updated) resource group that adds all the
"new" resources in INPUT1 and removes all the "old" resources in INPUT2,
use NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES)).

Default: NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES)).

UPDREPOS(INPUTn)
The IMS Configuration Manager repository (specified as INPUT1 or INPUT2)
in which to store the new (or updated) resource group.

Default: INPUT2

REPLACE
If the resource group specified with the NAME parameter already exists,
specifying REPLACE allows that resource group to be replaced with the new
resource group. If, in this scenario, the REPLACE parameter is not specified,
the COMPARE command will fail.

The following examples demonstrate COMPARE commands that use the UPDRG
statement:

Example 1
COMPARE INPUT1(RG('NEW TAKEUP'), +
  DDNAME(REPOSITORY,ICMREPO1)), +
INPUT2(RG('EXISTING RG'), +
  DDNAME(REPOSITORY,ICMREPO1)), +
UPDCP(NAME('IMSC CP 2013 JAN'), +
  IMSID(IMS1), +
  UPDREPOS(INPUT2)), +
UPDRG(NAME('EXISTING RG'), +
  UPDREPOS(INPUT2), +
  REPLACE)

Example 2
COMPARE INPUT1(RG('UPDATED'), +
  DDNAME(REPOSITORY,REPOS1)), +
INPUT2(RG('ORIGINAL'), +
  IMSID(ICXX), +
  DDNAME(REPOSITORY,REPOS1)), +
UPDCP(NAME('UPDATED CP'), +
  IMSID(ICXX), +
  MATCH(INPUT1), +
  NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES), +
  UPDREPOS(INPUT1)), +
UPDRG(NAME('ORIGINAL'), +
  IMSID(ICXX), +
  MATCH(INPUT2), +
  NOMATCH(INPUT2(DELETE_RES),INPUT1(CREATE_RES)), +
  UPDREPOS(INPUT1), +
  REPLACE)

Related reference:
“Example JCL for a take-up, compare, and install” on page 233
This JCL demonstrates a take-up and install using the COMPARE batch command.
Use this method if your resource updates arrive as stage 1 source from a
third-party vendor.
COPY command

Copies objects between two IMS Configuration Manager repositories or within a single IMS Configuration Manager repository. Use this command to migrate definitions or to create backups and snapshots of your definitions.

Syntax

```
COPY MBRTYPE(RGE) FROM(REPOSITORY,ddname) FROM options
```

```
COPY MBRTYPE(RG) FROM options
```

```
COPY MBRTYPE(SYSTEM) FROM options
```

```
COPY MBRTYPE(PLEX) FROM options
```

```
COPY MBRTYPE(CP) FROM options
```

```
COPY MBRTYPE(RGE) FROM(REPOSITORY,ddname) FROM options
```

```
COPY MBRTYPE(RG) FROM options
```

```
COPY MBRTYPE(SYSTEM) FROM options
```

```
COPY MBRTYPE(PLEX) FROM options
```

```
COPY MBRTYPE(CP) FROM options
```

```
COPY MBRTYPE(RGE) FROM(REPOSITORY,ddname) FROM options
```

```
COPY MBRTYPE(RG) TO(REPOSITORY,ddname) TO options
```

```
COPY MBRTYPE(SYSTEM) TO options
```

```
COPY MBRTYPE(PLEX) TO options
```

```
COPY MBRTYPE(CP) TO options
```

```
COPY MBRTYPE(RGE) TO(REPOSITORY,ddname) TO options
```

```
COPY MBRTYPE(RG) TO options
```

```
COPY MBRTYPE(SYSTEM) TO options
```

```
COPY MBRTYPE(PLEX) TO options
```

```
COPY MBRTYPE(CP) TO options
```

```
COPY MBRTYPE(RGE) TO(REPOSITORY,ddname) TO options
```

Related tasks:

“Copying and migrating resource groups using the COPY command” on page 84

Copy resource groups within an IMS Configuration Manager repository, or from one IMS Configuration Manager repository to another using the COPY command.

Related reference:

“Example JCL for copying resource groups” on page 231

This JCL copies resource groups from one IMS Configuration Manager repository to another IMS Configuration Manager repository using the COPY batch command. The FROM and TO repositories can be the same repository. For more examples, see GPLCOPY in SGPLSAMP.
Copying resources

Copy resources (resource group elements) using the COPY command and the MBRTYPE(RGE) option.

Syntax

COPY MBRTYPE(RGE) FROM(REPOSITORY,ddname) MBRNAME(obj-name-mask)

RGNAME(name,system)

TO(REPOSITORY,ddname) NEWNAME(new-obj-name-mask)

NEWRGNAME(targetRGname,system)

INCLUDE( Filtering options ) REPLACE

Filtering options:

TRAN(name*)

DB(name*)

PGM(name*)

RTC(name*)

Parameters

MBRTYPE(RGE)

Copy one or more resources.

FROM(REPOSITORY,ddname)

Specifies the type of input and a reference to the name of the DD statement for the IMS Configuration Manager repository containing the definitions. For example:

FROM(REPOSITORY,GPLDD)

MBRNAME(obj-name-mask)

The name of the resource. You can use a mask in the name to copy multiple resources. For example:

MBRNAME(A*)

Copies all resources that begin with the letter A.

MBRNAME(*)

Copies all resources.

RGNAME(name,system)

The name of the originating resource group. If this is a system-level resource group, specify the system name within this parameter. For example:

RGNAME(RG1,IMSA)
**TO(REPOSITORY, ddname)**
This specifies the name of the destination IMS Configuration Manager repository. This can be the same name as the source (FROM) repository.

**NEWNAME(new-obj-name-mask)**
This is the name that is assigned to the new members that are created. If the new member exists, it is replaced if the REPLACE keyword is present. The NEWNAME can specify a mask. When NEWNAME is specified as a mask, any copied members are renamed using the characters in the mask for the number of character positions in the mask. For example, a mask of ABC* results in the first 3 characters of each copied member being ABC. When masks are used, they must be used in both MBRNAME and NEWNAME and must have the same length for each mask (that is, same number of positions in front of the *).

**NEWRGNAME(targetRGname, system)**
The resource group name in the destination repository. If this is a system-level resource group, then the system must exist on the destination. To specify a system-level resource group, use this format:

```
NEWRGNAME(RG2, IMSB)
```

**INCLUDE(filtering options)**
Specifies that only resources matching the specified filter will be copied. If omitted, all resources matching the MBRNAME mask are copied. You can use masks to match by resource name prefix. Each condition is ORed. Here is an example INCLUDE statement:

```
MBRNAME(T*) INCLUDE(TRAN(T1, T2, TA*), PGM(PGA+))
```

In this example, only transactions with the code T1, T2, or prefixed with TA will be included; only programs with the prefix PGA will be included. Databases and fast-path routing codes in the group will not be included.

**REPLACE**
This option specifies whether to replace objects that already exists in the destination IMS Configuration Manager repository.
Copying resource groups

Copy resource groups using the COPY command and the MBRTYPE(RG) option.

Syntax

```
COPY MBRTYPE(RG) FROM(REPOSITORY,ddname) MBRNAME(obj-name-mask)
```

```
TO(REPOSITORY,ddname) MBRNAME(new-obj-name-mask)
```

```
SYSTEM(name)
```

```
COMMON(YES)
```

```
COMMON(NO)
```

```
NEWSYSTEM(name)
```

```
INCLUDE(Filtering options)
```

```
REPLACE
```

Filtering options:

```
TRAN(name*)
```

```
,DB(name*)
```

```
,PGM(name*)
```

```
,RTC(name*)
```

Parameters

**MBRTYPE(RG)**

Copy one or more resource groups.

**FROM(REPOSITORY,ddname)**

Specifies the type of input and a reference to the name of the DD statement for the IMS Configuration Manager repository containing the definitions. For example:

```
FROM(REPOSITORY,GPLDD)
```

**MBRNAME(obj-name-mask)**

The resource groups to copy. Specify resource groups using a name or a name mask. For example:

**MBRNAME(A*)**

Copies all resource groups that begin with the letter 'A'.

**MBRNAME(*)**

Copies all resource groups.
If you are copying a system-level resource group, use the SYSTEM parameter to specify the system name.

**SYSTEM(name,...)**

A list of IMS systems associated with any system-level resource groups specified by the MBRNAME parameter. The systems must exist in the destination repository under the original name or under the name specified by the NEWSYSTEM parameter.

**TO(REPOSITORY,ddname)**

Specifies the name of the destination IMS Configuration Manager repository. This can be the same name as the source (FROM) repository.

**NEWNAME(new-obj-name-mask)**

Rename copied resource groups according to the specified name or name mask. Use in conjunction with the REPLACE keyword to overwrite any existing resource groups.

When NEWNAME is specified as a mask, any copied members are renamed using the characters in the mask for the number of character positions in the mask. For example, a mask of ABC* results in the first 3 characters of each copied member being ABC. When masks are used, they must be used in both MBRNAME and NEWNAME and must have the same length for each mask (that is, same number of positions in front of the *).

**NEWSYSTEM(name,...)**

A list of IMS systems containing a corresponding new name for each system specified in the SYSTEM parameter. For example: SYSTEM(A,B) NEWSYSTEM(X,Y) will copy the system-level resource group belonging to system A to a system-level resource group belonging to system X, and copy the system-level resource group belonging to system B to a system-level resource group belonging to system Y. The systems X and Y must exist in the destination repository for the operation to succeed.

**COMMON(option)**

Specify whether common resource groups are copied.

**YES**

Copy common resource groups and system-level resource groups specified by the MBRNAME parameter.

**NO**

Do not copy common resource groups; copy only system-level resource groups. When using this option, at least one system must be specified using the SYSTEM parameter.

**INCLUDE(filtering options)**

Specifies that only resources matching the specified filter will be copied. If omitted, all resources in the group are copied. You can use name masks to match by resource name prefix. Each condition is ORed. Here is an example INCLUDE statement:

```
INCLUDE(TRAN(T1,T2,TA*),PGM(PGA*))
```

In this example, only transactions with the code T1, T2, or prefixed with TA will be included; only programs with the prefix PGA will be included. Databases and fast-path routing codes in the group will not be included.

**REPLACE**

This option specifies whether to replace objects that already exists in the destination IMS Configuration Manager repository.
Any resource groups that are copied retain their associations to IMS system, but the resources within that group are deleted.

**Copying IMS systems**

Copy systems using the COPY command and the MBRTYPE(SYSTEM) option.

### Syntax

```
COPY MBRTYPE(SYSTEM) FROM(REPOSITORY, ddname) SYSTEM(name) 
TO(REPOSITORY, ddname) 
NEWSYSTEM(name) 
ALSOCOPYRG(NO|YES|SYSTEM)
```

Filtering options:

```
TRAN(name*)
DB(name*)
PGM(name*)
RTC(name*)
```

### Parameters

**MBRTYPE(SYSTEM)**

Copy one or more IMS systems.

**FROM(REPOSITORY, ddname)**

Specifies the type of input and a reference to the name of the DD statement for the IMS Configuration Manager repository containing the definitions. For example:

```
FROM(REPOSITORY,GPLDD)
```

**SYSTEM(name, . . .)**

A list of one or more systems to be copied. The systems can be renamed using the NEWSYSTEM name.

**TO(REPOSITORY, ddname)**

Specifies the name of the destination IMS Configuration Manager repository. This can be the same name as the source (FROM) repository.
NEWSYSTEM(name,...)
A list of one or more new names for the system. For example, SYSTEM(A,B)
NEWSYSTEM(X,Y) will copy system A as system X, and copy system B as system
Y. The systems X and Y must not exist for the operation to succeed, or,
alternatively, specify the REPLACE option to replace existing systems.

ALSOCOPYRG(NO|YES|SYSTEM)
Indicates if the resource group and its resources are also copied. This
parameter only applies when you copy a system (either when system is the
member type or when an IMSplex is copied with systems).

NO    Resources are not copied (default).
YES   All resources associated with the systems are copied.
SYSTEM Only system-level resource groups and their resources are copied.

INCLUDE(filtering options)
Ignored if ALSOCOPYRG(NO) is also specified. Specifies that only resources
matching the specified filter will be copied. If omitted, all resources in the
group are copied. You can use name masks to match by resource name prefix.
Each condition is ORed. Here is an example INCLUDE statement:
INCLUDE(TRAN(T1,T2,TA*),PGM(PGA*))

In this example, only transactions with the code T1, T2, or prefixed with TA will
be included; only programs with the prefix PGA will be included. Databases
and fast-path routing codes in the group will not be included.

REPLACE
This option specifies whether to replace objects that already exists in the
destination IMS Configuration Manager repository.

Any resource groups that are copied retain their associations to IMS system,
but the resources within that group are deleted.

Any systems that are copied are replaced, removing any existing change
packages and resource group associations.
Copying IMSplexes

Copy IMSplexes using the COPY command and the MBRTYPE(PLEX) option.

**Syntax**

```
COPY MBRTYPE(PLEX) FROM(REPOSITORY,ddname) PLEX(plexname)
```

```
TO(REPOSITORY,ddname)
```

```
SYSTEM(name)
```

```
NEWPLEX(target-plex-name)
```

```
ALSOCOPYRG(NO)
```

```
ALSOCOPYRG(YES)
```

```
ALSOCOPYRG(SYSTEM)
```

**Filtering options:**

```
TRAN(name*)
```

```
DB(name*)
```

```
PGM(name*)
```

```
RTC(name*)
```

**Parameters**

**MBRTYPE(PLEX)**

Copy one or more IMSplexes.

**FROM(REPOSITORY,ddname)**

Specifies the type of input and a reference to the name of the DD statement for the IMS Configuration Manager repository containing the definitions. For example:

```
FROM(REPOSITORY,GPLDD)
```

**PLEX(plexname)**

The name of the originating IMSplex.

**SYSTEM(name,...)**

A list of one or more systems that are part of the same IMSplex that are to be copied. Specify SYSTEM(*) to copy all systems that are associated with the IMSplex. The systems can be renamed using the NEWSYSTEM name.
TO(REPOSITORY,ddname)
Specifications the name of the destination IMS Configuration Manager repository.
This can be the same name as the source (FROM) repository.

NEWPLEX(target-plex-name)
The name of the IMSplex in the destination repository.

NEWSYSTEM(name,...)
A list of one or more new names for the system. For example, SYSTEM(A,B)
NEWSYSTEM(X,Y) will copy system A as system X, and copy system B as system
Y. The systems X and Y must not exist for the operation to succeed, or,
alternatively, specify the REPLACE option to replace existing systems.

ALSOCOPYRG(NO|YES|SYSTEM)
Indicates if the resource group and its resources are also copied. This
parameter only applies when you copy a system (either when system is the
member type or when an IMSplex is copied with systems).

NO Resources are not copied (default).

YES All resources associated with the systems are copied.

SYSTEM Only system-level resource groups and their resources are copied.

INCLUDE(filtering options)
Ignored if ALSOCOPYRG(NO) is also specified. Specifies that only resources
matching the specified filter will be copied. If omitted, all resources in the
group are copied. You can use name masks to match by resource name prefix.
Each condition is ORed. Here is an example INCLUDE statement:
INCLUDE(TRAN(T1,T2,TA*),PGM(PGA*))

In this example, only transactions with the code T1, T2, or prefixed with TA will
be included; only programs with the prefix PGA will be included. Databases
and fast-path routing codes in the group will not be included.

REPLACE
This option specifies whether to replace objects that already exists in the
destination IMS Configuration Manager repository.

Any resource groups that are copied retain their associations to IMS system,
but the resources within that group are deleted.

Any systems that are copied are replaced, removing any existing change
packages and resource group associations.
Copying change packages
Copy change packages using the COPY command and the MBRTYPE(CP) option.

Syntax

```plaintext
COPY  MBRTYPE(RG)  FROM(REPOSITORY,ddname)  MBRNAME(create-timestamp)  SYSTEM(name)  TO(REPOSITORY,ddname)
```

Parameters

**MBRTYPE(CP)**
Copy one or more change packages.

**FROM(REPOSITORY,ddname)**
Specifies the type of input and a reference to the name of the DD statement for the IMS Configuration Manager repository containing the definitions. For example:

FROM(REPOSITORY,GPLDD)

**MBRNAME(create-timestamp)**
The timestamp of the change package. The format of `create-timestamp` is specified using the format `yyyymmddhhmss` (year, month, day, hours, minutes, seconds). *Do not use punctuation.* For example, 20101209142344 specifies a change package created on 9 December 2010 at 14:23:44.

When using a mask, the mask can be placed anywhere in the `create-timestamp`. For example, * copies all change packages for the specified system. A value of 20101209* results in all change package members for 9 December 2010 being copied.

**Note:** All change packages are copied with a status of CLOSED, regardless of their original status. See [Chapter 24, "Understanding change package status," on page 311](#).

**SYSTEM(name,...)**
A list of one or more systems that contain a change package matching the MBRNAME time stamp or time stamp mask. The systems must exist in the destination IMS Configuration Manager repository in either the original name or under NEWSYSTEM name.

**TO(REPOSITORY,ddname)**
Specifies the name of the destination IMS Configuration Manager repository. This can be the same name as the source (FROM) repository.

**NEWSYSTEM(name,...)**
A list of one or more systems containing a corresponding new name for each
system specified in the SYSTEM parameter. For example: SYSTEM(A,B)
NEWSYSTEM(X,Y) will copy the change packages for system A to system X, and
copy the change packages for system B to system Y. The systems X and Y must
exist for the operation to succeed.

**REPLACE**

This option specifies whether to replace objects that already exists in the
destination IMS Configuration Manager repository.

## DISCOVER command

Automatically discover IMS components and resources for use in IMS
Configuration Manager.

### Syntax

```
/SM590000/SM590000
DISCOVER
   MBRTYPE(ALL|PLEX)
   TO(REPOSITORY,ddname)
```

**Parameters**

**MBRTYPE(ALL|PLEX) or MBRTYPE (component,...)**

Limit the discovery of members to one or more types. MBRTYPE accepts one of
the following options:

**ALL**

Inserts all discoverable member types. See component for a list of supported
member types.

**PLEX**

Inserts only the IMSplex records.

**component,...**

Specify a list of one or more systems and components. Options include:

**IMS**

Inserts IMS systems and their associated IMSplexes. If applicable,
    Common Queue Server (CQS) components for systems discovered by
this option are also inserted.

**IMSCON**

Inserts IMS Connect systems and their associated IMSplexes.

**ODBM**

Inserts Open Database Manager (ODBM) Common Service Layer (CSL)
components and their associated IMSplexes.
**REPO**
Inserts Repository Server (RS) CSL components and their associated IMSplexes.

**OM**
Inserts Operations Manager (OM) CSL components and their associated IMSplexes.

**RM**
Inserts Resource Manager (RM) CSL components and their associated IMSplexes.

**SCI**
Inserts Structured Call Interface (SCI) CSL components and their associated IMSplexes.

Default: MBRTYPE(ALL) (if parameter not specified).

**TO(REPOSITORY, ddname)**
Specify the ddname of the IMS Configuration Manager repository in which to store discovered components. For example:

TO(REPOSITORY,GPLREPOS)

**PLEX(plexid or mask,...)**
Specify a list of IMSplexes that contain the components you want to discover. For example:
PLEX(PLXA,PLXB,PLXC)

Alternatively, use a mask to discover all IMSplexes beginning with a particular prefix. The preceding example can also be expressed as:
PLEX(PLX*)

The mask can be used to create complex search statements. The following examples demonstrate valid examples of how the mask can be used:
PLEX(*)
PLEX(ABC*)
PLEX(DEF*,XYZ*)
PLEX(PLXDP,PLX*)

To discover components in all IMSplexes, use:
PLEX(*)

or omit the parameter.

Default: all IMSplexes (if parameter not specified).

**NOPLEX**
Default: all IMSplexes (if parameter not specified).

Discover IMS regions not in an IMSplex.

**RESOURCES**
Default: No resources added (if parameter not specified).

Discovers IMS resources. Resources are added to resource groups named Autodiscovery for name where name is the name of the IMS system where they were discovered. If a resource group of the same name is already defined in the IMS Configuration Manager repository, the RESOURCES option will not overwrite this information.
When using this option, a work RDDS must be supplied on a GPLRDDS DD card. IMS must also be given authorization to write to the work RDDS.

Related reference:

“TAKEUP command” on page 289
Imports resources from the IMSRSC repository, an RDDS, or stage 1 source into the IMS Configuration Manager repository. The command can also associate systems with resource groups during the take up.

“Example JCL for discovering systems and IMSplexes” on page 224
This JCL uses the DISCOVER batch command to automatically discover IMS components for use in IMS Configuration Manager.

“Example JCL for discovery and resource take up” on page 224
This JCL uses the DISCOVER batch command to automatically discover IMS systems and to take up resources associated with those systems.

### GEN command

Allows you to generate stage 1 source or an RDDS from a generate change package.

**Syntax**

```plaintext
GEN—CPDATE(yyyy.mm.dd)—CPTIME(hh.mm.ss) [CPNAME(cpname)]
```

```plaintext
SCOPE(imsid,...)
```

```plaintext
FROM(REPOSITORY,ddname)
```

```plaintext
TO(STAGE1,ddname)
TO(SYSRDDS,ddname) [FORCE]
```

**Parameters**

**CPDATE(yyyy.mm.dd)**

The date of the generate change package to use.

**CPTIME(hh.mm.ss)**

The time of the generate change package to use.

**CPNAME(cpname)**

The name of the generate change package to use. The cpname specified must match the name of the change package in the IMS Configuration Manager repository exactly or it will not be processed.

**SCOPE(imsid,...)**

Limit generation to change packages associated with the specified IMS systems. By default, all change packages that match the values provided in CPDATE, CPTIME, and CPNAME are used.

**FROM(REPOSITORY,ddname)**

The ddname of the IMS Configuration Manager repository where the generate change package is located.
TO(outputtype,ddname)

Specifies the type of output generated via the outputtype variable, and the
destination data set via ddname.

The outputtype variable can be one of the following values:

STAGE1

Generate stage 1 macro definitions containing both MODBLK and Multiple
Systems Coupling (MSC) resources.

SYSRDDS

Generate a system RDDS for use in IMS cold start processing.

Tips:

• Use the system RDDS generated by the GEN command to replace only
  the oldest RDDS in your IMS system. That way, you can still fall back to
  your last configuration if an error occurs. You can use the IMS RDDS
  header update utility to find the oldest RDDS in your IMS system.

• Once your IMS systems have completed cold start processing and your
  resources are in IMS, you can easily move them to an IMSRSC
  repository using the EXPORT type-2 command.

FORCE

Indicates that generation is to proceed even if the change package fails
pre-generation validation.

Related tasks:

“Generating stage 1 or an RDDS from a generate change package using the ISPF
dialog” on page 98

Use the IMS Configuration Manager ISPF dialog to create JCL that generates stage
1 source or an RDDS from a generate change package.

Related reference:

“Example JCL for generating stage 1 source” on page 234

This JCL generates stage 1 source from all resource groups assigned to a system
using the GEN batch command. For another example, see GPLGEN in SGPLSAMP.

“Example JCL for generating an RDDS” on page 235

This JCL generates an RDDS from all resource groups assigned to a system using
the GEN batch command.
**INSTALL command**

Installs resources from a *command* change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.

**Syntax**

\[
\text{INSTALL} \left( \text{CPDATE}(-y y y . m m . d d-)\text{-CPTIME}(h h . m m . s s)\text{-CPNAME}(c p n a m e)\right) \\
\text{-FROM(REPOSITORY,ddname)} \text{-PLEX(imsplex)} \\
\text{-RETRYCNT(3)} \text{-RETRYWAIT(1)} \text{-NOTREADY(STOP)} \\
\text{-ONFAILURE(STOP)} \text{-ONFAILURE(CONTINUE)} \text{-ONFAILURE(ROLLBACK)} \\
\text{-CMDTIMEOUT(seconds)} \text{-CHECK} \text{-FORCE} \\
\]

**Parameters**

**CPDATE**(*parameters*)

The date of the command change package to install.

\*yyyy.mm.dd\*

Specify the year, month, and day of the command change package.

**SLATEST**

Install the most recent command change package for the IMSID specified in the SCOPE keyword. When $LATEST$ is used only one IMSID is allowed in the SCOPE parameter.

**CPTIME**(hh.mm.ss)

The time of the command change package to install.

**CPNAME**(cpname)

The name of the command change package to install. The cpname specified must match the name of the change package in the IMS Configuration Manager repository exactly or it will not be processed.

**FROM**(REPOSITORY,ddname)

Specifies the ddname of the IMS Configuration Manager repository containing the command change package and resource definitions. For example:

**FROM(REPOSITORY,GPLDD)**

**PLEX**(imsplex)

The name of the IMSplex that contains the system or systems that are being updated by the command change package.

**SCOPE**(*parameters*)

A list of one or more systems to update.
Specify one of the following values:

- Update all systems in the IMSplex specified by PLEX.

 member-name,...

Update only the specified systems.

Systems that do not have a change package with the specified CDATE and CPTIME are skipped.

If you omit the SCOPE parameter, IMS Configuration Manager uses the contents of the change package to determine which systems require updates.

RETRYCNT(number)

The number of times to retry the command if a failure occurs. Default: 3.

RETRYWAIT(seconds)

The number of seconds to wait before retrying the command after a failure occurs. Seconds must be an integer. Default: 1 second.

NOTREADY(STOP|IGNORE)

The action to perform if the system being updated reports that it is “not ready”. Specify one of the following values:

STOP

Stop the update and perform no further processing. This is the default behavior.

IGNORE

Ignore the “not ready” error and process the next system defined in the SCOPE parameter, if one exists.

ONFAILURE(STOP|CONTINUE|ROLLBACK)

The action to perform if the system reports a failure. Possible values are:

STOP

Stop the update. Changes made successfully before the failure occurred are retained. This is the default behavior.

CONTINUE

Skip errors and continue the update with the next resource in the change package.

ROLLBACK

Stop the update and roll back the system. Changes made successfully before the failure occurred are rolled back to a state before the job began. Other systems listed in the SCOPE parameter are unaffected.

CMDTIMEOUT(seconds)

The number of seconds to wait before aborting the update if no response has been received by the system. Seconds must be an integer. Default: 300 second.

CHECK

When specified, CHECK instructs the batch utility to dynamically evaluate and report on the type-2 commands required to create and update resource definitions without modifying your live systems. Use CHECK to conduct a “dry run” that allows you to review proposed actions prior to submitting the final job.

FORCE

Use with caution. Bypass IMS Configuration Manager pre-validation checks and proceed with resource updates. By default, IMS Configuration Manager ensures that change packages are installed in the order of their creation, and
backed out in the reverse order of their installation. The FORCE parameter allows you to override the default behavior.

**Related concepts:**

- "IMS command security” on page 31
- "Install/backout report reference“ on page 233

The IMS Configuration Manager TAKEUP, INSTALL, and BACKOUT commands use IMS commands to interact with your IMS systems.

**Related reference:**

- "SYSPRINT install/backout log reference” on page 315
- "Install/backout report reference“ on page 316
- "Example JCL for installing resources” on page 232
- "Example JCL for a take-up, compare, and install” on page 233

The SYSPRINT log provides summary status of the INSTALL or BACKOUT job. This topic provides a general overview of the REPORT data set. This report is generated by the INSTALL and BACKOUT commands.

- "BACKOUT command” on page 236

The BACKOUT command allows you to backout an installed command change package.

---

### MAINT.MEMBERS command

Edits IMSplexes, IMS systems, and CSL component definitions stored in an IMS Configuration Manager repository.

**Syntax**

```
MAINT.MEMBERS FROM(DDNAME, ddname) TO(REPOSITORY, ddname)
```

**Parameters**

**FROM(DDNAME, ddname)**

- The ddname of a statement containing a series of subcommands that are to be applied to the IMS Configuration Manager repository. See "Repository subcommands" for details.

**TO(REPOSITORY, ddname)**

- The ddname of the IMS Configuration Manager repository containing the resource definitions. Repository subcommands listed in the ddname variable specified by the FROM parameter will be submitted to this IMS Configuration Manager repository.

**Repository subcommands**

Repository subcommands that are supported by the MAINT.MEMBERS command conform to the following syntax:
Related reference:

"Example JCL for editing systems and IMSplexes" on page 228

This JCL examples uses the MAINT.MEMBERS batch command to create and edit IMSplexes, IMS systems, and Common Service Layer (CSL) component definitions stored in the IMS Configuration Manager repository.

CREATE subcommands

Use a CREATE subcommand with the MAINT.MEMBERS command to create an IMS, IMS Connect system, or Common Service Layer (CSL) component definition in the IMS Configuration Manager repository.

CREATE PLEX subcommand

Creates an IMSplex definition in the IMS Configuration Manager repository.

Syntax

```
| CREATE | PLEX | NAME( component-name ) |
```

SET attributes: PLEX:

```
| DSCR( description ) |
```

Parameters

NAME()

Specifies the name, names, or component name mask of the component.

Names may be up to five characters in length.
 SET()     
 Specifies the attributes to be assigned.

 DSCR()     
 A textual description of the IMSplex. Descriptions may be up to forty 
 characters in length.

CREATE IMS subcommand
Create an IMS definition in the IMS Configuration Manager repository.

Syntax

```
CREATE IMS NAME(component-name component-name-mask)
/SET(set-attribute)
```

SET attributes: IMS:
VER( 14.1 )
VER( 13.1 )
VER( 12.1 )
VER( 11.1 )
VER( 10.1 )

DSCR(description)
PLEX(imsplex-name)
CPTY(CMD)
CPTY(GEN)
RECON1(data-set-name)
RECON2(data-set-name)
RECON3(data-set-name)
SYSRDDS(data-set-name)
STAGE1(data-set-name)

JCLOUT(data-set-name)
,JCLS-member-name

RGSUF(DFSPB-member-suffix)
JCLOVERRIDES(DFSPB-JCL-overrides-string)
CQSINIT(CQSIP-member-suffix)
CQSOVERRIDES(CQSIP-JCL-overrides-string)
BPECFG(BPE-configuration-member-name)

DSPBI(DBRC-configuration-member-suffix)
CTRLREGIONTYPE(DBCTL)
CTRLREGIONTYPE(DCCTL)
ADDRNAME(address-name)
OSNAME(os-name)

PROCLIBS(data-set-name)

STEPLIBS(data-set-name)

Notes:
1 VER is a mandatory parameter.
2 PLEX is a mandatory parameter if CPTY is BOTH or CMD.
3 If not specified, CPTY defaults to BOTH.
4 RGSUF is a mandatory parameter.
5 If not specified, CTRLREGIONTYPE defaults to DBDC.

Parameters
NAME()
Specifies the name, names, or component name mask of the component.
Names may be up to four characters in length.

SET()
Specifies the attributes to be assigned.
VER()
   The software version of the IMS.

DSCR()
   A textual description of the IMS. Descriptions may be up to forty
   characters in length.

PLEX()
   The five-character name of the participating IMSplex. If the IMSplex is not
   already defined in the IMS Configuration Manager repository, the action
   fails and an error message is issued.

CPTYPE()
   The type or types of change packages that can be associated with this IMS.
   CPTYPE accepts one of the following options:
   
   BOTH
     Allows this IMS to be associated with both command and generate
     change packages.
   
   CMD
     Allows this IMS to be associated with command change packages.
   
   GEN
     Allows this IMS to be associated with generate change packages.

RECON1(data-set-name)
   IMS DBRC Recon data set name 1

RECON2(data-set-name)
   IMS DBRC Recon data set name 2

RECON3(data-set-name)
   IMS DBRC Recon data set name 3

SYSRDDS(data-set-name)
   Allocates a data set for a system RDDS to be used in IMS cold start
   processing.

STAGE1(data-set-name)
   Allocates a data set for stage 1 source.

JCLOUT(data-set-name)
   Allocates a data set to store IMS stage 1 macro statements.

RGSUF()
   The three-character suffix for DFSPBxxx to be used during startup of the
   IMS control region. The PROCLIB member DFSPBxxx contains control
   region execution parameters.

   Note: Specify a particular suffix for different control region environments.
   For example, specify IMS for DB/DC, DBC for DBCTL, and DCC for DCCTL.

JCLOVERRIDES()
   One or more execution parameters to document JCL overrides to PROCLIB
   member parameters for this IMS. Parameters are specified in the form
   parameter=value. Parameter/value pairs are separated using a comma or
   spaces.

CQSINIT()
   The three-character suffix for the CQSIPxxx member which contains CQS
   initialization parameters (if applicable).
CQSOVERRIDES()
One or more execution parameters to override the corresponding
CQSIPxxx suffix parameters at CQS system startup. The particular
CQSIPxxx startup member is identified by CQSINIT. Parameters are
specified in the form parameter=suf where suf is the three-character suffix
that identifies the corresponding PROCLIB member. For example, specify
STRDEFG=001,STRDEFL=002 to select PROCLIB members CQSSG001 and
CQSSL002. Parameter/value pairs are separated using a comma or spaces.

BPECFG()
BPE configuration member in PROCLIB for the CQS system (if applicable).

DSPBI()
The suffix of the DBRC configuration member name.

CTRLREGIONTYPE()
The type of control region environment. This information is used in
parameter validation.

   DBDC
   Database/data communication (DB/DC).

   DBCTL
   Database Control.

   DCCTL
   Data Communication Control.

ADDRNAME()
Eight character address space name.

OSNAME()
Eight character operating systems MVS ID.

PROCLIBS()
One or more fully qualified procedure library names.

STEPLIBS()
One or more fully qualified step library names.

CREATE IMSCON subcommand
Create an IMS Connect system definition in the IMS Configuration Manager
repository.

Syntax

```text
CREATE IMSCON NAME(component-name)
SET( set-attribute )
```

SET attributes: IMSCON:
Notes:
1 VER is a mandatory parameter.
2 HWSCFG is a mandatory parameter.
3 BPECFG is a mandatory parameter.

Parameters

NAME()
    Specifies the name, names, or component name mask of the component.
    Names may be up to eight characters in length.

SET()
    Specifies the attributes to be assigned.

    VER()
        The software version of the IMS Connect system.

    DSCR()
        A textual description of the IMS Connect system. Descriptions may be up
to forty characters in length.

    HWSCFG()
        The name of the IMSCON configuration member in PROCLIB.

    BPECFG()
        The name of the BPE configuration member in PROCLIB for the IMS
        Connect system.

    CEXCONSOLE()
        The hostname and port number of the IMS Connect Extensions console, if
        available.

    PROCLIBS()
        One or more fully qualified procedure library names.

    IMSPLEX(TMEMBER(imsplex-name1, imsplex-name2,...) MEMBER(imsplex-member-name1, imsplex-member-name2,...))
        Associate this IMS Connect system with one or more IMSplexes.
        The IMSPLEX parameter must contain the following parameters:

        TMEMBER()
            The name of the IMSplex. This name corresponds to the TMEMBER
            operand of the IMSPLEX statements in the HWSCFG configuration.
member. If the IMSplex is not already defined in the IMS Configuration Manager repository, the action fails and an error message is issued.

**MEMBER()**

The IMSplex member name that IMS Connect uses to connect to the IMSplex. This name corresponds to the MEMBER operand of the IMSPLEX statement in the HWSCFG configuration member.

Each IMSplex association must have an entry in both the TMEMBER and MEMBER parameters. For example, to specify a single IMSplex association, use the following command syntax:

```
IMSPLEX(TMEMBER(PLEX1) MEMBER(ICMI0DP1))
```

To associate this IMS Connect with two IMSplexes (an IMSplex named PLEX1 with a member name of MEMBERP1, and an IMSplex named PLEX2 with a member name of MEMBERP2), use the following syntax:

```
IMSPLEX(TMEMBER(PLEX1,PLEX2) MEMBER(MEMBERP1,MEMBERP1))
```

Up to 32 IMSplexes may be specified.

**CREATE ODBM subcommand**

Create an Open Database Manager (ODBM) Common Services Layer (CSL) component definition in the IMS Configuration Manager repository.

**Syntax**

```plaintext
CREATE ODBM NAME(component-name) component-name-mask

SET(set-attribute)

SET attributes: ODBM:

VER(1.4)
1.3
1.2
1.1

DSCR(description)

PLEX(imsplex-name)

ODBMINIT(CSLDI-member-suffix)

JCOVERRIDES(CSLDI-JCL-overrides-string)

BPECFG(BPE-configuration-member-name)

PROCLIBS(data-set-name)
```
Notes:
1 VER is a mandatory parameter.
2 PLEX is a mandatory parameter.
3 ODBMINIT is a mandatory parameter.
4 BPECFG is a mandatory parameter.

Parameters

NAME()
Specifies the name, names, or component name mask of the component.
Names may be up to eight characters in length and must end in the suffix 00.

SET()
Specifies the attributes of the component to be assigned.

VER()
The software version of the ODBM component.

DSCR()
A textual description of the ODBM component. Descriptions may be up to forty characters in length.

PLEX()
The five-character name of the participating IMSplex. If the IMSplex is not already defined in the IMS Configuration Manager repository, the action fails and an error message is issued.

ODBMINIT()
The three-character suffix of the ODBM initialization member CSLDIxxx in the PROCLIB.

JCLOVERRIDES()
One or more JCL execution parameters which override the corresponding CSLDIxxx parameters at system startup. This is for documentation purposes only and does not affect the live system. Parameters are specified in the form parameter=value and are separated by commas or spaces.

BPECFG()
The name of the BPE configuration member in PROCLIB for this CSL component.

PROCLIBS()
One or more fully qualified procedure library names.

CREATE REPO subcommand
Create a Repository Server (RS) Common Services Layer (CSL) component definition in the IMS Configuration Manager repository.

Syntax

```plaintext
CREATE REPO NAME(component-name\ncomponent-name-mask)```

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SET attributes: REPO:

- VER() (1)
  - 1.3
  - 1.2
  - 1.1
- DSCR(description) (2)
- PLEX(imsplex-name)
- FRPCFG(repository-server-configuration) (3)
- BPCFG(BPE-configuration-member-name) (4)
- PROCLIBS(data-set-name)

Notes:
1. VER is a mandatory parameter.
2. PLEX is a mandatory parameter.
3. FRPCFG is a mandatory parameter.
4. BPCFG is a mandatory parameter.

Parameters

NAME()
  Specifies the name, names, or component name mask of the component.
  Names may be up to eight characters in length and must end in the suffix RP.

SET()
  Specifies the attributes to be updated.

VER()
  The software version of the Repository Server.

DSCR()
  A textual description of the Repository Server. Descriptions may be up to forty characters in length.

PLEX()
  The five-character name of the participating IMSplex. If the IMSplex is not already defined in the IMS Configuration Manager repository, the action fails and an error message is issued.

FRPCFG()
  The name of the FRP configuration member in PROCLIB for the Repository Server.

BPCFG()
  The name of the BPE configuration member in PROCLIB for this CSL component.
PROCLIBS()

One or more fully qualified procedure library names.

CREATE OM subcommand

Create an Operations Manager (OM) Common Services Layer (CSL) component
definition in the IMS Configuration Manager repository.

Syntax

```
CREATE OM NAME(component-name, component-name-mask)
SET(set-attribute)
```

SET attributes: OM:

```
VER( 1.7 )
DSCR(description)
PLEX(imsplex-name)
OMINIT(CSLOI-member-suffix)
JCLOVERRIDES(CSLOI-JCL-overrides-string)
BPECFG(BPE-configuration-member-name)
```

Notes:

1. VER is a mandatory parameter.
2. PLEX is a mandatory parameter.
3. OMINIT is a mandatory parameter.
4. BPECFG is a mandatory parameter.

Parameters

NAME()

Specifies the name, names, or component name mask of the component.
Names may be up to eight characters in length and must end in the suffix OM.

SET()

Specifies the attributes to be assigned.
VER()
The software version of the Operations Manager.

DSCR()
A textual description of the Operations Manager. Descriptions may be up
to forty characters in length.

PLEX()
The five-character name of the participating IMSplex. If the IMSplex is not
already defined in the IMS Configuration Manager repository, the action
fails and an error message is issued.

OMINIT()
The suffix of the CSLOIxxx member in PROCLIB.

JCLOVERRIDES()
One or more JCL execution parameters which override the corresponding
CSLOIxxx parameters at system startup. This is for documentation
purposes only and does not affect the live system. Parameters are specified
in the form parameter=value and are separated by commas or spaces.

BPECFG()
The name of the BPE configuration member in PROCLIB for this CSL
component.

PROCLIBS()
One or more fully qualified procedure library names.

CREATE RM subcommand
Create a Resource Manager (RM) Common Services Layer (CSL) component
definition in the IMS Configuration Manager repository.

Syntax

```plaintext
CREATE RM NAME(component-name)
```

SET set-attribute

SET attributes: RM:
## Parameters

**NAME()**
- Specifies the name, names, or component name mask of the component.
- Names may be up to eight characters in length and must end in the suffix `RM`.

**SET()**
- Specifies the attributes to be assigned.

**VER()**
- The software version of the RM.

**DSCR()**
- A textual description of the RM. Descriptions may be up to forty characters in length.

**PLEX()**
- The five-character name of the participating IMSplex. If the IMSplex is not already defined in the IMS Configuration Manager repository, the action fails and an error message is issued.

**RMINIT()**
- The suffix of the CSLRIxxx member in PROCLIB.

**JCLOSEVERRIDES()**
- One or more JCL execution parameters which override the corresponding CSLRIxxx parameters at system startup. This is for documentation purposes only and does not affect the live system. Parameters are specified in the form `parameter=value` and are separated by commas or spaces.

**BPECFG()**
- The name of the BPE configuration member in PROCLIB for this CSL component.
**CREATE SCI subcommand**
Create a Structured Call Interface (SCI) Common Services Layer (CSL) component definition in the IMS Configuration Manager repository.

**Syntax**
```
CREATE SCI NAME component-name
    component-name-mask
    SET
        set-attribute
SET attributes: SCI:
    VER(1.7)
    1.6
    1.5
    1.4
    1.3
    1.2
    DSCR(description)
    PLEX(imsplex-name)
    SCIINIT(CLSI-member-suffix)
    JCOVERRIDES(CLSI-JCL-overrides-string)
    BPECFG(BPE-configuration-member-name)
    PROCLIBS(data-set-name)
```

**Notes:**
1. VER is a mandatory parameter.
2. PLEX is a mandatory parameter.
3. SCIINIT is a mandatory parameter.
4. BPECFG is a mandatory parameter.

**Parameters**

**NAME()**
Specifies the name, names, or component name mask of the component.
Names may be up to eight characters in length and must end in the suffix SC.

**SET()**
Specifies the attributes to be assigned.
VER()
The software version of the SCI.

DSCR()
A textual description of the SCI. Descriptions may be up to forty characters in length.

PLEX()
The five-character name of the participating IMSplex. If the IMSplex is not already defined in the IMS Configuration Manager repository, the action fails and an error message is issued.

SCIINIT()
The suffix of the CSLSIxxx member in PROCLIB.

JCOVERRIDES()
One or more JCL execution parameters which override the corresponding CSLSIxxx parameters at system startup. This is for documentation purposes only and does not affect the live system. Parameters are specified in the form parameter=value and are separated by commas or spaces.

BPECFG()
The name of the BPE configuration member in PROCLIB for this CSL component.

PROCLIBS()
One or more fully qualified procedure library names.

UPDATE subcommands
Use an UPDATE subcommand with the MAINT.MEMBERS command to update an IMS, IMS Connect system, or CSL component definition in the IMS Configuration Manager repository.

UPDATE PLEX subcommand
Updates an IMSplex stored in the IMS Configuration Manager repository.

Syntax

```
UPDATE PLEX NAME(component-name)(component-name-mask) 
SET(set-attribute)
```

SET attributes: PLEX:

```
DSCR(description)
```

Parameters

NAME()
Specifies the name, names, or component name mask of the component.
Names may be up to five characters in length. The action fails and an error is issued if the named component does not exist.

**SET()**
Specifies the attributes to be updated.

**DSCR()**
A textual description of the IMSplex. Descriptions may be up to forty characters in length.

**UPDATE IMS subcommand**
Updates an IMS stored in the IMS Configuration Manager repository.

**Syntax**

```
UPDATE IMS NAME(component-name)
```
Parameters

NAME()
Specifies the name, names, or component name mask of the component.
Names may be up to four characters in length. The action fails and an error is
issued if the named component does not exist.

SET()
Specifies the attributes to be updated.

VER()
The software version of the IMS.

DSCR()
A textual description of the IMS. Descriptions may be up to forty
characters in length.

PLEX()
The five-character name of the participating IMSplex. If the IMSplex is not
already defined in the IMS Configuration Manager repository, the action
fails and an error message is issued.

CPTYPE()
The type or types of change packages that can be associated with this IMS.
CPTYPE accepts one of the following options:
CMD
   Allows this IMS to be associated with command change packages.

GEN
   Allows this IMS to be associated with generate change packages.

BOTH
   Allows this IMS to be associated with both command and generate change packages.

RECON1(data-set-name)
   IMS DBRC Recon data set name 1

RECON2(data-set-name)
   IMS DBRC Recon data set name 2

RECON3(data-set-name)
   IMS DBRC Recon data set name 3

SYSRDDS(data-set-name)
   Allocates a data set for a system RDDS to be used in IMS cold start processing.

STAGE1(data-set-name)
   Allocates a data set for stage 1 source.

JCLOUT(data-set-name)
   Allocates a data set to store IMS stage 1 macro statements.

RGSUF()
   The three-character suffix for DFSPBxxx to be used during startup of the IMS control region. The PROCLIB member DFSPBxxx contains control region execution parameters.

   **Note:** Specify a particular suffix for different control region environments. For example, specify IMS for DB/DC, DBCTL for DBCTL, and DCCTL for DCCTL.

JCLOVERRIDES()
   One or more execution parameters to document JCL overrides to PROCLIB member parameters for this IMS. Parameters are specified in the form parameter=value. Parameter/value pairs are separated using a comma or spaces.

CQSINIT()
   The three-character suffix for the CQSIPxxx member which contains CQS initialization parameters (if applicable).

CQSOVERRIDES()
   One or more execution parameters to override the corresponding CQSIPxxx suffix parameters at CQS system startup. The particular CQSIPxxx startup member is identified by CQSINIT. Parameters are specified in the form parameter=suf where suf is the three-character suffix that identifies the corresponding PROCLIB member. For example, specify STRDEFG=001,STRDEFL=002 to select PROCLIB members CQSSG001 and CQSSL002. Parameter/value pairs are separated using a comma or spaces.

BPECFG()
   BPE configuration member in PROCLIB for the CQS system (if applicable).

DSPBI()
   The suffix of the DBRC configuration member name.
CTRLREGIONTYPE()

The type of control region environment. This information is used in
parameter validation.

DBDC

Database/data communication (DB/DC).

DBCTL

Database Control.

DCCTL

Data Communication Control.

ADDRNAME()

Eight character address space name.

OSNAME()

Eight character operating systems MVS ID.

PROCLIBS()

One or more fully qualified procedure library names.

STEPLIBS()

One or more fully qualified step library names.

UPDATE IMSCON subcommand

Updates an IMS Connect system stored in the IMS Configuration Manager
repository.

Syntax

```
UPDATE IMSCON NAME(
    component-name,
    component-name-mask
)
```

```
SET(
    set-attribute
)
```

SET attributes: IMSCON:

```
VER(14.1)
13.1
12.1
11.1
10.1
```

```
DSCR(description)
HWSCFG(member-name)
BPRECFG(member-name)
CEXCONSOLE(hostname, port-number)
```

```
PROCLIBS(data-set-name)
```

```
IMSPLEX(TMERICAN(member-name)) MEMBER(implex-member-name)
```

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Parameters

NAME()
Specifies the name, names, or component name mask of the component.
Names may be up to four characters in length. The action fails and an error is
issued if the named component does not exist.

SET()
Specifies the attributes to be updated.

VER()
The software version of the IMS Connect system.

DSCR()
A textual description of the IMS Connect system. Descriptions may be up
to forty characters in length.

HWSCFG()
The name of the IMSCON configuration member in PROCLIB.

BPECFG()
The name of the BPE configuration member in PROCLIB for the IMS
Connect system.

CEXCONSOLE()
The hostname and port number of the IMS Connect Extensions console, if
available.

PROCLIBS()
One or more fully qualified procedure library names.

IMSPLEX(TMEMBER(imsplex-name1, imsplex-name2,...) MEMBER(imsplex-member-
name1, imsplex-member-name2,...))
Associate this IMS Connect system with one or more IMSplexes.
The IMSPLEX parameter must contain the following parameters:

TMEMBER()
The name of the IMSplex. This name corresponds to the TMEMBER
operand of the IMSPLEX statements in the HWSCFG configuration
member. If the IMSplex is not already defined in the IMS
Configuration Manager repository, the action fails and an error
message is issued.

MEMBER()
The IMSplex member name that IMS Connect uses to connect to the
IMSplex. This name corresponds to the MEMBER operand of the
IMSPLEX statement in the HWSCFG configuration member.

Each IMSplex association must have an entry in both the TMEMBER and
MEMBER parameters. For example, to specify a single IMSplex association,
use the following command syntax:
IMSPLEX(TMEMBER(PLEX1) MEMBER(1CM10DP1))

To associate this IMS Connect with two IMSplexes (an IMSplex named
PLEX1 with a member name of MEMBERP1, and an IMSplex named
PLEX2 with a member name of MEMBERP2), use the following syntax:
IMSPLEX(TMEMBER(PLEX1,PLEX2) MEMBER(MEMBERP1,MEMBERP2))

Up to 32 IMSplexes may be specified. This parameter replaces any
previously specified IMSplex associations.
UPDATE ODBM subcommand
Updates an Open Database Manager (ODBM) Common Services Layer (CSL) component stored in the IMS Configuration Manager repository.

Syntax

```
UPDATE ODBM NAME(
    component-name
    component-name-mask
)

SET(
    set-attribute
)
```

SET attributes: ODBM:

```
VER(1.4)
    1.3
    1.2
    1.1

DSCR(description)

PLEX(imsplex-name)

ODBMINIT(CSLDI-member-suffix)

JCLOVERRIDES(CSLDI-JCL-overrides-string)

BPECFG(BPE-configuration-member-name)

PROCLIBS(data-set-name)
```

Parameters

NAME()
   Specifies the name, names, or component name mask of the component.
   Names may be up to eight characters in length and must end in the suffix OD.
   The action fails and an error is issued if the named component does not exist.

SET()
   Specifies the attributes of the component to be created.

VER()
   The software version of the ODBM component.

DSCR()
   A textual description of the ODBM component. Descriptions may be up to forty characters in length.

PLEX()
   The five-character name of the participating IMSplex. If the IMSplex is not already defined in the IMS Configuration Manager repository, the action fails and an error message is issued.

ODBMINIT()
   The three-character suffix of the ODBM initialization member CSLDIxxx in the PROCLIB.
JCLOVERRIDES()
One or more JCL execution parameters which override the corresponding
CSLDIxxx parameters at system startup. This is for documentation
purposes only and does not affect the live system. Parameters are specified
in the form parameter=value and are separated by commas or spaces.

BPECFG()
The name of the BPE configuration member in PROCLIB for this CSL
component.

PROCLIBS()
One or more fully qualified procedure library names.

UPDATE REPO subcommand
Updates a Repository Server (RS) Common Services Layer (CSL) component stored
in the IMS Configuration Manager repository.

Syntax

```
UPDATE REPO NAME(
  component-name
  component-name-mask
)
SET(
  set-attribute
)

SET attributes: REPO:

  VER(
    1.3
    1.2
    1.1
  )
  DSCR(description)
  PLEX(imsplex-name)
  FRPCFG(repository-server-configuration)
  BPECFG(BPE-configuration-member-name)
  PROCLIBS(data-set-name)
```

Parameters

NAME()
Specifies the name, names, or component name mask of the component.
Names may be up to eight characters in length and must end in the suffix RP.
The action fails and an error is issued if the named component does not exist.

SET()
Specifies the attributes to be updated.

VER()
The software version of the Repository Server.
**UPDATE OM subcommand**

Updates an Operations Manager (OM) Common Services Layer (CSL) component stored in the IMS Configuration Manager repository.

**Syntax**

```
UPDATE OM NAME(component-name, component-name-mask)
```

**SET attributes: OM:**

```
VER(1.7)
```

- `VER(1.7)`
  - `1.6`
  - `1.5`
  - `1.4`
  - `1.3`
  - `1.2`

**Parameters**

**NAME()**

Specifies the name, names, or component name mask of the component.
Names may be up to eight characters in length and must end in the suffix OM. The action fails and an error is issued if the named component does not exist.

**SET()**

Specifies the attributes to be updated.

**VER()**

The software version of the Operations Manager.

**DSCR()**

A textual description of the Operations Manager. Descriptions may be up to forty characters in length.

**PLEX()**

The five-character name of the participating IMSplex. If the IMSplex is not already defined in the IMS Configuration Manager repository, the action fails and an error message is issued.

**OMINIT()**

The suffix of the CSLOIxxx member in PROCLIB.

**JCLOVERRIDES()**

One or more JCL execution parameters which override the corresponding CSLOIxxx parameters at system startup. This is for documentation purposes only and does not affect the live system. Parameters are specified in the form `parameter=value` and are separated by commas or spaces.

**BPECFG()**

The name of the BPE configuration member in PROCLIB for this CSL component.

**PROCLIBS()**

One or more fully qualified procedure library names.

**UPDATE RM subcommand**

Updates a Resource Manager (RM) Common Services Layer (CSL) component stored in the IMS Configuration Manager repository.

**Syntax**

```
UPDATE RM NAME(component-name) SET(set-attribute)
```

**SET attributes: RM:**
Parameters

NAME()
  Specifies the name, names, or component name mask of the component.
  Names may be up to eight characters in length and must end in the suffix RM.
  The action fails and an error is issued if the named component already exists.

SET()
  Specifies the attributes to be updated.

VER()
  The software version of the RM.

DSCR()
  A textual description of the RM. Descriptions may be up to forty characters
  in length.

PLEX()
  The five-character name of the participating IMSplex. If the IMSplex is not
  already defined in the IMS Configuration Manager repository, the action
  fails and an error message is issued.

RMINIT()
  The suffix of the CSLRIxxx member in PROCLIB.

JCOVERRIDES()
  One or more JCL execution parameters which override the corresponding
  CSLRIxxx parameters at system startup. This is for documentation
  purposes only and does not affect the live system. Parameters are specified
  in the form parameter=value and are separated by commas or spaces.

BPECFG()
  The name of the BPE configuration member in PROCLIB for this CSL
  component.

PROCLIBS()
  One or more fully qualified procedure library names.

UPDATE SCI subcommand
Updates a Structured Call Interface (SCI) Common Services Layer (CSL)
component stored in the IMS Configuration Manager repository.

Syntax
Parameters

NAME()
  Specifies the name, names, or component name mask of the component.
  Names may be up to eight characters in length and must end in the suffix SC.
  The action fails and an error is issued if the named component already exist.

SET()
  Specifies the attributes to be updated.

VER()
  The software version of the SCI.

DSCR()
  A textual description of the SCI. Descriptions may be up to forty characters
  in length.

PLEX()
  The five-character name of the participating IMSplex. If the IMSplex is not
  already defined in the IMS Configuration Manager repository, the action
  fails and an error message is issued.

SCIINIT()
  The suffix of the CSLSIxxx member in PROCLIB.

JCLOVERRIDES()
  One or more JCL execution parameters which override the corresponding
  CSLSIxxx parameters at system startup. This is for documentation
  purposes only and does not affect the live system. Parameters are specified
  in the form parameter=value and are separated by commas or spaces.
BPECFG()
   The name of the BPE configuration member in PROCLIB for this CSL component.

PROCLIBS()
   One or more fully qualified procedure library names.

DELETE subcommand
   Use the DELETE subcommand with the MAINT.MEMBERS command to delete an IMSplex, IMS, IMS Connect system, or CSL component stored in the IMS Configuration Manager repository.

Syntax

```
/SM590000/SM590000
DELETE PLEX IMS IMSCON ODBM REPO OM RM SCI
```

Parameters

PLEX
   Delete an IMSplex. Only an IMSplex that is not referenced by any member systems may be deleted. If the IMSplex is referenced by systems in the IMS Configuration Manager repository, the action fails and an error message is issued.

IMS
   Delete an IMS. When an IMS system is deleted, the following items are also deleted:
   • All associated change packages
   • All system-specific resource groups
   Common resource groups are not deleted.

IMSCON
   Delete an IMS Connect system.

ODBM
   Delete an Open Database Manager (ODBM) Common Services Layer (CSL) component.

REPO
   Delete a Repository Server (RS) CSL component.

OM
   Delete an Operations Manager (OM) CSL component.

RM
   Delete a Resource Manager (RM) CSL component.

SCI
   Delete a Structured Call Interface (SCI) CSL component.
NAME()
Delete components that match the specified name, names, or component name mask. A warning is issued if the named component does not exist.

MAINT.RESOURCES command
Create, update, and delete resources and resource descriptors stored in an IMS Configuration Manager repository.

Syntax

\[\text{MAINT.RESOURCES FROM(DDNAME, ddname) TO(REPOSITORY, ddname)}\]

Parameters

FROM(DDNAME, ddname)
The ddname of a statement containing a series of subcommands that are to be submitted to the IMS Configuration Manager repository. See “Repository subcommands” for details.

TO(REPOSITORY, ddname)
The ddname of the IMS Configuration Manager repository containing the resource definitions. Repository subcommands listed in the ddname variable specified by the FROM parameter will be submitted to this IMS Configuration Manager repository.

RGNAME()
The name and IMS ID (if applicable) of the resource group in which your resource definitions are stored. The presence of imsid indicates that the resource group is a system-level resource group. The absence of the imsid indicates an common resource group.

Repository subcommands
Repository subcommands that are supported by the MAINT.RESOURCES command consist of a resource-related type-2 command followed by optional command extensions specific to IMS Configuration Manager. The commands conform to the following syntax:

\[\text{resource type-2 command} \quad \text{command extensions}\]

Resource-related type-2 command:

\[\text{CREATE DB NAME(resource-name)}\]
\[\text{UPDATE DB DESC NAME(resource-name)}\]
\[\text{DELETE DB DESC NAME(resource-name)}\]
\[\text{CREATE PGM NAME(resource-name)}\]
\[\text{UPDATE PGM DESC NAME(resource-name)}\]
\[\text{DELETE PGM DESC NAME(resource-name)}\]
\[\text{CREATE RTC NAME(resource-name)}\]
\[\text{UPDATE RTC DESC NAME(resource-name)}\]
\[\text{DELETE RTC DESC NAME(resource-name)}\]
\[\text{CREATE TRAN NAME(resource-name)}\]
\[\text{UPDATE TRAN DESC NAME(resource-name)}\]
\[\text{DELETE TRAN DESC NAME(resource-name)}\]
The MAINT.RESOURCES command tolerates the presence of additional type-2 commands, but will issue a warning message to indicate that no further action has been taken by IMS Configuration Manager.

**IMS resource and resource descriptor attributes**

Specify IMS resource and resource descriptor attributes using the SET parameter. A summary of IMS V13 attributes can be found in the following table. Refer to the IMS reference documentation on IMS commands for a complete list of editable attributes.
Table 5. IMS V13 resource and resource descriptor attributes

<table>
<thead>
<tr>
<th>Database Program</th>
<th>Routing code</th>
<th>Transaction code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCTYPE(UPD</td>
<td>BRUS</td>
<td>READ</td>
</tr>
<tr>
<td>DEFAULT(N</td>
<td>Y)</td>
<td>DOPT(N</td>
</tr>
<tr>
<td>FP(N</td>
<td>E)</td>
<td>GPSB(N</td>
</tr>
<tr>
<td>LANG(ASSEM</td>
<td>COBOL</td>
<td>JAVA</td>
</tr>
<tr>
<td>RESIDENT(N</td>
<td>Y)</td>
<td>BMPTYPE(N</td>
</tr>
<tr>
<td>DIRROUTE(N</td>
<td>Y)</td>
<td>EDITRTN(name)</td>
</tr>
<tr>
<td>EDITUC(Y</td>
<td>N)</td>
<td>EMHSZ(size)</td>
</tr>
<tr>
<td>EXPRTIME(seconds)</td>
<td>FP(N</td>
<td>E</td>
</tr>
<tr>
<td>INQ(N</td>
<td>Y)</td>
<td>LCT(value)</td>
</tr>
<tr>
<td>LPRI(value)</td>
<td>MAXRGN(number)</td>
<td>SCHDTYPE(PARALLEL</td>
</tr>
<tr>
<td>MSGTYPE(MULTSEG</td>
<td>SNGLSEG)</td>
<td>MSNAME(name)</td>
</tr>
<tr>
<td>MSNAME(name)</td>
<td>NPRI(value)</td>
<td>WFI(N</td>
</tr>
<tr>
<td>PARLIM(value)</td>
<td>PGM(name)</td>
<td>WFI(N</td>
</tr>
<tr>
<td>PGM(name)</td>
<td>PLCT(value)</td>
<td>WFI(N</td>
</tr>
<tr>
<td>PLCTTIME(hundredths of seconds)</td>
<td>RECOVER(Y</td>
<td>N)</td>
</tr>
<tr>
<td>REMOTE(N</td>
<td>Y)</td>
<td>RESP(N</td>
</tr>
<tr>
<td>SEGNO(number)</td>
<td>SEGSZ(size)</td>
<td>WFI(N</td>
</tr>
<tr>
<td>SERIAL(N</td>
<td>Y)</td>
<td>SIDL(localsysid)</td>
</tr>
<tr>
<td>SIDL(localsysid)</td>
<td>SIDSZ(size)</td>
<td>WFI(N</td>
</tr>
<tr>
<td>SIDSZ(size)</td>
<td>SPATRUNC(R</td>
<td>S</td>
</tr>
<tr>
<td>SPATRUNC(R</td>
<td>S</td>
<td>N)</td>
</tr>
<tr>
<td>TRANSTAT(N</td>
<td>Y)</td>
<td>WFI(N</td>
</tr>
</tbody>
</table>

Note:

- **D** Settable for descriptor only.

**Command extensions**

Optional command extensions allow you to store additional information about your resource inside the IMS Configuration Manager repository. These parameters are specified inside the XSET parameter.

**XSET()**

Optional command extension. Specify one or more of the following parameters:

**DSCR()**

A forty-character description of the resource.

**NOTES()**

An optional field that allows you to enter any additional textual information about the resource as you see fit.

Related reference:

- “Example JCL for editing resources” on page 230

These examples use the MAINT.RESOURCES batch command to edit resources in the IMS Configuration Manager repository.
TAKEUP command

Imports resources from the IMSRSC repository, an RDDS, or stage 1 source into the IMS Configuration Manager repository. The command can also associate systems with resource groups during the take up.

Syntax

```
TAKEUP FROM(IMSREPOS) IMSREPOS options
FROM(RDDS,ddname) RDDS options
FROM(STAGE1,ddname) Stage 1 options
```

Related concepts:
“IMS command security” on page 31
The IMS Configuration Manager TAKEUP, INSTALL, and BACKOUT commands use IMS commands to interact with your IMS systems.
“Specifying resource groupings by using filtering criteria” on page 307
The TAKEUP command supports filtering of the input with the INCLUDE parameter. This parameter specifies that only resources matching a particular type or name mask will be taken up.

Related reference:
“DISCOVER command” on page 253
Automatically discover IMS components and resources for use in IMS Configuration Manager.

Taking up an IMSRSC repository

Take up resources from an IMSRSC repository using the TAKEUP command and the FROM(IMSREPOS) option.

Syntax

```
TAKEUP FROM(IMSREPOS) PLEX(imsplex) IMSID(imsid)
CMDTIMEOUT(300) CMDTIMEOUT(seconds)
TO(REPOSITORY,ddname) RG(rgname description)
DEFRGLVL(COMMON)
ASSOCIATE(imsid)
DEFRGLVL(SYSTEM)
```
Parameters

FROM(IMSREPOS)
   Take up resources from an IMSRSC repository.

PLEX(imsplex)
   Take up resources from the specified IMSplex.

IMSID(imsid)
   Take up resources from the specified IMS system. The IMS system must be on
   the IMSplex specified by the PLEX parameter and must exist in the IMS
   Configuration Manager repository specified by the TO parameter.

CMDTIMEOUT(seconds)
   The number of seconds to wait before aborting the TAKEUP if no response has
   been received by the system. Default: 300 seconds.

TO(REPOSITORY,ddname)
   The ddname of the IMS Configuration Manager repository in which to store
   your resource definitions. For example:
   TO(REPOSITORY,GPLREPDD)

RG(rgname,description)
   The name of the resource group in which to store your resource definitions. A
   description is optional. For example:
   RG(MYGROUP,'TAKEUP FROM IMSRSC REPOSITORY')

DEFRGLVL(rgtype)
   The type of resource group in which to store your definitions. There are two
   types of resource group:

      COMMON
         Common resource group. Use this option with the ASSOCIATE keyword to
         associate this resource group with one or more IMS systems. This is the
         default option.

      SYSTEM
         System-level resource group. The TAKEUP command associates the
         system-level resource group with the IMS system specified by the IMSID
         parameter.
ASSOCIATE(imsid,\ldots)

Create an association between one or more IMS systems and a common resource group. Specify the common resource group using the RG parameter and the DEFRGLVL(COMMON) option.

Note: You can also use the IMS Configuration Manager ISPF dialog to create associations between common resource groups and IMS systems. See "Associating common resource groups with IMS systems" on page 76.

INCLUDE()

Include only resources that match the specified criteria. Specify one or more of the following options. The following keyword may only be specified once in a single INCLUDE statement:

TRAN()

Take up transaction resources matching the specified name or name-mask.

DB()

Take up database resources matching the specified name or name-mask.

PGM()

Take up program resources matching the specified name or name-mask.

RTC()

Take up routing code resources matching the specified name or name-mask.

TRANDESC()

Take up transaction descriptors matching the specified name or name-mask.

DBDESC()

Take up database descriptors matching the specified name or name-mask.

PGMDESC()

Take up program descriptors matching the specified name or name-mask.

RTCDESC()

Take up routing code descriptors matching the specified name or name-mask.

Example

To include only transactions with the code T1, T2, or prefixed with TA, and only programs with the prefix PGA, use the following statement:

INCLUDE(TRAN(T1,T2,TA*),PGM(PGA*))

To take up all MODBLK resources, specify INCLUDE(ALL).

For additional examples, see "Specifying resource groupings by using filtering criteria" on page 307.

REPLACE

Replace the contents of a resource group if it already exists in the IMS Configuration Manager repository. The contents of a system-level resource group are replaced if the resource group name and IMS ID match the values provided by the RG and IMSID parameters. A common resource group must match the value provided in the RG parameter. Only the contents of a resource group are replaced. Associations between the resource group and other IMS systems are not affected.

Related reference:

"Example JCL for performing a take-up of an IMSRSC repository" on page 225

This JCL example shows how to use the TAKEUP command with an IMS resource
definition (IMSRSC) repository.

**Taking up an RDGS**

Take up resources from a resource definition data set (RDGS) using the TAKEUP command and the FROM(RDGS, ddname) option.

**Syntax**

```
TAKEUP FROM(RDGS, ddname) IMSID(imsid)
```

**Parameters**

**FROM(RDGS, ddname)**

Take up resources from an RDGS using the ddname of the DD statement that contains the input library.
**EXPORT**

Issue an IMS DRD EXPORT command to populate the IMS RDDS specified by
FROM(RDDS,ddname) with resources from the active IMS region before take up
into the IMS Configuration Manager repository.

When using this option, specify the IMS RESLIB in the STEPLIB concatenation.

CMDTIMEOUT(seconds)

The number of seconds to wait before aborting the TAKEUP if no response has
been received by the system. Default: 300 seconds.

**TO(Repository,ddname)**

The ddname of the IMS Configuration Manager repository in which to store
your resource definitions. For example:

TO(Repository,GPLREPDD)

**RG(rgname,description)**

The name of the resource group in which to store your resource definitions. A
description is optional. For example:

RG(MYGROUP,'TAKEUP FROM RDDS')

**DEFRGLVL(rgtype)**

The type of resource group in which to store your definitions. There are two
types of resource group:

- **COMMON**
  
  *Common* resource group. Use this option with the ASSOCIATE keyword to
  associate this resource group with one or more IMS systems. This is the
default option.

- **SYSTEM**
  
  *System-level* resource group. The TAKEUP command associates the
  system-level resource group with the IMS system specified by the IMSID
  parameter.

**ASSOCIATE(imsid,...)**

Create an association between one or more IMS systems and a common
resource group. Specify the common resource group using the RG parameter
and the DEFRGLVL(COMMON) option.

**Note:** You can also use the IMS Configuration Manager ISPF dialog to create
associations between common resource groups and IMS systems. See
"Associating common resource groups with IMS systems" on page 76.

**IMSID(imsid)**

If the EXPORT parameter is used, the IMSID parameter specifies the IMS
system to use with the IMS EXPORT command.

If the DEFRGLVL(SYSTEM) option is used, the IMSID parameter creates an
association between the specified IMS system and the system-level resource
group specified by the RG parameter.

**INCLUDE()**

Include only resources that match the specified criteria. Specify one or more of
the following options. The following keyword may only be specified once in a
single INCLUDE statement:

- **TRAN()**
  
  Take up transaction resources matching the specified name or name-mask.

- **DB()**
  
  Take up database resources matching the specified name or name-mask.
PGM()
   Take up program resources matching the specified name or name-mask.

RTC()
   Take up routing code resources matching the specified name or name-mask.

TRANDESC()
   Take up transaction descriptors matching the specified name or name-mask.

DBDESC()
   Take up database descriptors matching the specified name or name-mask.

PGMDesc()
   Take up program descriptors matching the specified name or name-mask.

RTCDESC()
   Take up routing code descriptors matching the specified name or name-mask.

Example
   To include only transactions with the code T1, T2, or prefixed with TA, and only programs with the prefix PGA, use the following statement:
   INCLUDE(TRAN(T1,T2,TA*),PGM(PGA*))

To take up all MODBLK resources, specify INCLUDE(ALL).

For additional examples, see "Specifying resource groupings by using filtering criteria" on page 307.

REPLACE
   Replace the contents of a resource group if it already exists in the IMS Configuration Manager repository. The contents of a system-level resource group are replaced if the resource group name and IMS ID match the values provided by the RG and IMSID parameters. A common resource group must match the value provided in the RG parameter. Only the contents of a resource group are replaced. Associations between the resource group and other IMS systems are not affected.

Related reference:
   "Example JCL for performing a take-up of an RDDS" on page 226
This JCL example shows how to use the TAKEUP command with a resource definition data set (RDDS).
Taking up stage 1 source
Take up resources from stage 1 source using the TAKEUP command and the FROM(STAGE1,ddname) option. The TAKEUP command supports source for IMS V9 onward.

Syntax

```plaintext
TAKEUP FROM(STAGE1,ddname) TO(REPOSITORY,ddname)
```

- RG(rgname,description)
- DEFRGLVL(COMMON)
- DEFRGLVL(SYSTEM) IMSID(imsid)
- INCLUDE(ALL)
- INCLUDE(ALLMOD,ALLMSC)
- TRAN(name)
  - DB name-mask
  - PGM
  - RTC
  - TRANDESC
  - OBDESC
  - PGMDESC
  - RTCDESC
  - LTERM
  - MSLINK
  - MSNAME
  - MSPLINK

IMSID(imsid)
Parameters

**FROM(STAGE1,ddname)**
Take up stage 1 source using the *ddname* of the DD statement that contains the input library.

**TO(REPOSITORY,ddname)**
The ddname of the IMS Configuration Manager repository in which to store your resource definitions. For example:
```plaintext
TO(REPOSITORY,GPLREPDD)
```

**RG(rgname,description)**
The name of the primary resource group in which to store your resource definitions. A description is optional. For example:
```plaintext
RG(YOUR_RG_STAGE1,'TAKEUP OF STAGE1')
```

**Tip:** Insert macro statements into your stage 1 source to divide your resources into multiple resource groups. See "Specifying resource groupings in stage 1 source with macro statements" on page 308.

**DEFRGLVL(rgtype)**
The type of resource group in which to store your definitions. There are two types of resource group:

- **COMMON**
  Common resource group. Use this option with the ASSOCIATE keyword to associate this resource group with one or more IMS systems. This is the default option.

- **SYSTEM**
  System-level resource group. The TAKEUP command associates the system-level resource group with the IMS system specified by the IMSID parameter.

**ASSOCIATE(imsid,...)**
Create an association between one or more IMS systems and a common resource group. Specify the common resource group using the RG parameter and the DEFRGLVL(COMMON) option.

**Note:** You can also use the IMS Configuration Manager ISPF dialog to create associations between common resource groups and IMS systems. See "Associating common resource groups with IMS systems" on page 76.

**IMSID(imsid)**
Create an association between an IMS system and a system-level resource group. The system-level resource group that will be associated with this IMS system must be specified in one of the following ways:

- By specifying the RG parameter and the DEFRGLVL(SYSTEM) option.
- By inserting an RGS macro statement into your stage 1 source. See "Specifying resource groupings in stage 1 source with macro statements" on page 308.
INCLUDE()
Include only resources that match the specified criteria. Specify one or more of
the following options. The following keyword may only be specified once in a
single INCLUDE statement:

ALLMOD
Take up all MODBLKs resources.

ALLMSC
Take up all Multiple Systems Coupling (MSC) resources.

TRAN()
Take up transaction resources matching the specified name or name-mask.

DB()
Take up database resources matching the specified name or name-mask.

PGM()
Take up program resources matching the specified name or name-mask.

RTC()
Take up routing code resources matching the specified name or
name-mask.

TRANDESC()
Take up transaction descriptors matching the specified name or
name-mask.

DBDESC()
Take up database descriptors matching the specified name or name-mask.

PGMDESC()
Take up program descriptors matching the specified name or name-mask.

RTCDESC()
Take up routing code descriptors matching the specified name or
name-mask.

LTERM()
Take up MSC remote logical terminal definitions matching the specified
name or name-mask.

MSLINK()
Take up MSC logical link definitions matching the specified name or
name-mask.

MSNAME()
Take up MSC logical link path definitions matching the specified name or
name-mask.

MSPLINK()
Take up MSC physical link definitions matching the specified name or
name-mask.

Example
To include only transactions with the code T1, T2, or prefixed with TA,
and only programs with the prefix PGA, use the following statement:
INCLUDE(TRAN(T1,T2,TA*),PGM(PGA*))

To take up all MODBLKs and Multiple Systems Coupling (MSC) resources,
specify INCLUDE(ALL).

For additional examples, see “Specifying resource groupings by using filtering
criteria” on page 307.
ASMCOMMENTS(*option)
Action to take when comments are discovered in stage 1 source. The following options are available:

CREATENOTES
Convert full-line comments into IMS Configuration Manager notes. All comment blocks proceeding a resource definition are included as notes for that resource definition.

Note: Comments can be added using the ISFP dialog. See “Adding notes (annotations) to resource definitions and resource groups” on page 75.

IGNORE
Comments are ignored.

REPLACE
Replace the contents of a resource group if it already exists in the IMS Configuration Manager repository. The contents of a system-level resource group are replaced if the resource group name and IMS ID match the values provided by the RG and IMSID parameters, or by an RGS macro statement. A common resource group must match the value provided in the RG parameter or by an RG macro statement. Only the contents of a resource group are replaced. Associations between the resource group and other IMS systems are not affected. See “Specifying resource groupings in stage 1 source with macro statements” on page 308.

Related concepts:
“Specifying resource groupings in stage 1 source with macro statements” on page 308
You can specify resource groupings in your stage 1 source by inserting macro statements before you perform a take-up. These macros are used with the RG and DEFRGLVL parameters of the TAKEUP command.

Related reference:
“Example JCL for performing a take-up of stage 1 source” on page 227
This JCL example shows how to use the TAKEUP command with stage 1 source. For another example, see GPLTAKUP in SGPLSAMP.

“Example JCL for a take-up, compare, and install” on page 233
This JCL demonstrates a take-up and install using the COMPARE batch command. Use this method if your resource updates arrive as stage 1 source from a third-party vendor.
Chapter 21. Common Services Library server configuration options

The Common Services Library server startup job contains several options to control how IMS Configuration Manager manages system and resource definitions.

Example JCL for autodiscovery

This JCL uses the AUTODISCOVER keyword and the Common Services Library server to automatically discover IMS components for use in IMS Configuration Manager.

```
//FUNSRV JOB (ACCOUNT), 'NAME'
//SERVER EXEC PGM=FUNSRV,
  // PARM=('BPECFG=BPECONFG, FUNCFG=FUNCONFG')
//*
//STEP1 DD DISP=SHR, DSN=FUNHLQ.SFUNLINK
// DD DISP=SHR, DSN=PRDHLQ.SGPLLINK
// DD DISP=SHR, DSN=IMSHLQ.SDFSRESL
//步PLIB DD DISP=SHR, DSN=FUNHLQ.SFUNSAMP
//GPLCNTL DD *
  /*
  //REPOSITORY NAME=testrepo,
  // DESC=(shortdescription),
  // DSN=TEST.REPO,
  // AUTODISCOVER=(PLEX(plexname,...),
  // MBRTYPE(values))
  */
//GPLPRINT DD SYSOUT=* 
```

where:

1. The IMS Configuration Manager repository to use to store your definitions.
2. The AUTODISCOVER keyword and optional parameters. Replace the placeholders `plexname,...` and `values` as required, or remove the PLEX and MBRTYPE parameters completely to discover as many systems in your environment as possible.

Related tasks:

“Enabling autodiscovery” on page 46

Enabling the autodiscovery feature instructs IMS Configuration Manager to automatically detect IMS systems and resources and update the IMS Configuration Manager repository with the definitions when the server first starts up.

Related reference:

“REPOSITORY keyword”

The REPOSITORY keyword allows users to specify information about IMS Configuration Manager repositories that are accessible to the Common Services Library server.

REPOSITORY keyword

The REPOSITORY keyword allows users to specify information about IMS Configuration Manager repositories that are accessible to the Common Services Library server.
Syntax

```
REPOSITORY_NAME=repository_name, DESC=(repository_description)

DSN=repository_dsn, AUTODISCOVER

Options:

(PLEX(plexid or mask,...), MBRTYPE(component)

RESOURCES), RDDS=work_rdds_dsn
```

Parameters

**NAME**
Specify a 1-8 character name to identify the IMS Configuration Manager repository. The name may not start with a numeric character and must be unique within a single running instance of the Common Services Library server.

**DESC**
Specify a short description for the IMS Configuration Manager repository. The description may be up to 40 characters long.

**DSN**
Specify the data set name for the IMS Configuration Manager repository.

**AUTODISCOVER**
Instruct IMS Configuration Manager to perform system autodiscovery on server start. The `AUTODISCOVER` keyword has a number of additional options. If no options are specified, IMS Configuration Manager attempts to discover as many systems as possible.

The options are:

**PLEX(plexid or mask,...)**
Specify a list of IMSplexes that contain the components you want to discover. For example:

PLEX(PLXA, PLXB, PLXC)

Alternatively, use a mask to discover all IMSplexes beginning with a particular prefix. The preceding example can also be expressed as:

PLEX(PLX*)

The mask can be used to create complex search statements. The following examples demonstrate valid examples of how the mask can be used:

PLEX(*)
PLEX(ABC*)
PLEX(DEF*,XYZ*)
PLEX(PLXDP,PLX*)

To discover components in all IMSplexes, use:
PLEX(*)

or omit the parameter.

Default: all IMSplexes (if parameter not specified).

MBRTYPE(ALL|PLEX) or MBRTYPE (component,...)

Limit the discovery of members to one or more types. MBRTYPE accepts one of the following options:

ALL
   Inserts all discoverable member types. See component for a list of supported member types.
PLEX
   Inserts only the IMSplex records.
component,...
   Specify a list of one or more systems and components. Options include:
IMS
   Inserts IMS systems and their associated IMSplexes. If applicable, Common Queue Server (CQS) components for systems discovered by this option are also inserted.
IMSCON
   Inserts IMS Connect systems and their associated IMSplexes.
ODBM
   Inserts Open Database Manager (ODBM) Common Service Layer (CSL) components and their associated IMSplexes.
REPO
   Inserts Repository Server (RS) CSL components and their associated IMSplexes.
OM
   Inserts Operations Manager (OM) CSL components and their associated IMSplexes.
RM
   Inserts Resource Manager (RM) CSL components and their associated IMSplexes.
SCI
   Inserts Structured Call Interface (SCI) CSL components and their associated IMSplexes.

Default: MBRTYPE(ALL) (if parameter not specified).

RESOURCES

Discovers IMS resources on server startup. Resources are added to resource groups named Autodiscovery for name where name is the name of the IMS system where they were discovered. If a resource group of the same name is already defined in the IMS Configuration Manager repository, the RESOURCES option will not overwrite this information.
When using this option, specify a work RDDS using RDDS=DSN where DSN is a data set name of your choice. IMS must be given authorization to write to the work RDDS.

Default: No resources added (if parameter not specified)

**Recommendation:** Use “TAKEUP command” on page 289 instead of the RESOURCES keyword to take up resources in batch.

**Related reference:**
“Example JCL for autodiscovery” on page 299

This JCL uses the AUTODISCOVER keyword and the Common Services Library server to automatically discover IMS components for use in IMS Configuration Manager.
Chapter 22. Understanding the result of the discovery process

Results of the IMS Configuration Manager autodiscovery process are summarized in the log.

Discovery process logs have the following basic structure:
The autodiscovery process has begun. Objects discovered are stored in the specified IMS Configuration Manager repository.

Objects discovered by IMS Configuration Manager are listed together with their details.
An object that could not be added, updated or skipped by IMS Configuration Manager.

An indication to the user that autodiscovery is incomplete. To discover more of your environment, follow the instructions in the message displayed.

An object that can not be processed by IMS Configuration Manager.

IMS Configuration Manager has finished exploring the environment and is about to compare what it discovered with what is currently stored in the specified IMS Configuration Manager repository.

IMS Configuration Manager begins the process of updating the specified IMS Configuration Manager repository.

The result of autodiscovery summarized as a table with the following column headings:

<table>
<thead>
<tr>
<th>MBRTYPE</th>
<th>The type of object discovered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovered</td>
<td>The number of objects found through autodiscovery</td>
</tr>
<tr>
<td>Added</td>
<td>The number of discovered objects that were newly added to the IMS Configuration Manager repository. These are new objects that have not previously been discovered by IMS Configuration Manager.</td>
</tr>
<tr>
<td>Updated</td>
<td>The number of discovered objects updated in the IMS Configuration Manager repository. These are objects that have changed since they were last discovered by IMS Configuration Manager.</td>
</tr>
<tr>
<td>No change</td>
<td>The number of discovered objects that did not require an IMS Configuration Manager repository update. These are objects that have not changed since they were last discovered by IMS Configuration Manager.</td>
</tr>
<tr>
<td>Skipped</td>
<td>The number of discovered objects that were not processed by IMS Configuration Manager. Search for log message “GPL7035I” on page 197 (5 in the preceding example) for further details.</td>
</tr>
<tr>
<td>Error</td>
<td>The number of discovered objects that could not be added, updated or skipped by IMS Configuration Manager. Search for log messages “GPL7001I” on page 194, “GPL7036I” on page 197, and “GPL7037I” on page 197 (4 in the preceding example) for further details.</td>
</tr>
</tbody>
</table>

Autodiscovery is complete.

Related tasks:

“Discovering systems using the DISCOVER batch command” on page 45

The DISCOVER batch command discovers IMS systems, IMS Connect systems, and IMSplex components, and updates the IMS Configuration Manager repository with the definitions.

“Enabling autodiscovery” on page 46

Enabling the autodiscovery feature instructs IMS Configuration Manager to automatically detect IMS systems and resources and update the IMS Configuration...
Manager repository with the definitions when the server first starts up.

"Importing resources using the DISCOVER command" on page 55

You can import resource definitions from live systems into the IMS Configuration Manager repository using the DISCOVER command.

Related information:

"GPL7015I" on page 195

MBRTYPE Discovered Added Updated No change Skipped Error
Chapter 23. Retaining the logical organization of your resource definitions

There are several methods for retaining the logical organization of your resource definitions when using the TAKEUP command to import resources into an IMS Configuration Manager repository.

Related concepts:

“Resource groups” on page 67

Resource groups help to identify resources that are related to each other. A resource group can contain any number of resources of any supported type. Every resource must belong to a resource group.

Specifying resource groupings by using filtering criteria

The TAKEUP command supports filtering of the input with the INCLUDE parameter. This parameter specifies that only resources matching a particular type or name mask will be taken up.

By specifying multiple TAKEUP commands you can assign resources to different resource groups based on the name mask. This option is appropriate when your organization follows strict naming conventions for resource definitions.

If resource groups of the same name already exist in the IMS Configuration Manager repository, error message “GPL6103E” on page 175 is issued. To avoid this message, ensure that the resource group names do not already exist in the repository, or use the REPLACE parameter to overwrite them.

The following commands create three resource groups. Each resource group contains resources with specific name attributes.

TAKEUP FROM(STAGE1,INPUT) TO(REPOSITORY,OUTREPOS) +
RG(Banking,'Banking application definitions') +
INCLUDE(TRAN(B*),DB(B*),PGM(B*))

TAKEUP FROM(STAGE1,INPUT) TO(REPOSITORY,OUTREPOS) +
RG(Payroll,'Payroll application definitions') +
INCLUDE(TRAN(P*),DB(P*),PGM(P*))

TAKEUP FROM(STAGE1,INPUT) TO(REPOSITORY,OUTREPOS) +
RG(Common,'Common transactions and programs') +
INCLUDE(TRAN(C+00%),PGM(C+00%))

Related reference:

“TAKEUP command” on page 289

Imports resources from the IMSRSC repository, an RDDS, or stage 1 source into the IMS Configuration Manager repository. The command can also associate systems with resource groups during the take up.
Specifying resource groupings in stage 1 source with macro statements

You can specify resource groupings in your stage 1 source by inserting macro statements before you perform a take-up. These macros are used with the RG and DEFRGLVL parameters of the TAKEUP command.

You can insert the following macros into your stage 1 source:

**RG and RGS**

The RG and RGS stage 1 macros signal that all the resource definitions that follow in the stage 1 source belong to the specified resource group.

The RG macro defines the start of a common resource group.

The RGS macro defines the start of a system-level resource group.

When you import your stage 1 source into the IMS Configuration Manager repository, the TAKEUP command interprets these RG and RGS macros and organizes your resource groups accordingly.

**Note:** The TAKEUP command also has a parameter named RG, distinct from the stage 1 RG macro. The RG parameter of the TAKEUP command provides a default resource group name if none is provided by the RG stage 1 macro. This is known as the primary resource group. The DEFRGLVL parameter of the TAKEUP command allows you to specify whether this default resource group is a common resource group or a system-level resource group.

In the following example, transactions T1, T2, T5, and T6 are automatically inserted into common resource group RG0. Transactions T3 and T4 are inserted into common resource group RG1. If either resource group does not yet exist it is automatically created in the IMS Configuration Manager repository on take-up.

```
RG RG0,'Description of RG0'
TRANSACTION CODE=T1
TRANSACTION CODE=T2

RG RG1,'Description of RG1'
TRANSACTION CODE=T3
TRANSACTION CODE=T4

RG RG0 ,Continuation of RG0
TRANSACTION CODE=T5
TRANSACTION CODE=T6
END
```

If you store logically related resources in separate PDS members and use COPY statements, you can insert the macros before each COPY invocation:

```
RG RG0,'Description of RG0'
COPY ...
RG RG1,'Description of RG1'
COPY ...
END
```

If you are taking up resources from a very large stage 1 resource, split it across multiple resource groups.
By default, the TAKEUP command begins processing the first stage 1 macro and adds it to the resource group named in the RG keyword on the control statement.

**RGOFF**

Instructs the TAKEUP command to stop processing resources in your stage 1 source.

The RGOFF macro is useful if your stage 1 source contains resources that you do not want to take up into the IMS Configuration Manager repository. Resources found after the RGOFF macro statement, but before another RG or RGS macro, will not be processed. Use RGOFF to specify the end of a resource group or to otherwise ignore specific resources within your stage 1 source.

**Note:** RG, RGS, and RGOFF macros can only be used in stage 1 source. They cannot be used in the take-up of an RDDS or IMSRSC repository.

**Scenarios**

The following list describes several scenarios with strategies for achieving a successful stage 1 take-up.

**Scenario: All your IMS systems share the same resources**

**Simple strategy**

Store your definitions in a single common resource group. Associate the resource group with one or more of your IMS systems.

Use the TAKEUP command with the RG, DEFRGLVL(COMMON), and ASSOCIATE parameters.

You do not need to modify your stage 1 source.

**Advanced strategy**

Store your definitions in multiple common resource groups to create logical partitions. Associate the resource groups with one or more of your IMS systems.

1. Add RG macro commands to your stage 1 source at the location of each new common resource group. Resources will be added to that group until the TAKEUP command finds another RG macro, an RGS macro, or an RGOFF macro.

2. Use the TAKEUP command, specifying the following information:
   - The name of the primary resource group, using the RG parameter.
   - That the resource group is a common resource group, using the DEFRGLVL(COMMON) parameter.
   - An association between the common resource group and one or more IMS systems using the ASSOCIATE parameter.

**Scenario: Each system has its own set of resources and resource configurations**

Store your definitions in multiple common and system-level resource groups. Associate the resource groups with one or more of your IMS systems.

1. Add RGS macro commands to your stage 1 source at the location of each new system-level resource group, and RG macro commands at the...
location of each new common resource group. Resources will be added
to each group until the TAKEUP command finds another RG macro, an
RGS macro, or an RGOFF macro.

2. Use the TAKEUP command, specifying the following information:
   - The name of the primary resource group, using the RG parameter.
   - Whether the primary resource group is a common resource group or
     a system-level resource group using the DEFRGLVL parameter.
   - If the primary resource group is a common resource group, associate
     it with one or more IMS systems using the ASSOCIATE parameter.
   - If the primary resource group is a system-level resource group,
     associate it with an IMS system using the IMSID parameter.

   **Note:** If no resource group name is specified by a RG stage 1 *macro*, the TAKEUP
   command uses the name defined by the RG *parameter* passed to the TAKEUP
   command.

   **Related reference:**
   "Taking up stage 1 source" on page 295
   Take up resources from stage 1 source using the TAKEUP command and the
   FROM(STAGE1,ddname) option. The TAKEUP command supports source for IMS V9
   onward.
Chapter 24. Understanding change package status

The following section describes status information relating to IMS Configuration Manager change packages.

Determining the status of a change package

Change packages created in IMS Configuration Manager consist of a status field and a condition field. As you create and install change packages, it is important to understand these fields in order to correctly manage your systems and to understand the lifecycle of a change package.

Status

The status field (Status on the ISPF dialog) indicates whether a change package is OPEN or CLOSED.

When a command (CMD) change package is created, it is created in the OPEN state where it can be edited (resources added or removed), deleted if no longer required, or closed after editing is complete.

When a generate (GEN) change package is created, it is created in the CLOSED state, as it cannot be edited.

When a change package is closed, it can be scheduled for installation, backed out (if previously installed), or aborted (if not installed).

A CLOSED change package cannot be reopened.

Condition

The condition field (Cond on the ISPF dialog) indicates the installation or backout status of the change package. When a change package is created, it is created with a condition of NOTSCH (not scheduled for installation or backout). The condition field depends on the status field in that most

Figure 107. States of the command change package Status field
conditions cannot be achieved unless the change package is **CLOSED**.

![Diagram of change package condition codes](image)

**Figure 108. States of the change package condition (Cond) field**

A full list of condition codes can be found in "Change package condition codes reference."

**Related concepts:**
"Working with change packages" on page 87
There are two types of change package: *command* (CMD) and *generate* (GEN).

### Change package condition codes reference

The condition (Cond) field provides information about the outcome of processing applied to a change package. This condition code is displayed on the All Change Packages panel when you select option 4 **Packages** from the IMS Configuration Manager Primary Menu.

The condition values are:

**ABORTED**

Package implementation canceled.

The implementation of the change package has been aborted or canceled.

**BACKFAIL**

Backout failed.
The backout of the changes into the target IMS system failed for a change package. No parts of the change package were backed out.

**BACKPART**

Backout partially complete.

The backout of some or all of the changes into the target IMS system failed. Some elements of the change package were successfully backed out.

**COLDCOMP**

Cold start complete.

The user has notified IMS Configuration Manager that the target IMS system has been cold started. The cold start might have implemented changes prepared either using IMS stage 1 deck macros or an RDDS.

**COMPPART**

Partially complete.

A partially installed change package has been marked as complete.

**INSTBACK**

Install backed out.

The backout utility has removed previously installed changes from the target IMS system.

**INSTFAIL**

Install failed.

IMS Configuration Manager failed to install a change package into the target IMS system.

If the failure occurs owing to factors such as DRD command failure or system resource conflicts, then auto backout processing occurs if the ONFAILURE(ROLLBACK) option is specified.

**INSTOK**

Install completed successfully.

The change package has been successfully installed into the target IMS system.

**INSTPART**

Install partially completed.

The install of some of the changes into the target IMS system failed. Automatic backout processing was not requested for this package. This is normally the result of using ONFAILURE(CONTINUE) in the INSTALL command. The user needs to decide whether to accept the package as is (change condition to COMPPART), or to try to fix any errors that occurred and rerun the INSTALL.

**NOTSCHED**

Package not scheduled.

The change package has not yet been scheduled for processing.

**SCHED**

Package scheduled.
The change package has been scheduled for processing, and is awaiting processing completion.

Related tasks:

“Scheduling a command change package for installation” on page 96
After a command change package has been created and defined, it is ready to be installed. Use the IMS Configuration Manager ISPF dialog to generate and submit JCL immediately, or to schedule the job for later.

“Marking a change package as complete using the ISPF dialog” on page 99
Under certain circumstances, change packages that have been installed need to be marked as complete. Marking a change package as complete allows you to install subsequent change packages.
Chapter 25. Interpreting INSTALL and BACKOUT reports

Information about the status of installation and backout jobs can be found within the SYSPRINT log and the corresponding REPORT data set.

Related concepts:
“When not all resources can be installed” on page 97
For various reasons, the INSTALL function might fail to install all requested resources.

Related tasks:
“Backing out a command change package using the ISPF dialog” on page 100
A previously installed command change package can be backed out of associated IMS systems if you wish to undo your changes.

SYSPRINT install/backout log reference

The SYSPRINT log provides summary status of the INSTALL or BACKOUT job.

SYSPRINT logs have the following format. INSTALL and BACKOUT jobs have a similar format:

```
V2R2MB IMS Configuration Manager
FUN1003I Processing started at 2013-10-04 06:46:02
GPL60001 SYSIN command input:
GPL60001 1 *
GPL60001 2 INSTALL CPNAME('TRY ONE')²³
GPL60001 3 CPDATE(2013.06.10) +
GPL60001 4 CPTIME(05.45.14) +
GPL60001 5 FROM(REPOSITORY,GPLREPOS) +
GPL60001 6 PLEX(PLXXX) +
GPL60001 7 SCOPE(IBXX) +
GPL60001 8 NOTREADY(STOP) +
GPL60001 9 ONFAILURE(STOP) +
GPL60001 10 RETRYCNT(3) +
GPL60001 11 RETRYWAIT(1)
GPL60005 INSTALL started for change packages with timestamp 2013.06.10 05.45.14 within requested scope.
GPL6027I Resetting Change package element DATABASE 'ABC' for IMS 'IBXX'²
GPL60031 INSTALL completed RC=00 ²
FUN1003I Processing ended at 2013-10-04 06:46:04
```

Figure 109. Example output of a SYSPRINT log generated from an INSTALL job

where:

1. The command name is listed together with any control cards. Any errors are reported.
2. Important job steps are reported, showing the order in which resource elements have been processed.
3. Status of the job. A status of RC=00 indicates that the job was a success.

Note: When using the ONFAILURE(CONTINUE) parameter, be sure to check the resource detail, as any installation/backout issues might have been ignored.

Related reference:
“INSTALL command” on page 257
Installs resources from a command change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.
The BACKOUT command allows you to backout an installed command change package.

**Install/backout report reference**

This topic provides a general overview of the REPORT data set. This report is generated by the INSTALL and BACKOUT commands.

The install report is displayed as the REPORT data set in INSTALL job output. See "INSTALL command" on page 257 for the full command syntax.

The backout report is displayed as the REPORT data set in BACKOUT job output. See "BACKOUT command" on page 236 for the full command syntax.

INSTALL and BACKOUT jobs produce a similar report. For the purposes of this reference, the following example is described in terms of an INSTALL job.

The INSTALL report format depends on some command processing options:

**Normal installation**

This report type is displayed when an installation completed without failures, or where failures occurred but no rollback option was requested.

**Installation with CHECK option**

This report type is displayed where install is requested with the CHECK option, it is similar to a typical install report except that it does not list command execution because no commands are executed.

**Installation rollback**

This report is displayed when failures occurred during install and ROLLBACK was requested by the user. It contains information about how rollback progressed.

Installation reports have the following format:
where:

1. A summary of the change package installed.

2. The system eligibility report lists all systems involved in the installation process according to the change package being installed. Reasons why a system might not have resources installed to it range from it being unavailable to the wrong version of IMS. For example, an INSTALL job will fail if a specified IMS system is defined in the IMS Configuration Manager repository as V10 (and DRD-capable) but the INSTALL batch command determines that the system is, in fact, a V9 system (that does not support DRD).

3. The INSTALL report lists the name of the change package, its status before this installation run, and all type-2 commands executed with return code. For each resource, the latest installation history (if any) is reported. If the resource exists in IMS, its status is reported here. If the resource does not yet exist, *** No IMS Modblk *** is reported.

Important columns for this section of the report are:
Sequence
A sequence number that can be used by other messages to refer to a specific command.

Time
The local time for the command execution

Resource
The name of the resource being installed.

Type
The type of the resource being installed.

Commands issued to IMS are listed after the resource information. Return codes and other error messages are reported here. In some cases, the IMS conditioning process will issue commands before and after the actual resource change. Those commands and results will also be reported here.

4 The system report provides a numerical summary of statistics for each system into which resources were installed. In this example, only one system was installed.

5 The install summary provides a numerical summary of overall statistics for the installation process across all systems.

Related reference:
“INSTALL command” on page 257
Installs resources from a command change package into one or more running IMS systems. The INSTALL command generates the required type-2 commands and can roll back commands in the event of a failure.

“BACKOUT command” on page 236
The BACKOUT command allows you to backout an installed command change package.
Chapter 26. PROCLIB members supported by IMS Configuration Manager

The IMS Configuration Manager ISPF dialog supports a large number of PROCLIB members.

In the following list of member names, x represents any of the following suffix characters: A-Z, 0-9, @, #, or $.

**BPE configuration parameter member**
Defines BPE execution environment settings such as tracing, language, and statistics time interval settings for an address space that is being started.

**BPE Exit List members**
Defines user exit routines to BPE.

**CQSIPxxx**
Parameters related to initialization of the Common Queue Server (CQS) address space.

**CQSSLxxx**
Defines local CQS parameters that are related to one or more coupling facility structures.

**CQSSGxxx**
Defines global CQS parameters that are related to one or more coupling facility structures.

**CSLDCxxx**
Defines the data store connections between one or more Open Database Manager (ODBM) instances and one or more IMS systems.

**CSLDIxxx**
ODBM initialization member. Parameters related to the initialization of the ODBM address space.

**CSLOIxxx**
Parameters related to initialization of the Operations Manager (OM) address space.

**CSLRIxxx**
Parameters related to initialization of the Resource Manager (RM) address space.

**CSLSIxxx**
Parameters related to initialization of the Structured Call Interface (SCI) address space.

**DBFMSDBx**
Defines Main Storage Databases (MSDBs) to be loaded at startup.

**DFS62DTx**
Stores the LU 6.2 device descriptors that are built during IMS initialization.

**DFSCGxxx**
Parameters related to the Common Services Layer (CSL), including the Operations Manager (OM), the Resource Manager (RM), and the Structured Call Interface (SCI).

**DFSDCxxx**
Defines data communication options.

**DFSDFx**
Processing options for the following IMS components and functions:
- Databases
- Dynamic database buffer pools
- Dynamic resource definition (DRD)
- Exit routines
- The Fast Path 64-bit buffer manager
- The IMS abend search and notification procedure
- The IMS catalog
- The IMS Common Service Layer (CSL)
- The IMSRSC repository
- Multiple Systems Coupling (MSC)
- Shared queues

**DFSDR Ferrxx**
Used to specify that portions of the control region be placed in disabled reference (DREF) storage during initialization.

**DFSDSCM x**
Stores Extended Terminal Option (ETO) descriptors generated by IMS during stage 1 system definition.

**DFSDSCT y**
Specifies override descriptors for the Extended Terminal Option (ETO), including logon descriptors, Message Format Service (MFS) device descriptors, Multiple Systems Coupling (MSC) descriptors, and user descriptors. By default, the suffix y on DFSDSCT y is 0.

**DFSFDRxx**
Specifies the Fast Database Recovery (FDBR) options used by the FDR.

**DFSFIXnn**
Used to specify that portions of the control region (for example, certain control blocks, buffer pools, loaded modules, and part of the IMS nucleus) be fixed in address space during initialization.

**DFSHSBxx**
Specifies the Extended Recovery Facility (XRF) options used by the active and alternate subsystems in an XRF complex.

**DFSINTxx**
Identifies the preinitialization modules to receive control before MPR, IFP, BMP, JMP, and JBP dependent regions are initialized.

**DFSJVMAP**
Maps uppercase IMS Java™ application names with the OMVS path name for the IMS solutions for Java development application .class file.

**DFSMPLxx**
Used to make z/OS, IMS, or user-written program modules that are not automatically preloaded into the IMS control region resident in IMS regions.

**DFSORSxx**
Defines system-related startup parameters for the recovery manager in a DBCTL or DB/DC online environment.

**DFSPBxxx**
Specifies execution parameters for the DBCTL, DCCL, or DB/DC control regions.

**DFSRSRxx**
Specifies the remote site recovery (RSR) options used by the online active and tracking subsystems in an RSR complex.

**DFSSPMxx**
Used to override the default buffer definitions for the storage pools managed by the DFSPOOL storage manager.

**DFSSQxxx**
Parameters related to the shared message queues and the CQS address space in DB/DC and DCCTL environments.

**DFSVSMxx**
Settings for buffer pools, trace options, DASD logging, coupling facility structures, IRLM lock timeout, and transactions in a HALDB partition.
DFSYDTx
Specifies the OTMA client descriptors and the OTMA destination
descriptors that are built during IMS initialization.

DSPBIxxx
Database Recovery Control (DBRC) initialization member. Parameters that
initialize the DBRC address space.

FRPCFG
Used to define the Repository Server (RS) configuration parameters
relating to performance, communications, and security. FRPCFG also
identifies the names of the RS catalog repository data sets.

HWSCFG
Specifies environmental settings for IMS Connect. IMS Connect uses the
information it retrieves from this member to establish communication with
IMS and TCP/IP.

SSM Subsystem member (SSM). The SSM contains an entry for each external
subsystem with which IMS communicates.

Related concepts:
Chapter 10, “Modifying PROCLIB parameters using the ISPF dialog,” on page 119
IMS Configuration Manager allows you to modify parameters using the ISPF
dialog.

Related tasks:
“Listing parameter members in a PROCLIB” on page 112
The IMS Configuration Manager ISPF dialog PROCLIB view allows you to browse
all members in a PROCLIB data set.

“Checking the syntax of a member” on page 121
To highlight syntax errors in the parameter member that you are editing, enter the
primary command CHECK or use the point-and-shoot CHECK field.
Chapter 27. 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 \textasciitilde\textasciitilde\textasciitilde symbol indicates the beginning of a syntax diagram.
  - The \textasciitilde\rightarrow symbol indicates that the syntax diagram is continued on the next line.
  - The \textasciitilde\rightarrow\rightarrow symbol indicates that a syntax diagram is continued from the previous line.
  - The \textasciitilde\rightarrow\textasciitilde symbol indicates the end of a syntax diagram.
- Required items appear on the horizontal line (the main path).

\begin{syntaxdiagram}
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde

\textasciitilde\textasciitilde\textasciitilde
\end{syntaxdiagram}

- Optional items appear below the main path.

\begin{syntaxdiagram}
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde \textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\textasciitilde\textasciitilde\textasciitilde
\end{syntaxdiagram}

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.

\begin{syntaxdiagram}
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde \textasciitilde\textasciitilde\textasciitilde
\end{syntaxdiagram}

- If you can choose from two or more items, they appear vertically, in a stack. If you \textit{must} choose one of the items, one item of the stack appears on the main path.

\begin{syntaxdiagram}
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde \textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\end{syntaxdiagram}

If choosing one of the items is optional, the entire stack appears below the main path.

\begin{syntaxdiagram}
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde \textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\end{syntaxdiagram}

If one of the items is the default, it appears above the main path, and the remaining choices are shown below.

\begin{syntaxdiagram}
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde \textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\textasciitilde\textasciitilde\textasciitilde\textasciitilde\textasciitilde
\end{syntaxdiagram}

- 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.

- 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).
Part 7. Appendixes
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