

IBM IMS Command Control Facility for z/OS  
Version 2 Release 2

*User's Guide*





IBM IMS Command Control Facility for z/OS  
Version 2 Release 2

*User's Guide*



**Note:**

Before using this information and the product it supports, read the "Notices" topic at the end of this information.

**Second Edition (May 2018)**

This edition applies to Version 2 Release 2 of IBM IMS Command Control Facility for z/OS (program number 5655-R58) and to all subsequent releases and modifications until otherwise indicated in new editions.

This edition replaces SC19-3981-00.

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## About this information

IBM® IMS™ Command Control Facility for z/OS® (also referred to as IMS Command Control Facility) is a tool you can use to perform batch processing of commands across as many as 64 IMS regions on any number of z/OS images. IMS Command Control Facility provides database command response verification, command conversion, and simulated IMS responses.

These topics provide instructions for installing, configuring, and using IMS Command Control Facility. To use the procedures in this user's guide, you must have already installed IMS Command Control Facility using the SMP/E installation process that came with the product.

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

- Install and operate IMS Command Control Facility
- Customize your IMS Command Control Facility environment
- Diagnose and recover from IMS Command Control Facility problems
- Use IMS Command Control Facility with other IMS products

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

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

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

<http://www-01.ibm.com/support/docview.wss?uid=swg27020942>

The IMS Tools Product Documentation web page includes:

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





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## Part 1. Introduction to IMS Command Control Facility

The topics in this section provide you with an overview of IMS Command Control Facility.

This product overview section contains the following topics:

**Topics:**

- Chapter 1, “IMS Command Control Facility overview,” on page 3
- Chapter 2, “IMS Command Control Facility components,” on page 21



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## Chapter 1. IMS Command Control Facility overview

IBM IMS Command Control Facility for z/OS (also referred to as IMS Command Control Facility) is an IMS Tools product that allows you to run, analyze, and coordinate IMS commands across as many as 64 IMS regions on any number of z/OS images, all from a single point of control.

Topics:

- “What's new in IMS Command Control Facility” on page 4
- “What does IMS Command Control Facility do?” on page 5
- “Supported environments for issuing commands” on page 6
- “IMS command routing interfaces” on page 7
- “IMS Command Control Facility configurations” on page 8
- “IMS Command Control Facility groups” on page 13
- “Security and auditability” on page 14
- “Service updates and support information” on page 15
- “Quick start roadmap” on page 16
- “Product documentation and updates” on page 18
- “Accessibility features” on page 20

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## What's new in IMS Command Control Facility

This topic summarizes the technical changes for this edition.

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

### SC19-3981-01 (May 2018)

- Information about restricting access to using a CCF group of IMS ID for issuing commands has been added to Chapter 7, “Securing the options data set,” on page 61.
- A REXX example for invoking CCFCAPI0 is provided in Chapter 12, “Callable API,” on page 95.
- New messages are provided in Chapter 14, “Runtime messages (CCF),” on page 111.
- A new field, **Route=IMSpIex (Y|N)**, is added to the Group IMSID List panel, which is described in “Group IMSID List panel” on page 188.

### SC19-3981-00 (August 2013)

- The procedure in Chapter 3, “Configuring IMS Command Control Facility,” on page 33 is updated.
- New messages are provided in Chapter 14, “Runtime messages (CCF),” on page 111.

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## What does IMS Command Control Facility do?

IMS Command Control Facility provides many significant features that simplify the running, analyzing, and coordinating of IMS commands.

You can use IMS Command Control Facility to:

- Issue commands to a maximum of 64 IMS systems simultaneously.
- Issue commands to any type of IMS system: DBCTL, DCCTL, or DB/DC.
- Issue commands using any of the following methods:
  - A batch program
  - An ISPF interface
  - A callable application programming interface (API)
- Provide powerful predefined procedures that can:
  - Automate online change processing
  - Clean up the dead letter queue
- Create a combined log for IMS messages, commands, and command responses
- Provide an ISPF dialog to manage messages that are to be suppressed from the IMS master terminal, the IMS Command Control Facility message log, or the IMS secondary master terminal
- Provide an ISPF dialog to route messages to a destination other than the IMS master terminal
- Process both IMS type-1 and type-2 commands (dependent upon setup options)

When the command driver runs as a batch program, IMS Command Control Facility can:

- Provide database command response verification, command conversion, and simulate IMS responses
- Verify successful command processing for database START, STOP, DBR, and DBD commands
- Retry failed commands
- Reissue commands that fail because a member of a IMS Command Control Facility group is unavailable
- Use automated online change

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## Supported environments for issuing commands

The IMS Command Control Facility command driver controls the issuing of commands to IMS.

The IMS Command Control Facility command driver can issue commands in the following environments:

- Batch program

When run as a batch program, the IMS Command Control Facility command driver can run as an IMS BMP, IMS DL/I batch, or standard z/OS batch job.

IMS commands are read from an input data set and are processed one-at-a-time across all requested regions.

- ISPF dialog

When run as an ISPF dialog, the IMS Command Control Facility command driver routes the operator-entered command to either a specific IMS region, or to a set of IMS regions that are contained in a IMS Command Control Facility group.

- Callable application programming interface (API)

When run as a callable API, the IMS Command Control Facility command driver routes the command that was passed by the calling program to either a specific IMS region or to a set of IMS regions that are contained in a IMS Command Control Facility group.

The IMS Command Control Facility command driver can issue commands to one or up to 64 IMS regions that are running in any number of z/OS images. Applicable IMS region types include DBCTL, DCCTL, and DB/DC.

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## IMS command routing interfaces

The IMS Command Control Facility command driver must communicate across an appropriate interface when it issues commands to an IMS server.

IMS Command Control Facility supports the following interfaces to route IMS commands:

- **APPC/IMS**

APPC/IMS is a communication protocol that allows IMS Command Control Facility to communicate directly with IMS. With this interface, IMS Command Control Facility can issue IMS commands and receive responses from those commands.

- **IMS Operations Manager (OM)**

IMS Operations Manager is an optional component of the IMS base product. IMS Operations Manager (OM) communicates with Structured Call Interface (SCI) address spaces on each LPAR in the sysplex. IMS Command Control Facility can pass IMS commands to the SCI address space on the LPAR where the TSO user or batch job is running. IMS OM and SCI address spaces communicate through XCF to process an IMS command. The command response is then routed back to IMS Command Control Facility to be returned to the user.

- **Remote STC**

The remote STC process uses APPC/MVS™ to pass IMS commands from the requesting TSO user or batch job to an APPC task on the same LPAR where IMS is running. The APPC task then connects to that IMS system as a BMP, and uses IMS Issue Command (ICMD) and Retrieve Command (RCMD) DL/I calls to process an IMS command to retrieve the command output.

- **Local BMP**

If an IMS Command Control Facility TSO user or batch job is running on the same LPAR that IMS is running on, the TSO user or batch job can dynamically connect to the IMS system as a BMP. While dynamically connected, it can use the IMS Issue Command (ICMD) and Retrieve Command (RCMD) DL/I calls to process an IMS command to retrieve the command output.

Some of the interfaces are dependent on the IMS region type or IMS configuration. For example, a DBCTL region, or a DB/DC region that is configured with APPC=N, cannot use the APPC/IMS interface to issue commands.

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## IMS Command Control Facility configurations

The combination of a command-issuing environment and a command routing interface results in a specific IMS Command Control Facility configuration.

You can use IMS Command Control Facility in any of the following configurations:

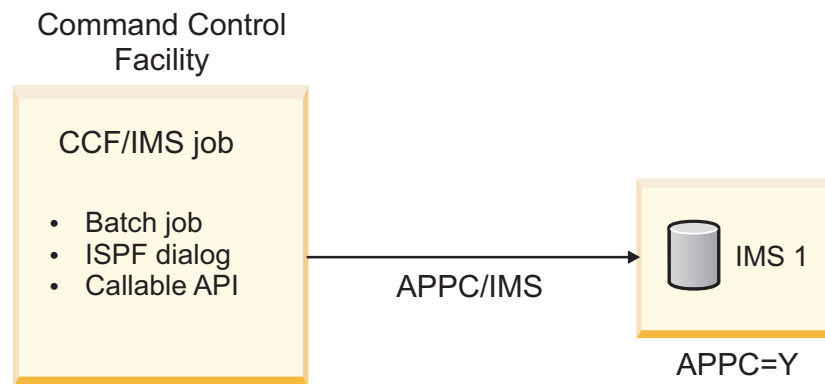
- “APPC/IMS connection”  
IMS Command Control Facility issues commands directly to IMS by using the APPC/IMS connection.
- “Remote STC (z/OS Started Task)” on page 9  
IMS Command Control Facility uses APPC/MVS to route the commands to a remote STC that connects to IMS as a BMP, and uses the ICMD/RCMD automated operator interface (AOI).
- “IMS Operations Manager (OM)” on page 10  
IMS Command Control Facility passes commands to the IMS Operations Manager address space.
- “Local BMP” on page 11  
IMS Command Control Facility issues commands to the local IMS where the BMP is attached using the ICMD/RCMD automated operator interface.
- “Mixed configurations” on page 12  
IMS Command Control Facility uses a combination of the previous configurations.

**Restriction:** IMS Operations Manager cannot participate in a mixed configuration.

### APPC/IMS connection

IMS Command Control Facility supports the advanced program-to-program communication (APPC/IMS) connection configuration.

IMS Command Control Facility can issue commands directly to IMS by using the APPC/IMS connection. The supported command-issuing environments and command-routing interface are illustrated in the following figure.



*Figure 1. APPC/IMS configuration*

The APPC/IMS configuration is supported when IMS Command Control Facility command driver runs in one of the following environments:



- Batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch)
- ISPF dialog
- Callable API

Because the APPC/IMS AOI uses VTAM® to route commands to IMS, the IMS Command Control Facility command driver can run in any z/OS image, even in a different sysplex.

To use the APPC/IMS connection, the target IMS system must be enabled for APPC (APPC=Y in the DFSPBIMS PROCLIB member).

## IMS restrictions

Because IMS accepts only type-1 commands when they are issued over an APPC/IMS connection: IMS Command Control Facility cannot issue type-2 commands to an IMS system that uses this configuration.

IMS does not support the following type-1 commands when they are issued over an APPC/IMS connection:

/LOCK  
/UNLOCK  
/EXIT

## Remote STC (z/OS Started Task)

IMS Command Control Facility supports the remote STC configuration.

IMS Command Control Facility can issue commands to IMS through the remote STC by using the ICMD/RMCD AOI. The supported command-issuing environments and command-routing interfaces are illustrated in the following figure.

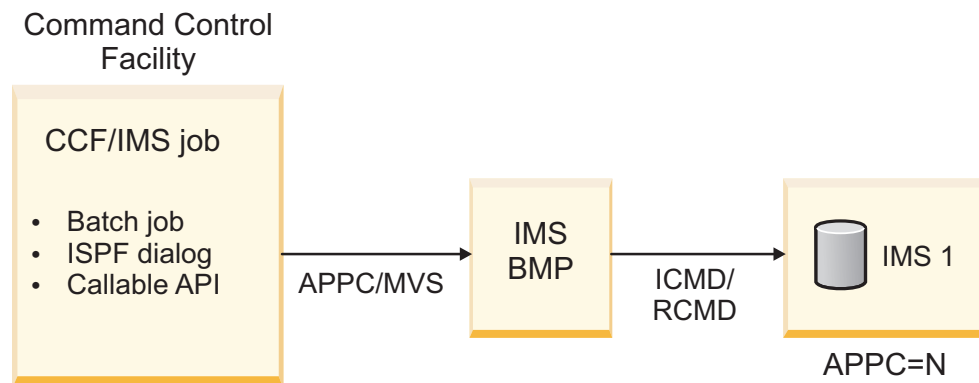


Figure 2. Remote STC configuration

The remote STC configuration is supported when IMS Command Control Facility command driver runs in one of the following environments:

- Batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch)
- ISPF dialog
- Callable API

Because the remote STC is scheduled by using APPC/MVS, which in turn uses VTAM, the IMS Command Control Facility command driver can run in any z/OS image, even in a different sysplex.

To use the remote STC configuration, the target IMS system cannot be APPC-enabled. The IMS system must be either a DBCTL system or have APPC=N specified in the DFSPBIMS PROCLIB member.

Because IMS accepts only type-1 commands that use this AOI, IMS Command Control Facility cannot issue type-2 commands to an IMS system that uses this configuration.

Furthermore, type-1 commands are processed uniquely in the following two instances:

- Because the ICMD/RCMD AOI does not support the /MOD command, the remote STC issues this command to the z/OS console by using the MGCRC service. This situation requires CMDMCS to be enabled in the target IMS (CMDMCS=Y specified in the DFSPBIMS PROCLIB member).
- Because the ICMD/RCMD AOI does not return the DFS0488I message for database commands, the remote STC simulates the message by returning a CCF0488I message.

## IMS Operations Manager (OM)

IMS Command Control Facility supports the IMS Operations Manager (OM) configuration.

IMS Command Control Facility can issue commands to IMS through the IMS Operations Manager (OM) automated operator interface (AOI). The supported command-issuing environments and command-routing interfaces are illustrated in the following figure.

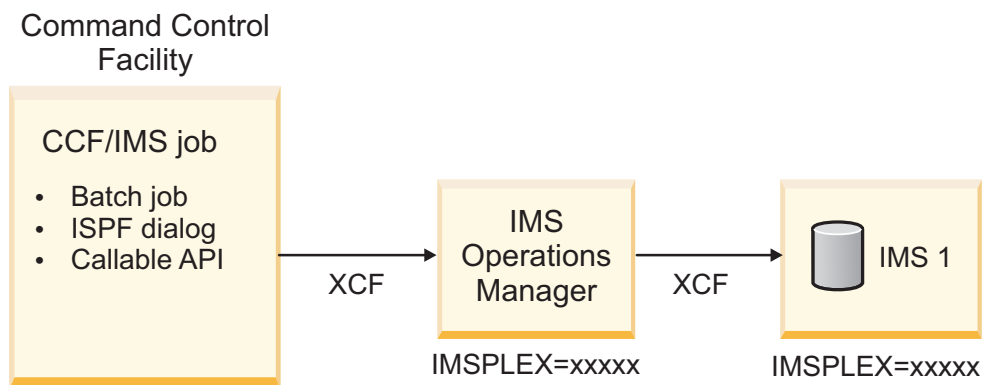


Figure 3. IMS Operations Manager (OM) configuration

The OM configuration is supported when IMS Command Control Facility command driver runs in one of the following environments:

- Batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch)
- ISPF dialog
- Callable API

When you use this configuration, the IMS Command Control Facility driver must run in the same z/OS sysplex as the IMS OM.

IMS Command Control Facility places no restrictions or limitations on commands when you use this configuration.

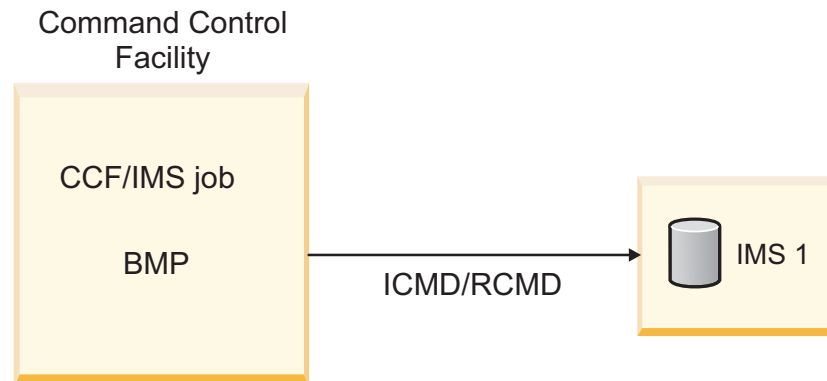
IMS OM support provides the following additional flexibility to IMS Command Control Facility:

- Issuing commands to non-APPC enabled IMS regions running in different z/OS images
- Supporting IMS Type-2 (OM) commands
- Formatting IMS Type-2 (OM) command responses

## Local BMP

IMS Command Control Facility supports a local BMP configuration.

IMS Command Control Facility can issue commands directly to an IMS where the IMS Command Control Facility command driver is attached as an IMS BMP. The supported command-issuing environments and command-routing interface are illustrated in the following figure.



*Figure 4. Local BMP configuration*

The local BMP configuration is used if the IMS Command Control Facility command driver runs as an IMS BMP and the command routing is set to remote STC. Because the remote STC and local BMP both use the ICMD/RCMD DL/I, configuring IMS Command Control Facility to issue commands as a local BMP rather than starting the remote STC can improve performance.

Because IMS accepts only type-1 commands from the ICMD/RCMD DL/I, IMS Command Control Facility cannot issue type-2 commands to an IMS system that uses this configuration.

Certain type-1 commands are either not allowed or do not perform as expected when IMS Command Control Facility runs as a local BMP. IMS Command Control Facility processes these commands uniquely. When one of the following commands is encountered, IMS Command Control Facility automatically routes the command to the remote STC for processing:

- /MOD commands

- Commands that change a database/AREA state (for example, /DBD, /DBR, /STA, and /STO)

## **Mixed configurations**

IMS Command Control Facility supports mixed configurations.

IMS Command Control Facility supports mixing APPC/IMS and remote STC configurations in the same IMS Command Control Facility group.

IMS Command Control Facility does not support mixing IMS OM and non-IMS OM regions in the same IMS Command Control Facility group.

When the IMS OM configuration is used for an IMS system in an IMS Command Control Facility group, the same IMS OM name (IMSPLEX) must be used for all members of the group.

---

## IMS Command Control Facility groups

IMS Command Control Facility passes commands to individual IMS systems, or to a group of IMS systems that are defined as an IMS Command Control Facility group. Typically, an IMS Command Control Facility group is defined for IMS systems that share databases that need to be kept in the same state across multiple systems.

IMS Command Control Facility groups can be categorized as:

- IMS Operations Manager IMS Command Control Facility groups
- Non-IMS Operations Manager IMS Command Control Facility groups

Both IMS OM and non-IMS OM IMS Command Control Facility groups consist of 1 to 64 IMS regions where commands can be distributed for processing. Typically these IMS regions share resources and keep events synchronized.

Non-IMS OM IMS Command Control Facility groups consist only of the members that are defined in the IMS Command Control Facility group. The command is passed individually to each member of the group for processing. IMS Command Control Facility ensures that the command is properly routed to each IMS region. For certain database/AREA commands, IMS Command Control Facility verifies that the command actually completed the required action.

IMS OM IMS Command Control Facility groups consist only of the members that are defined in the IMS Command Control Facility group. However, when IMS OM IMS Command Control Facility groups are used, IMS Command Control Facility routes the command to the IMS OM. The IMS OM then routes the command to all the IMS regions that are defined to the IMSplex.

The IMS OM IMS Command Control Facility group and the IMSplex can contain a different number of IMS regions. If this is the case, IMS Command Control Facility verifies that the command was properly routed for only the members of the IMS Command Control Facility group. If a command fails on an IMSplex member that is not part of the IMS Command Control Facility group, IMS Command Control Facility continues as if no error were encountered.

To verify that the command was properly routed to all IMSplex members, therefore, the IMS Command Control Facility group must contain all IMSplex members.

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## Security and auditability

IMS Command Control Facility issues IMS commands by using any of the following routing interfaces: APPC/IMS, the ICMD/RCMD DL/I, or IMS Operations Manager. In all cases, you must ensure that adequate controls are in place to prevent unauthorized entering of commands.

When IMS Command Control Facility uses either the APPC/IMS or remote STC (ICMD/RCMD) interface to issue commands, it issues the APPC Allocate call with the following setting:

Security Type = SAME

If the LUs that are involved in the conversation are defined as Already-Verified (ALREADYV or AVPV), the RACF<sup>®</sup> user ID of the IMS Command Control Facility job is sent as part of the conversation. As a result, the user ID will be available if IMS uses the CIMS RACF class for command authorization.

The IMS Command Control Facility options data set can be secured at the data set level or by record type within the data set.

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## 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:

[http://www.ibm.com/support/entry/portal/Overview/Software/  
Information\\_Management/IMS\\_Tools](http://www.ibm.com/support/entry/portal/Overview/Software/Information_Management/IMS_Tools)

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## Quick start roadmap

To become productive with IMS Command Control Facility as quickly as possible, you should understand how the supporting information is organized and where it is located.

### Background information:

- Product overview, environments, interfaces, and configuration scenarios  
Refer to Chapter 1, “IMS Command Control Facility overview,” on page 3.
- Description of product components  
Refer to Chapter 2, “IMS Command Control Facility components,” on page 21.

### Installation and migration:

- Installation procedures  
IMS Command Control Facility is installed by using SMP/E and standard RECEIVE, APPLY, and ACCEPT processing.  
Complete information about installation requirements, prerequisites, and procedures for IMS Command Control Facility is located in the *Program Directory for IMS Command Control Facility*.

### Configuration:

- Required configuration procedures  
Refer to Chapter 3, “Configuring IMS Command Control Facility,” on page 33.
- Optional configuration procedures  
Refer to Chapter 4, “Configuring command store/forward,” on page 35.  
Refer to Chapter 5, “Configuring the message log,” on page 43.  
Refer to Chapter 6, “Configuring message disposition,” on page 55.  
Refer to Chapter 7, “Securing the options data set,” on page 61.

### Primary administration setup tasks:

- Updating the options data set  
To specify global options:  
- Refer to “Global Options panel” on page 174.  
To specify job options:  
- Refer to “Job Options panel” on page 179.  
To specify IMS system information:  
- Refer to “IMS System Information panel” on page 184.  
To define IMS Command Control Facility groups:  
- Refer to “Group IMSID List panel” on page 188.  
To specify message disposition table entries:  
- Refer to “Message Disposition Update panel” on page 191.
- Choosing a command routing interface  
Refer to Chapter 8, “Command routing interface,” on page 65.

### Using IMS Command Control Facility:

- Batch processing  
Refer to Chapter 9, “Batch processing,” on page 69.
- Predefined procedures and commands



- Refer to Chapter 10, "Predefined procedures and commands," on page 79.
- Database/AREA command processing  
Refer to Chapter 11, "Database/AREA command processing," on page 87.
- Callable API  
Refer to Chapter 12, "Callable API," on page 95.
- Troubleshooting and diagnostics  
Refer to Chapter 15, "Gathering diagnostic information," on page 165.

**References:**

- ISPF dialog reference  
Refer to Chapter 16, "ISPF dialog reference," on page 169.
- Wildcard support  
Refer to Chapter 18, "Wildcard support," on page 209.
- Abend codes  
Refer to Chapter 13, "Abend codes," on page 109.
- Messages  
Refer to Chapter 14, "Runtime messages (CCF)," on page 111.

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## Product documentation and updates

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

### Information on the web

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

<http://www-01.ibm.com/support/docview.wss?uid=swg27020942>

The IMS Tools Product Documentation web page includes:

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

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## Accessibility features

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

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

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

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

---

## Chapter 2. IMS Command Control Facility components

IMS Command Control Facility consists of seven major components.

Topics:

- “Command driver” on page 22
- “ISPF interface” on page 23
- “Remote STC (z/OS Started Task)” on page 24
- “Message log” on page 25
- “Message disposition” on page 26
- “Command store/forward” on page 27
- “Options data set” on page 28

---

## Command driver

The IMS Command Control Facility command driver is used to issue IMS commands to one or more IMS regions.

The command driver is capable of three modes of operation:

- Batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch)
- ISPF dialog
- Callable interface

For all environments, IMS Command Control Facility can issue commands either to an individual IMS region or up to 64 IMS regions in an IMS Command Control Facility group. Depending on the specifications in the options data set, the command driver can issue commands to IMS regions that are running in different z/OS images within a sysplex or to z/OS images that are not part of the local sysplex.

The IMS Command Control Facility command driver passes commands to IMS by using one of its standard command interfaces:

- ICMD/RCMD calls (either local BMP or using IMS Command Control Facility remote STC)
- APPC/IMS
- IMS Operations Manager

Every IMS system on which IMS Command Control Facility issues commands requires an IMS options data set record that indicates the type of command interface that IMS Command Control Facility should use.

The IMS regions that are part of a IMS Command Control Facility group can be defined to use any combination of ICMD/RCMD (IMS Command Control Facility remote STC) and APPC/IMS command interfaces.

**Restriction:** An IMS system that is configured to use the IMS Operations Manager cannot be part of an IMS Command Control Facility group in which there are IMS regions that are configured to use the ICMD/RCMD or APPC/IMS configurations.

---

## ISPF interface

Use the IMS Command Control Facility ISPF interface to customize the IMS Command Control Facility options data set, to interactively execute IMS commands, or to view the IMS Command Control Facility message log.

Commands that are issued by using the ISPF interface can be routed to a single IMS region or all IMS regions that are part of an IMS Command Control Facility group. The command responses are displayed directly on the screen.

IMS Command Control Facility lets you specify, by record type, which options data set records can be updated by specific users.

---

## Remote STC (z/OS Started Task)

Use the IMS Command Control Facility remote STC for IMS DBCTL regions, or for IMS TM regions that are not APPC/IMS-enabled. This approach allows the command driver to communicate with IMS regions that run in remote z/OS images.

The command driver activates the IMS Command Control Facility remote STC in an APPC/MVS initiator, where it connects to IMS as a BMP. The command driver sends commands to the IMS Command Control Facility remote STC, and the remote STC passes the commands to IMS by using the ICMD/RCMD calls.

**Restriction:** Because the /MOD command is not supported by the ICMD/RCMD interface, the remote STC issues these commands to the z/OS console. The CMDMCS parameter in DFSPBIMS must be set to Y.

The IMS Command Control Facility remote STC runs in an APPC/MVS initiator and uses the APPC/MVS SYMDEST/PLU in the IMS region record to run on the correct image.

The VTAM LU name that is defined in the APPC/MVS SYMDEST/PLU must have an APPC/MVS LUADD that uses ASCH as its scheduler.



---

## Message log

The IMS Command Control Facility message log provides a single point of reference for viewing IMS messages, commands, and command responses.

IMS Command Control Facility uses the IMS automated operator interface (AOI) exit (DFSABOE00) to write messages to a z/OS System Logger log stream.

Additionally, IMS Command Control Facility provides IMS Operations Manager (OM) command post exits that can be used to write command and command responses to the same z/OS log stream.

The data in the z/OS log stream can be viewed by using the IMS Command Control Facility ISPF interface.

Additionally, the data in the z/OS log stream can be archived to a sequential file for historical reference and problem determination.

**Restriction:** In order to share the z/OS log stream across z/OS images, a coupling facility is required.

---

## Message disposition

You can use message disposition to suppress messages from the IMS master terminal, the IMS Command Control Facility message log, or the IMS secondary master terminal. You can also use message disposition to route messages to an automated operator interface (AOI) token.

You must define each message that you want IMS Command Control Facility to determine the disposition of. You define each message by using the IMS Command Control Facility ISPF interface.

Message disposition is invoked as part of the IMS AOI exit (DFSAB00).

You can use message disposition to:

- Suppress messages from the IMS master terminal
- Suppress messages from the IMS Command Control Facility message log
- Route messages to an AOI token
- Provide an ISPF dialog to manage the list of messages for which IMS Command Control Facility is to determine the disposition
- Dynamically refresh the list of messages without IMS restart
- Suppress messages from the IMS secondary master terminal

---

## Command store/forward

The command store/forward feature saves commands that fail because a member of an IMS Command Control Facility group is unavailable. The saved commands are then executed when the IMS region is started.

Command store/forward is a feature that can keep all members of a IMS Command Control Facility group in synchronization. Command store/forward is used in an IMS sysplex to ensure that resources are in the same state (for example, stopped or started) across all members of the sysplex.

If a member of the IMS Command Control Facility group is unavailable when the command driver is running as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch), the commands are saved in a data set and are subsequently executed when the IMS region is started.

---

## Options data set

The options data set is a VSAM data set that contains user-customized processing characteristics for IMS Command Control Facility.

The options data set contains information such as relevant ddnames, the relevant IMS command interface, error handling, IMS command routing tables, and message disposition tables.

Subsections:

- "Processing characteristics and environmental data"
- "Global options record"
- "Jobname options record" on page 29
- "IMS system record" on page 29
- "IMS Command Control Facility group record" on page 29

### Processing characteristics and environmental data

Processing characteristics and environmental information are stored in the options data set.

IMS Command Control Facility batch job processing characteristics are generally stored in the global and jobname options data set records. Most information defined in these records can be overridden by using the CCFOPTS ddname input statement.

Environmental data is defined in the IMS and IMS Command Control Facility group records in the options data set.

### Global options record

The global options record is used to store default processing options.

The global options record contains two types of options:

- Options that are in effect for every batch job
- Options that are used unless a matching jobname record is found

#### Options used with every batch job

The following fields are used for every batch job:

- ddname
- APPC/STC TPname
- /CCFMODE failure
- /CCFMODE COMMIT reversal
- Expand DATAGRP
- Treat DFS3466I as error
- Add NOFEOV to /DBD and /DBR
- Use DB pre-scan for remote STC

#### Options used for absent matching jobname record

The following fields are used in the absence of a matching jobname record:

- Command retry attempts

- Command retry interval
- Abend/return code values
- Error handling options
- Valid return codes from message DFS0488I
- Valid return codes from IMS Operations Manager
- Database ACCESS parameter determination option
- DBRC checking option
- WTO database command option

## Jobname options record

The jobname options record contains many of the same fields as the global options record.

The jobname options record is intended for jobs that require different processing options from the ones set in the global options.

The following fields in this record override those in the global options:

- Command retry attempts
- Command retry interval
- Abend/return code values
- Error handling options
- Valid return codes from message DFS0488I
- Valid return codes from IMS Operations Manager
- Database ACCESS determination option
- DBRC checking option
- WTO database command option

## IMS system record

The IMS system record contains information that IMS Command Control Facility needs about each IMS to build and process commands.

Every IMS target of an IMS Command Control Facility command must have an IMS system record defined.

The IMS system information (release, DFSVNUC suffix, and MODBLKS DSN) are used when a /STA DB ACCESS command is issued and the USE SYSGEN option is selected in the Global or Jobname option.

The DFSAOE00 information (IMS Command Control Facility Logger name, user DFSAOE00 name, and message disposition table name) are used by the IMS Command Control Facility message log and message disposition processing.

The Default IMS Command Control Facility group name is used to set a default group when the command driver runs as an IMS BMP or IMS DL/I batch. The default group name is ignored if the command driver runs as a standard z/OS batch job, ISPF interface, or callable interface.

## IMS Command Control Facility group record

IMS Command Control Facility requires a group record to route commands to more than one IMS system.

When a batch job issues DATABASE/AREA commands to an IMS Command Control Facility group, IMS Command Control Facility ensures that the command completes successfully for each member of the group.

When the command driver runs as an IMS BMP or IMS DL/I batch job, IMS Command Control Facility obtains the group name from the APARM data, if present. If the group name is not present in the APARM data, the group is obtained from the default group name in the IMS system record.

When the command driver runs as a z/OS batch job, the group name is obtained from the PARM statement.

It is recommended that only IMS regions that share the same databases and the same IMS RECON data sets be defined in the same IMS Command Control Facility group.

The following commands are not routed to all members of an IMS Command Control Facility group:

- DATABASE/AREA commands with the GLOBAL parameter
- /RMx commands (EXCEPT "/RML DBRC=RECON STATUS")

---

## Part 2. Configuring IMS Command Control Facility

The topics in this section provide you with information on configuring and customizing the IMS Command Control Facility product.

This configuration section contains the following topics:

**Topics:**

- Chapter 3, “Configuring IMS Command Control Facility,” on page 33
- Chapter 4, “Configuring command store/forward,” on page 35
- Chapter 5, “Configuring the message log,” on page 43
- Chapter 6, “Configuring message disposition,” on page 55
- Chapter 7, “Securing the options data set,” on page 61





---

## Chapter 3. Configuring IMS Command Control Facility

You must perform initial configuration steps before IMS Command Control Facility can be used.

### Before you begin

Before you begin configuration procedures, ensure the IMS Command Control Facility load library (SCCFLOAD data set) is APF-authorized.

### About this task

Perform the following steps to provide initial configuration for IMS Command Control Facility:

### Procedure

1. Allocate and initialize the IMS Command Control Facility options data set by using the sample JCL that is provided in the ACCFSAMP member CCFODINI. Ensure that you tailor the JCL as described in the sample.
2. Create the IMS Command Control Facility options data set dynamic allocation member (CCFOPTS) in the IMS Command Control Facility load library. Sample JCL is provided in ACCFSAMP member CCFASMOP. Ensure that you tailor the JCL as described in the sample.
3. Enable the IMS Command Control Facility ISPF dialog:
  - a. Configure the IMS Command Control Facility ISPF CLIST to ensure the correct data set names are specified.  
The sample ISPF CLIST is provided in the CCFEXEC data set in member CCFXISPF.
  - b. Make the configured CCFXISPF EXEC available to ISPF users by using one of the following methods:
    - Allocate the CCFEXEC library to the SYSEXEC or SYSPROC concatenation of any TSO user
    - Update the TSO logon procedure to include the CCFEXEC data set
    - Add an ISPF option that starts the EXEC, or have users enter the full EX *prefix.CCFEXEC(CCFXISPF)* command
  - c. Use the ISPF interface to set, at a minimum, global, and IMS options.  
When you open the ISPF dialog, the Primary Options menu is displayed. On this menu, specify the name of the IMS Command Control Facility options data set that you created in step 1.
  - d. If you use the IMS Command Control Facility ISPF dialog to issue commands to an IMS system that uses the Operations Manager, the SDFSRESL must be allocated to the TSO session. Use one of the following methods to allocate SDFSRESL to the TSO session:
    - Put the SDFSRESL in the z/OS LINKLIST.
    - Add SDFSRESL to STEPLIB in the TSO logon procedure.
    - From the TSO READY prompt, enter the following TSOLIB command:  
TSOLIB ACT DS(SDFSRESL)
    - Add TSOLIB command to initial logon CLIST, if present.

- Ensure APAR PM01507 is applied to your system.
  - Specify the IMS SDFSRESL library using member CCFXISPF from the CCFEXEC library.
4. Customize IMS.
- The IMS customization that is required is dependent on how IMS Command Control Facility is to be used and what command routing technique is specified. Each of the following steps indicate the IMS requirement based upon which IMS Command Control Facility options are in effect.
- a. Define APPLCTNs to IMS for IMS Command Control Facility BMP processing.
- Perform this step only if at least one of the following conditions are true: IMS Command Control Facility runs as an IMS BMP, the routing technique is set to APPC/MVS, or Command Store/Forward is used.
- Add the contents of SCCFDATA member CCFSTG1 to the IMS stage1 definitions for each IMS system that meets one or more of these requirements.
- b. Update IMS runtime options using one of the following steps depending on your routing technique:
- For an APPC/IMS command routing technique (not valid for a DBCTL system):
 

APPC/IMS must be active for a particular IMS region. You can activate APPC/IMS by specifying APPC=Y in PROCLIB member DFSPBIMS, or by issuing an IMS /STA APPC command.

Review the security level that IMS uses for APPC to ensure that commands are secured as intended. You can set the IMS security level by using the APPCSE option in PROCLIB member DFSPBIMS, or by issuing an IMS /SEC command.
  - For an APPC/MVS command routing technique:
 

APPC/IMS cannot be active for a particular IMS. Additionally, define APPC=N in the PROCLIB member DFSPBIMS.
- Note:** The APPC parameter pertains to DB/DC and DCCTL systems. It is not applicable to DBCTL systems.
- Use of the APPC/MVS or Remote STC routing techniques might require APPC definitions. For more information, see “IMS System Information panel” on page 184 and Chapter 17, “APPC/MVS routing technique,” on page 201.
- When IMS Command Control Facility uses APPC/MVS for command routing, most commands are issued by using the IMS ICMD call, which means that PROCLIB member DFSPBIMS cannot specify A0IS=N.
- IMS does not support certain commands from the ICMD call. IMS Command Control Facility issues these commands to the z/OS console by using the MGCRC service.
- In this case, you must specify CMDMCS=Y in the PROCLIB member DFSPBIMS.
5. You are now able to use option C from the IMS Command Control Facility ISPF dialog and issue a command to the IMS region that you defined in Step 3c.

---

## Chapter 4. Configuring command store/forward

The command store/forward feature saves commands that fail because a member of an IMS Command Control Facility group is unavailable. The saved commands are then executed when the IMS region is started.

Command store/forward is an optional feature that can keep all members of an IMS Command Control Facility group in synchronization.

Topics:

- “Command store/forward overview” on page 36
- “Activating command store/forward” on page 37
- “Scheduling the REDO BMP” on page 39
- “REDO BMP JCL requirements” on page 40
- “Command store/forward restrictions” on page 41

---

## Command store/forward overview

You use command store/forward in an IMS sysplex to ensure that resources are in the same state (for example, stopped or started) across all members of the sysplex.

Command store/forward consists of two components:

- Store/forward VSAM data set

IMS Command Control Facility batch jobs (IMS BMP, IMS DL/I batch, or standard z/OS batch) use this data set to store failed commands.

- REDO BMP

This BMP reads the store/forward VSAM data set and issues all of the commands that failed for a particular IMS system. You should reschedule the REDO BMP immediately at IMS startup.

The REDO BMP uses the ICMD/RMCD AOI to issue the commands, which means that the user ID that is associated with this BMP needs authorization for all required commands.

---

## Activating command store/forward

Configuration for the command store/forward feature begins with activating the store/forward VSAM data set and the REDO BMP.

### Before you begin

Perform the following steps to prepare the store/forward data set:

1. Allocate and initialize the IMS Command Control Facility store/forward data set by using the sample JCL that is provided in ACCFSAMP member CCFSTF. Ensure that you tailor the JCL as described in the sample.
2. Create the IMS Command Control Facility store/forward data set dynamic allocation member (CCFSTFWD) in the IMS Command Control Facility load library.

Sample JCL is provided in ACCFSAMP member CCFASMSF.

Ensure that you tailor the JCL as described in the sample.

3. The ROUTING=IGNORE option must be set for all IMS Command Control Facility batch jobs that can have their commands stored for later processing by the IMS Command Control Facility REDO BMP.

Setting the routing error option to IGNORE can be performed from the IMS Command Control Facility Global Options panel and the IMS Command Control Facility Job Options panel,

Alternatively, you can specify the ROUTING=IGNORE option in the IMS Command Control Facility batch job JCL from the CCFOPTS DD statement.

### Procedure

Perform the following steps to activate the REDO BMP:

1. Customize JCL for the REDO BMP.  
Sample JCL is provided in ACCFSAMP member CCFBMPR.  
Ensure that you tailor the JCL as described in the sample.
2. Specify any required commands in the CCFPRE and CCFPOST input data sets.  
The REDO BMP executes the commands in the CCFPRE data set before executing the commands in the store/forward data set.  
The commands in the CCFPOST data set are executed after all commands for the particular IMS system in the store/forward data set are executed.
3. Ensure that the REDO BMP has proper authority:
  - a. For IMS type-1 commands, REDO BMP issues commands to IMS by using the ICMD/RCMD AOI.  
Therefore, the user ID that is associated with this BMP needs authority to execute all required commands.
  - b. For IMS type-2 commands, the REDO BMP issues commands to IMS by using the IMS Operations Manager.  
Therefore, the user ID that is associated with this BMP needs authority to execute all required commands.
  - c. If the IMS uses AGN security, the user ID that is associated with the BMP will require authority to connect to the AGN.

## **What to do next**

The REDO BMP must be scheduled immediately when IMS is started and before the system is opened up for processing.

See “Scheduling the REDO BMP” on page 39.

---

## Scheduling the REDO BMP

The REDO BMP must be scheduled immediately when IMS is started and before the system is opened up for processing.

### Procedure

The following steps describe the recommended procedure for scheduling the REDO BMP process:

1. Start the IMS control region.
2. Use TCO to start REDO BMP immediately at IMS start up.
3. Add the following commands to the CCFPRE input data set:  
`/STO CLASS ALL`  
`/STA REG for all required message regions`
4. Add the following commands to the CCFPOST input data set:  
`/STA CLASS ALL`  
`/STA DC`  
`/STA APPC (if used)`  
`/RST LINK ALL (if used)`

### What to do next

Once these actions are completed, command store/forward saves all commands that encounter routing errors in the store/forward VSAM data set.

The following conditions apply:

- For commands that are routed using the APPC/IMS connection, a routing error is an APPC failure.
- For commands that are routed using the IMS OM, a routing error is identified as a member of the IMS Command Control Facility group being not active in the IMSplex.

A timestamp is added to the commands when they are written to the store/forward VSAM data set. The timestamp ensures the commands are subsequently executed in the proper sequence.

---

## REDO BMP JCL requirements

Sample JCL for the REDO BMP can be found in ACCFSAMP(CCFBMPR).

The following ddname statements are required for the REDO BMP JCL:

### CCFPRINT

CCFPRINT is an output data set that lists the commands for which execution was attempted during BMP processing.

CCFPRINT is defined as LRECL=131 and RECFM=FBA.

The output can be sent to SYSOUT or a data set.

### CCFPRE

CCFPRE is an input data set that contains commands to be executed before the commands in the store/forward data set.

CCFPRE is defined as LRECL=80 and RECFM=FB.

### CCFPOST

CCFPOST is an input data set that contains commands to be executed after all of the commands for this particular IMS system are processed from the store/forward data set.

CCFPOST is defined as LRECL=80 and RECFM=FB.

Sample JCL for the REDO BMP:

```
//jobname JOB
//*
//STEP01 EXEC PGM=DFSRR00,
// PARM=(BMP,CCFRED00,CCFRED00,,,,,,,,,imsid)
//STEPLIB DD DISP=SHR,DSN=reslib
// DD DISP=SHR,DSN=ccf.loadlib
//CCFPRINT DD SYSOUT=*
//CCFPRE DD *
ims commands
/*
//CCFPOST DD *
ims commands
```



---

## Command store/forward restrictions

The command store/forward feature has certain restrictions.

The following restrictions apply to the command store/forward feature:

- Option for Routing errors must be set to ignore.
- Command store/forward is active only when there is more than one IMS in the IMS Command Control Facility group.
- A command must be successful for at least one IMS in the IMS Command Control Facility group.

If the command fails for all systems in the IMS Command Control Facility group, it is not written to the store/forward VSAM data set.

The following commands are not candidates for store/forward processing:

- Commands routed to a specific IMS.
- Commands with the GLOBAL parameter.
- DBRC commands (/RMx).
- /MOD commands.

Failed commands are saved in the store/forward VSAM data set only when IMS Command Control Facility command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch).



---

## Chapter 5. Configuring the message log

The IMS Command Control Facility message log provides a single point of reference for reviewing IMS messages, commands, and command responses.

The message log can be used for an individual IMS region or multiple IMS regions within a sysplex.

Topics:

- “Message log overview” on page 44
- “Message log as a DASD-only log stream” on page 46
- “Message log as a coupling facility log stream” on page 48
- “Log stream security” on page 50
- “Log data archiving” on page 51
- “Implementing the AOI exit” on page 53
- “Implementing the OM exits” on page 54

---

## Message log overview

The IMS Command Control Facility message log provides a single point of reference for reviewing IMS messages, commands, and command responses. The message log provides a single point of reference for IMS system monitoring and problem determination.

IMS Command Control Facility uses the IMS automated operator exit (DFSABOE00) to capture a copy of IMS messages, commands, and command responses and write them to a message log.

Additionally, IMS Command Control Facility provides post-exit routines that capture commands and command responses from the IMS Operations Manager (OM) and write them to the same message log. These routines can be added to the IMS OM task to capture copies of commands and responses for the IMS OM.

The message log is defined as a z/OS System Logger log stream. System Logger is a z/OS component that provides a logging facility for applications that run in a single-system or multi-system sysplex.

The advantage of using System Logger is that the responsibility for tasks such as saving the log data (with the requested persistence), retrieving the data (potentially from any system in the sysplex), archiving the data, and expiring the data is removed from the creator of the log records. In addition, System Logger provides the ability to have a single merged log that contains log data from multiple instances of an application within the sysplex.

You can define the System Logger log stream either as DASD-only or to the coupling facility:

- Define the log stream as DASD-only if the log stream needs to be shared on the same z/OS image  
If you do not have a coupling facility, you must define the log stream as DASD-only.
- Define the log stream to the coupling facility if the log stream will not be shared across multiple MVS LPARs

The log stream can be shared by IMS regions that run anywhere in the z/OS sysplex. The log stream must be defined to the coupling facility in order for it to be shared (read or update) by multiple z/OS images.

An archive job is provided to unload the log stream to a sequential data set. You can save the sequential data set for historical reference purposes. The archive job provides parameters to determine how much data is to be archived, or left in the log stream.

You can view the active message log by using the IMS Command Control Facility ISPF dialog. The IMS Command Control Facility ISPF dialog provides several options to filter the log data to be displayed. The following filter options are available:

- IMS region
- User ID
- Date/time interval
- All active log data

## **Data stored in the log stream**

IMS Command Control Facility writes records to the log stream in the order in which they are presented to the IMS automated operator interface (AOI) and Operations Manager (OM) exits.

The data remains in the log stream until it is either marked for deletion by IMS Command Control Facility or automatically deleted by the z/OS System Logger.

If the log data is required for historical purposes, you should set the retention period in the z/OS System Logger policy high enough so that the data is not deleted before the IMS Command Control Facility archive job can offload the data.

---

## Message log as a DASD-only log stream

You must choose the type of log stream that you want to use to store all eligible messages. If you do not have a coupling facility, you must define any IMS Command Control Facility log stream as DASD-only.

Consider the following information when you define the message log as a DASD-only log stream:

- DASD-only log streams are single-system in scope. You must consider the implications of moving an IMS system from one z/OS image to another because DASD-only log streams cannot be shared across z/OS images.
- You can define separate log streams for each IMS system running on a particular z/OS image.
- To use the ISPF message log viewer, you must log on to the TSO running on the same z/OS image where the DASD-only log stream is defined.
- IMS Command Control Facility archive jobs need to run on the same z/OS image where the log stream is defined.
- If an IMS system is being moved from one z/OS image to another, a IMS Command Control Facility archive job might need to be run on the original z/OS image before running an archive on the new image (archive data set naming convention, GDG sequencing).

### Defining a DASD-only log stream

You can define the DASD-only log stream for the message log by using the z/OS administrative data utility IXCMIAPU.

#### Before you begin

To use the IMS Command Control Facility message log feature, you must have storage management subsystem (SMS) active at your installation and the z/OS System Logger (LOGR) must be implemented. Most z/OS installations already have the LOGR policy set up.

**Restriction:** If the log stream is shared across z/OS images, it must be defined to the coupling facility. It cannot be defined as a DASD-only log stream. See “Defining the coupling facility log stream” on page 48.

#### About this task

The JCL provided in member CCFLOG1 in the ACCFSAMP library can be used as a model for defining this log stream. Before submitting the JCL, make any necessary changes after considering the following information:

#### Procedure

1. Chose a value for the high-level qualifier (HLQ) based on your installation requirements for SMS data set naming conventions.  
Many environments default to IXGLOGR. Consult with your z/OS system programmer before making this selection.
2. Chose any valid 1- to 26-character name for the log stream name.
3. If you will be using the IMS Command Control Facility archive utility to delete unneeded messages that are stored in the message log, specify AUTODELETE(NO).

Otherwise the system logger might delete log records before you have had a chance to archive them.

4. Consult *z/OS MVS Setting Up a Sysplex* for additional information about using the administrative data utility (IXCMIAPU) for SMS-related parameters and any of the other additional parameters that might be necessary to define log streams at your installation.

---

## Message log as a coupling facility log stream

You must choose the type of log stream you want to use to store all eligible messages. You must have a coupling facility to define a log stream to use the coupling facility. If you do not have a coupling facility, then you must define any IMS Command Control Facility log stream as DASD-only.

A coupling facility is a special logical partition that provides high-speed caching, list processing, and locking functions in a sysplex. IMS saves global information in the coupling facility. Therefore, all of the IMS systems in the IMSplex have access to the global information.

Consider the following information when you define the message log as a coupling facility log stream:

- Coupling facility log streams can be shared across an entire sysplex.
- The same coupling facility log streams can be use by multiple IMS systems running on any z/OS image in the sysplex.
- Moving an IMS system from one z/OS image to another in the same sysplex does not require any additional setup.
- To use the ISPF message log viewer, you can log on to TSO on any z/OS image in the sysplex.
- IMS Command Control Facility archive jobs can run on any z/OS image in the sysplex.

### Defining the coupling facility log stream

You can define the coupling facility log stream for the message log by using the z/OS administrative data utility IXCMIAPU.

#### Before you begin

To use the IMS Command Control Facility message log feature, you must have storage management subsystem (SMS) active at your installation and the z/OS System Logger (LOGR) must be implemented. Most z/OS installations already have the LOGR policy set up.

#### About this task

You can use the JCL that is provided in member CCFLOG2 in the ACCFSAMP library as a model for defining this log stream. Before submitting the JCL, make any necessary changes after considering the following information:

#### Procedure

1. Choose a value for the high-level qualifier based on your installation requirements for SMS data set naming conventions.  
Many environments default to IXGLOGR. Consult with your z/OS system programmer before making this selection.
2. Chose any valid 1- to 26-character name for the log stream name.
3. If you will be using the IMS Command Control Facility archive utility to delete unneeded messages that are stored in the message log, specify AUTODELETE(NO).  
Otherwise the system logger might delete log records before you have had a chance to archive them.



4. Consult *z/OS MVS Setting Up a Sysplex* for additional information about using the administrative data utility (IXCMIAPU) for SMS-related parameters and any of the other additional parameters that might be necessary to define log streams at your installation.

---

## Log stream security

The security that is required to define and use the log streams that were created for the IMS Command Control Facility message log can vary from installation to installation.

The following considerations apply to the security of the message log:

- The logger and storage management subsystem (SMS) address spaces need RACF ALTER access to the data sets that are allocated for the log streams that you define. Consult with your z/OS system programmer and RACF administrator for more information.
- The LOGSTRM class is used to protect log streams. Consult with your RACF administrator for more details.

---

## Log data archiving

IMS Command Control Facility provides an archive job (CCFARCH0) that copies old log data to a DSORG=PS data set, and simultaneously marks it eligible for deletion.

IMS Command Control Facility provides several options for determining what log records are considered old, and therefore subject to archiving/deletion. Most of the archiving options archive only log records that were written prior to the current date. Use the MAX control card if you must archive log records from the current date.

If the log data needs to be kept for historical purposes, the retention period must be high enough so that the z/OS System Logger will not delete the log data before it is off-loaded by the CCFARCH0 utility.

To control the size of the archived log data set, the utility provides the following options for controlling what information is archived:

- Date (default)
- Hours
- Hours within Date
- Number of records
- All old log data
- MAX

### Sample JCL for data archiving

Sample JCL for archiving message log data can be found in ACCFSAMP(CCFARCH0).

The following table lists the data set definitions that are required by the CCFARCH0 utility:

*Table 1. Ddname requirements for CCFARCH0*

Definition	Description
LOGOUT	<p>Describes the output data set where the IMS Command Control Facility message log records are written.</p> <p>The data set is defined as LRECL=1024 and RECFM=VB.</p> <p>The size of the data set is determined by the amount of data that is being archived.</p>
SYSPRINT	<p>An output data set that provides informational messages about the archive job.</p> <p>SYSPRINT is defined as LRECL=80 and RECFM=FB.</p> <p>The output can be written to SYSOUT or a data set.</p>
SYSIN	<p>An input data set that contains control cards that specify archiving parameters.</p> <p>SYSIN is defined as LRECL=80 and RECFM=FB.</p>

## CCFARCH0 control cards

This section describes the control cards that are valid for the CCFARCH0 utility.

The control cards that are used by CCFARCH0 fit into two categories. They either describe the log stream or they define how much data is to be archived.

The control card that describes the log stream is required (LSN). Other control cards are optional.

*Table 2. CCFARCH0 Control Card - definition and values*

Definition	Value
LSN= <i>name</i>	Required. This control card describes the name of the IMS Command Control Facility message log.  Specify the 1- to 26-byte log stream name.
DATE	Default. IMS Command Control Facility starts archiving from the oldest record in the message log and continues until it encounters a log record with a different date.
HOURS= <i>nn</i>	IMS Command Control Facility starts archiving from the oldest record in the message log and continues until <i>nn</i> number of hours of log records has been archived, or a log record with the current date is encountered.  Valid values for <i>nn</i> are 1-24.  When the HOURS definition is specified in conjunction with DATE, archiving continues until <i>nn</i> hours of records have been archived, or a log record with a date change has been encountered.
RECS= <i>nnnnnn</i>	IMS Command Control Facility starts archiving with the oldest record in the message log, and continues until <i>nnnnnn</i> records have been archived, or a log record with the current date has been encountered.  Valid values for <i>nnnnnn</i> are 1-999999.  This control card is not valid with control cards other than LSN.
ALL	IMS Command Control Facility starts archiving with the oldest record in the message log and continues until a log record with the current date has been encountered.  This control card is not valid with control cards other than LSN.
MAX	IMS Command Control Facility starts with the oldest record in the message log and continues until a log record with the current date and hour has been encountered.  If using this option, it is recommended that the archive job (CCFARCH0) be scheduled at 15 minutes past the hour. This ensures at least 15 minutes of log data is always present in the message log.  This control card is not valid with any other control cards.

---

## Implementing the AOI exit

The automated operator interface (AOI) exit that is provided by IMS Command Control Facility performs several functions. When you use the IMS Command Control Facility message log, the IMS Command Control Facility AOI exit is used to write the messages (IMS messages, commands, and command responses) to the log stream.

### Before you begin

This procedure is required when implementing the message disposition feature. If the AOI exit has already been implemented, do not implement it again.

### Procedure

Perform the following steps to implement the automated operator interface (AOI) exit:

1. To determine whether the AOI exit has already been implemented, check to see if the STEPLIB concatenation contains a DFSAOE00 entry.  
If so, browse the module and search for a character string of CCFAOE00.  
If the string CCFAOE00 is present, the AOI exit has already been implemented.
2. Update the IMS control region started task JCL by adding the SCCFLOAD library to the STEPLIB concatenation.
3. If you already have an existing DFSAOE00 in SDFSRESL or another library in the STEPLIB concatenation of your IMS control region, rename it to any name that meets your requirements.  
The recommended name is DFSAOE01.
4. If there is no DFSAOE00 to rename in Step 3, there is no need to perform this step.  
Use the IMS Command Control Facility ISPF dialog, go to option 3, and select the appropriate IMS system.  
In the **User DFSAOE00 Name** field, specify the renamed DFSAOE00 module from Step 3.
5. Recycle the IMS system.
6. Verify the implementation by reviewing IMS Command Control Facility messages in the IMS control region z/OS log.  
If implementation is successful, message CCF8101I should be present.

### What to do next

If you intend to continue using an existing DFSAOUE0 exit, the following additional considerations apply:

- If IMS Command Control Facility is being used to suppress a specific message, the existing DFSAOUE0 exit cannot handle the same message.
- If IMS Command Control Facility is being used to create an AOI automation token for a specific message, the existing DFSAOUE0 exit cannot handle the same message.
- IMS Command Control Facility cannot route command response messages to the AOI automation token if you are using your own DFSAOUE0 exit.

---

## Implementing the OM exits

The Operations Manager (OM) exits provided by IMS Command Control Facility are used to write messages (commands and command responses) to the log stream.

### Before you begin

Ensure that any required log stream has been properly defined.

### Procedure

Perform the following steps to implement the IMS Command Control Facility OM exits:

1. Update the IMS OM started task JCL by adding the SCCFLOAD library to the STEPLIB concatenation for your IMS control region.
2. For the IMS OM started task, update the member that is defined for the BPECFG parameter in the library that is defined for the PROCLIB ddname statement. Make sure that the following line is present in the BPECFG member:

```
EXITMBR=(BPEOMXIT,OM)
```

3. Add or update the BPEOMXIT member with the following statements:

```
EXITDEF (TYPE=INITTERM,EXITS=(CCFOINI0),ABLIM=0,COMP=OM)  
EXITDEF (TYPE=OUTPUT,EXITS=(CCFOPST0),ABLIM=0,COMP=OM)
```

4. Identify the library that is defined for the PROCLIB ddname statement that was allocated to the IMS OM started task. Add the CCFPARMS member to this library with the 1- to 26-character name chosen for the log stream to be entered after the CCFLOGR parameter using the following statements as a model:

```
*  
* LOGSTREAM NAME FOR CCF  
*  
CCFLOGR=@CCF.LOGGER
```

5. Recycle the IMS OM started task.

6. Verify the implementation by reviewing IMS Command Control Facility messages in the IMS Operations Manager z/OS log.

If implementation was successful, message CCF8406I should be present.

---

## Chapter 6. Configuring message disposition

| You can use message disposition to suppress messages from the IMS master  
| terminal, the IMS Command Control Facility message log, or the IMS secondary  
| master terminal. You can also use message disposition to route messages to an  
| automated operator interface (AOI) token.

Topics:

- “Message disposition overview” on page 56
- “Updating the IMS record in the options data set” on page 57
- “Updating the message tables in the options data set” on page 58
- “Implementing the AOI exit” on page 59

---

## Message disposition overview

| You can use message disposition to suppress messages from the IMS master  
| terminal, the IMS Command Control Facility message log, or the IMS secondary  
| master terminal. You can also use message disposition to route messages to an  
| automated operator interface (AOI) token.

IMS Command Control Facility message disposition processing is controlled by user-defined tables that are stored in the options data set and that are loaded into storage at IMS start up. Multiple IMS systems can be defined to load the same tables from the options data set, but they do not share the tables after the tables loaded into memory.

Many customers write their own AOI exit to suppress messages that would otherwise be sent to the IMS master terminal, or to route the messages to an alternate destination.

Message disposition processing is intended to help eliminate user-developed code.

IMS Command Control Facility provides an ISPF dialog that you can use to add message IDs and specify their disposition. The message can be suppressed from the IMS master terminal or the IMS Command Control Facility combined message log.

Tables controlling message disposition can be updated without requiring an IMS startup.



---

## Updating the IMS record in the options data set

Each IMS system that uses message disposition processing needs to identify the message table name it uses.

### About this task

This user-defined name can be unique to each IMS, or all IMS systems can share the same table. To update the IMS record in the options data set, perform the following steps:

### Procedure

1. Go to option 3 of the IMS Command Control Facility ISPF dialog and select the appropriate IMS system.
2. In the **Msg Disp Table Name** field, specify the user-selected message table name.

---

## Updating the message tables in the options data set

The message tables contain the definitions that are used by IMS Command Control Facility to determine how messages are to be processed.

### About this task

These tables are loaded into storage at IMS startup. You can refresh these tables dynamically by issuing a /LOG CCFREFRESH command from any 3270 terminal that is connected to the IMS system.

After a successful table refresh, message CCF8301I is displayed in the IMS control region z/OS log.

Perform the following steps to update the message tables:

### Procedure

1. Select option 6 from the IMS Command Control Facility ISPF dialog.
2. Select **E** for an existing entry for edit, or **A** to add a new member.  
If this is the first entry in the message table, the add screen is displayed automatically.
3. In the MSGTABLE field, specify the name of the table defined in the IMS record.
4. In the remaining input fields, enter information that is appropriate for your site.

---

## Implementing the AOI exit

The IMS Command Control Facility automated operator interface (AOI) exit performs several functions. When you use message disposition processing, the IMS Command Control Facility AOI exit specifies messages that either will be suppressed from the IMS master terminal and the IMS Command Control Facility log, or that will be routed to an AOI token.

### Before you begin

This procedure is required when implementing the message log feature. If the AOI exit has already been implemented, do not implement it again.

### Procedure

Perform the following steps to implement the automated operator interface (AOI) exit:

1. To determine whether the AOI exit has already been implemented, check to see if the STEPLIB concatenation contains a DFSAOE00 entry.  
If so, browse the module and search for a character string of CCFAOE00.  
If the string CCFAOE00 is present, the AOI exit has already been implemented.
2. Update the IMS control region started task JCL by adding the SCCFLOAD library to the STEPLIB concatenation.
3. If you already have an existing DFSAOE00 in SDFSRESL or another library in the STEPLIB concatenation of your IMS control region, rename it to any name that meets your requirements.  
The recommended name is DFSAOE01.
4. If there is no DFSAOE00 to rename in Step 3, there is no need to perform this step.  
Use the IMS Command Control Facility ISPF dialog, go to option 3, and select the appropriate IMS system.  
In the **User DFSAOE00 Name** field, specify the renamed DFSAOE00 module from Step 3.
5. Recycle the IMS system.
6. Verify implementation by reviewing IMS Command Control Facility messages in the IMS control region z/OS log.  
If implementation was successful, message CCF8101I should be present.

### What to do next

If you intend to continue using an existing DFSAOUE0 exit, the following additional considerations apply:

- If IMS Command Control Facility is being used to suppress a specific message, the existing DFSAOUE0 exit cannot handle the same message.
- If IMS Command Control Facility is being used to create an AOI automation token for a specific message, the existing DFSAOUE0 exit cannot handle the same message.
- IMS Command Control Facility cannot route command response messages to the AOI automation token if you are using your own DFSAOUE0 exit.



---

## Chapter 7. Securing the options data set

In addition to using RACF (or some other compatible security product) to secure update access to your IMS Command Control Facility options data set, you can also use RACF to restrict the use of various IMS Command Control Facility ISPF options.

IMS Command Control Facility uses the MVS RACROUTE call to determine the access authority of a user who attempts to use any of the IMS Command Control Facility ISPF options.

IMS Command Control Facility specifies the FACILITY resource class on the RACROUTE call, as well as the entity names that are described in this section. The entity names relate to the IMS Command Control Facility ISPF option that is being protected.

**Restriction:** The sample commands in this section must be issued by the security administrator.

### Restricting access to global options

You can use RACF to define the entity name that restricts users from using the IMS Command Control Facility ISPF interface to update global options by issuing TSO commands that are modeled on the following sample commands:

```
RDEF FACILITY CCF.OPTGBL UACC(NONE) OWNER(securitygroup)
PE CCF.OPTGBL CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

### Restricting access to job options

You can use RACF to define the entity name that restricts users from using the IMS Command Control Facility ISPF interface to update job options by issuing TSO commands that are modeled on the following sample commands:

```
RDEF FACILITY CCF.OPTJOB UACC(NONE) OWNER(securitygroup)
PE CCF.OPTJOB CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

### Restricting access to IMS options

You can use RACF to define the entity name that restricts users from using the IMS Command Control Facility ISPF interface to update IMS options by issuing TSO commands that are modeled on the following sample commands:

```
RDEF FACILITY CCF.OPTIMS UACC(NONE) OWNER(securitygroup)
PE CCF.OPTIMS CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

### Restricting access to group options

You can use RACF to define the entity name that restricts users from using the IMS Command Control Facility ISPF interface to update group options by issuing TSO commands that are modeled on the following sample commands:

```
RDEF FACILITY CCF.OPTGRP UACC(NONE) OWNER(securitygroup)
PE CCF.OPTGRP CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

## Restricting access to the command interface

You can use RACF to define the entity name that restricts users from using the IMS Command Control Facility ISPF interface to issue IMS commands by issuing TSO commands that are modeled on the following sample commands:

```
RDEF FACILITY CCF.OPTCMD UACC(NONE) OWNER(securitygroup)
PE CCF.OPTCMD CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

## Restricting access to message disposition options

You can use RACF to define the entity name that restricts users from using the IMS Command Control Facility ISPF interface to update message disposition options by issuing TSO commands that are modeled on the following sample commands:

```
RDEF FACILITY CCF.OPTMSG UACC(NONE) OWNER(securitygroup)
PE CCF.OPTMSG CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

## Restricting access to command store/forward options

You can use RACF to define the entity name that restricts users from using the IMS Command Control Facility ISPF interface to update command store/forward options by issuing TSO commands that are modeled on the following sample commands.

Restricting view access for reading:

```
RDEF FACILITY CCF.OPTSFV UACC(NONE) OWNER(securitygroup)
PE CCF.OPTSFV CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

Restricting edit access for updating:

```
RDEF FACILITY CCF.OPTSFE UACC(NONE) OWNER(securitygroup)
PE CCF.OPTSFE CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

## Restricting access to using a CCF Group or IMS ID for issuing commands

You can use RACF to define the entity name that restricts users from using an IMS Command Control Facility Group or IMS subsystem ID from being the target of any command issued through IMS Command Control Facility by issuing TSO commands that are modeled on the following sample commands:

```
RDEF FACILITY CCF.EXEGRP.[ccfgroup|imsid] UACC(NONE) OWNER(securitygroup)
```

and / or

```
RDEF FACILITY CCF.EXEGRP.* UACC(NONE) OWNER(securitygroup)
PE CCF.EXEGRP.[ccfgroup|imsid] CLASS(FACILITY) ACCESS(READ) ID(ccfuserid/groupid)
SETR REFRESH RACLIST(FACILITY)
```

---

## Part 3. Administering IMS Command Control Facility

The topics in this section provide you with information on administering the IMS Command Control Facility product.

This product administration section contains the following topics:

**Topics:**

- Chapter 8, “Command routing interface,” on page 65
- Chapter 9, “Batch processing,” on page 69
- Chapter 10, “Predefined procedures and commands,” on page 79
- Chapter 11, “Database/AREA command processing,” on page 87
- Chapter 12, “Callable API,” on page 95





---

## Chapter 8. Command routing interface

IMS Command Control Facility must communicate across an appropriate interface when it issues commands to an IMS server.

Topics:

- “Command routing interfaces” on page 66
- “Guidelines for choosing a command routing interface” on page 67

---

## Command routing interfaces

The IMS Command Control Facility command driver must communicate across an appropriate interface when it issues commands to an IMS server.

IMS Command Control Facility supports the following command routing interfaces:

- “IMS Operations Manager”
- “APPC/IMS”
- “ICMD/RCMD over APPC/MVS (remote STC) ”

### IMS Operations Manager

To use the IMS Operations Manager to route commands, the target IMS system must be connected to the IMS Operations Manager.

**Restriction:** If IMS Operations Manager routing is selected for an IMS system in an IMS Command Control Facility group, then all IMS regions in the IMS Command Control Facility group must use the same IMS Operations Manager.

### APPC/IMS

To use APPC/IMS to route commands, the target IMS system must be enabled for APPC (APPC=Y in DFSPBIMS).

### ICMD/RCMD over APPC/MVS (remote STC)

Use the ICMD/RCMD routing technique only if the IMS region is not enabled for APPC (that is, APPC=N is specified in the DFSPBIMS member, or in a DBCTL region).

The ICMD/RCMD routing technique has the following special processing characteristics:

- If the command driver is running as a local BMP, most commands are issued directly to IMS by using the ICMD/RCMD calls.
- If the command driver is running as a local BMP, and a /MOD command is being attempted, IMS Command Control Facility starts the remote STC to issue the command.
- If the command driver is running as a local BMP and a DATABASE/AREA command is being attempted, IMS Command Control Facility starts the remote STC to issue the command so that status checking can be performed.
- The APPC/STC TPname on the Global Option record must be valid.
- The APPC/STC TPname plus a five character suffix (period + imsid) must be defined as a TPname in the APPC/MVS TP Profile data set.
- The STEPLIB in the remote STC JCL must contain only APF-authorized libraries.

---

## Guidelines for choosing a command routing interface

The following guidelines describe some of the differences between the command routing interfaces that are supported by IMS Command Control Facility. Advantages and disadvantages to each interface are presented, followed by a recommendation on which routing interface might provide the best results.

### IMS Operations Manager

Advantages:

- Supports both type-1 and type-2 IMS commands
- No VTAM setup
- No BMP scheduling (remote STC)
- Supports all IMS region types (DB/DC, DCCTL, DBCTL)

Disadvantages:

- Requires additional address spaces (Common Service Layer address spaces)
- Does not allow commands to be routed outside of a sysplex

### APPC/IMS

Advantages:

- Allows commands to be routed outside of a sysplex
- No additional address spaces
- No BMP scheduling (remote STC)

Disadvantages:

- Does not support type-2 IMS commands
- Requires VTAM setup (although, usually a one-time process)
- Not supported in DBCTL environments

### ICMD/RCMD over APPC/MVS (remote STC)

Advantages:

- Supports database pre-scan
- Allows commands to be routed outside of a sysplex

Disadvantages:

- Does not support type-2 IMS commands
- Requires VTAM setup (although, usually a one-time process)
- Requires scheduling of a BMP

### Recommendations

The IMS Operations Manager supports all IMS region types, as well as type-2 IMS commands. The Operations Manager is a good command routing interface choice under the following conditions:

- If it is not inconvenient for you to set up additional address spaces
- If you do not need to issue commands outside of the sysplex

If you do not want to use the IMS Operations Manger as the command routing interface, then you should determine whether the IMS region is capable of running APPC/IMS.

- APPC/IMS is the recommended command routing interface if the IMS system is capable of using APPC/IMS.
- If database pre-scan is required, the ICMD/RCMD (remote STC) command routing interface must be used.

---

## Chapter 9. Batch processing

When the IMS Command Control Facility command driver is run as a batch program, it can run as an IMS BMP, IMS DL/I batch, or standard z/OS batch job.

IMS commands are read from an input data set and processed one-at-a-time across all requested regions.

Topics:

- “Batch processing overview” on page 70
- “IMS Command Control Facility-specific DD statements” on page 71
- “Runtime options for batch jobs” on page 72
- “CCFOPTS ddname input statements” on page 73
- “Creating a ddname table” on page 75
- “Error handling in a batch environment” on page 77

---

## Batch processing overview

When the IMS Command Control Facility command driver runs as a batch program, it can run as an IMS BMP, IMS DL/I batch, or standard z/OS batch job.

The only significant difference between the types of batch jobs is how the IMS Command Control Facility determines where to route the commands.

When the command driver runs as a standard z/OS batch job, command routing is determined by the EXEC statement PARM specification.

When the command driver is run as an IMS BMP or IMS DL/I batch job, command routing is determined by one of the following:

- APARM specification, if present.
- The IMSID from the PARM statement is used, if present. Otherwise the IMSID is obtained from SDFSRESL(DFSVC000).

IMS Command Control Facility reads the IMS record in the options data set. If the record has a default IMS Command Control Facility group defined, commands are routed to all members of the IMS Command Control Facility group. Otherwise, the commands are routed to the specific IMS system.

Sample JCL for each type of batch job can be found in the SCCFSAMP sample library:

- Sample JCL for an IMS BMP is in member CCFBMP.
- Sample JCL for an IMS DL/I batch is in member CCFDLI.
- Sample JCL for a standard z/OS batch is in member CCFBATCH.

The following sample JCL member CCFBMP (file name CCFBMP.txt) from the SCCFSAMP sample library contains a few options specified for the CCFOPTS ddname input statement, including the PRESCAN option.

```
//CCFBMP JOB (TECH),CCFBMP,CLASS=A,MSGCLASS=H,
//      REGION=4M,NOTIFY=&SYSUID,COND=(0,NE)
//*
//*      THIS SAMPLE JCL WILL EXECUTE THE CCF/IMS COMMAND PROCESSOR
//*      AS AN IMS BMP JOB.
//*
//*      THE FOLLOWING CHARACTER STRINGS MUST BE TAILORED:
//*      ##CCFLOAD - DEFINES THE DSN OF THE LOAD LIBRARY INTO WHICH
//*                  CCF WAS INSTALLED (SCCFLOAD).
//*      ##SDFSRESL - MUST BE THE NAME OF YOUR IMS SDFSRESL.
//*      ##IMSID   - MUST BE THE NAME OF THE IMS WHERE THE BMP WILL
//*                  ATTACH.
//*      ##PSB     - CAN BE ANY APPLCTN DEFINED IN THE IMS SYSGEN
//*                  WITH THE GPSB= PARAMETER.
//*
//STEP01 EXEC PGM=DFSRR00,
//      PARM='BMP,CCFCMD00,##PSB,,,,,,,,,##IMSID'
//STEPLIB DD DISP=SHR,DSN=##CCFLOAD
//      DD DISP=SHR,DSN=##SDFSRESL
//SYSABEND DD SYSOUT=*
//CCFLIST DD SYSOUT=*
//CCFOPTS DD *
PRESCAN=YES NOFE0V=YES SETRC=16
//*
//CCFSYSIN DD *
/STA DB DI21PART ACCESS UP
```

---

## IMS Command Control Facility-specific DD statements

IMS Command Control Facility uses four DD statements to control product behavior. Some statements are required, some are optional, and some are dynamically allocated.

### Required DD statements

IMS Command Control Facility requires an input DD statement that defines the file from which the IMS commands are read, and an output DD statement that defines the file to which the IMS command responses are written. You can override the default ddnames, CCFSYSIN and CCFLIST, as needed for your organization.

#### CCFSYSIN

An input physical-sequence data set with an LRECL that ranges from 80 to 121 bytes. This DD statement references the data set that contains the list of commands that IMS Command Control Facility is to process.

#### CCFLIST

An input physical-sequence data set where Command Control Facility writes the command results and responses. This data set must be the same LRECL as CCFSYSIN. This DD statement is typically coded as:

```
//CCFLIST DD SYSOUT=*
```

### Optional DD statement

#### CCFOPTS

An input physical-sequence data set that is used to provide runtime options for this particular batch job. Options that are specified on this DD statement override the options that are specified in the IMS Command Control Facility options data set. This data set must be defined as LRECL=80.

### Dynamically allocated DD statement

#### CCFJOPRT

An output print data set that is dynamically allocated. This data set lists the options that are in effect for the execution of this job. Code the following DD statement if you do not want this list to be created:

```
//CCFJOPRT DD DUMMY
```

---

## Runtime options for batch jobs

You can use global options to define certain processing characteristics for all jobs. You can override most processing options by defining the options for a specific job name record in the options data set.

You set the default processing options for all batch jobs in the options data set global options record. You can override the default options that are specified in the global options record by specifying a job name options record or by specifying CCFOPTS ddname input statements. Any options that are specified as CCFOPTS ddname statements will override any previously specified processing options.

### Ddname input and output specification

If you are replacing more than one existing product and want to avoid changing the JCL, you can specify more than one ddname to use as the input and output ddname.

At run time when searching for ddname values, IMS Command Control Facility uses the following sequence to look up specific batch job ddnames to use for input and output:

1. CCFOPTS ddname input statement:

You can use the CCFOPTS ddname input statements to specify ddnames by using these parameters:

- DDNINP
- DDNOUT

If the DDNINP and DDNOUT parameters and the ddnames are present in the JCL, they are used when the batch job is processed. For example:

```
//STEP01 EXEC PGM=CCFCMD00
//LEM DD .....
//LIME DD SYSOUT=*
//CCFOPTS DD *
          DDNINP=LEM DDNOUT=LIME
```

2. Global options record:

You can use the global options to specify the ddnames to use for batch job input and output data. To use a single set of ddnames, specify the name of the input and output ddname in the global options record.

3. ddname table (CCFDDTBL):

You can create a ddname table to hold the multiple ddname listings. Sample JCL is located in the SCCFSAMP member CCFDDTBL.

#### Related concepts:

“Options data set” on page 28

#### Related tasks:

“Creating a ddname table” on page 75

#### Related reference:

“CCFOPTS ddname input statements” on page 73



---

## CCFOPTS ddname input statements

You can use CCFOPTS ddname input statements to override values in the global options record for specific batch jobs.

When you run IMS Command Control Facility as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch), you can manipulate how values from the options data set are used.

The values that are specified for DDNINP and DDNOUT are used if the specified names are present in the batch job JCL. If ddnames are not present in the batch job JCL, the batch job input and output ddnames are obtained from the options data set or from the ddname table, CCFDDTBL. All of the other values that are specified for CCFOPTS ddname input statements override any values that were specified in the options data set.

The following table lists the ddname input statements and describes the valid values.

*Table 3. CCFOPTS ddname input statements: definition and values from the global options record*

Ddname input statements	Value
ABEND	Abend code
CHKDBALL	Analyze Database/AREA command output when the ALL parameter is used
DATAGRPEXP	Expand DATAGRP commands
DBACCESS	/START DB ACCESS
DBRC	DBRC errors
DDNINP	DD name of the command input data set
DDNOUT	DD name of the command listings output
DFS0488I	Valid DFS0488I return codes
ERR0488I	DFS0488I errors
ERR3466	Treat DFS3466I as an error
GENERAL	General errors
MODFAIL	/CCFMOD failures
MODREVERSE	/CCFMOD commit reversal
NOFEOV	Add NOFEOV to /DBD and /DBR
OPMGRRC	Valid IMS Operations Manager return codes
PRESCAN	Use DB pre-scan for remote STC
RETRYATT	Attempts
RETRYSEC	Interval
ROUTING	Routing errors
SETRC	Return code
SYNTAXERR	Use GENERAL error option when IMS returns a DFS107I message
WTODBCMD	WTO database command

**Related concepts:**

"Runtime options for batch jobs" on page 72

---

## Creating a ddname table

You can create a ddname table to hold multiple ddname listings.

### About this task

If you are replacing more than one existing product and want to avoid changing the JCL, you can specify more than one ddname to use as the input and output ddname. The ddname table defines a list of valid ddname values for IMS Command Control Facility, which can be copied into any library.

Complete the following steps to create and load a ddname table:

### Procedure

1. Locate the sample JCL in the SCCFSAMP member CCFDDTBL.
2. Copy CCFDDTBL to your working library.
3. Open CCFDDTBL in your working library in edit mode.
4. Type a valid JOB card for your installation.  
Replace ACCT with a valid account name for your environment. Optionally, set REGION equal to 0.
5. Modify the SET SCCFSAMP= statement to specify the data set name of your SCCFSAMP member.
6. Modify the SET SCCFLOAD= statement to specify the data set name of your SCCFLOAD member.
7. Customize the assembler macros that follow the SYSIN DD statement of the ASMA90 step to meet your requirements.

The CCFDD macro supplies the ddnames that you want to search for in each batch job execution. IMS Command Control Facility searches the JCL of each job until it finds one of the ddnames that are specified in a CCFDD macro. You can use the CCFDD macro with the options that are shown in the following table:

*Table 4. CCFDD options*

Option	Description
HELP	Use the HELP option to have information displayed in your assembly output. This macro is typically coded as: CCFDD HELP=[YES NO]
ddname specification	Use the TYPE= and DD= keywords to specify the ddnames to be searched for. The ddname can be an input or an output value. This macro is typically coded as: CCFDD TYPE=[OUTPUT INPUT],DD= <i>ddname</i>
BUILD	The BUILD option is required as the last statement in your input stream to properly generate and build the object module. This macro is typically coded as: CCFDD BUILD=YES

8. Copy member CCFDDTBL into the STEPLIB of all IMS Command Control Facility batch jobs.

## Example

The SCCFSAMP data set includes a sample job in member CCFDDTBL that you can customize.

```
//CCFDDTBL JOB (ACCT),CCFDD,CLASS=A,NOTIFY=&SYSUID,
// MSGCLASS=H,COND=(0,NE),REGION=4M
//*
// SET SCCFSAMP=SCCFSAMP          SET TO DSN OF YOUR SCCFSAMP
// SET SCCFLOAD=SCCFLOAD          SET TO DSN OF YOUR SCCFLOAD
//*
//ASMA90 EXEC PGM=ASMA90,PARM='NOUSING,ALIGN,OBJECT'
//SYSPRINT DD SYSOUT=*
//SYSLIB DD DSN=&SCCFSAMP,DISP=SHR
//SYSUT1 DD UNIT=SYSDA,SPACE=(TRK,(15,15),RLSE)
//SYSLIN DD DSN=&&OBJECT,DISP=(,PASS,DELETE),
//        UNIT=SYSDA,SPACE=(TRK,(5,5),RLSE),
//        DCB=(RECFM=FB,LRECL=80,BLKSIZE=3200,DSORG=PS)
//SYSIN DD *
*
* GENERATE THE DOCUMENTATION
*
  CCFDD  HELP=YES
*
* DDNAMES USED BY OLD IM COMMAND PROCESSOR NUMBER 1
*
  CCFDD  TYPE=INPUT,DD=CMDIN
  CCFDD  TYPE=OUTPUT,DD=CMDOUT
*
* DDNAMES USED BY THE OTHER COMMAND PROCESSORS
*
  CCFDD  TYPE=OUTPUT,DD=SYSOUT
*
  CCFDD  TYPE=INPUT,DD=INPUT
  CCFDD  TYPE=INPUT,DD=INDD
*
  CCFDD  TYPE=OUTPUT,DD=OUTPUT
  CCFDD  TYPE=OUTPUT,DD=OUTDD
*
* GENERATE THE OBJECT MODULE
*
  CCFDD  BUILD=YES
  END
//*
//IEWL EXEC PGM=IEWL,PARM='LIST,LET,XREF'
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD UNIT=SYSDA,SPACE=(CYL,(1,1))
//OBJECT DD DSN=&&OBJECT,DISP=(OLD,DELETE,DELETE)
//SYSLMOD DD DSN=&SCCFLOAD,DISP=SHR
//SYSLIN DD *
        INCLUDE OBJECT
        ENTRY CCFDDTBL
        NAME CCFDDTBL(R)
//
```

### Related concepts:

“Runtime options for batch jobs” on page 72

---

## Error handling in a batch environment

IMS Command Control Facility takes specific action for the different categories of errors that can occur in a batch environment.

When IMS Command Control Facility command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch), you might encounter errors that fall into one of the following categories:

- **General**

An example of a general error is when a command fails IMS Command Control Facility editing.

- **Routing**

An example of a routing error is when a command fails due to routing problem. This error is viewed by IMS Command Control Facility as an IMS region being unavailable.

- **DFS0488I**

The DFS0488I error is issued when a command that changes the state of a database/AREA fails to perform the required action.

This error is typically caused by IMS Command Control Facility not receiving an acceptable return code on a DFS0488I/CCF0488I message.

You can specify whether or not IMS Command Control Facility treats a DFS3466I/CCF3466I (database/AREA not defined) as an error condition in the global record by using the ISPF dialog, or by using the ERR3466 parameter in the CCFOPTS ddname input statement.

- **DBRC**

The DBRC error occurs if a subsystem record in the RECON has the database/AREA open with update intent after a **/DBD** or **/DBR** command.

**Note:** IMS Command Control Facility DBRC verification will not work in a DBRC environment that utilizes the RECON loss notification option unless user exit DSPSCIX0 provides the name of the XCF group.

IMS Command Control Facility allows each error category to be handled by the following actions:

**Error category**

**Action**

**Abend**

Terminate the batch job with the specified abend code.

**Return code**

Terminate the batch job with the specified return code.

**WTOR**

Issue a WTOR and allow operator intervention to determine course of action.

**Ignore** Continue processing the next command as if no error had occurred. (For DBRC, this option is specified as DBRC=NODBRC.)



---

## Chapter 10. Predefined procedures and commands

IMS Command Control Facility provides two predefined procedures, automated online change processing and dead letter queue cleanup. These procedures automate tasks that might normally be performed by a master terminal operator (MTO).

Topics:

- “Predefined procedures overview” on page 80
- “Automated online change processing (/CCFMOD)” on page 81
- “Dead letter queue cleanup (/CCFDEADQ)” on page 83
- “/CCFWAIT command” on page 84
- “Command list processors” on page 85

---

## Predefined procedures overview

IMS Command Control Facility predefined procedures can perform complete tasks with the entry of a single input command.

IMS Command Control Facility provides two predefined procedures that can be used by the IMS Command Control Facility driver:

- Coordinated online change.

IMS Command Control Facility can perform an online change across multiple systems by supplying a single command to the IMS Command Control Facility batch job.

Coordinated online change is valid from a batch environment only.

This process coordinates the online change across multiple systems and minimizes the potential of out-of-sync conditions that might occur when online change is performed manually.

- Dead letter queue cleanup.

IMS Command Control Facility can clean up any dead letter queue entries by supplying a single command to the IMS Command Control Facility batch job.

Dead letter queue cleanup is valid in all command routing environments (batch, ISPF, and callable API).



---

## Automated online change processing (/CCFMOD)

Automated online change processing synchronizes the online change process across multiple IMS regions and reduces out-of-sync conditions.

Automated online change is allowed only when the command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch).

### /CCFMOD

Command format:

►► /CCFMOD—*imsparm* — KILLCONV — DEQTRAN —►►

#### *imsparm*

Specifies the type of online change. Parameters can be found in /MOD PREPARE command of the *IMS Operations and Automation*.

#### KILLCONV

Specifies that IMS Command Control Facility terminate any IMS conversations that are preventing online change from completing. This keyword is optional.

#### DEQTRAN

Specifies that IMS Command Control Facility dequeue any transactions that are preventing online change from completing. This keyword is optional.

The following commands are issued during the automated online change process:

1. Issue **/DIS MODIFY ALL** on each IMS system.
2. Issue **/MOD PREPARE xxx** on each IMS system.
3. Issue **/DIS MODIFY ALL** on each IMS system.
  - If the NO WORK PENDING message is received for each IMS system, IMS Command Control Facility continues with Step 4.
  - If the NO WORK PENDING message is not received, IMS Command Control Facility performs the KILLCONV and DEQTRAN processing, if specified. If the NO WORK PENDING message is still not received, IMS Command Control Facility cancels the online change (by issuing the **/MOD ABORT** command).
4. Issue **/MOD COMMIT** on each system.
5. Issue **/DIS MODIFY ALL** on each IMS system to verify that changed libraries now use the proper ddnames.

If the online change fails, IMS Command Control Facility terminates the batch job using the option defined in the MODFAIL parameter, as specified either in the global options record or the CCFOPTS ddname input statement.

If Step 4 was successful for some, but not all members of a IMS Command Control Facility group, parameter MODREVERSE is used to inform IMS Command Control Facility how to proceed.

- If MODREVERSE=NO is specified or defaulted to, IMS Command Control Facility terminates the job based upon the MODFAIL parameter.

- If MODREVERSE=YES is specified, IMS Command Control Facility attempts to reverse the online change on the IMS systems where it was successful.
- The MODREVERSE parameter can be specified in either the global record or the CCFOPTS ddname input statement.

**Note:** Discretion should be used before deciding to use MODREVERSE=YES, particularly for ACBLIB changes. Backing out DMB changes might cause unexpected impact on database integrity.

---

## Dead letter queue cleanup (/CCFDEADQ)

You can use the dead letter queue cleanup to manage your IMS message queue utilization. The dead letter queue cleanup process can replace a cold start or manual efforts by the MTO to cleanup unwanted messages.

Dead letter queue cleanup is allowed when the command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch), from ISPF dialog or from the callable API.

### /CCFDEADQ

Command format:

►►—/CCFDEADQ—►►

The process implements the following commands for each IMS system:

1. Issue /DIS POOL QBUF
2. Issue /DIS USER DEADQ
3. Based on output from the proceeding command, does the following for each displayed user that is not currently allocated:
  - Issue /STO USER *xxxx*
  - Issue /DEQ USER *xxxx* PURGE
  - Issue /STA USER *xxxx*
4. Issue /DIS POOL QBUF

The /DIS POOL QBUF command displays message queue utilization both before and after this process.

---

## /CCFWAIT command

IMS Command Control Facility provides the /CCFWAIT command to support the command driver in a batch environment.

/CCFWAIT can be used when the command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch).

### /CCFWAIT

Command format:

►►—/CCFWAIT—*nn*—————►◄

The /CCFWAIT command causes IMS Command Control Facility to wait the number (*nn*) of seconds specified in the command parameter.

Valid values for *nn* are 1 through 10.

If an invalid value is entered, IMS Command Control Facility waits five seconds by default.

---

## Command list processors

A command list processor reads a data set and processes one or many IMS commands stored in that data set.

There are two valid IMS Command Control Facility command list processors:

- “/DSN command list processor”
- “/CCFPROC command list processor”

### /DSN command list processor

The **/DSN** command causes IMS Command Control Facility to read the data set (*dsn*) and process the commands contained within these data sets.

The commands can be processed by a single IMS or a IMS Command Control Facility group of IMS regions.

The **/DSN** command is allowed only when the command driver runs from the ISPF dialog.

Format:

►►—/DSN=*dsn*—————►►

Note that *dsn* must be a fully qualified data set name. For example:

/DSN="USER.PDS.CNTL(COMMAND1)"

The data set specified by *dsn* must be LRECL=80.

### /CCFPROC command list processor

The **/CCFPROC** command causes IMS Command Control Facility to read a member of a PDS and replace variables within the member with data entered in the command.

The **/CCFPROC** command is allowed only when the command driver runs from the ISPF dialog.

This command requires ddname CCFPROC be preallocated to the ISPF session.

Format:

►►—/CCFPROC—*mbr*—var1 var2 var3 var4 var5 var6 —  
► var7 var8 var9 —►►

***mbr*** Specifies the name of the member from the CCFPROC PDS to process.

***var1 - var9***

Specifies the variable names that will replace symbolic names contained in the CCFPROC PDS member. For example, name *var1* replaces &CCFUSYM1, and *var2* replaces &CCFUSYM2, and so on.

Example:

1. Data set allocated to CCFPROC ddname contains member DEQUSER.
2. DEQUSER contains:
  - **/STO USER &CCFUSYM1**
  - **/DEQ USER &CCFUSYM1 PURGE**
  - **/STA USER &CCFUSYM1**
3. Command **/CCFPROC DEQUSER USER01** is issued from ISPF.
4. IMS Command Control Facility will issue:
  - **/STO USER USER01**
  - **/DEQ USER USER01 PURGE**
  - **/STA USER USER01**

The CCFPROC PDS member can contain up to nine symbolic names for variable replacement (&CCFUSYM1 - &CCFUSYM9). They must be used in sequence (for example, &CCFUSYM1 is replaced by the first parameter value, and &CCFUSYM2 by the second, and so on).

Any symbolic for which a parameter has not been entered will be replaced by blanks. For example, if the CCFPROC member had coded &CCFUSYM1 and &CCFUSYM2, but the entered command provided only one parameter, then &CCFUSYM2 will be blanked out.

The data set allocated to this ddname must be LRECL=80.

---

## Chapter 11. Database/AREA command processing

In addition to its normal command retry options, IMS Command Control Facility provides several processes to ensure database/AREA commands complete successfully.

Topics:

- “Database/AREA command completion verification” on page 88
- “DFS3466I processing options” on page 89
- “DATAGRP commands” on page 90
- “Database pre-scan” on page 91
- “DBRC verification” on page 92
- “Access determination for database sharing” on page 93

---

## Database/AREA command completion verification

For database/AREA commands that change the state of the resource (for example, /DBD, /DBR, /STA, and /STO), IMS Command Control Facility verifies that the command completed the required action.

When IMS Command Control Facility detects that a command did not complete successfully, IMS Command Control Facility tries the command again for any IMS region where the command was unsuccessful. The command is tried again a user-defined number of times, with a user-defined time interval between each retry.

A different technique for command verification is used for each of the following command routing interface configurations:

- **APPC/IMS**  
APPC/IMS interrogates the DFS0488I command response message.
- **Remote STC**  
Remote STC checks the status of the database/AREA in the IMS control blocks.
- **IMS Operation Manager (OM)**  
IMS OM uses the return code in the XML response data.

Regardless of the command routing configuration, IMS Command Control Facility can be configured to either process a resource-not-defined condition (DFS3466I message) as an error or ignore the condition and continue processing.

Database/AREA command verification is done only when IMS Command Control Facility command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch).

### The ALL parameter when used on Database/AREA commands

IMS Command Control Facility can be configured to review the output of IMS /DBD, /DBR, /STA, and /STO Database/AREA commands when the ALL parameter is used.

If IMS Command Control Facility is configured to review the output of these commands and an error is encountered, it uses the ERR488 option to set a non-zero return code or ABEND. If the ERR488 option is not set to one of these options, IMS Command Control Facility sets a non-zero return code.

This processing is available only when the command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch job), and the command routing interface uses either APPC/IMS or the IMS Operations Manager.



---

## DFS3466I processing options

When a command is issued using a database name that is not defined, IMS returns a DFS3466I (DDIR FOR DATABASE xxx NOT FOUND) message.

IMS Command Control Facility can be configured to either process this message as an error or continue processing as if no error were encountered. If IMS Command Control Facility is configured to process this message as an error, IMS Command Control Facility proceeds by using the option that is specified for DFS0488I errors.

By default, IMS Command Control Facility does not process an unknown database as an error.

You can override the default condition in the global record by using the ISPF dialog or by using the ERR3466 parameter in the CCFOPTS ddname input statement.

---

## DATAGRP commands

When a command with the DATAGRP parameter is encountered, IMS Command Control Facility can be configured to either process the command as entered or process the command using database/AREA command completion verification.

DATAGRP processing occurs only when the IMS Command Control Facility command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch).

By default, IMS Command Control Facility processes commands with the DATAGRP parameter as entered.

You can override the default condition in the global record by using the ISPF dialog or by using the DATAGRP parameter in the CCFOPTS ddname input statement.

---

## Database pre-scan

When you use the remote STC to issue commands that change the state of a database/AREA (such as /DBD, /DBR, /STA, or STO commands), IMS Command Control Facility can be configured to check the state of the database/AREA before actually issuing the command.

If the database/AREA is already in the proper state, the command can be bypassed, which reduces overhead on the Recon data sets.

Database pre-scan is performed only when the IMS Command Control Facility command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch).

By default, IMS Command Control Facility does not perform database pre-scan processing.

You can override the default condition in the global record by using the ISPF dialog or by using the PRESCAN parameter in the CCFOPTS ddname input statement.

---

## DBRC verification

The purpose of DBRC verification is to ensure that a valid sync-point has been established. A valid sync-point indicates there are no subsystem records (including batch) in the Recon that have the database/AREA open with update intent after a /DBD or /DBR command.

If specified, DBRC verification occurs after the completion of /DBD or /DBR commands. DBRC verification occurs even if the /DBD or /DBR command did not complete with a successful DFS0488I message.

DBRC verification is performed only when the IMS Command Control Facility command driver runs as a batch job (IMS BMP, IMS DL/I batch, or standard z/OS batch).

You can set the default for DBRC validation in the global record by using the ISPF dialog.

You can override the default condition in the job record (if present) or by using the DBRC parameter in the CCFOPTS ddname input statement.

**Note:** IMS Command Control Facility DBRC verification will not work in a DBRC environment that utilizes the RECON loss notification option unless user exit DSPSCIX0 provides the name of the XCF group.

---

## Access determination for database sharing

Many IMS system environments use database level sharing, where a database is updated on a single system and used for read or read-only in other systems.

Many times the database will be taken out of update state in the IMS region to allow for batch update jobs to process. You can take a database out of update state by issuing a `/STA DB` command with an `ACCESS=RO|RD` parameter. After the batch processing completes, you must put the database back into update state in the proper IMS regions.

IMS Command Control Facility provides two ways to determine the ACCESS type a database should have for each IMS region.

- IMS Command Control Facility can be configured to obtain the access for each region by using the IMS system definition (MODBLKS data set).
- IMS Command Control Facility can check database definition in DBRC.

A setting of `Sharelvl=3` causes an update on all systems. Any other setting causes an access level of update on the first system and an access level of read-only on the remainder systems.

Database access determination occurs only when the IMS Command Control Facility command driver runs as a batch job (IMS BMP, IMS DL/I batch, or z/OS batch job).

You can set the default option for determining database access in the global record by using the ISPF dialog.

You can override the default option in the job record (if present) or by using the `DBACCESS` parameter in the `CCFOPTS` ddname input statement.

Database/AREA access can be determined using the IMS system definition only when a MODBLKS data set name is specified for each IMS in the Command Control Facility group. If any IMS in the Command Control Facility group does not have a MODBLKS data set name specified, the command will be issued as coded on the input control card.

**Note:** IMS Command Control Facility DBRC verification will not work in a DBRC environment that utilizes the RECON loss notification option unless user exit DSPSCIX0 provides the name of the XCF group.



---

## Chapter 12. Callable API

An external application program can call the IMS Command Control Facility command driver by using an application programming interface module called **CCFCAPI0**.

The command driver routes the IMS command to the specified IMSID or IMS Command Control Facility group and presents command responses to the calling program.

### Topics

- “Callable API overview” on page 96
- “Invoking CCFCAPI0: Assembler example” on page 97
- “Invoking CCFCAPI0: COBOL example” on page 100
- “Invoking CCFCAPI0: REXX example” on page 102
- “Interface block” on page 105

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## Callable API overview

An external application program can call the IMS Command Control Facility command driver by using an application programming interface module called **CCFCAPI0**.

The **CCFCAPI0** subroutine can be called by any application program that must issue IMS type-1 or type-2 commands. The subroutine routes the IMS command to the specified IMSID or IMS Command Control Facility group and presents command responses to the calling program.

When run as the callable API, **CCFCAPI0**, the IMS Command Control Facility command driver runs only as a command router. The driver routes the command to one or more IMS systems and returns the command responses to the calling program. The driver does not perform any of the special processing functions described for the command driver when it runs as a batch program. It is the responsibility of the calling program to perform the analysis of the command responses.

Any application can issue IMS commands and get all output with minimal interface requirements. The application must use the IMS Command Control Facility callable API interface block and specify the following basic call types:

- **CMD** (issue command)
- **GCMD** (get response)
- **TERM** (cleanup call type)



---

## Invoking CCFCAPI0: Assembler example

You can invoke **CCFCAPI0** from an assembler program using the following example as a model.

**CCFCAPI0** expects the caller to pass the address of the IMS Command Control Facility API interface block using standard linkage conventions.

See member CCFAPIAS in SCCFMACS for the source below.

```
CCFAPIAS TITLE 'SAMPLE ASSEMBLER PROGRAM TO ISSUE COMMANDS'
*****
*
* THIS SAMPLE ASSEMBLER PROGRAM USES THE CCF CALLABLE INTERFACE
* TO ISSUE COMMANDS. THE PROGRAM READS A RECORD FROM DDNAME
* SYSIN, CALLS THE CCF COMMAND CALLABLE INTERFACE TO ISSUE THE
* COMMAND, AND THEN WRITES ALL OF THE RESPONSES TO DDNAME
* SYSPRINT. THE PROGRAM REPEATS THE PROCESS UNTIL ALL RECORDS
* FROM THE DDNAME SYSIN HAVE BEEN READ.
*
*****
CCFAPIAS CSECT ,
CCFAPIAS AMODE 31
CCFAPIAS RMODE ANY
        BAKR R14,0
        LR   R12,R15
        USING CCFAPIAS,R12
        USING SAVWKA,R13
        LA   R3,SAVWKALL
        STORAGE OBTAIN,LENGTH=(R3),ADDR=(R2),LOC=BELOW
        LR   R13,R2
        XR   R15,R15
        MVCL R2,R14          ZEROES TO SAVE/WORK AREA
        MVC  4(L'F1SA,R13),=A(F1SA) LINKAGE STACK IN USE
F1SA    EQU  C'F1SA',4
        MVI  OUTCC,X'40'      OUTPUT CARRIAGE CONTROL
*
        LOAD EP=CCFCAPI0      LOAD CCF API
        STCM R0,15,@SUB        SAVE ADDR OF CCF API
*
OPNINP  DS    0H
        MVC  XXDCBINP(LLDCBINP),MMDCBINP      DCB TO WORKAREA
        MVC  XXOPNINP(LLOPNINP),MMOPN         OPEN MAC TO WORKAREA
        OPEN (XXDCBINP),MODE=31,MF=(E,XXOPNINP)
        LTR  R15,R15                          OPEN OK?
        BNZ  RETURN                          NONZERO - NOT OK
OPNINPX DS    0H
*
OPNPRT  DS    0H
        MVC  XXDCBPRT(LLDCBPRT),MMDCBPRT      DCB TO WORKAREA
        MVC  XXOPNPRT(LLOPNPRT),MMOPN         OPEN MAC TO WORKAREA
        OPEN (XXDCBPRT,OUTPUT),MODE=31,MF=(E,XXOPNPRT)
        LTR  R15,R15                          OPEN OK?
        BNZ  RETURN                          NONZERO - NOT OK
OPNPRTX DS    0H
*
* GET CMD INPUT ROUTINE
*
GETINP  DS    0H
        GET  XXDCBINP,INPREC                  GET A RECORD
TYPECMD EQU  C'CMD ',4
        MVC  AOITYPE,=AL4(TYPECMD)           ISSUE API CMD
        MVC  AOIDEST,INPDEST                  EITHER IMSID OR GROUP
        MVC  AOINAME,INPNAME                  NAME OF IMSID/GROUP
        LA   R0,AOIDATA                      CMD TEXT GOES HERE
        LA   R1,L'AOIDATA                    MAX LENGTH (256)
```

	LA	R14,INPDATA	SOURCE OF INP CMD	
	LA	R15,L'INPDATA	ACTUAL LENGTH OF INP CMD	
	ICM	R15,B'1000',=X'40'	PAD IT WITH SPACES	
	MVCL	R0,R14	MOVE TO INTF BLOCK	
*				
	ICM	R15,15,@SUB	ADDR OF CCF API	
	CALL	(15),CCFAP1IB,MF=(E,PLSUB)	CALL API NOW	
*				
	MVC	OUTDATA,AO1DATA	FILL OUTPUT AREA	
	PUT	XXDCBPRT,OUTREC	PRINT IT NOW	
GETRSP	DS	0H		
TYPEGCMD	EQU	C'GCM'D',4		
	MVC	AO1TYPE,=AL4(TYPEGCMD)	API GET A RESPONSE	
	ICM	R15,15,@SUB	ADDR OF CCF API	
	CALL	(15),CCFAP1IB,MF=(E,PLSUB)	CALL API NOW	
	LTR	R15,R15	NOT ZERO MEANS NO RESP	
	BNZ	GETINP	TIME FOR MORE INPUT	
	MVC	OUTDATA,AO1DATA	FILL OUTPUT AREA	
	PUT	XXDCBPRT,OUTREC	PRINT IT NOW	
	B	GETRSP	GET ANOTHER RESPONSE	
*				
GETINPX	DS	0H	COME HERE AT END OF FILE	
*				
TYPETERM	EQU	C'TERM',4		
	MVC	AO1TYPE,=AL4(TYPETERM)	ISSUE API - CLEANUP	
	ICM	R15,15,@SUB	ADDR OF CCF API	
	CALL	(15),CCFAP1IB,MF=(E,PLSUB)	CALL API NOW	
*				
	DELETE	EP=CCFCAP10	DELETE MODULE NOW	
	XC	@SUB,@SUB	CLEAR ITS OLD ADDR	
*				
RETURN	DS	0H		
	STCM	R15,15,RETCODE	SAVE REG15	
*				
*	CLOSE	INPUT		
*				
CLSINP	DS	0H		
	TM	XXDCBINP+DCBOFLGS-IHADCB,DCBOFOPN	STILL OPEN?	
	BZ	CLSINPX	ZERO MEANS NO	
	CLOSE	(XXDCBINP),MODE=31,MF=(E,XXOPNINP)		
CLSINPX	DS	0H		
*				
*	CLOSE	OUTPUT		
*				
CLSPRT	DS	0H		
	TM	XXDCBPRT+DCBOFLGS-IHADCB,DCBOFOPN	STILL OPEN?	
	BZ	CLSPRTX	ZERO MEANS NO	
	CLOSE	(XXDCBPRT),MODE=31,MF=(E,XXOPNPRT)		
CLSPRTX	DS	0H		
*				
XIT	DS	0H		
	ICM	R2,15,RETCODE		
	LA	R3,SAVWKALL		
	STORAGE	RELEASE,ADDR=(R13),LENGTH=(R3)		
	LTR	R15,R2		
	PR			
*				
	LTORG			
*				
MMOPN	OPEN	(,),MODE=31,MF=L		
MMDCBPRT	DCB	DDNAME=SYSPRINT,		X
		DSORG=PS,MACRF=PM,RECFM=FBA,LRECL=L'AO1DATA+1		
MMDCBINP	DCB	DDNAME=SYSIN,		X
		DCBE=MMDCEINP,		X
		DSORG=PS,MACRF=GM,RECFM=FB,LRECL=80		
MMDCEINP	DCBE	EODAD=GETINPX		
*				

```

                YREGS
                LTORG
*
* COMBO SAVE AND WORK AREA
*
SAVWKA DSECT
SAVEAREA DS 18F
RETCODE DS F
@SUB DS A
PLSUB DS F ONLY 1 PARM NEEDED FOR THIS CALL
*
*-----*
* THIS DSECT IS USED TO MAP THE AREA PASSED TO THE
* CALLABLE AOI.
*-----*
CCFAPIB DS 0D
AOITYPE DS CL4 CALL TYPE
* CMD, GCMD OR TERM
AOIRETCD DS CL4
AOIRSNCD DS CL4
AOIDEST DS CL8 CMD DESTINATION IMSID OR GROUP
AOINAME DS CL8 DESTINATION NAME
AOIRESV DS CL24 RESERVED
AOIDATA DS CL256 I/O AREA
*
XXOPNINP OPEN (,),MODE=31,MF=L
LLOPNINP EQU *-XXOPNINP
XXDCBINP DCB DSORG=PS,MACRF=GM
LLDCBINP EQU *-XXDCBINP
*
XXOPNPRT OPEN (,),MODE=31,MF=L
LLOPNPRT EQU *-XXOPNPRT
XXDCBPRT DCB DSORG=PS,MACRF=PM
LLDCBPRT EQU *-XXDCBPRT
*
OUTREC DS 0CL1
OUTCC DS CL1
OUTDATA DS CL(L'AOIDATA)
*
INPREC DS 0CL80
INPDEST DS CL8
INPNAME DS CL8
INPDATA DS CL(INPDLEN)
INPDLEN EQU L'INPREC-(INPDATA-INPREC)
*
SAVWKALL EQU *-SAVWKA
*
DCBD DSORG=DA
IHADCBE
*
END CCFAPIAS

```

---

## Invoking CCFCAPI0: COBOL example

You can invoke **CCFCAPI0** from a COBOL program using the following example as a model.

**CCFCAPI0** expects the caller to pass the address of the IMS Command Control Facility API interface block by using standard linkage conventions.

See member CCFAPICB in SCCFMACS for the source below.

```
IDENTIFICATION DIVISION.
PROGRAM-ID. CCFAPICB.
ENVIRONMENT DIVISION.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

    SELECT CTL-IN
        ASSIGN TO UT-S-SYSIN.
    SELECT PRT-OUT
        ASSIGN TO UT-S-SYSPRINT.

DATA DIVISION.

FILE SECTION.

FD CTL-IN
RECORDING MODE IS F
LABEL RECORDS STANDARD
BLOCK CONTAINS 00 RECORDS.
01 CTL-IN-REC.
   05 CTL-IN-DEST          PIC X(08).
   05 CTL-IN-NAME          PIC X(08).
   05 CTL-IN-DATA          PIC X(64).

FD PRT-OUT
RECORDING MODE IS F
LABEL RECORDS STANDARD
BLOCK CONTAINS 00 RECORDS.
01 PRT-OUT-REC.
   05 PRT-OUT-CC           PIC X(1).
   05 PRT-OUT-DATA        PIC X(256).

WORKING-STORAGE SECTION.

77 CCFCAPI0                PIC X(8) VALUE 'CCFCAPI0'.
77 TYPECMD                 PIC X(4) VALUE 'CMD'.
77 TYPEGCMD                PIC X(4) VALUE 'GCMD'.
77 TYPETERM                PIC X(4) VALUE 'TERM'.

01 CCFAPIIB.
   05 AOITYPE               PIC X(4).
   05 AOIRETCO              PIC X(4).
   05 AOIRSNCD              PIC X(4).
   05 AOIDEST               PIC X(8).
   05 AOINAME               PIC X(8).
   05 AOIRESV               PIC X(24).
   05 AOIDATA               PIC X(256).

PROCEDURE DIVISION.

000-MAINLINE.
    OPEN INPUT CTL-IN.
    OPEN OUTPUT PRT-OUT.
100-GETINP.
```

```

READ CTL-IN
  AT END
    GO TO 999-CLEANUP.
  MOVE TYPECMD TO AOITYPE.
  MOVE CTL-IN-DEST TO AOIDEST.
  MOVE CTL-IN-NAME TO AOINAME.
  MOVE CTL-IN-DATA TO AOIDATA.
  CALL CCFCAPI0 USING CCFAPIIB.
  MOVE SPACE TO PRT-OUT-CC.
  MOVE AOIDATA TO PRT-OUT-DATA.
  WRITE PRT-OUT-REC.
200-GETRESP.
  MOVE TYPEGCMD TO AOITYPE.
  CALL CCFCAPI0 USING CCFAPIIB.
  IF RETURN-CODE NOT ZERO
    GO TO 100-GETINP.
  MOVE SPACE TO PRT-OUT-CC.
  MOVE AOIDATA TO PRT-OUT-DATA.
  WRITE PRT-OUT-REC.
  GO TO 200-GETRESP.
999-CLEANUP.
  MOVE TYPETERM TO AOITYPE.
  CALL CCFCAPI0 USING CCFAPIIB.
  CANCEL CCFCAPI0.
  GOBACK.

```

---

## Invoking CCFCAPI0: REXX example

You can invoke **CCFCAPI0** from a REXX procedure using the following example as a model.

**CCFCAPI0** expects the caller to pass the address of the IMS Command Control Facility API interface block by using standard linkage conventions.

See member CCFAPIRX in SCCFMACS for the source below.

```
/* REXX ----- */
/*
/*   LICENSED MATERIALS - PROPERTY OF IBM
/*   5655-R58 (C) COPYRIGHT IBM CORP. 2001, 2013.
/*   ALL RIGHTS RESERVED.
/*   US GOVERNMENT USERS RESTRICTED RIGHTS -
/*   USE, DUPLICATION OR DISCLOSURE RESTRICTED
/*   BY GSA ADP SCHEDULE CONTRACT WITH IBM CORP.
/*
/* CCFAPIRX -
/*
/*
/* Usage ----- */
/*
/*   THIS SAMPLE REXX WILL CALL THE CCFCAPI0 MODULE TO EXECUTE
/*   COMMANDS FROM THE ASSOCIATED JCL MEMBER CCFAPIRX.
/*
/*----- */
/*
ADDRESS MVS
CMD.0 = 0
"EXECIO 0 DISKR CCFIN (STEM CMD. OPEN)"
if (rc ~= 0) then
  do
    say 'CCFIN Open failure RC =' RC
    signal ccfrt
  END

CCFRD:
ADDRESS MVS
/*
/*   READS A RECORD FROM CCFIN DD AND EXECUTES THE COMMAND
/*
/*
"EXECIO 1 DISKR CCFIN (STEM CMD.)"
if (rc = 2) then signal ccfrt /* EOF */
if (rc ~= 0) then
  do
    say 'CCFIN Read failure RC =' RC
    signal ccfrt
  END

SAY 'CCFIN Record:'
SAY CMD.1
AOIDEST = SUBSTR(CMD.1,1,8)
AOINAME = SUBSTR(CMD.1,9,8)
AOIDATA = SUBSTR(CMD.1,17,54)
APIIB = 'CMD ' /* AOI TYPE */
APIIB = INSERT(' ',APIIB,4,8,' ')
APIIB = INSERT(AOIDEST,APIIB,12,8,' ')
APIIB = INSERT(AOINAME,APIIB,20,8,' ')
APIIB = INSERT(AOIDATA,APIIB,52,256,' ')

ADDRESS LINKPGM "CCFCAPI0 APIIB"
if (rc ~= 0) then
  do
    say 'CCFCAPI0 NON-ZERO RC =' RC
```

```

        cmdret = substr(apiib,52,256)
        say cmdret
        signal ccfrd
    END
cmdret = substr(apiib,52,256)
say cmdret

CCFGCMD:
/*                                                    */
/* RETRIEVE RESULTS OF THE COMMAND                    */
/*                                                    */
APIIB = INSERT('GCMD',APIIB,0,4,' ') /* AOITYPE */
ADDRESS LINKPGM "CCFCAPI0 APIIB"
if (rc ~= 0) then
    DO
        APIIB = INSERT('TERM',APIIB,0,4,' ') /* AOITYPE */
        ADDRESS LINKPGM "CCFCAPI0 APIIB"
        signal ccfrd
    END
cmdret = substr(apiib,52,256)
say cmdret
signal ccfgcmd

CCFEND:
/*                                                    */
/* EOF                                                */
/*                                                    */
SAY 'CCFIN End of File'

CCFRET:
return

```

The above REXX procedure can be invoked from batch using the following sample JCL as a model:

```

//CCFBATRX JOB (TECH),CCFBATRX,CLASS=A,MSGCLASS=X,
//          REGION=0M,NOTIFY=&SYSUID
//*
//          SET CCFLD=##CCFLD                      <==== SET
//          SET SDFSRESL=##SDFSRESL                 <==== SET
//          SET CCFEXEC=##CCFEXEC                   <==== SET
//*
/*-----*
/* LICENSED MATERIALS - PROPERTY OF IBM
/* 5655-R58 (C) COPYRIGHT IBM CORP. 2001, 2015.
/* ALL RIGHTS RESERVED.
/* US GOVERNMENT USERS RESTRICTED RIGHTS -
/* USE, DUPLICATION OR DISCLOSURE RESTRICTED
/* BY GSA ADP SCHEDULE CONTRACT WITH IBM CORP.
/*-----*
/*
/* THIS SAMPLE JCL WILL EXECUTE THE CCF/IMS COMMAND PROCESSOR
/* VIA A REXX EXEC - CCFAPIRX
/*
/* CCFIN RECORD FORMAT:
/* COLS 1 - 8      - 'IMSID' OR 'GROUP'
/* COLS 9 - 16     - IMS SUBSYS ID OR THE NAME OF
/*                  A GROUP OF IMS REGIONS DEFINED IN THE
/*                  CCF OPTIONS DATA SET.
/* COLS 17 - 70    - THE CMD WITHOUT ANY CONTINUATION
/*
/* THE FOLLOWING SET VARIABLES MUST BE TAILORED:
/* CCFLD - DEFINES THE DSN OF THE LOAD LIBRARY INTO WHICH
/*        CCF WAS INSTALLED (SCCFLD).
/* SDFSRESL - MUST BE THE NAME OF YOUR IMS SDFSRESL.
/* CCFEXEC - DEFINES THE DSN OF THE EXEC LIBRARY INTO WHICH
/*           CCF WAS INSTALLED (SCCFREXX).

```

```

/*-----*
/*
/*
//CCFAPIRX EXEC PGM=IRXJCL,PARM=CCFAPIRX
/*
//STEPLIB DD DISP=SHR,DSN=&CCFLOAD
// DD DISP=SHR,DSN=&SDFSRESL
/*
//SYSEXEC DD DISP=SHR,DSN=&CCFEXEC
/*
//SYSABEND DD SYSOUT=*
/*
//SYSTSPRT DD SYSOUT=*
/*
//CCFIN DD *
IMSID SSID /DIS ACT
/*
//

```



---

## Interface block

The following table provides details for the callable API interface block.

*Table 5. Callable API interface block*

Field	Field type	Length	Description
AOITYPE	Supplied	4	Specify one of the following character call types padded to 4 bytes with spaces: <ul style="list-style-type: none"><li>• CMD Issue IMS command</li><li>• GCMD Get IMS command response</li><li>• TERM Cleanup</li></ul>
AOIRETCD	Returned	4	4 byte binary return code from CCFCAPI0.
AOIRSNC	Returned	4	4 byte binary return code from CCFCAPI0.
AOIDEST	Supplied	8	Specify one of the following character command destination types padded to 8 bytes with spaces: <ul style="list-style-type: none"><li>• IMSID The command should be routed to a specific IMS system.</li><li>• GROUP The command should be routed to all IMS systems defined for a CCF group.</li></ul>
AOINAME	Supplied	8	If IMSID is specified for AOIDEST, caller must initialize this field with a 4 character IMSID padded to eight characters with spaces.  If GROUP is specified for AOIDEST, caller must initialize this field with a one to eight character IMS Command Control Facility group name padded to eight characters with spaces.
AOIRESV	Reserved	24	24 bytes reserved for use by CCFCAPI0.
AOIDATA	Supplied/ Returned	256	If the AOITYPE call type is CMD, then this field should be initialized by the caller to the IMS command padded to 256 bytes with spaces. The actual command cannot be longer than 252 bytes. IMS Command Control Facility requires the last four bytes to contain spaces.  Upon return from the CMD call, this field will either be spaces or contain a message from CCFCAPI0 of up to 256 bytes (padded with spaces).  If the AOITYPE call type is GCMD, then this field will contain up to 256 bytes (padded with spaces) if the return code in AOIRETCD is zeroes. Otherwise the contents of this field should be ignored.



---

## Part 4. Troubleshooting

Use these topics to diagnose and correct problems that you experience with the IMS Command Control Facility product.

This troubleshooting section contains the following information:

**Topics:**

- Chapter 13, “Abend codes,” on page 109
- Chapter 14, “Runtime messages (CCF),” on page 111
- Chapter 15, “Gathering diagnostic information,” on page 165



---

## Chapter 13. Abend codes

This reference section provides detailed information about IMS Command Control Facility abend codes.

For each abend code, the following information is provided where applicable:

**Explanation:**

The Explanation section explains what the abend code means, why it occurred, and what its variable entry fields are (if any)

**System action:**

The System action section explains what the system will do next

**User response:**

The User response section describes whether a response is necessary, what the appropriate response is, and how the response will effect the system or program

---

### 1000

**Explanation:** An internal CCF error occurred.

**System action:** The job step terminates abnormally with a U1000 completion code.

**User response:** Contact the IBM Software Support.

---

### 2000

**Explanation:** An internal CCF error occurred.

**System action:** The job step terminates abnormally with a U2000 completion code.

**User response:** Contact the IBM Software Support.

---

### 4044

**Explanation:** An error occurred attempting to register to the IMS SCI address space.

**System action:** CCF processing terminates with a U4044 abend.

**User response:** Ensure that the SCI address space is available, and the SDFSERESL is included in the CCF job, or ISPF task.

---

### 4070

**Explanation:** An unexpected condition occurred for which the IMS Command Control Facility options in effect requested an abnormal termination. This abend code is used when the user-defined abend has not been specified, or is specified as 0000.

**System action:** The job step terminates abnormally with a U4070 completion code.

**User response:** Find the preceding message that

describes the reason for the abend, correct the condition, and run the command again.

---

### 4071

**Explanation:** CCFAPPC0 received an unexpected return code after an ATBGETC call. Message CCF4071E precedes the abend when the return code from the ATBGETC call.

**System action:** The job step terminates abnormally with a U4071 completion code.

**User response:** Find the description of the non-zero return code in *z/OS MVS Programming: Writing Transaction Programs for APPC/MVS*, correct the error, and run the command again.

---

### 4072

**Explanation:** CCFAPPC0 received an unexpected return code after an ATBRCVW call. Message CCF4072E precedes the abend with the return code from the ATBRCVW call.

**System action:** The job step terminates abnormally with a U4072 completion code.

**User response:** Find the description of the non-zero return code in *z/OS MVS Programming: Writing Transaction Programs for APPC/MVS*, correct the error, and run the command again.

---

### 4073

**Explanation:** CCFAPPC0 received an unexpected return code after an ATBSEND call. Message CCF4073E precedes the abend with the return code from the ATBSEND call.

**System action:** The job step terminates abnormally with a U4073 completion code.

**User response:** Find the description of the non-zero return code in *z/OS MVS Programming: Writing Transaction Programs for APPC/MVS*, correct the error, and run the command again.

#### 4075

**Explanation:** CCFAPPC0 received an unexpected return code after an IMS INQY call. R14 and R15 contain the AICREASN and AIBRETRN codes, respectively.

**System action:** The job step terminates abnormally with a U4075 completion code.

**User response:** Find the description of the non-zero return and reason codes in *IMS Messages and Codes*, correct the problem, and run the command again.

#### 4080

**Explanation:** An unexpected error occurred during DBRC processing.

**System action:** The job step terminates abnormally with a U4080.

**User response:** As a workaround, turn off all DBRC options in effect, run the command again, and contact the IBM Software Support.

#### 4081

**Explanation:** An error occurred while reading the DBRC listing. An unrecognized value was found in the number of authorized subsystems field.

**System action:** The job step terminates abnormally with a U4081.

**User response:** As a workaround, turn off all DBRC options in effect, run the command again, and contact the IBM Software Support.

#### 4082

**Explanation:** An unexpected error occurred while trying to call the APPC/MVS error extract service, ATBEES3.

**System action:** The job step terminates abnormally with a U4082.

**User response:** Take appropriate corrective action, and run the command again. If the problem persists, contact the IBM Software Support.

#### 4083

**Explanation:** An internal IMS Command Control Facility error occurred.

**System action:** The job step terminates abnormally with a U4083 completion code.

**User response:** Contact the IBM Software Support.

#### 4095

**Explanation:** An internal IMS Command Control Facility error occurred.

**System action:** The job step terminates abnormally with a U4095 completion code.

**User response:** Contact the IBM Software Support.

---

## Chapter 14. Runtime messages (CCF)

This reference section provides detailed information about IMS Command Control Facility messages.

### Message format

IMS Command Control Facility command processing messages adhere to the following format:

*CCFnnnnx*

Where:

- CCF** Indicates that the message was issued by IMS Command Control Facility command processing
- nnnn** Indicates the message identification number
- x** Indicates the severity of the message:
- A** Indicates that operator intervention is required before processing can continue.
  - E** Indicates that an error occurred, which might or might not require operator intervention.
  - I** Indicates that the message is informational only.
  - W** Indicates that the message is a warning to alert you to a possible error condition.

Each message also includes the following information:

**Explanation:**

Explains what the message text means, why it occurred, and what its variables represent.

**System action:**

Explains what the system will do in response to the event that triggered this message.

**User response:**

Describes whether a response is necessary, what the appropriate response is, and how the response will affect the system or program.

---

**CCF0100W FOLLOWING RECORD FAILED EDITING**

**Explanation:** CCF/IMS editing failed while trying to analyze the command. The character string is not recognized as an IMS type 1 or type 2 command, nor is it a valid IMS name.

**System action:** The action taken depends upon the setting for GENERAL errors. The following GENERAL error settings and actions are possible:

**WTOR** This record is skipped and processing continues as if no error were encountered.

**SETRC** Terminate the job step using the user-defined return code.

**ABEND** Terminate the job step using the user-defined abend code.

**IGNORE** This record is be skipped and processing continues as if no error were encountered.

**User response:** Correct the command, and run the job again.

---

**CCF0105I    /CCFWAIT VALUE MUST BE 1-10 -  
DEFAULT WAIT OF 5 SECONDS WILL  
BE USED**

**Explanation:** A /CCFWAIT control card was read but an invalid wait interval was specified.

**System action:** IMS Command Control Facility will wait a default 5 seconds and then resume processing.

**User response:** None. This message is informational.

---

**CCF0106E    IMS PLEX NAME MIS-MATCH  
DETECTED**

**Explanation:** A configuration error has been encountered. To issue commands to a IMS Command Control Facility group using IMS Operations Manager, all IMS records must be defined with the same Operations Manager (PLEX) name.

**System action:** The job terminates using the user-defined abend code.

**User response:** Identify the IMS with the mismatched PLEX name using the prior CCF6010I message. Use the IMS Command Control Facility ISPF dialog to correct the IMS record with the mismatch and run the job again.

---

**CCF0107E    INCOMPATIBLE COMMAND  
ROUTING TECHNIQUES SPECIFIED**

**Explanation:** A configuration error has been encountered. The IMS members of a IMS Command Control Facility group have been defined to use both Operations Manager and non-Operation Manager command routing techniques. If Operations Manager is specified for the command routing technique, all members of a IMS Command Control Facility group must use Operations Manager for their command routing technique.

**System action:** The job terminates using the user-defined abend code.

**User response:** Identify the command routing techniques for the IMS Command Control Facility group members using the prior CCF6010I message, correct the incompatibility, and run the job again.

---

**CCF0110E    AIB INQY CALL ERROR, RC=*rc*,  
REASON=*rsn***

**Explanation:** Program CCFCMD00 encountered an error while processing an INQY ENVIRON call. The AIB return code is displayed as *rc* and the reason code as *rsn*.

**System action:** The job terminates with the user-defined abend code.

**User response:** Correct the condition described by the AIB return code and reason codes. If assistance is

required, contact the IBM Software Support.

---

**CCF0111E    ERROR OPENING DD NAME *ddn***

**Explanation:** An error occurred while trying to open a data set with the DDNAME of *ddn*. Check the job log for additional messages.

**System action:** The action taken depends upon the setting for GENERAL errors. If SETRC is specified for GENERAL errors, the job terminates using the user-defined return code. Otherwise the job terminates with the user-defined abend code.

**User response:** Correct the condition causing the failure and run the job again.

---

**CCF0112E    *ddn* HAS LRECL GREATER THAN  
MAXIMUM**

**Explanation:** The data set represented by *ddn* has an LRECL that is greater than 121 bytes. Valid record lengths for the input data set are from 80 to 121 bytes.

**System action:** The action taken depends upon the setting for GENERAL errors. If SETRC is specified for GENERAL errors, the job terminates using the user-defined return code. Otherwise the job terminates using the user-defined abend code.

**User response:** Reallocate the data set with a valid LRECL and run the job again.

---

**CCF0113E    *ddn* HAS LRECL LESS THAN  
MINIMUM**

**Explanation:** The data set represented by *ddn* has an LRECL that is less than 80 bytes. Valid record lengths for the input data set are from 80 to 121 bytes.

**System action:** The action taken depends upon the setting for GENERAL errors. If SETRC is specified for GENERAL errors, the job terminates using the user-defined return code. Otherwise the job terminates using the user-defined abend code.

**User response:** Reallocate the data set with a valid LRECL and run the job again.

---

**CCF0114E    OPEN FAILED FOR STORE/FORWARD  
DATA SET, RC=*rc***

**Explanation:** An error occurred trying to open the store/forward data set. Field *rc* contains the return code from the OPEN.

**System action:** Processing continues, but the command store/forward function is not active for this job.

**User response:** Make sure the command store/forward installation completed successfully.

---



---

**CCF0115E DYNALLOC FAILED FOR: *dsn***

**Explanation:** Dynamic allocation failed for the command store/forward data set, *dsn*.

**System action:** Processing continues, but the command store/forward function is not active for this job.

**User response:** Make sure the command store/forward installation completed successfully.

---

**CCF0150I FOLLOWING RECORD READ FROM: *ddn***

**Explanation:** The data in the next line of output was read from DDNAME *ddn*.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF0201E ERROR ENCOUNTERED PROCESSING OPTIONS DATA SET**

**Explanation:** An error was encountered by the callable interface module, CCFCAP10. Additional error messages should be obtained by calling CCFCAP10 with the GCMD parameter.

**System action:** Return code of 12 is set and control is returned to the calling program.

**User response:** Obtain additional error messages using the CCFCAP10 GMCD call. However, since this is likely a recurring error, no calls other than the GCMD should be attempted.

---

**CCF0202E NAME/TOKEN CREATE FAILED, RC=*rc***

**Explanation:** An error was encountered trying to create a z/OS name token entry.

**System action:** Return code of 12 is set and control is returned to the calling program.

**User response:** This is likely a recurring error, so no other calls should be attempted.

---

**CCF0203W INVALID OPTION SPECIFIED IN AOITYPE PARAMETER**

**Explanation:** The data passed in parameter field AOITYPE is invalid.

**System action:** The invalid message is skipped, return code 4 is set, and control is returned to the calling program.

**User response:** Correct the invalid data in the AOITYPE field and retry the operation.

---

---

**CCF0204W INVALID DATA SPECIFIED IN AOINAME PARAMETER**

**Explanation:** The data passed in parameter field AOINAME is invalid.

**System action:** The invalid message is skipped, return code 4 is set, and control is returned to the calling program.

**User response:** Correct the invalid data in the AOINAME field and retry the operation.

---

**CCF0205W INVALID DATA SPECIFIED IN AOIDEST PARAMETER**

**Explanation:** The data passed in parameter field AOIDEST is invalid.

**System action:** The invalid message is skipped, return code 4 is set, and control is returned to the calling program.

**User response:** Correct the invalid data in the AOIDEST field and retry the operation.

---

**CCF0206W NO CCF GROUP RECORDS FOUND IN OPTIONS DATA SET**

**Explanation:** Field AOIDEST requested command routing to a IMS Command Control Facility group, but there are no group records defined in the options data set.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Add a group record using the IMS Command Control Facility ISPF dialog, or correct the parameter and retry the operation.

---

**CCF0207W GROUP NAME = *grpname* NOT FOUND IN OPTIONS DATA SET**

**Explanation:** *grpname* not defined as a IMS Command Control Facility group in the options data set.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Add the IMS Command Control Facility group *grpname* using the IMS Command Control Facility ISPF dialog, or correct the name specified for *grpname* and retry the operation.

---

**CCF0208W NO IMS ENTRIES FOR CCF GROUP - *grpname***

**Explanation:** *grpname* is defined in the options data set, but the group does not have any IMS systems defined.

**System action:** Return code 4 is set and control is returned to the calling program.

---

**User response:** Add IMS entries to the IMS Command Control Facility group *grpname* using the IMS Command Control Facility ISPF dialog and retry the operation.

---

**CCF0209W NO IMS RECORDS FOUND IN CCF OPTIONS DATA SET**

**Explanation:** There are no IMS records defined in the options data set.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Add IMS entries using the IMS Command Control Facility ISPF dialog and retry the operation.

---

**CCF0210W IMS NAME = *ims* NOT FOUND IN OPTIONS DATA SET**

**Explanation:** There is no IMS record for *ims* defined in the options data set.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Add IMS record *ims* using the IMS Command Control Facility ISPF dialog, or correct the name specified for *ims* and retry the operation.

---

**CCF0211W IMS NAME SPECIFIED IN AOINAME MORE THAN 4 BYTES**

**Explanation:** Field AOIDEST requested command routing to a specific IMSID, but the data in field AOINAME was more than four bytes long. IMS Command Control Facility limits the length of an IMS name to four bytes.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Correct the name in AOINAME and retry the operation.

---

**CCF0212W NOT ALL IMS REGIONS USE SAME OPERATIONS MANAGER NAME**

**Explanation:** Some of the IMS members of a IMS Command Control Facility group are defined to use a different Operations Manager name. If a member of a IMS Command Control Facility group is defined to use Operations Manager for its command routing technique, then all members must use the same Operations Manager name.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Correct the routing technique information in the IMS records using the IMS Command Control Facility ISPF dialog and retry the operation.

---

**CCF0213W INCOMPATIBLE COMMAND ROUTING TECHNIQUES SPECIFIED**

**Explanation:** One or more IMS members of a IMS Command Control Facility group was defined to use Operations Manager as its command routing technique, but one or more IMS members were defined to use a command routing technique other than Operations Manager. If Operations Manager is used by an IMS for its command routing technique, all IMS members of the IMS Command Control Facility group must use the same Operations Manager.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Correct the routing technique information in the IMS records using the IMS Command Control Facility ISPF dialog and retry the operation.

---

**CCF0214W COMMAND REJECTED, COMMAND IS RESTRICTED**

**Explanation:** The command passed in field AOIDATA is not allowed from the callable API.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Do not attempt to issue restricted commands.

---

**CCF0215W INVALID DATA IN COMMAND, OR UNKNOWN IMS SPECIFIED**

**Explanation:** IMS Command Control Facility was not able to determine the content of the AOIDATA field.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Review the data that was passed to the callable API. If the data is valid, contact the IBM Software Support.

---

**CCF0216W COMMAND FAILED EDITING**

**Explanation:** A bad return code was received from module CCFEDIT0. CCFEDIT0 should have returned a descriptive message indicating the nature of the error.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Review the message returned from CCFEDIT0, correct the problem, and retry the operation.

---

**CCF0217W WILDCARD TABLE INITIALIZATION FAILED**

---

**Explanation:** An error occurred attempting to build the wildcard table. The error should be described by a prior error message.

**System action:** Processing continues.

**User response:** Follow the actions documented in the prior error message.

---

**CCF0218W BAD RETURN CODE FROM COMMAND DRIVER**

---

**Explanation:** A bad return code was received from module CCFEXEC0. CCFEXEC0 should have returned a descriptive message indicating the nature of the error.

**System action:** Return code 4 is set and control is returned to the calling program.

**User response:** Review the message returned from CCFEXEC0, correct the problem, and retry the operation.

---

**CCF0219E INQY CALL ERROR, AIB RC=*rc* RSN=*rsn***

---

**Explanation:** A non-zero return code was received when making an IMS AIB call.

**System action:** Return code 12 is set and control is returned to the calling program.

**User response:** Find the AIB return code and reason codes in the *IMS Messages and Codes*, fix the problem identified by the codes, and retry the operation.

---

**CCF0220E INPUT COMMAND LONGER THAN 252 BYTES**

---

**Explanation:** An application program called the IMS Command Control Facility AOI with an input command (AOIDATA) longer than 252 bytes. IMS Command Control Facility requires the command be 252 bytes, or less, with the last four bytes of AOIDATA containing spaces.

**System action:** A return code 12 is returned to the calling program, and the command is ignored.

**User response:**

Correct the command, and run the job again.

---

**CCF0301I COMMAND DISALLOWED BY IMS SECURITY**

---

**Explanation:** IMS determined the user ID attempting this command is not authorized.

**System action:** Command is bypassed.

**User response:** Verify that the user ID attempting this command has proper authorization. If the user should

be able to execute this command, correct the security definition, and retry the operation.

---

**CCF0302E DBRC MODULE DSPURX00 NOT FOUND, BYPASSING DBRC PROCESSING**

---

**Explanation:** DBRC has been requested for either DB verification, or to set ACCESS, but the DBRC load module is not found.

**System action:** The action taken is determined by the DBRC= *option*.

**User response:** If DBRC usage is required, add IMS SDFSRESL to the STEPLIB. If DBRC usage is not required, set options DBRC=NODBRC.

---

**CCF0307I APPC ERRORS BYPASSED DUE TO USER OPTIONS**

---

**Explanation:** While unexpected APPC/MVS errors have occurred, option ROUTING=IGNORE (v1r1 - APPC=IGNORE) has been specified for the job step so no abnormal termination will occur.

**System action:** The job step continues.

**User response:** If the errors cannot be determined, contact the IBM Software Support.

---

**CCF0308W END OF TABLE ENCOUNTERED BUILDING DBRC DB TABLE**

---

**Explanation:** Option DBACCESS=DBRC was requested, but more databases than expected were found when processing the output of a LIST.DB command. The remaining databases will not be added to the DBRC table.

**System action:** The job step continues.

**User response:** The maximum size of the table might need to be increased. Contact the IBM Software Support for information.

---

**CCF0317E MODBLKS READ ROUTINE FAILED**

---

**Explanation:** Option DBACCESS=GEN was requested, but an error was encountered attempting to read the MODBLKS data set.

**System action:** The job will terminate based upon the setting for GENERAL errors. If GENERAL=SETRC, the job will terminate using the value set in SETRC. Otherwise, the job terminates using the user-defined abend code.

**User response:** Using the IMS Command Control Facility ISPF dialog, ensure the IMS System Information in the IMS record is defined correctly.

---

**CCF0329I    COMMAND EXECUTING ON: *ims***

**Explanation:** The following command will execute on the displayed IMS (*ims*).

**System action:** The job continues processing.

**User response:** None. This message is informational.

---

**CCF0330E    ERROR IN ONLINE CHANGE  
INITIALIZATION, FUNCTION  
TERMINATING**

**Explanation:** An unexpected error occurred while trying to save pre-online change information for all IMS Command Control Facility group members.

**System action:** Online change command processing is terminated.

**User response:** Correct the problem preventing online change from occurring and resubmit the command.

---

**CCF0331E    AN ERROR HAS BEEN  
ENCOUNTERED, ONLINE CHANGE  
TERMINATING**

**Explanation:** An unexpected error occurred while trying to issue /MODIFY PREPARE commands to all IMS Command Control Facility group members.

**System action:** Both messages CCF0331E and CCF0336E are displayed and the online change command processing terminates abnormally.

**User response:** Correct the problem preventing the preventing the online change command from occurring and resubmit the command.

---

**CCF0332E    AN ERROR HAS BEEN  
ENCOUNTERED, ONLINE CHANGE  
TERMINATING**

**Explanation:** An unexpected error occurred while checking for NO WORK PENDING on all IMS Command Control Facility group member systems.

**System action:** Both messages CCF0332E and CCF0337E are displayed and online change command processing terminates abnormally.

**User response:** Correct the problem preventing the online change from occurring and resubmit the command.

---

**CCF0334I    MODIFY ABORT PROCESSING  
INITIATED**

**Explanation:** An unexpected error occurred during the online change process.

**System action:** Online change command processing is terminated and /MODIFY ABORT commands will be issued to all IMS Command Control Facility group members.

---

**User response:** Correct the problem preventing the online change from occurring and resubmit the command.

---

**CCF0335E    ONLINE CHANGE FAILED -  
OPERATOR INTERVENTION MAY BE  
REQUIRED**

**Explanation:** An unexpected error occurred while trying to issue /MODIFY ABORT commands to all IMS Command Control Facility group member systems.

**System action:** Online change processing terminates abnormally.

**User response:** Operator intervention will be required to correct and restore all systems to pre-online change conditions.

---

**CCF0338E    ONLINE CHANGE TERMINATED,  
ERROR DURING MOD COMMIT  
PROCESSING**

**Explanation:** An unexpected error occurred while trying to issue /MODIFY COMMIT commands to all IMS Command Control Facility group member systems.

**System action:** Both messages CCF0338E and CCF0338E are displayed and online change command processing terminates abnormally.

**User response:** Correct the problem preventing the online change from occurring and resubmit the command.

---

**CCF0339E    *ddn* LIBRARY NOT SWAPPED ON *ims***

**Explanation:** The online change being attempted was not successful on the indicated system (*ims*). The library where the suffix name did not change is identified by its DDNAME (*ddn*).

**System action:** The online change process terminates abnormally.

**User response:** Correct the problem preventing the online change from occurring and resubmit the command.

---

**CCF0340I    ONLINE CHANGE FUNCTION  
SUCCESSFUL**

**Explanation:** The online change function was successful.

**System action:** The system continues processing.

**User response:** None. This message is informational.

---

---

**CCF0344E    ERROR ENCOUNTERED  
PROCESSING "/DIS POOL"  
COMMAND, REGION BYPASSED**


---

**Explanation:** An unexpected error occurred while trying to process this command during Dead Letter Queue cleanup.

**System action:** Dead Letter Queue cleanup processing is skipped for this particular IMS region.

**User response:** Resubmit the command. Contact the IBM Software Support if problem persists.

---

**CCF0345E    ERROR ENCOUNTERED  
PROCESSING "/DIS USER"  
COMMAND, REGION BYPASSED**


---

**Explanation:** An unexpected error occurred while trying to process this command during Dead Letter Queue cleanup.

**System action:** Dead Letter Queue cleanup processing is skipped for this particular IMS region.

**User response:** Resubmit the command. Contact the IBM Software Support if problem persists.

---

**CCF0346E    ERROR ENCOUNTERED  
PROCESSING "/STO USER"  
COMMAND, USER BYPASSED**


---

**Explanation:** An unexpected error occurred while trying to process this command during Dead Letter Queue cleanup.

**System action:** Dead Letter Queue cleanup processing is skipped for this particular IMS region.

**User response:** Resubmit the command. Contact the IBM Software Support if problem persists.

---

**CCF0347E    ERROR ENCOUNTERED  
PROCESSING "/DEQ USER"  
COMMAND, JOB TERMINATING**


---

**Explanation:** An unexpected error occurred while trying to process this command during Dead Letter Queue cleanup.

**System action:** Dead Letter Queue cleanup processing is skipped for this particular IMS region.

**User response:** Resubmit the command. Contact the IBM Software Support if problem persists.

---

**CCF0348E    ERROR ENCOUNTERED  
PROCESSING "/STA USER"  
COMMAND, JOB TERMINATING**


---

**Explanation:** An unexpected error occurred while trying to process this command during Dead Letter Queue cleanup.

**System action:** Dead Letter Queue cleanup processing

is skipped for this particular IMS region.

**User response:** Resubmit the command. Contact the IBM Software Support if problem persists.

---

**CCF0350E    SERVICE *serv* RETURN CODE: *rc*  
REASON CODE: *rsn***


---

**Explanation:** An unexpected APPC/MVS error occurred.

**System action:** The APPC/MVS service (*serv*) being attempted, along with the return code (*rc*) and reason codes, are displayed in this message.

**User response:** If the APPC/MVS error cannot be determined, contact the IBM Software Support.

---

**CCF0351E    ERROR ENCOUNTERED, ACTION  
DETERMINED BY ERROR FLAG: *flag***


---

**Explanation:** A recurring error has been encountered, and identified by a prior message. This message states which error option (*flag*) is used to determine how the job will proceed.

**System action:** The action taken is determined by the setting for error option flag.

**User response:** Follow the User Response for the prior error message.

---

**CCF0355W    COMMAND BYPASSED DUE TO  
OPERATOR RESPONSE**


---

**Explanation:** An operator replied to a WTOR command, causing IMS Command Control Facility to skip the prior error.

**System action:** The system continues processing.

**User response:** A review may be required to determine whether the command still needs to be issued.

---

**CCF0356W    COMMAND BYPASSED DUE TO  
ERR488=IGNORE SPECIFICATION**


---

**Explanation:** Even though a database command failed to receive a positive response, processing continues due to option ERR488=IGNORE specification.

**System action:** The system continues processing.

**User response:** Review the prior response messages and determine whether the command still needs to be issued.

---

**CCF0357E    REGION TERMINATING, MAXIMUM  
RETRY ATTEMPTS EXCEEDED**


---

**Explanation:** The maximum number of command retries has been reached. The reason for command failure is described in a prior message.

**System action:** The job step terminates abnormally.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.

**CCF0358E REGION TERMINATING,  
PERMANENT ERRORS  
ENCOUNTERED AND MAX RETRIES**

**Explanation:** Recurring errors have been experienced and the maximum number of command retries has been reached.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.

**CCF0359I COMMAND BEING ATTEMPTED  
AGAIN DUE TO OPERATOR  
RESPONSE**

**Explanation:** An operator reply to a WTOR specified that command retry should be attempted.

**System action:** The job step resumes processing after the reply to the WTOR.

**User response:** No further action is required.

**CCF0361E DATAGRP ERROR, JOB  
TERMINATING, ERR488=ABEND  
SPECIFIED**

**Explanation:** An error was encountered when processing an IMS command with the DATAGROUP keyword. The reason for the error should be identified in a prior message.

**System action:** The action taken is determined by the setting for ERR488 errors.

**User response:** Correct the problem described in the prior message. Then resubmit the command.

**CCF0362E DATAGRP ERROR, JOB  
TERMINATING, ERR488=IGNORE  
NOT SPECIFIED**

**Explanation:** An error was encountered when processing an IMS command with the DATAGROUP keyword. The reason for the error should be identified in a prior message.

**System action:** The action taken is determined by the setting for ERR488 errors.

**User response:** Correct the problem described in the prior message. Then resubmit the command.

**CCF0371E ERROR ATTEMPTING DBRC  
VALIDATION, VALIDATION  
BYPASSED**

**Explanation:** An error described by a prior message was encountered during DBRC validation.

**System action:** DBRC validation is not performed and the job will proceed as determined by the prior error condition.

**User response:** Follow User Response described in prior error message.

**CCF0372E DB OPEN FOR SSID= *ssid* ACC= *access*  
DBD= *database***

**Explanation:** An IMS /DBD or /DBR command was issued and DBRC validation was requested, but one or more databases are registered in the RECON as being open with UPDATE intent.

- SSID= shows the subsystem that is using the database
- ACC= shows the processing intent
- DBD= shows the database

**System action:** The action taken is determined by the setting for DBRC errors.

**User response:** Review prior messages and determine if the command needs to be reissued.

**CCF0373E DB OPEN FOR SSID= *ssid* ACC= *access*  
DBD= *database* AREA= *area***

**Explanation:** An IMS /DBD or /DBR command was issued and DBRC validation was requested, but one or more AREAs are registered in the RECON as being open with UPDATE intent.

- SSID= shows the subsystem that is using AREA
- ACC= shows the processing intent
- DBD= shows the database
- AREA= shows the AREA name

**System action:** The action taken is determined by the setting for DBRC errors.

**User response:** Review prior messages and determine if the command needs to be reissued.

**CCF0374I NO DATABASES OPEN WITH  
UPDATE INTENT**

**Explanation:** DBRC shows that all database commands executed successfully.

**System action:** The job step continues processing.

**User response:** None. This message is informational.

---

**CCF0375I DBRC VALIDATION SUCCESSFUL**

**Explanation:** DBRC shows that all database commands executed successfully.

**System action:** The job step continues processing.

**User response:** None. This message is informational.

---

**CCF0376E INVALID HELD AUTH STATE=X"acc"  
FOR DBD=dbd AREA=area**

**Explanation:** DBRC shows that a database for the indicated DBD/AREA did not complete as expected.

**System action:** The action taken is determined by the setting for DBRC errors.

**User response:** Issue IMS command /RML DRBC='DB DBD(*dbd*) DBDS' to determine which job has the database open.

---

**CCF0377W COMMAND FAILED ON ALL  
SYSTEMS, STORE/FORWARD  
BYPASSED**

**Explanation:** The prior command failed on all systems and is therefore not saved in the store/forward data set. In order for a command to be eligible for command store/forward processing, it must be successfully processed on at least one system.

**System action:** Processing continues, but the prior command is not saved in the store/forward data set.

**User response:** Determine whether the failed command needs to be manually entered for all failed systems.

---

**CCF0378I FOLLOWING COMMAND SAVED IN  
STORE/FORWARD FOR IMS: *ims***

**Explanation:** The following command encountered routing errors on IMS (*ims*) and is saved in the store/forward data set for subsequent processing.

**System action:** The failed command is written to the store/forward data set and processing continues.

**User response:** None. This message is informational.

---

**CCF0380I DATABASE *dbd* MARKED COMPLETE  
BY PRE-SCAN**

**Explanation:** If database pre-scan is active, IMS Command Control Facility analyzes the database state before the initial command attempt. If the database is in the state the command specifies, the command is bypassed. IMS Command Control Facility performs the same database state checking before commands are retried, even if database pre-scan is not active. This message indicates that the database is in the specified state and the command will not be issued, or re-issued. Database pre-scan is available only when using

APPC/MVS for the command routing technique.

**System action:** The job step continues processing.

**User response:** None. This message is informational.

---

**CCF0381I PRE-SCAN STARTED ON IMS: *ims***

**Explanation:** Database pre-scan processing has started for IMS (*ims*).

**System action:** The job step continues processing.

**User response:** None. This message is informational.

---

**CCF0382I PRE-SCAN ENDED ON IMS: *ims***

**Explanation:** Database pre-scan processing has completed for IMS (*ims*).

**System action:** The job step continues processing.

**User response:** None. This message is informational.

---

**CCF0383I ERROR ENCOUNTERED, ONLINE  
CHANGE REVERSAL BEING  
ATTEMPTED**

**Explanation:** An error has been encountered during /CCFMODE processing after at least one system had completed the online change and option MODREVERSE=Y is in effect.

**System action:** /MODIFY ABORT commands are issued to all systems where the online change has not completed, and IMS Command Control Facility reverses the online change for any system where the online change was successful.

**User response:** Determine the reason for the online change failure, correct it, and resubmit the command.

---

**CCF0388I *xx***

**Explanation:** IMS Command Control Facility received a non-zero return code from an APPC/MVS service routine. The message text (*xx*) is returned from APPC/MVS error extract routine, and is documented in the APPC/MVS messages.

**System action:** Action is dependent on the setting for ROUTING errors.

**User response:** Review the APPC/MVS messages, correct the problem, and run the job again.

---

**CCF0389I SYMDEST=*symdest* /  
PARTNER=*partner\_luname***

**Explanation:** This is an information message that accompanies one of many different error messages. The message identifies the routing information coded on the IMS record of the options data set.

**System action:** N/A

**User response:** Correct the problem identified by the accompanying message and, if required, run the job again.

---

**CCF0390I STATUS CHECKING BYPASSED FOR LOCAL ICMD**

**Explanation:** A database command was issued using the ICMD/RCMD AOI in the local IMS. Because the local BMP cannot perform the simulated DFS0488I status checking, CCF/IMS assumes that the command processed successfully.

**System action:** Processing continues.

**User response:** If the simulated DFS0488I status checking is required, perform one of the following tasks:

- Run the CCF/IMS job as an IMS DL/I job.
- Run the CCF/IMS job as a standard z/OS batch job.
- Set up the APPC/IMS connection.

If you are running IMS/TM or DC/CTL, CCF/IMS can also be set up to use the APPC/IMS command routing technique.

---

**CCF0391E INVALID RETURN CODE ON ATBALC2, RC=rc**

**Explanation:** An unexpected APPC/MVS error occurred while trying to allocate a session with the IMS system on which a command is to be issued.

**System action:** The action taken is determined by the setting for the ROUTING errors.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.

---

**CCF0392E INVALID RETURN CODE ON ATBSEND, RC=rc**

**Explanation:** An unexpected APPC/MVS error occurred while trying to send a command to an IMS system.

**System action:** The action taken is determined by the setting for the ROUTING errors.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.

---

**CCF0393E INVALID RETURN CODE ON ATBRCVW, RC=rc**

**Explanation:** An unexpected APPC/MVS error occurred while trying to receive a response to an IMS command.

**System action:** The action taken is determined by the setting for the ROUTING errors.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.

---

**CCF0394E ICMD TPNAME PREFIX NOT SUPPLIED IN GLOBAL OPTIONS**

**Explanation:** The command routing technique of APPC/MVS has been specified, but the APPC/STC TPname has not been defined in the options data set global record. This message is accompanied by one of several other messages.

**System action:** The action taken is dependent upon the accompanying message.

**User response:** Follow the User Response for the accompanying message.

---

**CCF0395E ERROR ENCOUNTERED ON ATBALC2 CALL, RC=rc**

**Explanation:** An unexpected APPC/MVS error occurred while trying to allocate a session with the IMS system on which a command is to be issued.

**System action:** The action taken is determined by the setting for the ROUTING errors.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.

---

**CCF0396E ERROR ENCOUNTERED ON ATBSEND CALL, RC=rc**

**Explanation:** An unexpected APPC/MVS error occurred while trying to send a command to an IMS system.

**System action:** The action taken is determined by the setting for the ROUTING errors.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.

---

**CCF0397E ERROR ENCOUNTERED ON ATBRCVW CALL, RC=rc**

**Explanation:** An unexpected APPC/MVS error occurred while trying to receive a response to an IMS command.

**System action:** The action taken is determined by the setting for the ROUTING errors.

**User response:** Correct the condition causing the error and retry the command. Contact the IBM Software Support if the error persists.



---

**CCF0398E    ERROR ENCOUNTERED ON ICMD  
CALL, RC=*rc* REASON=*rsn***

**Explanation:** An unexpected error occurred while trying to issue a command using the local ICMD call. The IMS AIB return code (*rc*) and reason code (*rsn*) are displayed in the message.

**System action:** The job step may terminate abnormally, depending upon what options are in effect for the job.

**User response:** Determine the cause of the error by reviewing the AIB return and reason codes in *IMS Messages and Codes*, correct the error, and retry the command.

---

**CCF0399E    ERROR ENCOUNTERED ON RCMD  
CALL, RC= *rc* REASON= *rsn***

**Explanation:** An unexpected error occurred while trying to retrieve a command response using the local RCMD call. The IMS AIB return code (*rc*) and reason code (*rsn*) are displayed in the message.

**System action:** The job step may terminate abnormally, depending upon what options are in effect for the job.

**User response:** Determine the cause of the error by reviewing the AIB return and reason codes in *IMS Messages and Codes*, correct the error, and retry the command.

---

**CCF0449I    ONE OR MORE DATA BASES STILL  
HELD IN DBRC**

**Explanation:** DBRC validation has been requested, but one or more databases are still registered in the RECON and open with update intent. This message is accompanied by CCF0450A.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF0450A    REPLY "C" TO CANCEL, "S" TO SKIP  
OR "R" TO RETRY COMMAND**

**Explanation:** This message accompanies one of several messages, issued previously, that describe the error encountered.

**System action:** Action taken depends upon the response to this message.

**User response:** Review the accompanying messages and reply to the WTOR accordingly.

---

**CCF0451E    DATA BASE COMMAND  
UNSUCCESSFUL**

**Explanation:** A database command did not execute successfully. This message is accompanied by additional messages.

**System action:** Processing continues.

**User response:** Review the accompanying messages.

---

**CCF0452I    *cmd***

**Explanation:** The database command (*cmd*) that did not execute successfully is displayed.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF0454E    APPC ERROR FOR: *ims* SYMDEST:  
*symdest* PARTNER: *partner\_luname***

**Explanation:** An APPC/MVS error occurred while trying to issue a command to IMS *ims*. The command was routed to either SYMDEST *symdest* or PARTNER *partner\_luname*. If both *symdest* and *partner\_luname* are specified, the *partner\_luname* specification overrides the *symdest* specification. For more information, see "IMS System Information" on page 185.

**System action:** Additional messages will be displayed to describe the action to be taken.

| **User response:** See the "User response" section of  
| message "CCF0450A" and take an appropriate action.

---

**CCF0455I    *cmd***

**Explanation:** The command (*cmd*) that did not execute successfully is displayed.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF0457I    *jobname - ims - SYMD symdest* PARTNER  
*partner\_luname***

**Explanation:** This information message is displayed when a WTODBCMD=Y is in effect, and a command that changes the state of a database is executed. This message is accompanied by CCF0458I, which lists the actual command being executed.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF0458I    *cmd***

**Explanation:** This message follows CCF0457I, and lists the command that changes database state.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF0488I**    *cmd* **COMMAND COMPLETED type *dbd* RC=*rc***

**Explanation:** This is a simulated DFS0488I response. It is in response to a command that changes the state of a database or AREA. The *cmd* indicates the command that is being attempted. The *type* indicates whether the command is being entered for a database (DBN=) or an AREA (AREA=). The *dbd* is the name of the database or AREA. The *rc* is the return code. When *rc* is 0, the command processed as you requested. Otherwise, the return code is set to 99.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF0501E**    **SYSPRINT MUST BE DYNAMICALLY ALLOCATED**

**Explanation:** DDNAME SYSPRINT is coded in the job JCL. The SYSPRINT DDNAME must be dynamically allocated for IMS Command Control Facility to perform any DBRC options.

**System action:** If option DBRC=SETRC is specified, the job step terminates with the user-defined return code; otherwise the job terminates with the user-defined abend code.

**User response:** Remove the SYSPRINT DDNAME from the JCL, or do not use any IMS Command Control Facility DBRC options, and run the job again.

---

**CCF0502E**    **SYSIN MUST BE DYNAMICALLY ALLOCATED**

**Explanation:** DDNAME SYSIN is coded in the job JCL. The SYSIN DDNAME must be dynamically allocated for IMS Command Control Facility to perform any DBRC options.

**System action:** If option DBRC=SETRC is specified, the job step terminates with the user-defined return code; otherwise the job terminates with the user-defined abend code.

**User response:** Remove the SYSIN DDNAME from the JCL, or do not use any IMS Command Control Facility DBRC options, and run the job again.

---

**CCF0503E**    *ddn* **DYNAMIC ALLOCATION ERROR, RC=*rc* REASON=*rsn***

**Explanation:** Dynamic allocation failed for DDNAME *ddn*. The return code (*rc*) and reason code (*rsn*) identify the cause of the failure.

**System action:** If option DBRC=SETRC is specified, the job step terminates with the user-defined return code; otherwise the job terminates with the user-defined abend code.

**User response:** Correct the cause of the failure and run the job again.

---

**CCF0505E**    **UNABLE TO OPEN DDNAME SYSIN**

**Explanation:** An error was encountered attempting to open DDNAME SYSIN.

**System action:** If option DBRC=SETRC is specified, the job step terminates with the user-defined return code; otherwise the job terminates with the user-defined abend code.

**User response:** Review the z/OS log for additional messages, correct the failure condition, and run the job again.

---

**CCF0506W**    **NON-ZERO CODE RETURNED FROM DSPURX00, RC=*rc***

**Explanation:** An unexpected error was returned from DBRC module DSPURX00.

**System action:** The job step terminates abnormally.

**User response:** If the cause of the error cannot be determined, contact the IBM Software Support.

---

**CCF0507E**    **UNABLE TO OPEN DDNAME SYSPRINT**

**Explanation:** An error was encountered attempting to open DDNAME SYSPRINT.

**System action:** If option DBRC=SETRC is specified, the job step terminates with the user-defined return code; otherwise the job terminates with the user-defined abend code.

**User response:** Review the z/OS log for additional messages, correct the failure condition, and run the job again.

---

**CCF0701E**    **DYNAMIC ALLOCATION FAILED, RC=*rc* REASON=*rsn***

**Explanation:** An error occurred during dynamic allocation. The return (*rc*) and reason (*rsn*) codes indicate the nature of the failure. The data set name will be displayed in a subsequent message.

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** Fix the problem that caused the dynamic allocation failure and run the job again.

---

**CCF0702E DYNAMIC ALLOCATION FAILED,  
DSN=*dsn***

**Explanation:** Dynamic allocation failed for the data set name *dsn*. A prior message provides additional information regarding the dynamic allocation failure.

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** Fix the problem that caused the dynamic allocation failure and run the job again.

---

**CCF0703E OPEN FAILED FOR DATA SET: *dsn***

**Explanation:** An error occurred trying to open data set named *dsn*.

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** Fix the problem that caused the dynamic allocation failure and run the job again.

---

**CCF0704E *ver* IS AN UNSUPPORTED VERSION**

**Explanation:** This is a CCF/IMS internal error.

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** To allow this job to run, specify DBACCESS=ASIS or DBACCESS=DBRC. Contact the IBM Software Support to resolve the original error.

---

**CCF0705E MODBLKS READ ROUTINE NOT  
LINKED FOR VERSION *ver***

**Explanation:** This is probably an installation error.

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** To allow this job to run, specify DBACCESS=ASIS or DBACCESS=DBRC. Contact the IBM Software Support to resolve the original error.

---

**CCF0711E DYNAMIC UNALLOCATION FAILED,  
RC=*rc* REASON=*rsn***

**Explanation:** An error occurred during dynamic unallocation. The return (*rc*) and reason (*rsn*) codes indicate the nature of the failure. The data set name will be displayed in a subsequent message.

**System action:** The action taken depends on the options set for this job. The job terminates with the

user-defined abend code or the user-defined return code.

**User response:** Fix the problem that caused the dynamic unallocation failure and run the job again.

---

**CCF0712E DYNAMIC UNALLOCATION FAILED,  
DDNAME=*ddn***

**Explanation:** Dynamic unallocation failed for the data set associated with DDNAME *ddn*. A prior message provides additional information regarding the dynamic unallocation failure.

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** Fix the problem that caused the dynamic unallocation failure and run the job again.

---

**CCF0801E INTERNAL ERROR, DATA BASE  
TABLE OVERFLOW**

**Explanation:** An unexpected condition occurred. This is probably a logic error in the program.

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** Contact the IBM Software Support.

---

**CCF0802E *ims* -LOAD FAILED: *dsn***

**Explanation:** Option DBACCESS=GEN is in effect for this job, but IMS Command Control Facility was unable to load the MODBLKS members from the specified data set name (*dsn*). This problem is probably a setup error in the IMS record for the specified IMS system (*ims*).

**System action:** The action taken depends on the options set for this job. The job terminates with the user-defined abend code or the user-defined return code.

**User response:** Use the IMS Command Control Facility ISPF dialog to verify that the IMS record is defined with the correct IMS System Information.

---

**CCF1200W INVALID COMMAND: *cmd***

**Explanation:** IMS Command Control Facility was unable to identify the data (*cmd*) read from the input data set.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** If the command is not valid, correct the command and run the job again. If a valid

command is being attempted, contact the IBM Software Support.

---

**CCF1201W    INVALID KEYWORD LENGTH IN  
FOLLOWING COMMAND:**

**Explanation:** The keyword specified on the command is longer than IMS Command Control Facility allows.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** If the command is not valid, correct the command and run the job again. If a valid command is being attempted, contact the IBM Software Support.

---

**CCF1202W    INVALID PARAMETER LENGTH IN  
FOLLOWING COMMAND:**

**Explanation:** A parameter specified on the command is longer than IMS Command Control Facility allows.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** If the command is not valid, correct the command and run the job again. If a valid command is being attempted, contact the IBM Software Support.

---

**CCF1203W    CANNOT USE THE /CCFMOD  
FUNCTION AND ROUTE TO A  
SPECIFIC IMSID**

**Explanation:** The command requested /CCFMOD be routed to a specific IMS system. IMS Command Control Facility does not support routing the /CCFMOD command to a specific IMS system.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** Correct the command and run the job again.

---

**CCF1204E    ERROR ENCOUNTERED  
DETERMINING DATABASE ACCESS**

**Explanation:** The ACCESS keyword was specified but command parsing failed to find the parameter value.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** Correct the command and run the job again.

---

**CCF1205E    INVALID DATABASE ACCESS  
REQUESTED: *acc***

**Explanation:** An invalid parameter was specified for database access. The command parser determined that *acc* was the access specified in the command. Valid

parameter values are RO, RD, UP, or EX.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** Correct the invalid command and run the job again.

---

**CCF1206E    NO VALID DATABASE NAMES  
FOUND IN COMMAND**

**Explanation:** After command parsing completed, there were no database names in the command.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** Correct the non-valid command and run the job again.

---

**CCF1207E    UNABLE TO DETERMINE  
COMMAND TYPE**

**Explanation:** The command parser failed to recognize the command being attempted.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** If the command appears correct, contact the IBM Software Support. Otherwise, correct the command and run the job again.

---

**CCF1208E    TYPE 2 CMD ENTERED, BUT NOT  
ALL IMS SYSTEMS USE OM FOR  
CMD ROUTING**

**Explanation:** A type 2 IMS command was entered, but not all of the IMS systems in the IMS Command Control Facility group use Operations Manager for their command routing technique.

**System action:** Processing continues.

**User response:** Use the IMS Command Control Facility ISPF dialog to change all members of the IMS Command Control Facility group to use Operations Manager as the command routing technique. Alternatively, do not enter type 2 IMS commands.

---

**CCF1209E    INVALID PARAMETER  
SPECIFICATION ON UPDATE  
COMMAND**

**Explanation:** The command parser failed to recognize the command keyword.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** If the command appears correct, contact the IBM Software Support. Otherwise, correct the command and run the job again.

---

**CCF1210W    GLOBAL/LOCAL BOTH SUPPLIED,  
GLOBAL IGNORED**

**Explanation:** Both the GLOBAL and LOCAL parameters were specified on a database command. The GLOBAL parameter will be discarded.

**System action:** Processing continues.

**User response:** Correct the command to eliminate this message.

---

**CCF1211W    ACCESS INVALID ON GLOBAL  
COMMAND, ACCESS IGNORED**

**Explanation:** Both the ACCESS and GLOBAL parameter were specified on a database command. The ACCESS parameter will be discarded.

**System action:** Processing continues.

**User response:** Correct the command to eliminate this message.

---

**CCF1212E    FUNCTION INVALID OR MISSING  
FOR CCFMOD REQUEST**

**Explanation:** Command parsing found an invalid parameter, or there were no parameters specified.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** Correct the command and run the job again.

---

**CCF1214W    PREVIOUS COMMAND BYPASSED  
DUE TO OPERATOR ACTION**

**Explanation:** The previous command was skipped due as a result of the reply to the WTOR.

**System action:** Processing continues.

**User response:** No action is required.

---

**CCF1215W    EDIT ERROR IN PRIOR COMMAND,  
BYPASS OPTION IN EFFECT**

**Explanation:** The command parsing routine encountered an error on the previous command. The command is bypassed due to the setting of the GENERAL errors option.

**System action:** Processing continues.

**User response:** Determine the cause for the failure, correct the command and run the job again. Alternatively, issue the commands manually.

---

**CCF1216E    EDIT ERROR IN PRIOR COMMAND,  
JOB IS TERMINATING**

**Explanation:** The command parsing routine encountered an error in the previous command. The job terminates due to the setting of the GENERAL errors option.

**System action:** The job terminates with a user-defined abend code or user-defined return code.

**User response:** Correct the error and run the job again.

---

**CCF1218W    BOTH ALL AND GLOBAL SUPPLIED,  
GLOBAL REMOVED**

**Explanation:** A database command contained both the ALL and GLOBAL parameters. These parameters are mutually exclusive; both cannot be specified on the same command.

**System action:** The GLOBAL parameter is removed from the command and processing continues.

**User response:** To eliminate this error message, correct the command before running this job again.

---

**CCF1219E    NO PARAMETERS ARE ALLOWED  
ON THE /CCFDEADQ COMMAND**

**Explanation:** Parameters were supplied on the /CCFDEADQ command. No parameters are allowed on this command.

**System action:** The action taken is determined by the setting for GENERAL errors.

**User response:** Correct the command and run the job again.

---

**CCF1220E    LTERM KEYWORD SUPPLIED BUT  
LTERM NAME MISSING**

**Explanation:** The CCFMOD predefined procedure was requested and the LTERM keyword was supplied, but the LTERM parameter was missing.

**System action:** The action taken is determined by the setting for the GENERAL errors.

**User response:** Remove the LTERM keyword, or supply an LTERM parameter name, and run the job again.

---

**CCF1221E    LTERM NAME MORE THAN EIGHT  
CHARACTERS LONG**

**Explanation:** An invalid value was supplied for the LTERM name parameter. The LTERM name must be less than eight characters long.

**System action:** The action taken is determined by the setting for the GENERAL errors.

**User response:** Correct the invalid LTERM name parameter and run the job again.

---

**CCF1222W DATAGRP *datagr* NOT FOUND**

**Explanation:** DATAGRPEXP=Y is in effect, but IMS Command Control Facility could not obtain a list of database names from DBRC. This might be due to the DATAGRP not being defined or the wrong set of RECON data sets in the STEPLIB concatenation.

**System action:** The command is passed unchanged to IMS.

**User response:** Turn off DATAGRPEXP, define the DATAGRP to DBRC, or add the correct RECON data sets to the STEPLIB concatenation, and run the job again.

---

**CCF1223E DATAGRP KEYWORD PRESENT BUT NO DATAGRP NAMES SPECIFIED**

**Explanation:** The command parser determined a DATAGROUP command was being attempted with DATAGRPEXP=Y in effect, but the command did not specify the DATAGROUP parameter name.

**System action:** The command is passed unchanged to IMS.

**User response:** Correct the command and run the job again.

---

**CCF1224E DATAGRP KEYWORD PRESENT BUT MORE THAN 1 DATAGRP NAME SPECIFIED**

**Explanation:** The command parser determined a DATAGROUP command was being attempted with DATAGRPEXP=Y in effect, but the command specified more than one DATAGROUP parameter name.

**System action:** The command is passed unchanged to IMS.

**User response:** Correct the command and run the job again.

---

**CCF1225W DATAGRP *datagr* RECEIVED RETURN CODE = *rc* FROM DSPURX00**

**Explanation:** The command parser determined a DATAGROUP command was being attempted with DATAGRPEXP=Y in effect, but a non-zero return code was returned from DSPURX00. Additional messages might be displayed on the z/OS Syslog.

**System action:** The command is passed unchanged to IMS.

**User response:** Correct the reason for the non-zero return code and run the job again.

---

**CCF1226E INTERNAL ERROR, SYSPRINT DATA SET NOT OPEN**

**Explanation:** An error occurred attempting to open DDNAME SYSPRINT. Additional messages might be displayed on the z/OS Syslog.

**System action:** The command is passed unchanged to IMS.

**User response:** Correct the reason for the open failure and run the job again.

---

**CCF1227I FOLLOWING DATABASES FOUND FOR DATAGRP: *datagr***

**Explanation:** DATAGRPEXP=Y is in effect and the following records list the databases that were defined to DATAGROUP *datagr* in DBRC.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF1228E NO DATABASES RETURNED FOR DATAGRP: *datagr***

**Explanation:** DATAGRPEXP=Y is in effect but there were no database names found in the named DATAGROUP *datagr*.

**System action:** The command is passed unchanged to IMS.

**User response:** Turn off DATAGRPEXP or define the database to DATAGROUP *datagr* in DBRC, and run the job.

---

**CCF1229W DBRC MODULE DSPURX00 NOT FOUND**

**Explanation:** DATAGRPEXP=Y is in effect but IMS Command Control Facility was unable to obtain a list of database names because DBRC module DSPURX00 could not be loaded.

**System action:** The command is passed unchanged to IMS.

**User response:** Ensure DBRC module DSPURX00 is in the STEPLIB concatenation and run the job again.

---

**CCF1230W DATAGRP ERROR BYPASSED, ERR488=IGNORE SPECIFIED**

**Explanation:** An invalid DATAGROUP command was encountered and skipped due to option ERR488=IGNORE being in effect.

**System action:** Command is skipped and processing continues.

**User response:** Correct the command and run the job again.

---

**CCF1231I    ERROR EDITING FOLLOWING  
COMMAND**

**Explanation:** IMS Command Control Facility determined that the command in the following message was not valid. Additional messages that describe the nature of the error are displayed in the job output listing.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF1232A    REPLY "C" TO CANCEL, "S" TO SKIP  
ALL FAILED COMMANDS**

**Explanation:** An error, described by a previous message, has been encountered. This command requires a response to inform IMS Command Control Facility how to handle this error, and possibly future errors, for this job step.

**System action:** The action taken is dependent upon the operator response to this WTOR.

**User response:** Reply to the WTOR with the valid character for the required action.

---

**CCF1233E    DATAGRP ERROR, JOB  
TERMINATING, ERR488=IGNORE  
NOT SPECIFIED**

**Explanation:** An error, described by a previous message, has been encountered, and the setting for ERR488 errors causes this job step to terminate.

**System action:** The job step terminates with a user-defined return code.

**User response:** Correct the error described in the previous message and run the job again.

---

**CCF1234E    DATAGRP ERROR, JOB  
TERMINATING, ERR488=ABEND  
SPECIFIED**

**Explanation:** An error, described by a previous message, has been encountered, and the setting for ERR488 errors causes this job to abend.

**System action:** The job terminates with the user-defined abend code.

**User response:** Correct the error described in the previous message and run the job again.

---

**CCF1235W    DATAGRP NAME LONGER THAN 8  
CHARACTERS**

**Explanation:** The command parser determined the name of the specified DATAGROUP is more than eight characters. Eight characters is the maximum allowed for DATAGROUP names.

**System action:** The command is passed unchanged to IMS.

**User response:** Correct the DATAGROUP parameter name and run the job again.

---

**CCF1236W    PARM CONFLICT, BOTH IMS AND  
SCOPE(ACTIVE) SPECIFIED - IMS  
IGNORED**

**Explanation:** The command parser detected conflict in the following command. The command was requested to be routed to a specific IMS and to all active Operations Manager members.

**System action:** The IMS routing is ignored and the command is passed to all active Operations Manager members.

**User response:** To eliminate this message, correct the command prior to running this job again.

---

**CCF1237W    BOTH OPEN AND NOOPEN  
SPECIFIED, NOOPEN DISCARDED**

**Explanation:** Mutually exclusive OPEN and NOOPEN parameters were specified on the input command.

**System action:** Because the OPEN and NOOPEN parameters cannot be specified on the same command, IMS Command Control Facility removed the NOOPEN parameter and continued processing.

**User response:** To eliminate this message in subsequent schedules of IMS Command Control Facility, correct the control card by removing either the OPEN or NOOPEN parameter.

---

**CCF2201E    OPEN FAILED FOR DDNAME  
PROCLIB**

**Explanation:** IMS Command Control Facility Operations Manager initialization exit was unable to open DDNAME PROCLIB. Additional messages might be displayed in the z/OS log.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Correct the reason for the open failure and restart IMS Operations Manager.

---

**CCF2202E    CCFLOGR INITIALIZATION FAILED**

**Explanation:** An error, described by a previous message, prevented IMS Command Control Facility from completing initialization to the IMS Command Control Facility Message Log.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Follow User Response for the previous error message.

**CCF2203E PROCLIB MEMBER CCFPARMS NOT FOUND**

**Explanation:** The member IMS Command Control Facility needs for IMS Command Control Facility Message Log initialization is not present in the data set referenced by DDNAME PROCLIB.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Create the required PROCLIB member and restart IMS Operations Manager.

**CCF2204W INVALID RECORD, NO DATA IN POSITION 1-10**

**Explanation:** A record that failed editing was read from PROCLIB member CCFPARMS.

**System action:** The record is ignored and processing continues.

**User response:** To eliminate this message, correct or remove the erroneous record before the next Operations Manager start up.

**CCF2205W UNKNOWN RECORD TYPE FOUND IN CCFPARMS - data**

**Explanation:** A record that contained unknown *data* was read from PROCLIB member CCFPARMS. The first few bytes of data from the erroneous record are displayed as *data*.

**System action:** The record is ignored and processing continues.

**User response:** To eliminate this message, correct or remove the erroneous record before the next Operations Manager start up.

**CCF2206E CCFLOGR= NOT SPECIFIED**

**Explanation:** IMS Command Control Facility Operations Manager initialization exit did not find a control card CCFLOGR= in PROCLIB member CCFPARMS. The CCFLOGR= control card is not valid.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Add or correct the CCFLOGR= *definition* in PROCLIB member CCFPARMS and restart Operations Manager.

**CCF2207E CCFLOGR NAME NOT SPECIFIED**

**Explanation:** IMS Command Control Facility Operation Manager found control card CCFLOGR= but there was no parameter name specified.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Add the IMS Command Control Facility Message Log log stream name to the CCFLOGR= control card and restart Operations Manager.

**CCF2208E CCFLOGR NAME LONGER THAN 26 BYTES**

**Explanation:** The log stream name specified as the CCFLOGR= parameter in the PROCLIB member CCFPARMS is longer than the maximum allowed. The maximum length of a log stream name is 26 bytes.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Correct the IMS Command Control Facility Message Log log stream name in the CCFLOGR= control card and restart Operations Manager.

**CCF2209E NAME/TOKEN ROUTINE ERROR RC=rc**

**Explanation:** An error was encountered attempting to create a z/OS name/token anchor. The return code is displayed as *rc*.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Correct the reason for the name/token creation failure and restart Operations Manager.

**CCF2210E LOGSTREAM CONNECT FAILED**

**Explanation:** The connect attempt to the IMS Command Control Facility Message Log log stream failed. A prior message should indicate the reason for the failure.

**System action:** Processing continues, but without the IMS Command Control Facility Message Log.

**User response:** Correct the failure described in the prior message and restart Operations Manager.

**CCF2299I LOGSTREAM CONNECT SUCCESSFUL - lsn**

**Explanation:** IMS Command Control Facility Message Log initialization completed successfully.

**System action:** Processing continues.

**User response:** None. This message is informational.

**CCF3462I timestamp DEDB dedb NOT VALID FOR /DBD COMMAND**

**Explanation:** An attempt was made to issue a /DBD command for a Fast Path DEDB (*dedb*). This is not a valid command.

**System action:** The DEDB is skipped.



**User response:** Correct the command and run the job again.

---

**CCF3463I**    *timestamp* **SPECIFIC MSDB *msdb* NOT VALID FOR /DBD COMMAND**

**Explanation:** An attempt was made to issue a /DBD command for a Fast Path MSDB (*msdb*). This is not a valid command.

**System action:** The MSDB is skipped.

**User response:** Correct the command and run the job again.

---

**CCF3464I**    *timestamp* **MSDB *msdb* NOT VALID FOR /DBR COMMAND**

**Explanation:** An attempt was made to issue a /DBR command for a Fast Path MSDB (*msdb*). This is not a valid command.

**System action:** The MSDB is skipped.

**User response:** Correct the command and run the job again.

---

**CCF3466I**    *timestamp* **DDIR FOR DATABASE *dbd* NOT FOUND**  
                   *or*  
                   *timestamp* **DMAC FOR AREA *area* NOT FOUND**

**Explanation:** The database (*dbd*) or AREA (*area*) was not found in the IMS control blocks.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF4021E**    **JOB IS RUNNING ON INVALID REGION TYPE: *rgntyp***

**Explanation:** Program CCFAPPC0 cannot issue a /MODIFY command for the indicated IMS region type.

**System action:** The job step might terminate abnormally, depending upon what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF4022E**    **CANNOT ISSUE MODIFY COMMAND ON THIS IMS VERSION: *vers***

**Explanation:** Program CCFAPPC0 cannot issue a /MODIFY command for the indicated IMS version.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF4071E**    **ATBGETC FAILURE, RETURN CODE *rc***

**Explanation:** Program CCFAPPC0 encountered an error while trying to accept the APPC conversation. The return code (*rc*) describes the error.

**System action:** The job terminates abnormally with a completion code of U4071.

**User response:** Correct the problem described by return code (*rc*). The error message log defined in the TP profile data set and the z/OS SYSLOG might contain additional information. If the problem persists, contact the IBM Software Support.

---

**CCF4072E**    **ATBRCVW FAILURE, RETURN CODE *rc***

**Explanation:** Program CCFAPPC0 encountered an error while trying to receive a message from the APPC conversation. The return code (*rc*) describes the error.

**System action:** The job terminates abnormally with a completion code of U4072.

**User response:** Correct the problem described by return code (*rc*). The error message log defined in the TP profile data set and the z/OS SYSLOG might contain additional information. If the problem persists, contact the IBM Software Support.

---

**CCF4073E**    **ATBSEND FAILURE, RETURN CODE *rc***

**Explanation:** Program CCFAPPC0 encountered an error while trying to send a message to the APPC conversation. The return code (*rc*) describes the error.

**System action:** The job terminates abnormally with a completion code of U4073.

**User response:** Correct the problem described by return code (*rc*). The error message log defined in the TP profile data set and the z/OS SYSLOG might contain additional information. If the problem persists, contact the IBM Software Support.

---

**CCF4080E**    **ERROR ON ICMD CALL, RC=*rc*  
                   REASON=*rsn* STATUS=*stat***

**Explanation:** Program CCFAPPC0 was not able to successfully issue an IMS command using the ICMD interface. The AIBRETRN and AIBREASN codes are contained in *rc* and *rsn*, respectively.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF4081E    ERROR ON RCMD CALL, RC=*rc*  
REASON=*rsn* STATUS=*stat***

---

**Explanation:** Program CCFAPPC0 was not able to successfully issue an IMS command using the ICMD interface. The AIBRETRN and AIBREASN codes are contained in *rc* and *rsn*, respectively.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF5001E    CCFPRINT OPEN FAILED**

---

**Explanation:** The REDO BMP encountered an error attempting to open DDNAME CCFPRINT. Additional messages might be displayed on the z/OS Syslog.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Correct the error that caused the open failure and run the job again.

---

**CCF5002E    DYNALLOC FAILED FOR DSN=*dsn***

---

**Explanation:** The REDO BMP encountered a dynamic allocation failure for data set *dsn*. The return code for the DYNALLOC failure can be found in subsequent message CCF5003E.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Correct the error that caused the DYNALLOC failure and run the job again.

---

**CCF5003E    DYNALLOC RETURN CODE =*rc***

---

**Explanation:** The data set named in message CCF5002E received an invalid return code (*rc*) during DYNALLOC processing.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Correct the error that caused the DYNALLOC failure and run the job again.

---

**CCF5004E    LOAD FAILED FOR MODULE  
CCFSTFWD**

---

**Explanation:** IMS Command Control Facility was unable to load the store/forward dynamic allocation member CCFSTFWD.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Ensure the proper CCFSTFWD member is present in the STEPLIB of the REDO BMP and run the job again.

---

**CCF5005E    OPEN FAILED FOR CCFSTFWD,  
RETURN CODE=*rc***

---

**Explanation:** IMS Command Control Facility was unable to open the data set associated the DDNAME CCFSTFWD. The return code from the open is contained in field *rc*. Additional messages might be displayed on the z/OS Syslog.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Correct the error that caused the open failure and run the job again.

---

**CCF5006E    INQY CALL FAILED, AIBRETRN=*rc*  
AIBREASN=*rsn***

---

**Explanation:** The REDO BMP was not able to successfully issue an IMS INQY/ENVIRON call. The AIBRETRN and AIBREASN codes are contained in *rc* and *rsn*, respectively.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF5007W    OPEN FAILED FOR DD CCFPRE**

---

**Explanation:** The REDO BMP encountered an error attempting to open DDNAME CCFPRE. This is probably due to erroneous DCB parameters. Additional messages might be displayed on the z/OS Syslog.

**System action:** Processing continues without CCFPRE input. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Make sure the data set associated with DDNAME CCFPRE is defined with LRECL=80 and DSORG=PS.

---

**CCF5008E    PREVIOUS RECORD IGNORED,  
UNRECOGNIZED COMMAND**

---

**Explanation:** A record that contained a non-valid command was read from the store/forward data set. This is an internal error that should not occur.

**System action:** The record is bypassed and processing continues.

**User response:** Contact the IBM Software Support.

---

**CCF5009I    STORE/FORWARD DSN=*dsn***

---

**Explanation:** This is an informational message displayed by the REDO BMP to indicate the name of the store/forward data set.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5010W ERROR DURING ICMD CALL,**  
**AIBRETRN=*rc* AIBREASN=*rsn***

**Explanation:** Program CCFREDO0 was not able to successfully issue an IMS command using the ICMD interface. The AIBRETRN and AIBREASN codes are contained in *rc* and *rsn*, respectively.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF5011W ERROR DURING ICMD CALL,**  
**AIBRETRN=*rc* AIBREASN=*rsn***

**Explanation:** Program CCFREDO0 was not able to successfully issue an IMS command using the ICMD interface. The AIBRETRN and AIBREASN codes are contained in *rc* and *rsn*, respectively.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF5012W ERROR DURING RCMD CALL,**  
**AIBRETRN=*rc* AIBREASN=*rsn***

**Explanation:** Program CCFREDO0 was not able to successfully retrieve a response to an IMS command using the RCMD call. The AIBRETRN and AIBREASN codes are contained in *rc* and *rsn*, respectively.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF5013W ERROR DURING RCMD CALL,**  
**AIBRETRN=*rc* AIBREASN=*rsn***

**Explanation:** Program CCFREDO0 was not able to successfully retrieve a response to an IMS command using the RCMD call. The AIBRETRN and AIBREASN codes are contained in *rc* and *rsn*, respectively.

**System action:** The job step might terminate abnormally, depending on what options were in effect for the job.

**User response:** Correct the problem and retry the command.

---

**CCF5014I CCFPRE PROCESSING STARTED**

**Explanation:** The REDO BMP has started processing the commands read from DDNAME CCFPRE.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5015I CCFPRE PROCESSING COMPLETED**

**Explanation:** The REDO BMP has completed processing all commands from DDNAME CCFPRE.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5016W OPEN FAILED FOR DD CCFPOST**

**Explanation:** The REDO BMP encountered an error attempting to open DDNAME CCFPOST. This is probably due to erroneous DCB parameters. Additional messages might be displayed on the z/OS Syslog.

**System action:** Processing continues without CCFPOST input. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Make sure the data set associated with DDNAME CCFPOST is defined with LRECL=80 and DSORG=PS.

---

**CCF5017I CCFPOST PROCESSING STARTED**

**Explanation:** The REDO BMP has started processing commands read from DDNAME CCFPOST.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5018I CCFPOST PROCESSING COMPLETED**

**Explanation:** The REDO BMP has completed processing all commands from DDNAME CCFPOST.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5019W IMS *ims* NOT FOUND IN GROUP**  
**CSL<sub>plex</sub>**

**Explanation:** The IMS record in the options data set for *ims* specifies Operations Manager for its command routing technique, but *ims* is not an active member in CSL<sub>plex</sub>.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Use the IMS Command Control Facility ISPF dialog to correct the IMS routing technique specification for *ims*.

---

**CCF5020E READ ERROR ON STORE/FORWARD DATA SET, RC=*rc* RPLFDBK=*rplfdbk***

**Explanation:** The REDO BMP encountered an error reading the store/forward data set. The VSAM return code and RPLFDBK are represented by *rc* and *rplfdbk*, respectively.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Correct the error caused by the non-zero return code and run the job again.

---

**CCF5021I STORE/FORWARD PROCESSING STARTED**

**Explanation:** The REDO has started processing commands from the store/forward data set.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5022I FOLLOWING RECORD FROM JOB=*job* DATE-TIME: *date* -*time***

**Explanation:** The REDO BMP read the following record from the store/forward data set. The record was written to the store/forward by job name *job* on date (*date*) and time (*time*) specified in the message.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5023I NO RECORDS FOUND ON STORE/FORWARD FOR: *ims***

**Explanation:** The REDO BMP found no records in the store/forward data set for IMS region listed in *ims*.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5024I STORE/FORWARD PROCESSING COMPLETED**

**Explanation:** The REDO BMP completed processing all relevant records from the store/forward for this particular IMS.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5025I FOLLOWING RECORD FROM JOB=*job* DATE-TIME: *date* - *time* DELETED BY USER *user***

**Explanation:** The following record was read from the store/forward data set for this particular IMS, but it is not processed because it was flagged for deletion by USER *user*.

**System action:** The record is deleted from the store/forward data set and processing continues.

**User response:** None. This message is informational.

---

**CCF5026I *stfrec***

**Explanation:** This message lists the record described by previous message CCF5025I.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5027I CCF OPTIONS DATA SET NAME = *dsn***

**Explanation:** This is an informational message displayed by the REDO BMP to indicate the name of the options data set. The options data set is read by the REDO BMP because a type 2 IMS command has been read, and the REDO BMP needs to read the IMS record to obtain the Operations Manager PLEX name.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF5028W READ ERROR ON CCF OPTIONS DATA SET, RC=*rc* RPLFDBK=*rplfdbk***

**Explanation:** The REDO BMP encountered an error reading the options data set. The VSAM return code and RPLFDBK are represented by *rc* and *rplfdbk*, respectively.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Correct the error caused by the non-zero return code and run the job again.

---

**CCF5029W LOAD FAILED FOR MEMBER CCF#OPTS**

**Explanation:** IMS Command Control Facility was unable to load the options data set dynamic allocation member CCF#OPTS.

**System action:** The REDO BMP terminates with a return code of 12.

**User response:** Ensure the proper CCF#OPTS member is present in the STEPLIB of the REDO BMP and run the job again.

---

**CCF5030W OPEN FAILED FOR OPTIONS DS,  
RETURN CODE=*rc***

**Explanation:** IMS Command Control Facility was unable to open the options data set. The return code from the open is contained in field *rc*. Additional messages might be displayed on the z/OS Syslog.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Correct the error that caused the open failure and run the job again.

---

**CCF5031W OPTIONS DATA SET RECORD FOR  
*ims* NOT FOUND**

**Explanation:** The options data set did not contain an IMS record for *ims*. The options data set IMS record is needed to obtain the Operation Manager name because a type 2 IMS command has been read.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Ensure correct options data set is being used. If so, use the IMS Command Control Facility ISPF dialog to add an IMS record to the options data set.

---

**CCF5032W IMS *ims* NOT DEFINED TO USE  
OPERATIONS MANAGER**

**Explanation:** The IMS record in the options data set for *ims* does not specify Operations Manager as its command routing technique.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** If type 2 IMS commands are to be executed, use the IMS Command Control Facility ISPF dialog and change the IMS record for *ims* to use Operations Manager as its command routing technique.

---

**CCF5033W OPERATIONS MANAGER NAME NOT  
SPECIFIED FOR *ims***

**Explanation:** The IMS record in the options data set for *ims* specifies Operations Manager as its command routing technique, but the PLEX name is not defined.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a

return code of 4 upon completion.

**User response:** If type 2 IMS commands are to be executed, use the IMS Command Control Facility ISPF dialog to define the Operations Manager PLEX name.

---

**CCF5034W CSLSCREG FAILED FOR CSLplex  
RC=*rc* RSN=*rsn***

**Explanation:** The REDO BMP encountered an error attempting to connect to the Common Service Layer PLEX *plex*. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Find the return (*rc*) and reason (*rsn*) code for CSLSCREG in the *IMS System Programming APIs*.

---

**CCF5035W CSLSCQRY FAILED WITH RC=*rc*  
RSN=*rsn***

**Explanation:** The REDO BMP encountered an error attempting to query the Common Service Layer PLEX *plex*. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Find the return (*rc*) and reason (*rsn*) code for CSLSCQRY in the *IMS System Programming APIs*.

---

**CCF5036W INVALID DATA RETURNED FROM  
CSLSCQRY**

**Explanation:** The REDO BMP does not recognize the data returned from the CSLSCQRY call.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** This is an internal error. Contact the IBM Software Support.

---

**CCF5037W INVALID DATA RETURNED FROM  
CSLSCQRY**

**Explanation:** The REDO BMP does not recognize the data returned from the CSLSCQRY call.

**System action:** Processing continues with all type 1

IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** This is an internal error. Contact the IBM Software Support.

**CCF5038W NO MEMBER INFO RETURNED FROM CSLSCQRY**

**Explanation:** The REDO BMP does not recognize the data returned from the CSLSCQRY call.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** This is an internal error. Contact the IBM Software Support.

**CCF5039W OPERATIONS MANAGER NOT ACTIVE IN GROUP CSLplex**

**Explanation:** The REDO BMP did not find an active Operations Manager task in the Common Service Layer group.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Ensure an Operations Manager task is started.

**CCF5040W IMS *ims* NOT IN ACTIVE STATE IN GROUP CSLplex**

**Explanation:** The IMS (*ims*) where the REDO BMP is attached is connected to the Common Service Layer group (CSLplex), but is not in an active state and therefore cannot process commands.

**System action:** Processing continues with all type 1 IMS commands. Type 2 IMS commands are skipped and erased from the store/forward data set. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Determine why the IMS is not in an active state and correct the condition.

**CCF5041W CSLOMCMDCMD RECEIVED RC = *rc* RSN = *rsn***

**Explanation:** The REDO BMP encountered an error attempting to issue a type 2 IMS command. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** The record is erased from the store/forward data set and processing continues. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** Find the return (*rc*) and reason (*rsn*) code for CSLSCQRY in the *IMS System Programming APIs*.

**CCF5042W COMMAND BYPASSED DUE TO PRIOR SCI CONNECT FAILURE**

**Explanation:** Due to the failure of a previous attempt to issue a type 2 IMS command, all type 2 IMS commands are bypassed. The reason for the previous failure is displayed in a previous message.

**System action:** The record is erased from the store/forward data set and processing continues. Unless a more severe error is encountered, the REDO BMP sets a return code of 4 upon completion.

**User response:** No action is required.

**CCF6007I CHANGED TO DBACCESS=ASIS DUE TO MISSING MODBLKS DSN IN *xxxx***

**Explanation:** The runtime option for this job is specified by the DBACCESS=SYSGEN parameter, but the IMS entry for *xxxx* in the IMS Command Control Facility options data set did not contain a MODBLKS data set name.

**System action:** The runtime option for this job is changed from DBACCESS=SYSGEN to DBACCESS=ASIS, and processing continues.

**User response:** To use the DBACCESS=SYSGEN runtime option, add a MODBLKS data set name in the IMS Command Control Facility options data set for IMS *xxxx*, and rerun the job.

**CCF6008I COMMAND STORE/FORWARD ACTIVE**

**Explanation:** Command store/forward is active for this job.

**System action:** Processing continues.

**User response:** None. This message is informational.

**CCF6009I STORE/FORWARD DSN=*dsn***

**Explanation:** This information message displays the name of the command store/forward data set (*dsn*).

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF6010I**    **ERRORS .:** ABEND=*Ucode* SETRC=*rc*  
**ERRORS .:** GENERAL=*opt*  
ROUTING=*opt* ERR488=*opt* DBRC=*opt*  
RETRY OPTIONS .....: RETRYATT=*att*  
RETRYSEC=*sec* /CCFMOD OPTIONS ...:  
MODFAIL=*modfail*  
MODREVERSE=*modrev* DATABASE  
OPTIONS ..: WTODBCMD=*wto*  
DATAGRPEXP=*grpexp*  
DBACCESS=ASIS NOFEOV=Y  
ERR3466=X PRESCAN=X DFS0488I: *rc*  
*rc rc rc rc rc rc rc rc rc rc*  
**OPERATIONS MANAGER RETURN**  
**CODE:** *omrc omrc omrc omrc omrc* **JOB=**  
**MASK=***mask* **route=***name* **OPTIONS**  
**DATA SET NAME =** *dsn* **IMS LIST:**

---

**Explanation:** This message lists all of the options in effect for this job.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF6011E**    **MISSING CCF#OPTS MEMBER FOR**  
**CCF OPTIONS DATA SET**

**Explanation:** An attempt to LOAD member CCF#OPTS failed. The member is not present in a STEPLIB or JOBLIB data set.

**System action:** If the CCF command driver is running as a batch job, the job terminates with a U4095 abend. If the CCF command driver is called by the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure member CCF#OPTS is present in a STEPLIB or JOBLIB data set, and try the operation again.

---

**CCF6012E**    **CCF OPTIONS NOT FOUND -**  
**DSN=***dsn*

**Explanation:** A LOCATE failed for the CCF options data set name (*dsn*) obtained from member CCF#OPTS.

**System action:** If the CCF command driver is running as a batch job, the job terminates with a U4095 abend. If the CCF command driver is called by the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure member CCF#OPTS contains the correct data set name for the CCF options data set.

---

**CCF6013E**    **DYNAMIC ALLOCATION FAILED**  
**FOR CCF OPTIONS DATA SET**

**Explanation:** Dynamic allocation failed for the CCF options data set name that is obtained from member CCF#OPTS.

**System action:** If the CCF command driver is running

as a batch job, the job terminates with a U4095 abend. If the CCF command driver is running from the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure member CCF#OPTS contains the correct data set name for the CCF options data set.

---

**CCF6014E**    **OPEN FAILED FOR CCF OPTIONS**  
**DATA SET**

**Explanation:** An open failed for the CCF options data set.

**System action:** If the CCF command driver is running as a batch job, the job terminates with a U4095 abend. If the CCF command driver is called by the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure member CCF#OPTS contains the correct data set name for the CCF options data set.

---

**CCF6015E**    **IMS NOT DEFINED - IMSID=***iiii*

**Explanation:** A request was made to issue a command to an IMS system (*iiii*) that was not defined in the CCF options data set.

**System action:** If the CCF command driver is running as a batch job, the job terminates with the abend code specified in either the global, or job, record in the CCF options data set. If the CCF command driver is called by the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure member CCF#OPTS contains the correct data set name for the CCF options data set.

---

**CCF6016E**    **CCF GROUP NOT DEFINED -**  
**IMSID=***iiii* **GROUP=***gggggggg*

**Explanation:** A request was made to issue a command to a CCF group (*gggggggg*), but that group name is not defined in the CCF options data set. The requested group name is obtained either from the JCL parm statement, or if the IMSID (*iiii*) is present in the message, from the Default CCF Group obtained from the IMSID record in the CCF options data set.

**System action:** If the CCF command driver is running as a batch job, the job terminates with the abend code specified in either the global, or job, record in the CCF options data set. If the CCF command driver is called by the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure that the correct CCF group name is specified in either the JCL parm statement, or in the IMSID record "Default CCF Group" field in the CCF options data set.

---

---

**CCF6017E    EMPTY CCF GROUP RECORD -  
GROUP=gggggggg**

**Explanation:** A request was made to issue a command to a CCF group (gggggggg), but the group record in the CCF options data set contained no IMS names.

**System action:** If the CCF command driver is running as a batch job, the job terminates with the abend code specified in either the global, or job, record in the CCF options data set. If the CCF command driver is called by the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure the group record in the CCF options data set contains the wanted IMS system names.

---

**CCF6019W    IMSID=iiii IN GROUP=gggggggg BUT  
NOT IN OPTIONS DS**

**Explanation:** An IMSID was defined in CCF group (gggggggg) but there is no IMSID record in the CCF options data set for MS *iiii*.

**System action:** IMS (*iiii*) is removed from the CCF group, and processing continues.

**User response:** Either remove the undefined IMS name from the CCF group entry, or create a valid IMS CCF entry for *iiii*.

---

**CCF6020E    GLOBAL OPTIONS RECORD IS  
MISSING**

**Explanation:** The CCF options data set did not contain the global record.

**System action:** If the CCF command driver is running as a batch job, the job terminates with the abend code specified in either the global, or job, record in the CCF options data set. If the CCF command driver is called by the callable API (CCFCAPI0), the call to the API fails with a non-zero return and reason code.

**User response:** Ensure that the CCF options data set has been properly populated.

---

**CCF6022W    ABOVE OPTION UNKNOWN**

**Explanation:** Input that is read from CCFOPTS dd statement contained an invalid keyword. The keyword is identified in the preceding CCF6024I message.

**System action:** The unknown keyword is bypassed, and processing continues.

**User response:** Ensure that the CCF options data set has been properly populated.

---

**CCF6023W    CCF GROUP TRUNCATED TO 8  
CHARACTERS**

**Explanation:** The CCF Group name, obtained either from the PARM statement, or read from CCFOPTS dd statement, was more than 8 characters in length. The CCF Group specification is listed in a prior CCF6024I message.

**System action:** The CCF Group name is truncated to 8 characters and processing continues.

**User response:** Correct the CCF Group name specification before you run the CCF job.

---

**CCF6024I    //CCFOPTS: xxxxx**

**Explanation:** This message lists a parameter, or CCFOPTS input keyword, that is incorrectly specified. The specific error is displayed in a subsequent CCF message.

**System action:** The action that is taken is determined by the subsequent CCF message.

**User response:** Take action that is based on the subsequent CCF message.

---

**CCF6025I    JOB RECORD FOUND**

**Explanation:** A Job name record in the CCF options data set matched the JES2 job name.

**System action:** CCF runtime options are obtained from the matching CCF Job name record in the CCF options data set.

**User response:** None. This message is informational.

---

**CCF6026I    JOB RECORD FOUND -  
MASK=xxxxxxxx**

**Explanation:** A Job name record in the CCF options data set containing wildcards matched the JES2 job name. The CCF Job name record is displayed in the MASK=xxxxxxxx field.

**System action:** CCF runtime options are obtained from the matching CCF Job name record in the CCF options data set.

**User response:** None. This message is informational.

---

**CCF6027W    CCFOPTS "GROUP=" SPECIFICATION  
IGNORED**

**Explanation:** A Job name record in the CCF options data set containing wildcards matched the JES2 job name. The CCF Job name record is displayed in the MASK=xxxxxxxx field.

**System action:** CCF runtime options are obtained from the matching CCF Job name record in the CCF options data set.



**User response:** No action is required.

---

**CCF6029W IMSID TRUNCATED TO 4 CHARACTERS**

**Explanation:** The imsid, obtained either from the PARM statement, or read from CCFOPTS dd statement, was more than 4 characters in length. The IMSID specification is listed in a prior CCF6024I message.

**System action:** The IMSID is truncated to 4 characters and processing continues.

**User response:** Correct the IMSID specification before you run the CCF job.

---

**CCF6032W DBRC=IGNORE IN EFFECT BECAUSE RECONS ARE NOT SHARED**

**Explanation:** DBRC was selected. However, this value was overridden by the options module because the Group record does not have the shared RECON flag set to "Y".

**System action:** The DBRC value is set to IGNORE.

**User response:** No action is required.

---

**CCF6033W DBRC BYPASSED - SYSPRINT/SYSIN DD NAMES SELECTED**

**Explanation:** Either SYSPRINT or SYSIN is selected as the DD name. The DBRC option is set to IGNORE.

**System action:** The DBRC value is set to IGNORE.

**User response:** No action is required.

---

**CCF6034W DBRC BYPASSED - SYSPRINT/SYSIN JCL ALLOCATED**

**Explanation:** Either SYSPRINT or SYSIN is JCL allocated. The DBRC option is set to IGNORE.

**System action:** The DBRC value is set to IGNORE.

**User response:** No action is required.

---

**CCF6035W DBRC BYPASSED - RESLIB IS NOT IN STEPLIB**

**Explanation:** IMS RESLIB is not in the standard MVS load library search order. The DBRC option is set to IGNORE.

**System action:** The DBRC value is set to IGNORE.

**User response:** No action is required.

---

**CCF6036W CCFOPTS "GROUP=" ALREADY SPECIFIED**

**Explanation:** A GROUP= statement has already been specified.

**System action:** The new specification attempt is ignored.

**User response:** No action is required.

---

**CCF6037W CCFOPTS "IMSID=" ALREADY SPECIFIED**

**Explanation:** An IMSID= statement has already been specified.

**System action:** The new specification attempt is ignored.

**User response:** No action is required.

---

**CCF6038E NO VALID IMSID/GROUP SPECIFIED**

**Explanation:** An IMSID/GROUP was not specified as required.

**System action:** User abend is issued.

**User response:** Provide a valid IMSID/GROUP.

---

**CCF6039E SETRC= VALUE MUST BE NUMERIC BETWEEN 0-4095**

**Explanation:** The SETRC= value must be a numeric value between 0 and 4095.

**System action:** Processing continues with the default value from the options module.

**User response:** Provide a valid SETRC= value.

---

**CCF6040E ABEND= VALUE MUST BE NUMERIC BETWEEN 0-4095**

**Explanation:** The ABEND= value must be a numeric value between 0 and 4095.

**System action:** Processing continues with the default value from the options module.

**User response:** Provide a valid ABEND= value.

---

**CCF6041E RETRYATT= VALUE MUST BE NUMERIC BETWEEN 1-99**

**Explanation:** The RETRYATT = value must be a numeric value between 1 and 99.

**System action:** Processing continues with the default value from the options module.

**User response:** Provide a valid RETRYATT = value.

---

**CCF6042E RETRYSEC= VALUE MUST BE NUMERIC BETWEEN 1-999**

**Explanation:** The RETRYSEC= value must be a numeric value between 1 and 999.

**System action:** Processing continues with the default value from the options module.

| **User response:** Provide a valid RETRYSEC= value.

---

| **CCF6043E DFS0488I= VALUES (UP TO 20 2-DIGIT PAIRS) MUST BE NUMERIC**

| **Explanation:** The DFS0488I= values must be up to 20 two digit pairs.

| **System action:** Processing continues with the default values from the options module.

| **User response:** Provide valid DFS0488I= values.

---

| **CCF6044E TIMEOUT= VALUE MUST BE NUMERIC BETWEEN 1-1440**

| **Explanation:** The TIMEOUT= value must be a numeric value between 1-1440.

| **System action:** Processing continues with the default values from the options module.

| **User response:** Provide a valid TIMEOUT= value.

---

**CCF6101I GLOBAL OPTIONS RECORD MAINTENANCE COMPLETE**

**Explanation:** The IMS Command Control Facility ISPF dialog function that maintains the global record in the options data set completed successfully.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6102E CCF VSAM OPTIONS DATA SET NOT FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog that maintains the options data set was not able to locate the data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the data set name, or allocate and initialize the specified name as required. If you are creating a new data set, use the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6103E CCFVSAM SVC99 RC=rc FOR dsn**

**Explanation:** The IMS Command Control Facility ISPF dialog encountered an error while attempting to dynamically allocate the options data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying message that might have been displayed, or check the dynamic allocation messages for more information.

---

**CCF6104E CCFVSAM OPEN ERROR REASON=rsn**

**Explanation:** An error occurred attempting to open the options data set. The error might be due to the options data set not being properly initialized. Additional message might be displayed on the z/OS Syslog.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6105E CCFVSAM EMPTY KSDS INIT FAILURE**

**Explanation:** The options data set has not been properly initialized.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6106I CCFVSAM EMPTY KSDS INIT SUCCESSFUL**

**Explanation:** The options data set has been initialized.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6107I NO CHANGES MADE TO GLOBAL OPTIONS**

**Explanation:** The options data set global record update screen was used, but no changes were made to the global record.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6108I GLOBAL OPTIONS RECORD SAVED**

**Explanation:** The options data set global record has been successfully updated.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6109E CCFVSAM UPDATE ERROR**

**Explanation:** The IMS Command Control Facility ISPF dialog function encountered an unexpected error while attempting to update the global record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any required action based on accompanying messages, or contact the IBM Software Support.

---

**CCF6110E CCFVSAM OPEN ERROR REASON=rsn**

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to open the options data set that was specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6111E CCFVSAM PUT ERROR RC=rc REASON=rsn**

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to update the global record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the text of the message.

---

**CCF6112E CCFVSAM GET ERROR RC=rc REASON=rsn**

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to retrieve the global record from the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the message text.

---

**CCF6115E YOU NEED RACF AUTHORIZATION FOR THIS FUNCTION - R15=r15 RET=rc RSN=rsn**

**Explanation:** The attempted operation was protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

**CCF6151I CCF IMS COMMAND PROCESSING COMPLETE**

**Explanation:** The ISPF dialog function that issues IMS commands completed successfully.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6152E CCF OPTIONS DATA SET NOT FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog function that issues IMS commands was not able to locate the data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the data set name, or allocate and initialize the specified name as required. If you are creating a new data set, use the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6153E CCFVSAM DYNALLOC RC=rc FOR dsn**

**Explanation:** The IMS Command Control Facility ISPF dialog function encountered an error while attempting to dynamically allocate the options data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying messages that might have also been displayed, or check the dynamic allocation messages for more information about the error.

---

**CCF6154E CCFVSAM OPEN ERROR REASON=rsn**

**Explanation:** The ISPF dialog function was unable to open the options data set that was specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6159E COMMAND IS NOT ALLOWED FROM ISPF**

**Explanation:** The IMS Command Control Facility ISPF dialog function disallows certain IMS commands that would prevent the use of the IMS Command Control Facility ISPF dialog. Examples of such commands include /CHE FREEZE and /STOP APPC.

**System action:** The ISPF dialog continues.

**User response:** Specify a valid and/or allowed command, and retry.

---

**CCF6160E NO GLOBAL OPTIONS RECORD FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to retrieve the global record from the options data set.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6162E COMMAND NOT KNOWN**

**Explanation:** The IMS Command Control Facility ISPF dialog function did not recognize the command/option entered at the ISPF command prompt.

**System action:** The ISPF dialog continues.

**User response:** Correct or remove the entry as required.

---

**CCF6163E IMSID/GROUP NAME NOT DEFINED IN CCF OPTIONS DATA SET**

**Explanation:** The IMS Command Control Facility ISPF dialog function did not locate the IMS record in the options data set that matched the IMSID specified in the command panel.

**System action:** The ISPF dialog continues.

**User response:** Correct or remove the entry as required.

---

**CCF6164W NO IMS RECORDS FOUND IN CCF OPTIONS FILE**

**Explanation:** The IMS Command Control Facility ISPF dialog function did not locate any IMS records in the options data set.

**System action:** The ISPF dialog continues.

**User response:** If the options data set was initialized, complete the customization for your environment by adding the appropriate IMS records before trying to use this panel to issue IMS commands.

---

**CCF6167E YOU NEED RACF AUTHORIZATION FOR THIS FUNCTION - R15=r15  
RET=rc RSN=rsn**

**Explanation:** The attempted operation is protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

**CCF6168E OPEN ERROR FOR /DSN= DATA SET**

**Explanation:** A /DSN command was entered, but failed because an error occurred attempting to open the specified data set. Additional message might be displayed on the z/OS Syslog.

**System action:** The command is bypassed.

**User response:** Correct the problem with the data set and retry the operation.

---

**CCF6169E DATA SET NAME SPECIFIED FOR /DSN= NOT FOUND**

**Explanation:** The name specified in the /DSN= field is not defined for this system.

**System action:** The command is bypassed.

**User response:** Correct the name specified in the /DSN= field and retry the operation.

---

**CCF6170E MEMBER NAME SPECIFIED FOR /DSN= NOT FOUND**

**Explanation:** The PDS member name in the /DSN= field is not present in the specified data set.

**System action:** The command is bypassed.

**User response:** Specify a valid member name in the /DSN= field and retry the command.

---

**CCF6171E DYNALLOC ERROR FOR DSNAME SPECIFIED FOR /DSN= RC=rc RSN=rsn**

**Explanation:** A dynamic allocation error occurred for the data set specified in the /DSN= field.

**System action:** The command is bypassed.

**User response:** Correct the error that caused the dynamic allocation failure and retry the operation.

---

**CCF6174I CLEAR IMS COMMAND AREA TO SEE LIST OF RECENT COMMANDS**

**Explanation:** To view a list of recent IMS commands entered from this IMS Command Control Facility ISPF dialog, clear the IMS command line and press enter.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6175E CCFPROC COMMAND LIST NOT FOUND**

**Explanation:** The command list specified on a /CCFPROC command was not found.

**System action:** The ISPF dialog continues.

**User response:** Correct the name of the command list and retry the command.

---

**CCF6176E    CCFPROC COMMAND LIST NOT SPECIFIED**

**Explanation:** The /CCFPROC command requires a member name to be specified.

**System action:** The ISPF dialog continues.

**User response:** Specify a valid member name and retry the command.

---

**CCF6177E    /DSN= LIBRARY MEMBER NOT FOUND**

**Explanation:** The PDS member name in the /DSN= field is not present in the specified data set.

**System action:** The command is bypassed.

**User response:** Specify a valid member name in the /DSN= field and retry the command.

---

**CCF6179E    CCFPROC DD STATEMENT NOT ALLOCATED**

**Explanation:** The /CCFPROC command was attempted, but there is not a CCFPROC DDNAME allocated to the TSO session.

**System action:** The ISPF dialog continues.

**User response:** Allocate DDNAME CCFPROC and retry the command.

---

**CCF6180E    CCFPROC LIBRARY PROCESSING ERROR**

**Explanation:** While using the IMS Command Control Facility ISPF dialog function, an unexpected error occurred processing a /CCFPROC command.

**System action:** The ISPF dialog continues.

**User response:** Check for any messages in the syslog for the TSO user's address space and make any required corrections.

---

**CCF6181E    CCFPROC MEMBER NOT FOUND**

**Explanation:** While using the IMS Command Control Facility ISPF component IMS command screen, the user entered a /CCFPROC member command in the IMS command input area but the member name was not found in the PDS allocated to the CCFPROC DDNAME statement.

**System action:** The IMS Command Control Facility ISPF terminates its processing of the /CCFPROC command.

**User response:** The user can check the directory of the PDS for a list of valid member names to enter.

---

**CCF6182E    CCFPROC MEMBER PROCESSING ERROR**

**Explanation:** While using the IMS Command Control Facility ISPF component IMS command screen, an unexpected error occurred processing a /CCFPROC command.

**System action:** The IMS Command Control Facility ISPF terminates its processing of a /CCFPROC or /DSN= command.

**User response:** Check for any messages in the syslog for the TSO user's address space and make any required corrections.

---

**CCF6183E    /DSN= DATA SET DOES NOT CONTAIN ANY INPUT**

**Explanation:** An empty data set was specified on the /DSN= command.

**System action:** The command is bypassed.

**User response:** Correct the input and retry the command.

---

**CCF6184E    CCFPROC MEMBER DOES NOT CONTAIN ANY INPUT**

**Explanation:** An empty member was specified on the /CCFPROC command.

**System action:** The command is bypassed.

**User response:** Correct the input and retry the command.

---

**CCF6185E    ALL CCF GROUP MEMBERS NOT USING IMS OM**

**Explanation:** IMS Command Control Facility ISPF dialog user is attempting to issue IMS commands to a IMS Command Control Facility Group where at least one IMS member is not using the IMS Operations Manager.

**System action:** The IMS command is not issued.

**User response:** Either change all IMS Command Control Facility Group members to use IMS Operations Manager, or make sure no members in the IMS Command Control Facility Group are using IMS Operations Manager.

---

**CCF6186E    CCF GROUP MEMBERS NOT USING SAME IMSPLEX NAME**

**Explanation:** IMS Command Control Facility ISPF dialog user is attempting to issue IMS commands to a IMS Command Control Facility Group where at least one IMS member is not using the same IMSPLEX name as the other IMS members in the IMS Command Control Facility Group.

**System action:** The IMS command is not issued.

**User response:** Correct the IMSPLEX name using the IMS System Information panel.

**CCF6187E NO IMS SYSTEMS DEFINED FOR THIS CCF GROUP**

**Explanation:** IMS Command Control Facility ISPF dialog user is attempting to issue IMS commands to a IMS Command Control Facility Group but the IMS Command Control Facility Group has no IMS members defined for it.

**System action:** The IMS command is not issued.

**User response:** Add IMS members to the IMS Command Control Facility Group or change the IMS Command Control Facility Group on the IMS Command panel.

**CCF6188E IMSID *ims* IS DEFINED IN CCF GROUP BUT DOES NOT EXIST**

**Explanation:** IMS Command Control Facility ISPF dialog user is attempting to issue IMS commands to a IMS Command Control Facility Group but the named IMSID (*ims*) has not been defined using the IMS System Information panel.

**System action:** The IMS command is not issued.

**User response:** Add the IMSID using the IMS System Information panel, or remove the IMSID from the IMS Command Control Facility Group using the IMS Command Control Facility Group IMSID List panel.

**CCF6190E USE OF GROUP/IMSID NOT AUTHORIZED**

**Explanation:** Use of the IMS Command Control Facility Group or the IMS subsystem is not authorized.

**System action:** The command is not run.

**User response:** See your Security Administrator.

**CCF6201I JOB OPTIONS RECORD MAINTENANCE COMPLETE**

**Explanation:** The IMS Command Control Facility ISPF dialog function that maintains the job records in the options data set completed successfully.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

**CCF6202E CCF VSAM OPTIONS DATA SET NOT FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog function that maintains the job records was unable to locate the data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the data set name, or allocate and initialize the specified name as required. If you are creating a new data set, use the IMS Command Control Facility options data set initialization utility (CCFUODI0).

**CCF6203E CCFVSAM SVC99 RC=*rc* FOR *dsn***

**Explanation:** The IMS Command Control Facility ISPF dialog encountered an error while attempting to dynamically allocate the options data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying message that might have been displayed, or check the dynamic allocation messages for more information.

**CCF6204E CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** An error occurred attempting to open the options data set. The error might be due to the options data set not being properly initialized. Additional message information might be displayed on the z/OS Syslog.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

**CCF6205E CCFVSAM EMPTY KSDS INIT FAILURE**

**Explanation:** The options data set has not been properly initialized.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

**CCF6206I CCFVSAM EMPTY KSDS INIT SUCCESSFUL**

**Explanation:** The options data set has been initialized.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6207I    JOB RECORD MAINTENANCE  
             COMPLETE**

**Explanation:** The options data set job record update has completed.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6208I    JOB OPTIONS RECORD SAVED**

**Explanation:** The options data set job record has been successfully updated.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6209E    CCFVSAM UPDATE ERROR**

**Explanation:** The IMS Command Control Facility ISPF dialog function encountered an unexpected error while attempting to update a job record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any required action based on accompanying messages or contact the IBM Software Support.

---

**CCF6210E    CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to open the options data set that was specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6211E    CCFVSAM PUT ERROR RC=*rc*  
             REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to update a job record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the text of the message.

---

**CCF6212E    CCFVSAM GET ERROR RC=*rc*  
             REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to retrieve a job record from the options data set.

---

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the message text.

---

**CCF6213E    JOBNAME CANNOT CONTAIN  
             IMBEDDED SPACES**

**Explanation:** The value specified in the Jobname/JobMask field is invalid.

**System action:** Updates are bypassed.

**User response:** Correct the name in the Jobname/JobMask field and retry the update.

---

**CCF6214I    NO JOB OPTION RECORDS FOUND**

**Explanation:** This informational message indicates that this is the first job record being added to the options data set.

**System action:** The ISPF dialog continues.

**User response:** Enter the required job information.

---

**CCF6215E    JOBNAME MUST BE  
             ALPHANUMERIC**

**Explanation:** Invalid characters have been specified in the Jobname/JobMask field.

**System action:** Updates are bypassed.

**User response:** Correct the name in the Jobname/JobMask field and retry the update.

---

**CCF6216E    JOBNAME 1ST CHAR MUST BE  
             ALPHABETIC OR \$/#/@**

**Explanation:** An invalid name has been specified in the Jobname/JobMask field.

**System action:** Updates are bypassed.

**User response:** Change the first character of the Jobname/JobMask field to one of the listed values.

---

**CCF6217E    YOU NEED RACF AUTHORIZATION  
             FOR THIS FUNCTION - R15=*r15*  
             RET=*rc* RSN=*rsn***

**Explanation:** The attempted operation was protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

---

**CCF6218I    LOCATE FAILED - END OF JOB LIST REACHED**

**Explanation:** IMS Command Control Facility ISPF dialog user has entered a locate command for a jobname from the Job List panel, but no matches were found for the entered name.

**System action:** The Job List panel is displayed again.

**User response:** Specify another locate command if necessary.

---

**CCF6301I    CCF VSAM OPTIONS DATA SET NOT FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog function that maintains the IMS records was unable to locate the data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the data set name, or allocate and initialize the specified name as required. If you are creating a new data set, use the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6303E    CCFVSAM SVC99 RC=*rc* FOR *dsn***

**Explanation:** The IMS Command Control Facility ISPF dialog encountered an error while attempting to dynamically allocate the options data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying message that might have been displayed, or check the dynamic allocation messages for more information.

---

**CCF6304E    CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** An error occurred attempting to open the options data set. The error might be due to the options data set not being properly initialized. Additional message information might be displayed on the z/OS Syslog.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6305E    CCFVSAM EMPTY KSDS INIT FAILURE**

**Explanation:** The options data set has not been properly initialized.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6306I    CCFVSAM EMPTY KSDS INIT SUCCESSFUL**

**Explanation:** The options data set has been initialized.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6307I    IMS RECORD MAINTENANCE COMPLETE**

**Explanation:** The options data set IMS record update has completed.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6308I    IMS SYSTEM RECORD SAVED**

**Explanation:** The options data set IMS record has been successfully updated.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6309E    CCFVSAM UPDATE ERROR**

**Explanation:** The IMS Command Control Facility ISPF dialog function encountered an unexpected error while attempting to update an IMS record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any required action based on accompanying messages or contact the IBM Software Support.

---

**CCF6310E    CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to open the options data set that was specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command



Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6311E CCFVSAM PUT ERROR RC=*rc*  
REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to update an IMS record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the text of the message.

---

**CCF6312E CCFVSAM GET ERROR RC=*rc*  
REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to retrieve an IMS record from the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the message text.

---

**CCF6313E IMSID CANNOT BE LEFT BLANK**

**Explanation:** The IMSID field must be specified.

**System action:** Updates are bypassed.

**User response:** Enter an IMSID value and retry the update.

---

**CCF6314I NO IMS RECORDS FOUND**

**Explanation:** This informational message indicates that this is the first IMS record being added to the options data set.

**System action:** The ISPF dialog continues.

**User response:** Enter the required IMS information.

---

**CCF6315E YOU NEED RACF AUTHORIZATION  
FOR THIS FUNCTION - R15=*r15*  
RET=*rc* RSN=*rsn***

**Explanation:** The attempted operation was protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

**CCF6316I LOCATE FAILED - END OF IMS  
SYSTEM LIST REACHED**

**Explanation:** IMS Command Control Facility ISPF dialog user has entered a locate command for an IMS system from the IMS System List panel, but no matches were found for the entered name.

**System action:** The IMS System List panel is displayed again.

**User response:** Specify another locate command if necessary.

---

**CCF6317E INVALID VALUE IN COMMAND  
ROUTING TECHNIQUE**

**Explanation:** The value specified for the Command Routing Technique is not one of the listed values.

**System action:** Updates are bypassed.

**User response:** Change the value in the Command Routing Technique field to one of the listed values and try the operation again.

---

**CCF6318E RESTRICTED VALUE IN USER  
DFSIOE00 NAME**

**Explanation:** The value specified for User DFSIOE00 Name is not allowed by IMS Command Control Facility.

**System action:** Updates are bypassed.

**User response:** Change the value in the User DFSIOE00 Name to one allowed by IMS Command Control Facility and retry the operation.

---

**CCF6401I CCF IMSPLEX MAINTENANCE  
COMPLETE**

**Explanation:** The IMS Command Control Facility ISPF dialog function that maintains the IMS Command Control Facility group records in the options data set completed successfully.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6402E CCF VSAM OPTIONS DATA SET NOT  
FOUND *dsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function that maintains the IMS Command Control Facility group records was unable to locate the data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the data set name, or allocate and initialize the specified name as required. If you are creating a new data set, use the IMS Command Control

Facility options data set initialization utility (CCFUODI0).

---

**CCF6403E CCFVSAM SVC99 RC=*rc* FOR**

**Explanation:** The IMS Command Control Facility ISPF dialog encountered an error while attempting to dynamically allocate the options data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying message that might have been displayed, or check the dynamic allocation messages for more information.

---

**CCF6404E CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** An error occurred attempting to open the options data set. The error might be due to the options data set not being properly initialized. Additional message information might be displayed on the z/OS Syslog.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6405E CCFVSAM EMPTY KSDS INIT FAILURE**

**Explanation:** The options data set has not been properly initialized.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6406I CCFVSAM EMPTY KSDS INIT SUCCESSFUL**

**Explanation:** The options data set has been initialized.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6407I CCF IMSPLEX RECORD MAINTENANCE COMPLETE**

**Explanation:** The options data set IMS Command Control Facility group record update has completed.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6408I CCF IMSPLEX RECORD SAVED**

**Explanation:** The options data set IMS Command Control Facility group record has been successfully updated.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6409E CCFVSAM UPDATE ERROR**

**Explanation:** The IMS Command Control Facility ISPF dialog function encountered an unexpected error while attempting to update a IMS Command Control Facility group record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any required action based on accompanying messages or contact the IBM Software Support.

---

**CCF6410E CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to open the options data set that was specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6411E CCFVSAM PUT ERROR RC=*rc* REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to update a IMS Command Control Facility group record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the text of the message.

---

**CCF6412E CCFVSAM GET ERROR RC=*rc* REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to retrieve a IMS Command Control Facility group record from the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the message text.

---

**CCF6413E    IMSPLEX CANNOT BE LEFT BLANK**

**Explanation:** The IMS Command Control Facility group field must be specified.

**System action:** Updates are bypassed.

**User response:** Enter a IMS Command Control Facility group name and retry the update.

---

**CCF6414I    NO CCF IMSPLEX RECORDS FOUND**

**Explanation:** This informational message indicates that this is the first IMS Command Control Facility group record being added to the options data set.

**System action:** The ISPF dialog continues.

**User response:** Enter the required IMS Command Control Facility group information.

---

**CCF6415E    YOU NEED RACF AUTHORIZATION  
FOR THIS FUNCTION - R15=*r15*  
RET=*rc* RSN=*rsn***

**Explanation:** The attempted operation was protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

**CCF6416I    LOCATE FAILED - END OF CCF  
GROUP LIST REACHED**

**Explanation:** IMS Command Control Facility ISPF dialog user has entered a locate command for a IMS Command Control Facility Group from the IMS Command Control Facility Group List panel, but no matches were found for the entered name.

**System action:** The IMS Command Control Facility Group List panel is displayed again.

**User response:** Specify another locate command if necessary.

---

**CCF6501I    CCF STORE/FORWARD EDIT  
COMPLETE**

**Explanation:** The IMS Command Control Facility ISPF dialog function has completed its editing of the store/forward data set.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

---

**CCF6502E    CCF STORE/FORWARD DATA SET  
NOT FOUND**

**Explanation:** The data set specified for store/forward is not defined on this system.

**System action:** The ISPF dialog continues.

**User response:** Correct the name of the store/forward data set and retry the operation.

---

**CCF6503E    CCFSFVSM SVC99 RC=*rc* FOR *dsn***

**Explanation:** The IMS Command Control Facility ISPF dialog encountered an error while attempting to dynamically allocate the store/forward data set.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying message that might have been displayed, or check the dynamic allocation messages for more information.

---

**CCF6504E    CCF STORE/FORWARD DATA SET IN  
USE**

**Explanation:** The store/forward data set is in use by another job or user.

**System action:** The ISPF dialog continues.

**User response:** Try the operation after the other job or user completes the processing of the store/forward data set.

---

**CCF6505I    NO CHANGES TO CCF  
STORE/FORWARD DATASET**

**Explanation:** The edit session of the store/forward data set completed, but there were no updates made to the data set.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6506I    STORE/FORWARD BROWSE  
SUCCESSFUL**

**Explanation:** The browse session of the store/forward data set completed.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6507I    STORE/FORWARD EDIT SUCCESSFUL**

**Explanation:** The edit of the store/forward data set successfully completed.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

---

**CCF6508E**    **YOU NEED RACF AUTHORIZATION FOR THIS FUNCTION - R15=*r15* RET=*rc* RSN=*rsn***

**Explanation:** The attempted operation was protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

**CCF6602I**    **NO NAMES MATCH WILDCARD MASK**

**Explanation:** No names matched the wildcard pattern specified in the command.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF6603I**    *table* **WILDCARD TABLE OBTAINED FROM *ims***

**Explanation:** The wildcard table has been obtained by issuing a /DIS x ALL command to the displayed IMS (*ims*) region.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF6701I**    **CCF LOG VIEW COMPLETE**

**Explanation:** The IMS Command Control Facility ISPF dialog function for browsing the Message Log has successfully completed.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF6702E**    **CCF VSAM OPTIONS DATA SET NOT FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog that maintains the options data set was not able to locate the data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the data set name, or allocate and initialize the specified name as required. If you are creating a new data set, use the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6703E**    **CCFVSAM SVC99 R15=*r15* RC=*rc* FOR *dsn***

**Explanation:** The IMS Command Control Facility ISPF dialog encountered an error while attempting to dynamically allocate the options data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying message that might have been displayed, or check the dynamic allocation messages for more information.

---

**CCF6704E**    **CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** An error occurred attempting to open the options data set. The error might be due to the options data set not being properly initialized. Additional message information might be displayed on the z/OS Syslog.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF6708E**    **CCF LOGSTREAM CONNECT ERROR - RET=*rc* RSN=*rsn* LSN=*lsn***

**Explanation:** An error was encountered attempting to connect to the specified log stream (*lsn*) using service IXGCONN REQUEST=CONNECT.

**System action:** The ISPF dialog continues.

**User response:** Review the IXGCONN return and reason codes contained in *rc* and *rsn*, respectively. Correct the problem and retry the operation.

---

**CCF6709E**    **CCF LOGSTREAM NAME NOT DEFINED IN THE LOGR POLICY - LSN=*lsn***

**Explanation:** An error was encountered attempting to connect to the specified log stream (*lsn*) using service IXGCONN REQUEST=CONNECT.

**System action:** The ISPF dialog continues.

**User response:** Ensure that the message log customization procedure (as described in Chapter 5, "Configuring the message log," on page 43) has completed successfully.

---

---

**CCF6711E    CCF LOGSTREAM BROWSE START  
ERROR - RET=*rc* RSN=*rsn* - LSN=*lsn***

**Explanation:** An error was encountered attempting to read the log stream using service IXGBRWSE REQUEST=START.

**System action:** The ISPF dialog continues.

**User response:** Review the IXGBRWSE return and reason codes contained in *rc* and *rsn*, respectively. Correct the problem and retry the operation.

---

**CCF6711I    NO RECORDS RETURNED FOR THIS SEARCH**

**Explanation:** No records in the Message Log log stream matched the specified search criteria.

**System action:** The ISPF dialog continues.

**User response:** Adjust the search criteria and retry the operation.

---

**CCF6714I    NO IMS SYSTEM RECORDS FOUND**

**Explanation:** There were no IMS records in the options data set.

**System action:** The ISPF dialog continues.

**User response:** IMS Command Control Facility customization is not complete until there are IMS definitions in the options data set. Add IMS definitions to the options data set and retry the operation.

---

**CCF6715E    YOU NEED RACF AUTHORIZATION  
FOR THIS FUNCTION - R15=*r15*  
RET=*rc* RSN=*rsn***

**Explanation:** The attempted operation was protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

**CCF6900E    CCF REMOTE BMP ABEND=*Scode1*  
*Ucode2***

**Explanation:** The IMS Command Control Facility remote STC BMP ended abnormally with either a system (*code1*) or user (*code2*) abend.

**System action:** Processing ends.

**User response:** Correct the reason for the abnormal termination and rerun the job.

---

**CCF6901E    ATBGETC ERROR RC=*rc***

**Explanation:** An error was encountered attempting to accept the APPC conversation. The return code (*rc*) describes the error.

**System action:** Processing is abnormally terminated.

**User response:** Correct the problem described by return code (*rc*). The error message log defined in the TP profile data set and the z/OS SYSLOG might contain additional information. If the problem persists, contact the IBM Software Support.

---

**CCF6902W    ATBDEAL ERROR RC=*rc***

**Explanation:** An error was encountered attempting to deallocate the APPC conversation. The return code (*rc*) describes the error.

**System action:** Processing is abnormally terminated.

**User response:** Correct the problem described by return code (*rc*). The error message log defined in the TP profile data set and the z/OS SYSLOG might contain additional information. If the problem persists, contact the IBM Software Support.

---

**CCF6904W    ATBRCVW RC=*rc***

**Explanation:** An error was encountered attempting to receive a message from the APPC conversation. The return code (*rc*) describes the error.

**System action:** Processing is abnormally terminated.

**User response:** Correct the problem described by return code (*rc*). The error message log defined in the TP profile data set and the z/OS SYSLOG might contain additional information. If the problem persists, contact the IBM Software Support.

---

**CCF7001E    INVALID NUMBER OF PARAMETERS**

**Explanation:** A IMS Command Control Facility internal error occurred.

**System action:** The job terminates abnormally with completion code U4083.

**User response:** Contact the IBM Software Support.

---

**CCF7002E    SCD ADDRESS REQUIRED**

**Explanation:** A IMS Command Control Facility internal error occurred.

**System action:** The job terminates abnormally with completion code U4083.

**User response:** Contact the IBM Software Support.

---

---

**CCF7003E    INVALID SCD ADDRESS PASSED**

**Explanation:** A IMS Command Control Facility internal error occurred.

**System action:** The job terminates abnormally with completion code U4083.

**User response:** Contact the IBM Software Support.

---

**CCF7101E    CCFSTFWD DDNAME MISSING**

**Explanation:** Store/forward data set initialization failed due to missing DDNAME CCFSTFWD.

**System action:** The job terminates with a completion code of 16.

**User response:** Add the required DDNAME and rerun the job.

---

**CCF7102E    GENCB ACB1 ERROR**

**Explanation:** Store/forward data set initialization failed attempting to build VSAM control blocks. Additional error messages might be displayed on the z/OS Syslog.

**System action:** The job terminates abnormally.

**User response:** Correct any errors. If the problem persists, contact the IBM Software Support.

---

**CCF7103E    GENCB RPL1 ERROR**

**Explanation:** Store/forward data set initialization failed attempting to build VSAM control blocks. Additional error messages might be displayed on the z/OS Syslog.

**System action:** The job terminates abnormally.

**User response:** Correct any errors and rerun the job. If the problem persists, contact the IBM Software Support.

---

**CCF7104W    COMMAND STORE/FORWARD DATA SET ALREADY INITIALIZED**

**Explanation:** An attempt was made to initialize the store/forward data set, but the data set has already been initialized.

**System action:** The job terminates with a completion code of 4.

**User response:** No action is required.

---

**CCF7105E    CCFVSAM INIT ERROR**

**Explanation:** An error was encountered attempting to write the header record to the store/forward data set.

**System action:** The job terminates abnormally.

**User response:** Correct any errors and rerun the job. If the problem persists, contact the IBM Software Support.

---

---

**CCF7106I    COMMAND STORE/FORWARD DATA SET INITIALIZATION SUCCESSFUL**

**Explanation:** The store/forward data has been successfully initialized.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7201I    EITHER MSG DISP OR AOITOKEN REQUIRED**

**Explanation:** One or both of the listed values must be specified.

**System action:** Updates bypassed.

**User response:** Correct the information on the screen and retry the operation.

---

**CCF7202E    CCF VSAM OPTIONS DATA SET NOT FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog function that maintains the MSG records was unable to locate the data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the data set name, or allocate and initialize the specified name as required. If you are creating a new data set, use the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF7203E    CCFVSAM SVC99 RC=*rc* FOR *dsn***

**Explanation:** The IMS Command Control Facility ISPF dialog encountered an error while attempting to dynamically allocate the options data set specified on the IMS Command Control Facility Primary Options Menu.

**System action:** The ISPF dialog continues.

**User response:** Correct the condition based on any other accompanying message that might have been displayed, or check the dynamic allocation messages for more information.

---

**CCF7204E    CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** An error occurred attempting to open the options data set. The error might be due to the options data set not being properly initialized. Additional message information might be displayed on the z/OS Syslog.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command

---

Control Facility options data set initialization utility (CCFUODI0).

---

**CCF7205I MSG DISPOSITION RECORD MAINTENANCE COMPLETE**

**Explanation:** The options data set MSG table record update has completed.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF7206I MSG DISPOSITION RECORD SAVED**

**Explanation:** The options data set MSG table record has been successfully updated.

**System action:** The ISPF dialog continues.

**User response:** None. This message is informational.

---

**CCF7207E CCFVSAM OPEN ERROR REASON=*rsn***

**Explanation:** An error occurred attempting to open the options data set. The error might be due to the options data set not being properly initialized. Additional message information might be displayed on the z/OS Syslog.

**System action:** The ISPF dialog continues.

**User response:** Make sure the options data set has been properly initialized using the IMS Command Control Facility options data set initialization utility (CCFUODI0).

---

**CCF7208E CCFVSAM PUT ERROR RC=*rc* REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to update a MSG table record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the text of the message.

---

**CCF7209E CCFVSAM GET ERROR RC=*rc* REASON=*rsn***

**Explanation:** The IMS Command Control Facility ISPF dialog function was unable to retrieve a MSG table record in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Take any corrective action required based on the VSAM return information displayed in the text of the message.

---

**CCF7210I NO MSG DISPOSITION RECORDS FOUND**

**Explanation:** The IMS Command Control Facility ISPF dialog function did not locate any MSG table records in the options data set.

**System action:** The ISPF dialog continues.

**User response:** Complete the required fields and press enter.

---

**CCF7211E YOU NEED RACF AUTHORIZATION FOR THIS FUNCTION - R15=*r15* RET=*rc* RSN=*rsn***

**Explanation:** The attempted operation was protected in the RACF FACILITY class. The RACF user ID that is attempting to perform this function does not have proper security authorization.

**System action:** The update process is disallowed.

**User response:** Contact your security department to obtain proper authorization.

---

**CCF7212I LOCATE FAILED - END OF MESSAGE DISPOSITION LIST REACHED**

**Explanation:** IMS Command Control Facility ISPF dialog user has entered a locate command for a message table from the Message Disposition List panel, but no matches were found for the entered name.

**System action:** The Message Disposition List panel is displayed again.

**User response:** Specify another locate command if necessary.

---

**CCF7301E CCFLSCD RECEIVED AN INCORRECT NUMBER OF PARAMETERS**

**Explanation:** A IMS Command Control Facility internal error has occurred.

**System action:** The job terminates abnormally with completion code U4083.

**User response:** Contact the IBM Software Support.

---

**CCF7401E CSLSCREG FAILED FOR: CSLplex RC=*rc* RSN=*rsn***

**Explanation:** An error was encountered attempting to connect to the Common Service Layer PLEX *plex*. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** The job terminates with the user-defined return code or user-defined abend code.

**User response:** Find the return (*rc*) and reason (*rsn*) code for CSLSCREG in the *IMS System Programming APIs*.

---

**CCF7402E    CSLSCQRY FAILED, RC=*rc* RSN=*rsn***

**Explanation:** An error was encountered attempting to query the Common Service Layer PLEX plex. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** The job terminates with the user-defined return code or user-defined abend code.

**User response:** Find the return (*rc*) and reason (*rsn*) code for CSLSCREG in the *IMS System Programming APIs*.

---

**CCF7403E    NO DATA RETURNED FROM CSLSCQRY**

**Explanation:** The CSLSCQRY did not return any data.

**System action:** The job terminates with the user-defined return code or user-defined abend code.

**User response:** Contact the IBM Software Support.

---

**CCF7404E    INVALID DATA RETURNED FROM CSLSCQRY**

**Explanation:** CCF could not identify the data returned from the CSLSCQRY call.

**System action:** The job terminates with the user-defined return code or user-defined abend code.

**User response:** Contact the IBM Software Support.

---

**CCF7405E    NO ENTRIES IN IMS OM GROUP**

**Explanation:** IMS Command Control Facility was able to connect to the Common Service Layer group, but there were no IMS systems connected.

**System action:** The job terminates with the user-defined return code or user-defined abend code.

**User response:** Wait for IMS regions to join the Operations Manager group and run the job again.

---

**CCF7406E    OPERATIONS MANAGER NOT ACTIVE IN GROUP: CSL*plex***

**Explanation:** IMS Command Control Facility was able to connect to the Common Service Layer group, but the Operations Manager task was not active in the group.

**System action:** The job terminates with the user-defined return code or user-defined abend code.

**User response:** Wait for an Operations Manager task to join the group and run the job again.

---

**CCF7407W    IMS MEMBER *ims* FOUND IN CSL GROUP BUT NOT IN CCF GROUP**

**Explanation:** IMS region *ims* was found in the Common Service Layer group, but it was not defined as being a part of the IMS Command Control Facility group. Commands might get routed to this IMS.

**System action:** Processing continues.

**User response:** If *ims* should be part of the IMS Command Control Facility group, use the IMS Command Control Facility ISPF dialog to add it to the IMS Command Control Facility group.

---

**CCF7408W    CCF GROUP MEMBER *ims* NOT ACTIVE IN CSL GROUP**

**Explanation:** A member of a IMS Command Control Facility group (*ims*) was not active in the Common Service Layer group.

**System action:** The action taken is determined by the setting for ROUTING (APPC) errors.

**User response:** If ROUTING=IGNORE was specified and command store/forward is active, ensure the REDO BMP runs immediately at *ims* start up.

---

**CCF7409E    IMS *ims* NOT FOUND IN CCF GROUP**

**Explanation:** IMS region *ims* was found in the Common Service Layer group, but it was not defined as being a part of the IMS Command Control Facility group. Commands might get routed to this IMS.

**System action:** Processing continues.

**User response:** If *ims* should be part of the IMS Command Control Facility group, use the IMS Command Control Facility ISPF dialog to add it to the IMS Command Control Facility group.

---

**CCF7410E    MEMBER *ims* IS NOT ACTIVE IN CSL GROUP**

**Explanation:** A member of a IMS Command Control Facility group (*ims*) was not active in the Common Service Layer group.

**System action:** The action taken is determined by the setting for ROUTING (APPC) errors.

**User response:** If ROUTING=IGNORE was specified and command store/forward is active, ensure the REDO BMP runs immediately at *ims* start up.

---

**CCF7411E    NO ACTIVE IMS SYSTEMS IN CSL GROUP**

**Explanation:** IMS Command Control Facility was able to connect to the Common Service Layer group, but there were no active IMS regions in the group.

**System action:** The job terminates with the



user-defined return code or user-defined abend code.

**User response:** Wait for the IMS regions to join the group and run the job again.

---

**CCF7412E    DATAGRP NOT DEFINED, JOB  
TERMINATING DUE TO ERR488=  
SPECIFICATION**

**Explanation:** DATAGRPEXP=Y is in effect, but IMS Command Control Facility could not obtain a list of database names from DBRC. This might be due to the DATAGRP not being defined, or the wrong set of RECON data sets in the STEPLIB concatenation.

**System action:** The job terminates with a user-defined return code or user-defined abend code.

**User response:** Turn off DATAGRPEXP, define the DATAGRP to DBRC, or add the correct RECON data sets to the STEPLIB concatenation, and run the job again.

---

**CCF7413I    COMMAND BEING ROUTED TO *type*  
                  = *name* {PLEX = *plexname*}**

**Explanation:** The following command is routed to Operations Manager for processing.

The destination is designated by *name* and the *type* is either a group name or a specific IMSID.

If the group members are in an IMSplex, then the IMSplex name is shown.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7414E    /MOD PREPARE FAILED, CSLOMCMD  
                  RC=*rc* RSN=*rsn***

**Explanation:** An error was encountered processing a /MOD PREPARE command using the CSLOMCMD call. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS Messages and Codes*. Correct the reason for the failure and run the job again.

---

**CCF7415I    DATAGRP NOT DEFINED,  
BYPASSING COMMAND DUE TO  
ERR488= SPECIFICATION**

**Explanation:** DATAGRPEXP=Y is in effect, but IMS Command Control Facility could not obtain a list of database names from DBRC. This might be due to the DATAGRP not being defined, or the wrong set of RECON data sets in the STEPLIB concatenation.

**System action:** The command is passed unchanged to IMS.

**User response:** Turn off DATAGRPEXP, define the DATAGRP to DBRC, or add the correct RECON data sets to the STEPLIB concatenation, and run the job again.

---

**CCF7416E    CSLOMCMD COMMAND ISSUED  
                  RC=*rc* RSN=*rsn***

**Explanation:** An error was encountered while attempting a command using the CSLOMCMD call. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS System Programming APIs*. Correct the reason for the failure and run the job again.

---

**CCF7417W    CSLOMCMD COMMAND ISSUED  
                  RC=*rc* RSN=*rsn***

**Explanation:** An error was encountered while attempting a command using the CSLOMCMD call. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS System Programming APIs*. Correct the reason for the failure and run the job again.

---

**CCF7418I    ONLINE CHANGE FUNCTION  
SUCCESSFUL**

**Explanation:** /CCFMODE processing successfully completed.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7419E    "NO WORK PENDING" NOT  
RECEIVED, ABORT STARTED**

**Explanation:** After successfully issuing a /MOD PREPARE command to all IMS regions, the /DIS MODIFY ALL did not receive the NO WORK PENDING message for all systems.

**System action:** If /CCFMODE processing is failing, IMS Command Control Facility issues /MOD ABORT to all IMS regions. After the abort processing completes, depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** Determine the reason why the NO WORK PENDING message was not received, correct the condition preventing the online change, and run the job again.

---

**CCF7420E**    *ddn* **LIBRARY NOT SWAPPED ON** *ims*

**Explanation:** A IMS Command Control Facility internal error occurred. After what was believed to be a successful online change, there are libraries that did not change DDNAME suffixes.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** Contact the IBM Software Support.

---

**CCF7421E**    **MAX RETRIES REACHED, ABORT PROCESS STARTED**

**Explanation:** The /CCFMODE process did not receive the NO WORK PENDING display from all systems even after the maximum number of retry attempts.

**System action:** /MOD ABORT processing is started. The job terminates with the user-defined return code or user-defined abend code.

**User response:** Correct the problem that was preventing the NO WORK PENDING display and run the job again.

---

**CCF7422W**    **CSLOMCMDCOMMAND ISSUED**  
                  **RC=rc RSN=rsn**

**Explanation:** An error was encountered while attempting a command using the CSLOMCMDC call. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS System Programming APIs*. Correct the reason for the failure and run the job again.

---

**CCF7423E**    **ONLINE CHANGE FAILED, /MOD REVERSE BEING INITIATED**

**Explanation:** A /MOD COMMIT failed on an IMS system after a /MOD COMMIT was successful on one or more IMS systems. Because MODREVERSE=Y is in effect, IMS Command Control Facility attempts to restore the IMS systems where the /MOD COMMIT was successful to pre-online change state.

**System action:** After MODREVERSE processing completes, and dependent upon the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** Ensure all IMS systems were returned to pre-online change state, correct the condition that caused the /MOD COMMIT to fail, and run the job again.

---

**CCF7424E**    **ONLINE CHANGE FAILED, TERMINATING**

**Explanation:** A severe error occurred during /CCFMODE processing. Prior messages describe the condition that caused the online change failure.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** Follow user response for previously displayed messages.

---

**CCF7425E**    **ONLINE CHANGE FAILED, IMS SYSTEM(S) NOT ACTIVE**

**Explanation:** A /CCFMODE predefined procedure determines that all members of a IMS Command Control Facility group are not active in the Common Service Layer group.

**System action:** Depending upon the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** Wait for all members of the IMS Command Control Facility group to become active and run the job again.

---

**CCF7426W**    **CSLOMCMDC RECEIVED RC=rc**  
                  **RSN=rsn**

**Explanation:** An error was encountered while attempting a command using the CSLOMCMDC call. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS System Programming APIs*. Correct the reason for the failure and run the job again.

---

**CCF7427W**    **MAX RETRIES REACHED**

**Explanation:** A database command has been attempted the number of times specified in RETRYATT and there are still databases not in the required state.

**System action:** The action taken is determined by the setting for ERR488 errors.

**User response:** Review the conditions that caused the database command to be unsuccessful and take appropriate action.

---

**CCF7428E    JOB TERMINATING DUE TO ERR488 SPECIFICATION**

**Explanation:** A database command has been attempted the number of times specified in RETRYATT and there are still databases not in the required state.

**System action:** The job terminates due to the setting for ERR488 errors.

**User response:** Review the conditions that caused the database command to be unsuccessful and take appropriate action.

---

**CCF7429I    COMMAND BYPASSED DUE TO OPERATOR RESPONSE**

**Explanation:** A database command has been attempted the number of times specified in RETRYATT and there are still databases not in the required state. Error option ERR488=WTOR is in effect and the operator replied S to skip the failed command.

**System action:** Processing continues.

**User response:** Review the conditions that caused the database command to be unsuccessful and take appropriate action.

---

**CCF7430W    COMMAND BYPASSED DUE TO ERR488=IGNORE SPECIFICATION**

**Explanation:** A database command has been attempted the number of times specified in RETRYATT and there are still databases not in the required state. The command is bypassed due to error option ERR488=IGNORE being in effect.

**System action:** Processing continues.

**User response:** Review the conditions that caused the database command to be unsuccessful and take appropriate action.

---

**CCF7431I    COMMAND BEING ATTEMPTED AGAIN DUE TO OPERATOR RESPONSE**

**Explanation:** A database command has been attempted the number of times specified in RETRYATT and there are still databases not in the required state. Error option ERR488=WTOR is in effect and the operator replied R to retry the command.

**System action:** The command is tried again.

**User response:** None. This message is informational.

---

**CCF7432E    TASK TERMINATING DUE TO ROUTING= SPECIFICATION**

**Explanation:** A command has been attempted the number of times specified in RETRYATT and still did not process successfully on all systems.

**System action:** The job terminates due to the setting for ROUTING errors.

**User response:** Review the conditions that caused the command to be unsuccessful and take appropriate action.

---

**CCF7433I    UNAVAILABLE IMS BYPASSED DUE TO ROUTING=IGNORE SPECIFICATION**

**Explanation:** A command has been attempted the number of times specified in RETRYATT and still did not process successfully on all systems.

**System action:** If command store/forward is active, the command is written to the store/forward data set. The job continues processing.

**User response:** Review the conditions that caused the command to be unsuccessful and take appropriate action. If the command is written to the store/forward data set, ensure the REDO BMP runs when the failed IMS is restarted.

---

**CCF7434I    ROUTING=IGNORE ESTABLISHED DUE TO OPERATOR RESPONSE**

**Explanation:** After a command failed due to a routing error, an operator replied S to skip routing errors. For this and all subsequent commands, routing errors are skipped.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7435I    IMS AVAILABILITY RE-VERIFIED DUE TO OPERATOR RESPONSE**

**Explanation:** A command failed due to a routing error and an operator replied R to retry the failed command.

**System action:** The command is tried again.

**User response:** None. This message is informational.

---

**CCF7436I    REQUESTED IMS IS NOT ACTIVE IN THE CSL GROUP**

**Explanation:** A command is being routed to a specific IMS system, but that system is not active in the Common Service Layer group.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7437E    ERROR ATTEMPTING DBRC VALIDATION, VALIDATION BYPASSED**

**Explanation:** An error described by a prior message was encountered during DBRC validation.

**System action:** DBRC validation is not performed and the job proceeds as determined by the prior error condition.

**User response:** Follow the User Response described in prior error message.

**CCF7438E DB OPEN FOR SSID= *ssid* ACC= *access*  
DBD= *database* AREA= *area***

**Explanation:** An IMS /DBD or /DBR command was issued and DBRC validation was requested, but one or more databases are registered in the RECON as being open with an UPDATE intent.

- SSID= shows the subsystem that is using AREA
- ACC= shows the processing intent
- DBD= shows the database
- AREA= shows the AREA name

**System action:** The action taken is determined by the setting for DBRC errors.

**User response:** Review prior messages and determine if the command needs to be reissued.

**CCF7439E DATABASE STILL AUTHORIZED IN  
DBRC, DBD: *dbd***

**Explanation:** An IMS /DBD or /DBR command was issued and DBRC validation was requested, however, one or more databases are still registered in the RECON as being open with UPDATE intent.

**System action:** The action taken is determined by the setting for DBRC errors.

**User response:** Review prior messages and determine if command needs to be reissued.

**CCF7440E DATABASE STILL AUTHORIZED IN  
DBRC, DBD: *dbd* AREA *area***

**Explanation:** An IMS /DBD or /DBR command was issued and DBRC validation was requested, however, one or more AREAs are still registered in the RECON as being open with UPDATE intent.

**System action:** The action taken is determined by the setting for DBRC errors.

**User response:** Review prior messages and determine if command needs to be reissued.

**CCF7441I NO DATABASES OPEN WITH  
UPDATE INTENT**

**Explanation:** DBRC shows that all database commands executed successfully.

**System action:** The job step continues processing.

**User response:** None. This message is informational.

**CCF7442I DBRC VALIDATION SUCCESSFUL**

**Explanation:** DBRC validation successfully completed.

**System action:** Processing continues.

**User response:** None. This message is informational.

**CCF7443W COMMAND BYPASSED DUE TO  
OPERATOR RESPONSE**

**Explanation:** A database failed DBRC validation, the error option DBRC=WTOR is in effect, and the operator replied R to retry the command.

**System action:** The command is tried again.

**User response:** No action is required.

**CCF7444E DBRC MODULE DFSURX00 NOT  
FOUND, BYPASSING DBRC  
PROCESSING**

**Explanation:** DBRC has been requested for either DB verification, or to set ACCESS, but the DBRC load module is not found.

**System action:** The action taken is determined by the DBRC= option.

**User response:** If DBRC usage is required, add IMS SDFSRESL to the STEPLIB. If DBRC usage is not required, set options DBRC=NODBRC.

**CCF7445W CSLOMCMDC RECEIVED RC=*rc*  
RSN=*rsn***

**Explanation:** An error was encountered while attempting a command using the CSLOMCMDC call. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS System Programming APIs*. Correct the reason for the failure and run the job again.

**CCF7446W CSLOMCMDC RECEIVED RC=*rc*  
RSN=*rsn***

**Explanation:** An error was encountered while attempting a command using the CSLOMCMDC call. The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS System Programming APIs*. Correct the reason for the failure and rerun the job.

---

**CCF7447I FOLLOWING COMMAND SAVED IN  
STORE/FORWARD FOR IMS: *ims***

**Explanation:** The following command encountered routing errors on IMS (*ims*) and is saved in the store/forward data set for subsequent processing.

**System action:** The failed command is written to the store/forward data set and processing continues.

**User response:** None. This message is informational.

---

**CCF7448E CSLOMCMD RECEIVED RC= *rc* RSN=  
*rsn***

**Explanation:** An error was encountered while attempting a command using the CSLOMCMD call.

The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Depending on the MODFAIL setting, the job terminates with a user-defined return code or user-defined abend code.

**User response:** The return and reason codes can be found in the *IMS System Programming APIs*. Correct the reason for the failure and run the job again.

---

**CCF7449W MAX RETRY ATTEMPTS REACHED**

**Explanation:** A command has been attempted the number of times specified in RETRYATT and did not complete successfully on all systems.

**System action:** The action taken is dependent on the options in effect for the job.

**User response:** Review the conditions that caused the command to be unsuccessful and take appropriate action.

---

**CCF7450W END OF TABLE ENCOUNTERED  
BUILDING DBRC DB TABLE**

**Explanation:** Option DBACCESS=DBRC was requested, but more databases than expected were found when processing the output of a LIST.DB command. The remaining databases are not added to the DBRC table.

**System action:** The job step continues.

**User response:** The maximum size of the table might need to be increased. Contact the IBM Software Support for information.

---

**CCF7451E MODBLKS READ ROUTINE FAILED**

**Explanation:** Option DBACCESS=GEN was requested, but an error was encountered attempting to read the MODBLKS data set.

**System action:** The job terminates based upon the setting for GENERAL errors. If GENERAL=SETRC, the

job terminates using the value set in SETRC. Otherwise, the job terminates using the user-defined abend code.

**User response:** Using the IMS Command Control Facility ISPF dialog, ensure the IMS System Information in the IMS record is defined correctly.

---

**CCF7452W RETRY NOT ATTEMPTED FOR IMS:  
*ims* - NOT IN CSL GROUP**

**Explanation:** A prior execution of a command failed on *ims*. While attempting a command retry, the system determined that the command should be skipped because *ims* is not active in the Common Service Layer group.

**System action:** Command is bypassed and processing continues.

**User response:** No action is required.

---

**CCF7453W OPERATIONS MANAGER  
DETERMINED COMMAND  
CONTAINED INVALID KEYWORD**

**Explanation:** IMS Command Control Facility batch processor received return code x'02000008' and reason code x'00002004' on a CSLOMCMD call. The return and reason code indicate that IMS Operations Manager determined the keyword specified in the command is invalid.

**System action:** The action taken depends upon the setting for GENERAL errors. The following error settings and actions are possible:

**WTOR** Message CCF7460A will be issued to the z/OS syslog. IMS Command Control Facility batch processing will proceed based upon the operator response to the WTOR.

**SETRC** Terminate the job step using the user-defined return code.

**ABEND**

Terminate the job step using the user-defined abend code.

**IGNORE**

This record is skipped and processing continues as if no error were encountered.

**User response:** Correct the command and run the job again.

---

**CCF7454I COMMAND SKIPPED DUE TO  
GENERAL ERROR SPECIFICATION**

**Explanation:** An error as described in a prior IMS Command Control Facility message was encountered, but IMS Command Control Facility was instructed to skip the error based upon the GENERAL=IGNORE specification.

**System action:** Processing continues as if no error was encountered.

**Programmer response:** Correct the condition described in the prior IMS Command Control Facility messages and run the job again.

---

**CCF7455I    IMS OPERATIONS MANAGER  
DETERMINED COMMAND IS  
INVALID**

**Explanation:** IMS Command Control Facility batch processor received return code x'02000008' and reason code x'00002004' on a CSLOMCMC call. The return and reason code indicate that IMS Operations Manager determined the keyword specified in the command is invalid.

**System action:** The action taken depends upon the setting for GENERAL errors. The following error settings and actions are possible:

**WTOR** Message CCF7460A will be issued to the z/OS syslog. IMS Command Control Facility batch processing will proceed based upon the operator response to the WTOR.

**SETRC** Terminate the job step using the user-defined return code.

**ABEND**  
Terminate the job step using the user-defined abend code.

**IGNORE**  
This record is skipped and processing continues as if no error were encountered.

**User response:** Correct the command and run the job again.

---

**CCF7460A    REPLY "C" TO CANCEL, "S" TO SKIP  
OR "R" TO RETRY COMMAND**

**Explanation:** This message accompanies one of several messages, issued previously, that describe the error encountered.

**System action:** Action taken depends upon the response to this message.

**User response:** Review the accompanying messages and reply to the WTOR accordingly.

---

**CCF7461E    DATA BASE COMMAND  
UNSUCCESSFUL**

**Explanation:** A database command did not execute successfully. This message is accompanied by additional messages.

**System action:** Processing continues.

**User response:** Review the accompanying messages.

---

**CCF7462E    IMS NOT AVAILABLE FOR  
COMMAND:**

**Explanation:** This message precedes message CCF7497I and identifies a command that failed due to a routing error when ROUTING=WTOR is in effect.

**System action:** Processing continues.

| **User response:** See the "User response" section of  
| message "CCF7460A" and take an appropriate action.

---

**CCF7497I    cmd**

**Explanation:** This message follows one of several previously issued messages that describe the error encountered. This message displays the command that encountered the error.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7499I    ONE OR MORE DATA BASES STILL  
HELD IN DBRC**

**Explanation:** DBRC validation has been requested, however, one or more databases are still registered in the RECON and open with update intent. This message is accompanied by CCF7460A.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7500I    CCF OPTIONS DATASET  
INITIALIZATION SUCCESSFUL**

**Explanation:** The options data set utility successfully completed.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF7501W    CCF OPTIONS DATASET ALREADY  
INITIALIZED**

**Explanation:** An attempt was made to initialize the options data set that was previously initialized.

**System action:** The job terminates with a completion code of 4.

**User response:** No action is required.

---

**CCF7502E    CCFODSET DDNAME MISSING**

**Explanation:** The options data set DDNAME, CCFODSET, was not specified in the JCL for this job.

**System action:** The job terminates with a completion code of 16.

**User response:** Correct the JCL and run the job again.

---

**CCF8001W LOAD FAILED FOR CC#OPTS**

**Explanation:** IMS Command Control Facility was unable to load the options data set dynamic allocation member CCF#OPTS.

**System action:** The Message Disposition tables are not loaded or refreshed.

**User response:** Ensure the proper CCF#OPTS member is present in the STEPLIB of the IMS control region.

---

**CCF8002W DYNALLOC FAILED FOR CCFOPTS, RC=*rc*, RSN=*rsn***

**Explanation:** An error was encountered while attempting to dynamically allocate the options data set specified.

**System action:** The Message Disposition tables are not loaded or refreshed.

**User response:** Ensure the proper CCF#OPTS member resides in the IMS control region.

---

**CCF8003W READ FAILED FOR CCFOPTS, RPLFDBK=*rplfdbk***

**Explanation:** An error was encountered reading the options data set. The RPLFDBK is displayed as *rplfdbk*.

**System action:** The Message Disposition tables are not loaded or refreshed.

**User response:** Correct the error caused by the non-zero return code and run the job again.

---

**CCF8004W READ FAILED FOR CCFOPTS, RPLFDBK=*rplfdbk***

**Explanation:** An error was encountered reading the options data set. The RPLFDBK is displayed as *rplfdbk*.

**System action:** The Message Disposition tables are not loaded or refreshed.

**User response:** Correct the error caused by the non-zero return code and run the job again.

---

**CCF8005W READ FAILED FOR CCFOPTS, RPLFDBK=*rplfdbk***

**Explanation:** An error was encountered reading the options data set. The RPLFDBK is displayed as *rplfdbk*.

**System action:** The Message Disposition tables are not loaded or refreshed.

**User response:** Correct the error caused by the non-zero return code and run the job again.

---

**CCF8101I CCFLOGR INITIALIZATION COMPLETE**

**Explanation:** The log stream used by IMS Command Control Facility for its Message Log has successfully completed initialization. The IMS Command Control Facility AOI exit now writes messages to the Message Log.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8102I BAD RETURN CODE FROM NAME/TOKEN SERVICE = *rc***

**Explanation:** An error was encountered trying to create a z/OS name token entry.

**System action:** Processing continues, but the IMS Command Control Facility Message Log is not available for this IMS.

**User response:** Contact the IBM Software Support.

---

**CCF8103I IXGCONN REQUEST=CONNECT ERROR *rc* / *rsn***

**Explanation:** An error was encountered attempting to connect to the log stream used for IMS Command Control Facility Message Log processing using service IXGCONN REQUEST=CONNECT.

**System action:** Processing continues, but the IMS Command Control Facility Message Log is not available for this IMS.

**User response:** Review the IXGCONN return and reason codes contained in *rc* and *rsn*, respectively. Correct the problem and restart IMS.

---

**CCF8104W EXIT *dfsaoe01* NOT LOADED, NO USER AOI EXIT**

**Explanation:** The IMS Command Control Facility AOI exit (DFS AO E00) has attempted to load a user version of the AOI exit (*dfsaoe01*) but none was found. This is an error only if there should be a user version of the AOI exit. The default name for a user AOI exit is DFS AO E01, but this can be overridden in the IMS record in the options data set.

**System action:** Processing continues, but IMS Command Control Facility does not pass messages to a user AOI exit (DFS AO E00). If AOI exit DFS AO E01 is present, IMS Command Control Facility continues to pass messages to it.

**User response:** If a user AOI exit is required, either rename the module to DFS AO E01 or update the IMS record in the options data set to reflect the correct exit name, and restart IMS.

---

**CCF8106I CCF USING LOGSTREAM *lsn***

**Explanation:** This information message display the name of the log stream (*lsn*) used by IMS Command Control Facility for the Message Log.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8107E IXGWRITE ERROR RC=*rc* RSN=*rsn***

**Explanation:** An error was encountered attempting to write a message to the log stream used for the IMS Command Control Facility Message Log.

Processing continues.

**User response:** Review the IXGWRITE return and reason codes contained in *rc* and *rsn*, respectively. Take corrective action based upon the meaning of the return and reason codes.

---

**CCF8109I LOGSTREAM NAME NOT SPECIFIED, CCF MESSAGE LOGGING NOT ACTIVE**

**Explanation:** The log stream name is not specified in the IMS record in the options data set. IMS Command Control Facility Message Log is not active for this execution of IMS.

**System action:** Processing continues but the IMS Command Control Facility Message Log is not active.

**User response:** If IMS Command Control Facility Message Log processing is required, use the IMS Command Control Facility ISPF dialog to specify the name of the log stream in the IMS record, and restart IMS.

---

**CCF8202I ARCHIVE STARTED FOR LSN=*lsn***

**Explanation:** The IMS Command Control Facility Message Log archive utility has started processing log stream (*lsn*).

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8203E ERROR OPENING DD SYSIN**

**Explanation:** An error was encountered attempting to open DDNAME SYSIN. Additional messages might be displayed on the z/OS Syslog.

**System action:** The job terminates with a completion code of 12.

**User response:** Add DDNAME SYSIN and run the job again.

---



---

**CCF8204E ERROR OPENING DD SYSPRINT**

**Explanation:** An error was encountered attempting to open DDNAME SYSPRINT. Additional messages might be displayed on the z/OS Syslog.

**System action:** The job is terminated with completion code 12.

**User response:** Add DDNAME SYSPRINT and run the job again.

---

**CCF8205E ERROR OPENING DD LOGOUT**

**Explanation:** An error was encountered attempting to open DDNAME LOGOUT. Additional messages might be displayed on the z/OS Syslog.

**System action:** The job is terminated with a completion code of 12.

**User response:** Add DDNAME LOGOUT and run the job again.

---

**CCF8206I CCF LOGGER ARCHIVE COMPLETE**

**Explanation:** The IMS Command Control Facility Message Log archive utility successfully completed.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8207I NO LOG RECORDS TO ARCHIVE**

**Explanation:** There were no records in the IMS Command Control Facility Message Log that met the specified search criteria.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8208E ERROR ON *service* / *request* RC=*rc*, RSN=*rsn***

**Explanation:** An error was encountered attempting a z/OS logger service (*service*). The return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** The job terminates with a completion code of 12.

**User response:** Examine the return and reason codes for the failed service, take corrective action, and run the job again.

---

**CCF8250E INPUT PARM MUST START IN COL 1 OR 2**

**Explanation:** A record read from DDNAME SYSIN did not contain recognizable data. CCFARCH0 expects control cards to start in column 1 or 2.

**System action:** The job terminates with a completion code of 12.

---



**User response:** Correct the control card and run the job again.

---

**CCF8251E PREVIOUS RECORD CONTAINS INVALID DATA**

**Explanation:** An error was encountered editing a previous input record.

**System action:** This job terminates with a completion code of 12.

**User response:** Correct the control card and run the job again.

---

**CCF8252E VALID LSN= PARAMETER NOT SPECIFIED**

**Explanation:** The IMS Command Control Facility Message Log archive utility completed reading all control cards, but the required log stream name data was not specified.

**System action:** The job terminates with a return code of 12.

**User response:** Add a log stream name control card and run the job again.

---

**CCF8253E RECS= CANNOT BE SPECIFIED WITH DATE OR HOURS=**

**Explanation:** The IMS Command Control Facility Message Log archive utility encountered conflicting control cards. If specifying the number of records (RECS=) to offload, the DATE and HOURS= parameters are invalid.

**System action:** The job terminates with a completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8254E COLUMN 72 NOT BLANK**

**Explanation:** The IMS Command Control Facility Message Log archive utility does not support data in column 72.

**System action:** The job terminates with completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8255E LSN= PARAMETER SPECIFIED MORE THAN ONCE**

**Explanation:** The LSN= control card was specified more than once in DDNAME SYSIN.

**System action:** The job terminates with completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8256E VALUE NOT SPECIFIED FOR LSN= PARM**

**Explanation:** The LSN= parameter did not contain a log stream name.

**System action:** The job terminates with completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8257E HOURS= VALUE SPECIFIED MORE THAN ONCE**

**Explanation:** The HOURS= control card was specified more than once in DDNAME SYSIN.

**System action:** The job terminates with completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8258E HOURS= MUST BE A 1 OR 2 CHARACTER NUMERIC VALUE**

**Explanation:** A non-numeric value has been specified for the HOURS= parameter. Valid values are 01 – 24.

**System action:** The job terminates with completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8259E HOURS= MUST BE IN THE RANGE OF 1 - 24**

**Explanation:** An invalid value was specified for the HOURS= parameter. Valid values are 01 – 24.

**System action:** The job terminates with a completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8260E RECS= ALREADY SPECIFIED**

**Explanation:** The RECS= control card was specified more than once in DDNAME SYSIN.

**System action:** The job terminates with a completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8261E RECS= MUST BE A 1 - 6 CHARACTER NUMERIC VALUE**

**Explanation:** A non-numeric value was specified in the RECS= parameter. Valid values are 1-999999.

**System action:** The job terminates with a completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8262E RECS= MUST BE IN THE RANGE OF 1 - 999999**

**Explanation:** An invalid value was specified in the RECS= parameter. Valid values are 1-999999.

**System action:** The job terminates with a completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8263E "ALL" PARAMETER NOT VALID WITH RECS=, HOURS= OR DATE**

**Explanation:** An invalid control card combination has been encountered. The ALL parameter is not valid with any other DUMP amounts.

**System action:** The job terminates with a completion code of 12.

**User response:** Correct the control cards and run the job again.

---

**CCF8264I DUMP TYPE NOT SPECIFIED, DEFAULT OF DUMP BY DATE USED**

**Explanation:** None of the dump amount options were specified in the control cards read from DDNAME SYSIN. The default dump amount of DATE is used.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8266E PARM CONFLICT - "MAX" NOT ALLOWED WHEN OTHER PARMS ARE SPECIFIED**

**Explanation:** A control card conflict has been detected. When control card MAX is specified, no other control cards that define the amount of data to be archived are allowed.

**System action:** The archive utility terminates with a return code of 12.

**User response:** Correct the control card conflict and run the job again.

---

**CCF8301I CCFREFRESH COMPLETE**

**Explanation:** A /LOG CCFREFRESH command was entered and the IMS Command Control Facility Message Disposition table refresh completed successfully.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8302E CCF LOGGER CONNECT FAILED, RC=*rsn*, RSN=*rsn***

**Explanation:** An error occurred attempting to connect the IMS Command Control Facility Message Log log stream. The IXGCONN return and reason codes are contained in *rc* and *rsn*, respectively.

**System action:** Processing continues.

**User response:** Review the IXGCONN return and reason codes contained in *rc* and *rsn*, respectively. Correct the problem and restart IMS.

---

**CCF8406I CCF LOGSTREAM CONNECTED**

**Explanation:** IMS Command Control Facility message log initialization completed successfully.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8407I CCF WAITING FOR LOGSTREAM FORMATTING**

**Explanation:** To complete log stream formatting, IMS Command Control Facility is waiting for the "LOGGING STARTED" message to be written to the log stream.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF8408I CCF WAITED *n* OF 240 SECONDS**

**Explanation:** IMS Command Control Facility is waiting for the completion of log stream formatting for *n* seconds of 240 seconds.

To complete log stream formatting, IMS Command Control Facility is waiting for the "LOGGING STARTED" message to be written to the log stream.

**System action:** Processing continues.

**User response:** None. This message is informational.

---

**CCF9521W NO RECORDS RETURNED**

**Explanation:** There were no records in the store/forward data set for the specified IMS.

**System action:** The IMS Command Control Facility  
ISPF dialog continues.

**User response:** No action is required.



---

## Chapter 15. Gathering diagnostic information

Before you report a problem with IMS Command Control Facility to IBM Software Support, you need to gather the appropriate diagnostic information.

For each IMS Command Control Facility problem, be prepared to provide the following information:

- 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
- IMS Command Control Facility release number and the number of the last program temporary fix (PTF) that was installed
- The version of IMS that you are using and the type and version of the operating system that you are using

Additionally, because problem types vary, different information is required for different problem types.

### **Problem type 1: When IMS Command Control Facility appears to have incorrectly processed**

Provide the following types of data:

- The entire job output including JCL, control cards, allocation messaging, and reports
- Output from any diagnostic report (if it is requested)
- Any other material that indicates a discrepancy between results that were expected and the results that were created
- An IDCAMS print of the CCF OPTIONS data set

### **Problem type 2: When IMS Command Control Facility ends abnormally**

Provide the following types of data:

- The entire failing job output, including SYSUDUMP output, JCL, control cards, allocation messaging, and reports
- Output from any diagnostic report (if it is requested)
- A console hardcopy of events that might indicate the reason for the product failure
- Screen prints or line commands that demonstrate the product failure
- Special DUMP or TRACE information might be requested in some instances
- An IDCAMS print of the CCF OPTIONS data set

### **Additional information that needs to be provided**

You need to provide additional information based on the type of problem that you experienced:

**For online abends, provide the following information:**

- A screen shot 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 any data sets that were used during the processing

---

## Part 5. Reference

The topics in this section provide you with technical references for the IMS Command Control Facility product.

This reference section contains the following information:

**Topics:**

- Chapter 16, “ISPF dialog reference,” on page 169
- Chapter 17, “APPC/MVS routing technique,” on page 201
- Chapter 18, “Wildcard support,” on page 209
- Chapter 19, “How to read syntax diagrams,” on page 215





---

## Chapter 16. ISPF dialog reference

This reference section describes how to use the ISPF dialog for IMS Command Control Facility.

Topics:

- “ISPF dialog overview” on page 170
- “Invoking the ISPF dialog” on page 171
- “Primary Option Menu” on page 172
- “Global Options panel” on page 174
- “Job Options panel” on page 179
- “IMS System Information panel” on page 184
- “Group IMSID List panel” on page 188
- “Message Disposition Update panel” on page 191
- “Deleting Store and Forward command records” on page 194
- “Viewing the message log” on page 196
- “IMS Command panel” on page 199
- “Troubleshooting ISPF dialog problems” on page 200

---

## ISPF dialog overview

IMS Command Control Facility provides an ISPF interface that allows you to perform most administrative functions required to use IMS Command Control Facility. Additionally, the ISPF dialog provides various auditing and operational capabilities.

### General usage

Like most ISPF dialogs, you generally invoke the dialog by entering a command or selecting the dialog from a master option. The first panel displayed for this dialog is a primary options menu, from which you type a primary menu selection and press the **Enter** key.

- If your primary menu selection is an administrative option, you will usually see a selection list panel where you must make a selection. If all possible selections cannot be displayed on one panel, you can continue to scroll down the selection list to see more selections by entering the **DOWN** command at the **option ===>** prompt, followed by pressing the **Enter** key (usually your PF8 key has been assigned to this function).
- It might be necessary to review selections shown on previous panels by entering the **UP** command at the **option ===>** prompt and pressing the **Enter** key (usually your PF7 key has been assigned to this function).
- If no selection is necessary, you must enter the **END** command at the **option ===>** prompt and press the **Enter** key (usually your PF3 key has been assigned to this function).
- If you make a selection, press the **Enter** key to display the updated panel. If any updates are required, press the **Enter** key to see the **SAVED** message in the corner of the panel.
- When all review/update activities are complete, enter the **END** command.
- Sometimes error messages appear in the corner of the panel and interrupt your dialog. To display more information about the error or warning, enter the **HELP** command at the **option ===>** prompt and press the **Enter** key (usually your PF1 key has been assigned to this function).
- Depending on the type of panel displayed, you might need to enter the **END** command and press **Enter**, or just press the **Enter** key to continue, depending on any instructions given.

### Program function (PF) keys

Some basic commands used in ISPF dialogs in general can be assigned to your PF keys. This is also true for IMS Command Control Facility dialogs. To review any existing assignments, you can enter the **KEYS** command at the **option ===>** prompt and press **Enter** to view the assignments and make any changes.

Typical settings for ISPF panels include:

- PF3/PF15 (to go back)
- PF7/PF19 and PF8/PF20 (to scroll backward and forward)
- PF4/PF16 (to return)
- PF1 (help)

---

## Invoking the ISPF dialog

The IMS Command Control Facility ISPF dialog component can be invoked by different methods, depending on how you installed the component.

- Execute the startup REXX EXEC in SCCFEXEC(CCFXISPF).
- Select the **CCF** option from a primary option ISPF panel.

## Primary Option Menu

This section describes the IMS Command Control Facility Primary Option Menu.

```
Menu
-----
                                CCF Primary Option Menu
Option ==>

CCF VSAM Options Data Set:
Data Set Name . . . PRODIM.S.CCF.OPTIONS

1 Global   Specify Global Options
2 Job      Specify Job Options
3 IMS      Define IMS Systems
4 Group    Define CCF Group
5 Edit STF Edit Command Store/Forward Data Set
6 MSG Disp Edit DFSA0E00 Message Disposition table
7 LOG View View Combined Message Log

C CMD      Issue IMS Commands
X Exit     Terminate Dialog
```

Figure 5. Primary Option Menu

Type in one of the following options and press **Enter**.

Table 6. Primary Option Menu selections

Option	Description
1	<p>Specify global options that allow you to set installation defaults for all batch job steps executing the IMS Command Control Facility batch utility.</p> <p>Standard abend and return code defaults, as well as error condition handling are specified from this option. In addition, if all of your IMS systems are not APPC/IMS enabled or IMS OM enabled, the TP name that is used to communicate with DBCTL and IMS/TM systems through the z/OS scheduled remote BMP is specified from this option.</p>
2	<p>Specify job options that allow you to setup unique job-specific processing options for specific jobnames, or jobnames matching a generic jobmask entry for related jobs with similar processing requirements.</p>
3	<p>Define IMS systems enabling IMS Command Control Facility to issue IMS commands to them.</p> <p>Use this option to collect the information that IMS Command Control Facility needs to determine whether the IMS system is enabled for either the IMS Operations Manager or APPC/IMS. Additionally, use this option to collect information about the IMS release, network LU names, and APPC/IMS symbolic destination names.</p>
4	<p>Define IMS Command Control Facility groups consisting of multiple IMS systems with similar processing characteristics so that IMS Command Control Facility can issue commands synchronously to all of the grouped IMS systems.</p> <p>A IMS Command Control Facility group can consist of up to 64 IMS systems logically related in any required fashion for your installation. Because an IMS system can be a member of multiple groups, processing by IMS Command Control Facility group name can be as flexible as required.</p>

*Table 6. Primary Option Menu selections (continued)*

Option	Description
5	<p>Edit the command store and forward data set.</p> <p>If you are using the command store and forward feature, this option allows you to manually delete commands that should not be executed on a particular IMS system by the REDO BMP utility at its next execution, usually after an IMS restart.</p>
6	<p>Edit the DFSAOE00 message disposition table.</p> <p>If you have installed the optional CCFAOE00 AOI, this option allows you to suppress certain message IDs and optionally create AOI token names that can be used by your various installation-developed automation routines.</p>
7	<p>View the message log.</p> <p>The message log consists of all messages routed to the IMS master terminal, in addition to most commands and associated command responses issued by users and batch utilities.</p> <p>Optionally, commands and associated command responses from the IMS Operations Manager can be saved in the message log.</p>
C	<p>Issue IMS commands directly from ISPF.</p> <p>These commands can be issued to either an individual IMS (defined under option 3) or a group of IMS regions (defined under option 4).</p>
X	<p>Terminate the IMS Command Control Facility ISPF dialog.</p>

## Global Options panel

This section describes the IMS Command Control Facility Global Options panel.

To display the Global Options panel, you must select option 1 from the Primary Option Menu.

```
-----
                                CCF Global Options
Command ==>                                Scroll ==> CSR
                                           More:      +

General Processing Options:
CCF Input DDNAME : CCFSYSIN
CCF Output DDNAME: CCFLIST

APPC/STC TName: CCF.DBCTL.BMP

Command Retry Options:           Abend/RC Failure Settings:
Attempts ..... 02              Abend Code .... 4094
Interval (Sec) .... 002        Return Code ... 0012

Failure Options:
General:           Routing:           DFS0488I:           DBRC:
1 1 ABEND          1 1 ABEND          1 1 ABEND          1 1 ABEND
2 Return Code      2 Return Code      2 Return Code      2 Return Code
3 Issue WTOR       3 Issue WTOR       3 Issue WTOR       3 Issue WTOR
4 Ignore           4 Ignore           4 Ignore           4 NODBRC

/CCFMODE Options:

/CCFMODE Failures:
1 1 ABEND
2 Return Code

/CCFMODE COMMIT Reversal? (Y/N) ...: N

Database Options:

Valid DFS0488I Return Codes:
01 02 03 04 05 00 00 00 00 00 00 00 00 00 00 00 00 00

Valid IMS OM Return Codes:
30  40  50

/START DB ACCESS
1 1 Use SYSGEN
2 Use DBRC
3 As coded

WTO Database command? .....: N   (Y/N)
Expand DATAGRP commands? .....: Y   (Y/N)
Treat DFS3466I as an error? .....: Y   (Y/N)
Add NOFEQV to /DBD and /DBR? .....: Y   (Y/N)
Add NOFEQV to ISPF commands? .....: Y   (Y/N)
Use DB pre-scan for remote STC? .....: Y   (Y/N)
Use GENERAL option for syntax errors?...: Y   (Y/N)
Set rc/ABEND when DB/AREA ALL fails?...: (Y/N)

To save the changes, press ENTER
To ignore the changes, enter END
```

Figure 6. Global Options panel

The following information can be specified from the Global Options panel. Press the **Enter** key to save any changes before entering the **END** command to return to the Primary Option Menu.

*Table 7. General Processing Options*

Option	Description
CCF Input ddname	The ddname used to define the data set or instream command input to the IMS Command Control Facility batch process.  Except for SYSIN or SYSPRINT, there are no restrictions on the name that can be defined. This could facilitate the use of existing JCL to avoid unnecessary conversions.
CCF Output ddname	The ddname that defines the output data set where all issued commands and output are displayed.  Except for SYSIN or SYSPRINT, there are no restrictions on the name that can be chosen. This also could facilitate the use of existing JCL to avoid unnecessary conversions.
APPC/STC TPNAME	Specify a 1-59 byte name for the TP Name to be used to issue commands to a non-APPC enabled IMS System.

*Table 8. Command Retry Options*

Option	Description
Attempts	IMS Command Control Facility retries unsuccessful database commands up to the number specified (0-99). If 00 is chosen, no retry is attempted. Use this parameter in conjunction with the Command Retry Interval.
Interval	IMS Command Control Facility will wait to retry unsuccessful database commands for the specified number of seconds (from 1-999). If 000 is chosen, retry is attempted immediately. Use this parameter in conjunction with the Command Retry Attempts.

*Table 9. Abend/RC Failure Options*

Option	Description
Abend Code	For any error condition that should result in an abend of the executing job step, select a number from 0 thru 4095 to specify the user completion code.
Return Code	For any error condition that should not result in an abend of the executing job step, select a number from 0 thru 4095 to specify the job step condition code.

*Table 10. Failure Options - General.* You can instruct IMS Command Control Facility how to handle any other unexpected error condition by specifying one of the following options.

Option	Description
1 ABEND	Abend after an unexpected return code.
2 Return Code	Set a non-zero job step condition code after an unexpected return code.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after an unexpected return code.
4 Ignore	Ignore the error.

*Table 11. Failure Options - Routing.* You can instruct IMS Command Control Facility how to handle APPC/IMS or IMS OM routing error conditions by specifying one of the following options.

Option	Description
1 ABEND	Abend after an unexpected error from using APPC/IMS or IMS OM.

*Table 11. Failure Options - Routing (continued).* You can instruct IMS Command Control Facility how to handle APPC/IMS or IMS OM routing error conditions by specifying one of the following options.

Option	Description
2 Return Code	Set a non-zero job step condition code after an unexpected error from using APPC/IMS or IMS OM.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after an unexpected error from using APPC/IMS or IMS OM.
4 Ignore	Ignore the error.

*Table 12. Failure Options- DFS0488I.* You can instruct IMS Command Control Facility how to handle an unacceptable return code by specifying one of the following options.

Option	Description
1 ABEND	Abend after an unexpected return code.
2 Return Code	Set a non-zero job step condition code after an unexpected return code.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after an unexpected return code.
4 Ignore	Ignore the error.

*Table 13. Failure Options - DBRC.* When option 1, 2 or 3 is selected, IMS Command Control Facility verifies the state of the database in DBRC after /DBD and /DBR commands. Options 1, 2, and 3 instruct IMS Command Control Facility how to proceed if a database is still open with update intent by any subsystem after the commands have completed. Option 4 sets DBRC validation off.

Option	Description
1 ABEND	Abend after a database command is issued which shows the database in an unexpected status.
2 Return Code	Set a non-zero job step condition code after a database command is issued which shows the database in an unexpected status.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after a database command is issued that shows the database in an unexpected status.
4 NODBRC	Do not use DBRC to verify the status of the database.

*Table 14. /CCFMODE Options.* You can instruct IMS Command Control Facility how to handle error conditions when attempting to use the /CCFMODE online change procedure.

Option	Description
1 ABEND	If an unexpected error condition occurs while attempting to use the /CCFMODE online change procedure, IMS Command Control Facility should abend the job.
2 Return Code	If an unexpected error condition occurs while attempting to use the /CCFMODE online change procedure, IMS Command Control Facility should terminate the job step with a non-zero return code.
/CCFMODE COMMIT Reversal	If Y is specified for this option, IMS Command Control Facility will attempt to undo any successfully completed online change if an online change error has occurred on at least one the IMS systems in the IMS Command Control Facility group where the /CCFMODE online change procedure is being attempted.  If N is specified, no reversal will be attempted.



**Table 15. Database Options - Return Codes.** If there are non-zero return codes that are acceptable for database commands, up to 20 non-zero return codes can be specified from DFS0488I messages, or up to 5 status codes can be returned from IMS OM. When IMS Command Control Facility encounters one of these return codes, IMS Command Control Facility treats the command as successfully completed.

Option	Description
Valid DFS0488I Return Codes	Specify 1-20 acceptable non-zero return codes.
Valid IMS OM Return Codes	Specify 1-5 acceptable non-zero return codes.

**Table 16. Database Options - /START DB ACCESS.** If you want IMS Command Control Facility to determine the database access mode when a /START DB command with the ACCESS=UP parameter is issued, specify one of the following three options.

Option	Description
1 Use SYSGEN	IMS Command Control Facility reads your staging MODBLKS data set to determine access based on how the database stage 1 macro was coded.
2 Use DBRC	IMS Command Control Facility reviews the output of a LIST.DB command to determine the access of the database.  If the database was defined with sharelvl(3), IMS Command Control Facility issues /STA DB x ACCESS=UP on all systems.  If sharelvl (1 or 2), IMS Command Control Facility issues /STA DB x ACCESS=UP on the primary IMS (where the BMP is attached or the IMSID for either DL/I or standard batch is defined) and issues /STA DB x ACCESS=R* on the remaining IMS regions.
3 As coded	IMS Command Control Facility processes the command as it is coded.

**Table 17. Database Options - Questions**

Option	Description
WTO Database command?	For IMS/TM systems only, specify either Y or N if database commands should be displayed in SYSLOG through WTO.
Expand DATAGRP commands?	Specify Y if IMS Command Control Facility should issue individual commands for each database defined to a DBRC database group instead of issue database commands with the DATAGRP keyword.  Specify N if database commands with the DATAGRP keyword should be issued by IMS Command Control Facility as coded.
Treat DFS3466I as an error?	Specify either Y or N if IMS Command Control Facility should treat any DFS3466I message as an error condition after any database command.
Add NOFEOV to /DBD and /DBR?	Specify either Y or N if IMS Command Control Facility should append the NOFEOV keyword after any /DBR or /DBD command.
Add NOFEOV to ISPF commands?	Specify either Y or N if IMS Command Control Facility should append the NOFEOV keyword after any /DBD or /DBR command entered from the ISPF dialog.

*Table 17. Database Options - Questions (continued)*

Option	Description
Use DB pre-scan for remote STC?	Specify either Y or N if IMS Command Control Facility should check the status of a database before a database command is issued and bypass issuing the command if the database is already showing in the required target status.
Use GENERAL option for syntax errors?	Specify either Y or N if IMS Command Control Facility should use the GENERAL error setting to determine how to proceed when a command receives a DFS107I response from IMS.
Set rc/ABEND when DB/AREA ALL fails?	Specify Y or N if IMS Command Control Facility should analyze responses to Database/AREA commands when the ALL parameter is used.

## Job Options panel

This section describes the IMS Command Control Facility Job Options panel.

### Job List panel

To add, change or delete job options records, you must select option 2 from the Primary Option Menu. The Job List panel is displayed.

```

-----
Row 1 to 10 of 10
-----
CCF Job List
Command ==>
Scroll ==> CSR

Specify a list action or enter a command.
Actions:  E - Edit      B - Browse  C - Copy   D - Delete
Commands: A - Add

List      Jobname/
Action    JobMask
-----
| | | | | DBAUDIT*
| | | | | DBIMAGE1
| | | | | DBIMAGE2
| | | | | DBPTR***
| | | | | DBREORG1
| | | | | DBREORG2
| | | | | DBSYNCP1
| | | | | DBSYNCP2
| | | | | DB*****
| | | | | TSTDB***
***** Bottom of data *****
```

Figure 7. Job List panel

Type in one of the following options and press **Enter**.

Table 18. Job List selections

Option	Description
A	<p>Add a job options record by keying the letter A at the command prompt of the job selection panel and pressing the <b>Enter</b> key.</p> <p>The Job Options update panel is displayed where you can specify options for the record being added.</p>
B	<p>Browse an existing job options record by keying the letter B under the <b>List Action</b> column on the line that is next to the <b>Jobname/Jobmask</b> of the required job record.</p> <p>The Job Options update panel is displayed. No changes can be made to a job options record when browsing.</p>
C	<p>Copy an existing job options record by keying the letter C under the <b>List Action</b> column on the line that is next to the <b>Jobname/Jobmask</b> of the required job record.</p> <p>The Job Options update panel is displayed where you can specify options for the record being added.</p>
D	<p>Delete an existing job options record by keying the letter D under the <b>List Action</b> column on the line that is next to the <b>Jobname/Jobmask</b> of the required job options record.</p> <p>After pressing the <b>Enter</b> key, the message DELETED should appear next to the selected job options record being deleted.</p>

Table 18. Job List selections (continued)

Option	Description
E	Change an existing job options record by keying the letter E under the <b>List Action</b> column on the line that is next to the <b>Jobname/Jobmask</b> of the required job record.  The Job Options update panel is displayed where you can change options for the selected record.

## Job Options information

The Job Options panel is displayed after entering one of the following options from the Job List panel:

- A - to add a job options record
- B - to browse a job options record
- C - to copy a job options record
- E - to edit a job options record

```

-----
Command ==>                                CCF Job Options                                Scroll ==> CSR
Jobname/JobMask .....:                                More:      +

Command Retry Options:                                Abend/RC Failure Settings:
Attempts ..... 00                                Abend Code .... 4094
Interval (Sec) .... 101                            Return Code ... 0012

Failure Options:
General:                                Routing:                                DFS0488I:                                DBRC:
2 1 ABEND                                2 1 ABEND                                4 1 ABEND                                4 1 ABEND
2 Return Code                            2 Return Code                            2 Return Code                            2 Return Code
3 Issue WTOR                             3 Issue WTOR                             3 Issue WTOR                             3 Issue WTOR
4 Ignore                                 4 Ignore                                 4 Ignore                                 4 NODBRC

Database Options:
Valid DFS0488I Return Codes:
04 99 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00

Valid IMS OM Return Codes:
____ _

/START DB ACCESS
1 1 Use SYSGEN
2 Use DBRC
3 As coded

WTO Database command? .....: Y

To save the changes, press ENTER
To ignore the changes, enter END

```

Figure 8. Job Options panel

The following information can be specified from the Job Options panel. Press the **Enter** key to save any changes before entering the **END** command to return to the Primary Option Menu.

*Table 19. Jobname/Jobmask Option*

Option	Description
Jobname/Jobmask	Specify a jobname of 1 to 8 bytes or a mask of 1 to 8 bytes containing asterisks (*).  Each * represents any valid character used for jobname.

*Table 20. Command Retry Options*

Option	Description
Attempts	IMS Command Control Facility will retry unsuccessful database commands up to the number specified (0-99). If 00 is chosen, no retry is attempted. Use this parameter in conjunction with the Command Retry Interval.
Interval	IMS Command Control Facility will wait to retry unsuccessful database commands for the specified number of seconds (from 1-999). If 000 is chosen, retry is attempted immediately. Use this parameter in conjunction with the Command Retry Attempts.

*Table 21. Abend/RC Failure Options*

Option	Description
Abend Code	For any error condition that should result in an abend of the executing job step, select a number from 0 thru 4095 to specify the user completion code.
Return Code	For any error condition that should not result in an abend of the executing job step, select a number from 0 thru 4095 to specify the job step condition code.

*Table 22. Failure Options - General.* You can instruct IMS Command Control Facility how to handle any other unexpected error condition by specifying one of the following options.

Option	Description
1 ABEND	Abend after an unexpected return code.
2 Return Code	Set a non-zero job step condition code after an unexpected return code.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after an unexpected return code.
4 Ignore	Ignore the error.

*Table 23. Failure Options - Routing.* You can instruct IMS Command Control Facility how to handle APPC/IMS or IMS OM routing error conditions by specifying one of the following options.

Option	Description
1 ABEND	Abend after an unexpected error from using APPC/IMS or IMS OM.
2 Return Code	Set a non-zero job step condition code after an unexpected error from using APPC/IMS or IMS OM.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after an unexpected error from using APPC/IMS or IMS OM.
4 Ignore	Ignore the error.

*Table 24. Failure Options - DFS0488I.* You can instruct IMS Command Control Facility how to handle an unacceptable return code by specifying one of the following options.

Option	Description
1 ABEND	Abend after an unexpected return code.
2 Return Code	Set a non-zero job step condition code after an unexpected return code.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after an unexpected return code.
4 Ignore	Ignore the error.

*Table 25. Failure Options - DBRC.* When option 1, 2 or 3 is selected, IMS Command Control Facility verifies the state of the database in DBRC after /DBD and /DBR commands. Options 1, 2 and 3 instruct IMS Command Control Facility how to proceed if a database is still open with update intent by any subsystem after the commands have completed. Option 4 sets DBRC validation off.

Option	Description
1 ABEND	Abend after a database command is issued which shows the database in an unexpected status.
2 Return Code	Set a non-zero job step condition code after a database command is issued which shows the database in an unexpected status.
3 Issue WTOR	Issue a WTOR and wait for an operator reply to determine the course of action after a database command is issued that shows the database in an unexpected status.
4 NODBRC	Do not use DBRC to verify the status of the database.

*Table 26. Database Options - Return Codes.* If there are non-zero return codes that are acceptable for database commands, up to 20 non-zero return codes can be specified from DFS0488I messages, or up to 5 status codes can be returned from IMS OM. When IMS Command Control Facility encounters one of these return codes, IMS Command Control Facility treats the command as successfully completed.

Option	Description
Valid DFS0488I Return Codes	Specify 1-20 acceptable non-zero return codes.
Valid IMS OM Return Codes	Specify 1-5 acceptable non-zero return codes.

*Table 27. Database Options - /START DB ACCESS.* If you want IMS Command Control Facility to determine the database access mode when a /START DB command with the ACCESS=UP parameter is issued, specify one of the following three options.

Option	Description
1 Use SYSGEN	IMS Command Control Facility reads your staging MODBLKS data set to determine access based on how the database stage 1 macro was coded.

*Table 27. Database Options - /START DB ACCESS (continued).* If you want IMS Command Control Facility to determine the database access mode when a /START DB command with the ACCESS=UP parameter is issued, specify one of the following three options.

Option	Description
2 Use DBRC	<p>IMS Command Control Facility reviews the output of a LIST.DB command to determine the access of the database.</p> <p>If the database was defined with sharelvl(3), IMS Command Control Facility issues /STA DB x ACCESS=UP on all systems.</p> <p>If sharelvl (1 or 2), IMS Command Control Facility issues /STA DB x ACCESS=UP on the primary IMS (where the BMP is attached or the IMSID for either DL/I or standard batch is defined) and issues /STA DB x ACCESS=R* on the remaining IMS regions.</p>
3 As coded	IMS Command Control Facility processes the command as it is coded.

*Table 28. Database Options - Question*

Option	Description
WTO Database command?	For IMS/TM systems only, specify either Y or N if database commands should be displayed in SYSLOG through WTO.

## IMS System Information panel

This topic describes the IMS Command Control Facility IMS System Information panel.

### IMS System List panel

To add, change or delete IMS records, you must select option 3 from the Primary Option Menu. The IMS System List panel is displayed.

Row 1 to 6 of 6

-----

CCF IMS System List

Command ==> Scroll ==> CSR

Specify a list action or enter a command.

Actions: E - Edit B - Browse C - Copy D - Delete

Commands: A - Add

List Action	IMSID	Default CCFGroup	Command Routing Info
.....	IMSP	PRODIMS	IMS OM=IMSPX
.....	IMSQ	PRODIMS	IMS OM=IMSPX
.....	IMSR	PRODIMS	IMS OM=IMSPX
.....	IMST		APPC SYM=IMSTAPPC
.....	IMSU		APPC SYM=IMSUAPPC
.....	IMSV		MVS SYMD=IMSVDBC

\*\*\*\*\* Bottom of data \*\*\*\*\*

Figure 9. IMS System List panel

Type in one of the following options and press **Enter**.

Table 29. IMS System List selections

Option	Description
A	<p>Add an IMS record by keying the letter A at the command prompt of the IMS system list panel and pressing the <b>Enter</b> key.</p> <p>The IMS System Information update panel is displayed where you can specify IMS system options for the IMS record being added.</p>
B	<p>Browse an existing IMS record by keying the letter B under the <b>List Action</b> column on the line that is next to the IMSID of the required IMS record.</p> <p>The IMS System Information update panel is displayed. No changes can be made to the IMS record when browsing.</p>
C	<p>Copy an existing IMS record by keying the letter C under the <b>List Action</b> column on the line that is next to the IMSID of the required IMS record.</p> <p>The IMS System Information update panel is displayed where you can specify IMS system options for the IMS record being added.</p>
D	<p>Delete an existing IMS record by keying the letter D under the <b>List Action</b> column on the line that is next to the IMSID of the required IMS record.</p> <p>After pressing the <b>Enter</b> key, the message DELETED is displayed to the right of the selected IMS record being deleted.</p>
E	<p>Change an existing IMS record by keying the letter E under the <b>List Action</b> column on the line that is next to the IMSID of the required IMS record.</p> <p>The IMS System Information update panel is displayed where you can change IMS system options for the selected IMS record.</p>



## IMS System Information

The IMS System Information panel is displayed after entering one of the following options from the IMS system list panel:

- A - to add an IMS system information record
- B - to browse an IMS system information record
- C - to copy an IMS system information record
- E - to edit an IMS system information record

```
-----
Command ==>          CCF IMS System Information          Scroll ==> CSR
IMSID ..... IMSV

Command Routing Technique:
2 1 - APPC/IMS - SYMDEST:          PLU:          MODE:
  2 - APPC/MVS - SYMDEST: IMSVDBC  PLU:          MODE:
  3 - IMS OM   - Plex:...

Default CCF Group ....

IMS System Information:
DFSVMUC Suffix ..... V
MODBLKS DSNNAME ..... IMSV.MODBLKS
Release ..... 0910

DFSABOE00 Information:
CCF Logger Name ..... TESTIMS.LOGGER
User DFSABOE00 Name .... TSTABOE91
Msg Disp Table Name ... TESTMSGD
```

Figure 10. IMS System Information panel

The following information can be specified from the IMS System Information panel. Press the **Enter** key to save any changes before entering the **END** command to return to the Primary Option Menu.

Table 30. IMSID Option

Option	Description
IMSID	Enter the 4-character IMS subsystem name for the system being defined.

For Command Routing Technique, select one of the following options:

### APPC/IMS

Command Control Facility uses APPC to communicate directly with IMS to issue IMS commands through APPC/IMS. Specification of option 1 (APPC/IMS) requires specification of either the SYMDEST field or the PLU and MODE fields.

### APPC/MVS

Command Control Facility uses APPC/MVS to schedule a remote BMP in an APPC initiator on the same MVS LPAR as this IMS system. Specification of option 2 (APPC/MVS) requires specification of either the SYMDEST field or the PLU and MODE fields.

## IMS OM

Command Control Facility uses IMS Operations Manager (OM) to issue IMS commands. Specification of option 3 (IMS OM) requires specification of the PLEX name.

When you specify APPC/IMS or APPC/MVS, you must also specify either the SYMDEST or the PLU and MODE fields. If you specify the SYMDEST, you can also specify PLU or MODE fields, which overrides the PLU or MODE defined by the SYMDEST entry.

*Table 31. Command Routing Technique Options - APPC/IMS*

Option	Description
SYMDEST	The SYMDEST is an APPC Symbolic Destination defined in the APPC Side Info data set. A symbolic destination is a 1 - 8 character name that defines both the Partner Logical Unit (PLU) name and a Mode table entry name.
PLU	The PLU, or Partner Logical Unit name, is a 1 - 17 character fully qualified Network Name. For a APPC/IMS Routing Technique entry, this value is the IMS APPC LU name. For an APPC/MVS Routing Technique entry, this value is the APPC/MVS base LU name on the MVS LPAR where this IMS system runs.
MODE	The MODE field defines the 1 - 8 character logmode entry name for the VTAM session.

When you specify IMS OM, you must specify the PLEX name.

*Table 32. Command Routing Technique Options - IMS OM*

Option	Description
PLEX	The PLEX name is the 1 - 5 character IMS OM IMSPlex name used by this IMS system.

When using APPC/MVS, you might need to define a new APPC TPname. For more information on setting up the required APPC entries, see Chapter 17, "APPC/MVS routing technique," on page 201.

*Table 33. Default CCF Group Option*

Option	Description
Default CCF Group	If this 1 - 8 character field is specified, IMS Command Control Facility automatically issues all IMS commands for this IMS system to all other IMS systems defined in the same named IMS Command Control Facility group.

*Table 34. IMS System Information Options*

Option	Description
DFSVNUC Suffix	Specify the one-character suffix of the IMS nucleus.  This suffix and the following parameter (MODBLKS DSNAME) are used by IMS Command Control Facility to read the proper MODBLKS members to determine the proper access for databases when a /START DB command is issued.
MODBLKS DSNAME	Specify a valid data set name for the staging IMS.MODBLKS data set that IMS Command Control Facility reads to determine the proper access for databases when a /START DB command is issued.

Table 34. IMS System Information Options (continued)

Option	Description
Release	Specify a 4-digit number that represents the IMS version and release in use. For example, specify 1501 for IMS Version 15.

Table 35. DFSAOE00 Information Options. If the IMS Command Control Facility message log feature is used, the following fields must be specified.

Option	Description
CCF Logger Name	Specify the 1- to 26-character log stream name to be used by the z/OS Logger to maintain a store of all IMS commands and their command responses for audit purposes.
User DFSAOE00 Name	<p>IMS Command Control Facility requires the use of its own version of DFSAOE00. If your installation is also using a module named DFSAOE00, the module must be renamed.</p> <p>Specify the new name of this module so that IMS Command Control Facility can load it properly at IMS restart time.</p>
Msg Disp Table Name	Specify a four character table name for the table of messages that are suppressed as defined using the IMS Command Control Facility message disposition (MSG Disp) dialog function.

## Group IMSID List panel

This section describes the IMS Command Control Facility Group IMSID List panel.

### Group list panel

To add, change or delete IMS Command Control Facility group records, you must select option 4 from the Primary Option Menu. The Group List panel is displayed.

```

Row 1 to 2 of 2
-----
                                CCF Group List
Command ==>                                Scroll ==> CSR

Specify a list action or enter a command.
Actions:  E - Edit      B - Browse  C - Copy   D - Delete
Commands: A - Add

List      CCF
Action    Group      IMSID List
-----
..... TESTIMS  IMST IMSU IMSV
..... PRODIMS  IMSP IMSQ IMSR
***** Bottom of data *****
```

Figure 11. Group List panel

Type in one of the following options and press **Enter**.

Table 36. Group List selections

Option	Description
A	<p>Add an IMS Command Control Facility group by keying the letter A at the command prompt of the IMS Command Control Facility group list panel and pressing the <b>Enter</b> key.</p> <p>The IMS Command Control Facility group update panel will be displayed where you can specify a new list of IMSIDs for the new IMS Command Control Facility group record.</p>
B	<p>Browse an existing IMS Command Control Facility group record by keying the letter B under the <b>List Action</b> column on the line that is next to the required IMS Command Control Facility group shown on the IMS Command Control Facility group list panel.</p> <p>The IMS Command Control Facility group panel will be displayed. No changes can be made to the IMS Command Control Facility group record when browsing.</p>
C	<p>Copy an existing IMS Command Control Facility group by keying the letter C under the <b>List Action</b> column on the line that is next to the required IMS Command Control Facility group shown on the IMS Command Control Facility group list panel.</p> <p>The IMS Command Control Facility group update panel will be displayed where you can specify a new list of IMSIDs for the new IMS Command Control Facility group record being added.</p>
D	<p>Delete an existing IMS Command Control Facility group record by keying the letter D under the <b>List Action</b> column on the line that is next to required IMS Command Control Facility group shown on the IMS Command Control Facility group list panel.</p> <p>After pressing the <b>Enter</b> key, the message DELETED should appear next to the selected IMS Command Control Facility group record being deleted.</p>

Table 36. Group List selections (continued)

Option	Description
E	Change an existing IMS Command Control Facility group record by keying the letter E under the <b>List Action</b> column on the line that is next to required IMS Command Control Facility group shown on the IMS Command Control Facility group list panel.  The IMS Command Control Facility group update panel will be displayed where you can specify a new list of IMSIDs for the selected IMS Command Control Facility group record.

## Group IMSID List

The Group IMSID List panel is displayed after entering one of the following options from the Group List panel:

- A - to add an IMS Command Control Facility group record
- B - to browse an IMS Command Control Facility group record
- C - to copy an IMS Command Control Facility group record
- E - to edit an IMS Command Control Facility group record

```

-----
Command ==>                CCF Group IMSID List                Scroll ==> CSR

CCF Group ..... PRODIMS
Shared RECONS (Y/N) .... Y          Route=IMSpIex (Y|N) .... Y

      IMS
      ----

1.  IMSP
2.  IMSQ
3.  IMSR
4.
5.
6.
7.
8.
9.
10.
11.
12.

More:      +

```

Figure 12. Group IMSID list panel

The following information can be specified from the Group IMSID List panel.

Press the **Enter** key to save any changes before entering the **END** command to return to the Primary Option Menu.

Table 37. Group IMSID List Options

Option	Description
CCF Group	Specify the 1-8 character IMS Command Control Facility group name.
Shared RECONS (Y/N)	Specify whether all members in the IMS Command Control Facility group share the same set of RECON data sets.  If not, IMS Command Control Facility is not able to use DBRC to verify whether database commands completed successfully.

Table 37. Group IMSID List Options (continued)

Option	Description
Route=IMSplex (Y N)	<p>Specify whether IMS commands should be sent to all members of the IMSplex.</p> <ul style="list-style-type: none"> <li>• <b>Y</b> IMS commands are sent via a <b>ROUTE=*</b> on the Operations Manager (OM) command (CSLOMCMD) to all members of the IMSplex, regardless of the listed members of the CCF group. This is the default setting.</li> <li>• <b>N</b> IMS commands are sent only to the listed members of the CCF group via an IMSID list on the Operations Manager (OM) <b>ROUTE=imsid-list</b> command (CSLOMCMD). All members of a CCF group must be in the same IMSplex. <b>Note:</b> Some IMS commands might return an error message when sent via a CCF Group where <b>Route=IMSplex</b> is set to "N". These commands must instead be sent to a CCF Group that is marked <b>Route=IMSplex</b> set to "Y" (commands are sent to the entire IMSplex).</li> </ul>
IMS	<p>The IMSIDs of up to 64 systems can be specified.</p> <p><b>Note:</b> IMS Command Control Facility does not support mixing IMS OM and non-IMS OM regions in the same IMS Command Control Facility group.</p>

# Message Disposition Update panel

This section describes the IMS Command Control Facility Message Disposition Update panel.

## Message Disposition List panel

To add, change or delete IMS Command Control Facility table/message ID records, you must select option 6 from the Primary Option Menu. The Message Disposition List panel is displayed.

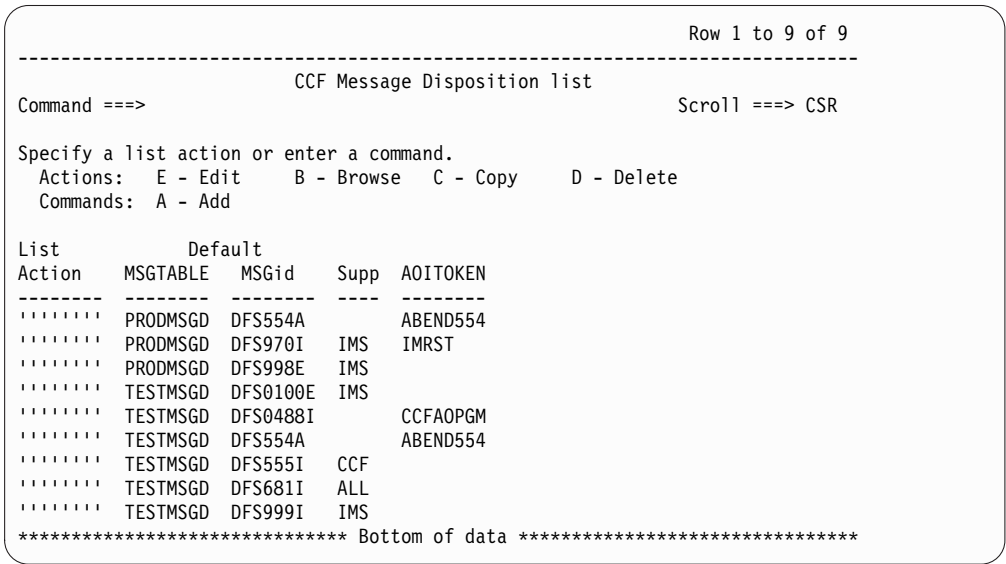


Figure 13. Message Disposition List panel

Type in one of the following options and press **Enter**.

Table 38. Message Disposition List panel selections

Option	Description
A	Add a table/message ID by keying the letter A at the command prompt of the Message Disposition List panel and pressing the <b>Enter</b> key.  The Message Disposition Update panel is displayed.
B	Browse an existing table/message ID by keying the letter B under the <b>List Action</b> column on the line that is next to the table/message ID.  The Message Disposition Update panel is displayed. No changes can be made to the table/message ID when browsing this record.
C	Copy an existing table/message ID by keying the letter C under the <b>List Action</b> column on the line that is next to the table/message ID.  The Message Disposition Update panel is displayed.
D	Delete an existing table/message ID by keying the letter D under the <b>List Action</b> column on the line that is next to the table/message ID.  After pressing the <b>Enter</b> key, the message DELETED should appear next to the selected record being deleted.

Table 38. Message Disposition List panel selections (continued)

Option	Description
E	Change an existing table/message ID by keying the letter E under the <b>List Action</b> column on the line that is next to the table/message ID.  The Message Disposition Update panel is displayed where you can specify new options or changing existing specifications for the selected record.

## Message Disposition Update information

The Message Disposition Update panel is displayed after entering one of the following options from the Message Disposition List panel:

- A - to add a table/message ID record
- B - to browse a table/message ID record
- C - to copy a table/message ID record
- E - to edit a table/message ID record

CCF Message Disposition Update

Command ==>
Scroll ==>

MSGTABLE... PROD  
  
MSG ID..... DFS554A  
  
Suppress Message from (Y/N):  
N - IMS MTO  
Y - IMS Secondary Master (IMS 10.1 and above)  
N - CCF Logger  
  
AOITOKEN... ABEND554

Figure 14. Message Disposition Update panel

The following information can be specified from the Message Disposition Update panel. Press the **Enter** key to save any changes before entering the **END** command to return to the Primary Option Menu.

Table 39. Message Disposition Update Options

Option	Description
MSGTABLE	Enter a 1-8 character name for a table name. This table name represents a group of messages that will be processed by IMS systems with similar operating characteristics.  For example for test systems, you might not want to see every DFS554 abend message for transactions that are being tested, while for production systems, you might want to see all of the DFS554 abend messages and specify an automation token that can be used by a transaction or waiting BMP to issue a /STA TRAN IMS command.
MSG ID	Enter a 1-8 character message ID. The ID represents a message issued by IMS that might need suppressing or some sort of action by automation.



*Table 39. Message Disposition Update Options (continued)*

Option	Description
Suppress message from:	IMS Command Control Facility can optionally prevent messages from being displayed on the IMS Master terminal, the IMS Command Control Facility message log, or the IMS secondary master terminal. For each message destination, specify Y to suppress messages or N to not suppress messages.  The default is to not suppress messages.
AOITOKEN	Enter a 1-8 character token name that can be used by an application, either IMS transaction or BMP, needing to reference the original message to take some sort of action, either correctional or informational.

## Deleting Store and Forward command records

To delete store and forward commands, select option 5 from the Primary Option Menu. The Store and Forward Commands Data Set Selection panel is displayed.

```
-----
Store and Forward Commands Data Set Selection
Option ==>

Store and Forward Data Set:
Data Set Name . . . TESTIMS.CCF.STORE.FORWARD

IMS System Stored Command Filter:
IMSID . . . . . IMST (Leave blank for all IMS systems)
```

Figure 15. Store and Forward Commands Data Set Selection panel

The following parameters can be specified for the Store and Forward Commands Data Set Selection panel:

Table 40. Store and Forward Commands Data Set Selection Options

Option	Description
Data Set Name	Specify the 1-44 character data set name of the data set being used for holding the store and forward commands.
IMSID	To view only the saved commands for a specific IMSID, specify the 4 character IMSID for the required IMS system. <b>Note:</b> To view all stored IMS commands in the data set, leave the IMSID field blank.

To continue on to the screen where you can delete unwanted store and forward commands, you must press the **Enter** key.

The Store and Forward Commands panel is displayed.

```
-----
CCF Store and Forward Commands
Option ==>                                Scroll ==> PAGE

AC IMSID DATE      TIME      JOBNAME
IMST 2006.115 04:59:47 DBSYNCP1 /STA DB DBIZT1 ACCESS=UP
IMST 2006.115 05:29:36 DBSYNCP1 /STA DB DBIZT1 ACCESS=UP
IMST ** DELETED BY DBA005      /DIS PROG ALL
IMST 2006.116 03:03:14 DBSYNCP1 /DIS PROG IZTRAN
IMST 2006.116 03:03:18 DBSYNCP1 /DIS DB DBIZT1
IMST 2006.116 03:07:37 DBSYNCP1 /DIS PROG IZTRAN
IMST 2006.116 03:07:40 DBSYNCP1 /DIS DB DBIZT1
IMST 2006.116 03:07:51 DBSYNCP1 /STA DB DBFSAMD1 DBFSAMD2 DBFSAMD3 DBFSAMD4
IMST 2006.116 03:10:45 DBSYNCP1 /STA DB DBFSAMD1 DBFSAMD2 DBFSAMD3 DBFSAMD4
IMST 2006.116 03:10:45 DBSYNCP1 /STA DB DBSHR3 DBSHR4 DBSHR5 DBSHR6 DBSHR7
IMST 2006.116 03:18:04 DBSYNCP1 /STA DB DBFSAMD1 DBFSAMD2 DBFSAMD3 DBFSAMD4
IMST 2006.116 03:18:04 DBSYNCP1 /STA DB DBSHR3 DBSHR4 DBSHR5 DBSHR6 DBSHR7
IMST 2006.117 05:13:54 DBSYNCP1 /DBR DB DBIZT1 NOFE0V
IMST ** DELETED BY DBA002
IMST 2006.117 05:26:32 DBSYNCP1 /DBR DB DBIZT1 NOFE0V
```

Figure 16. Store and Forward Commands panel

## Deleting stored commands

Use the PF7 and PF8 keys to scroll through the list of store commands displayed on the Store and Forward Commands panel.

To delete a stored command, enter the letter D under the action code column (marked as AC) next to the command that should be deleted. Then press the **Enter** key.

After the delete has been performed, the indicator **\*\* DELETED BY <userid>** is displayed.

## Viewing the message log

This section describes how to view the IMS Command Control Facility message log.

### Log View IMS System List panel

To view the IMS Command Control Facility message log records, you must select option 7 from the Primary Option Menu. The Log View IMS System List panel is displayed.

```
----- Row 1 to 6 of 6 -----
                                CCF Log View IMS System List
Command ==>                                Scroll ==> CSR

Specify a list action.
Actions:  S - Select

S  IMS  CCF Logger Name
-----
-  IMSP @CCF.LOGGER
-  IMSQ @CCF.LOGGER
-  IMSR @CCF.LOGGER
-  IMST
-  IMSU
-  IMSV
***** Bottom of data *****
```

Figure 17. Log View IMS System List panel

### Selecting the log stream name

To view the message log for a particular IMS System or group of IMS Systems sharing the same log stream updated by the z/OS Logger, from the Log View IMS System List selection panel, place the letter S on the line that is next to the required IMSID and press the **Enter** key.

If a log stream name has been specified for the selected IMSID (using Primary Option Menu selection 3), the log view filters panel is displayed.

### Log View Filters panel

The Log View Filters panel is displayed after entering the S option from the Log View IMS System List panel.

```
----- CCF Log View Filters -----
Option ==>

IMSID   :
OM Name :
User    :

From date:      (yyyy.ddd)  From time:      (hh:mm:ss)
Thru date:      (yyyy.ddd)  Thru time:      (hh:mm:ss)
```

Figure 18. Log View Filters panel

## Specifying the log stream filters

The following fields on the Log View Filters panel can be specified to limit the number of messages to review. Press the **Enter** key to review the returned log stream records.

*Table 41. Log View Filters Options*

Option	Description
IMSID	If specified, enter the 4 character IMSID of the IMS System that is logging records to the message log.
OM Name	If specified, enter the 1-8 character name of the IMS Operations Manager address space that is logging messages to the message log.
User	If specified, enter a 1-8 character user ID to limit all command and response messages to those originated by the specified user ID.
From date	<p>Enter the 8 character Julian date as yyyy.ddd:</p> <ul style="list-style-type: none"><li>• yyyy represents a 4 numeric digit value for year.</li><li>• ddd represents a 3 numeric digit value for day of the year from 000-366.</li></ul> <p><b>Note:</b> The yyyy and ddd fields must be separated by a period (.) character.</p> <p>If specified, only messages logged on or after the specified date will be available for viewing.</p>
From time	<p>Enter the 8 character time of day as hh:mm:ss:</p> <ul style="list-style-type: none"><li>• hh represents a 2 numeric digit value for hour from 00-23.</li><li>• mm represents a 2 numeric digit value for minutes from 00-59.</li><li>• ss represents a 2 numeric digit value for seconds from 00-59.</li></ul> <p><b>Note:</b> The values specified for hh, mm, and ss must be separated by a colon (:) character.</p> <p>If specified, <b>From date</b> must also be specified. Any messages logged before the specified date and time will not be made available for viewing.</p>
Thru date	<p>Enter the 8 character Julian date as yyyy.ddd:</p> <ul style="list-style-type: none"><li>• yyyy represents a 4 numeric digit value for year.</li><li>• ddd represents a 3 numeric digit value for day of the year from 000-366.</li></ul> <p><b>Note:</b> The yyyy and ddd fields must be separated by a period (.) character.</p> <p>If specified, messages logged after the specified date will not be made available for viewing.</p>
Thru time	<p>Enter the 8 character time of day as hh:mm:ss:</p> <ul style="list-style-type: none"><li>• hh represents a 2 numeric digit value for hour from 00-23.</li><li>• mm represents a 2 numeric digit value for minutes from 00-59.</li><li>• ss represents a 2 numeric digit value for seconds from 00-59.</li></ul> <p><b>Note:</b> The values specified for hh, mm, and ss must be separated by a colon (:) character.</p> <p>If specified, <b>Thru date</b> must also be specified. Any messages logged after the specified date and time will not be made available for viewing.</p>

Once the required filters have been specified, press the **Enter** key.

The Log View panel is displayed.

## Reviewing the Log View panel

```
Line 00025875 Col 001 080
-----
                                CCF Log View
Command ==>                                Scroll ==> CSR

IMSID/GROUP:
IMS CMD ==>

06284 13:38:17.14 IMS9 U=DBA005 LU62 APPC/OTMA06284
06284 13:38:17.15 IMS9 U=DBA005 LU62 APPC/OTMA
06284 13:38:17.16 IMS9 U=DBA005 LU62 APPLID=IM
06284 13:38:17.17 IMS9 U=DBA005 LU62 LINE ACTI
06284 13:38:17.18 IMS9 U=DBA005 LU62 NODE ACTI
06284 13:38:17.19 IMS9 U=DBA005 LU62 LINK ACTI
06284 13:38:17.20 IMS9 U=DBA005 LU62 *06284/13
06284 13:39:04.10 IMS9 U=DBA005 LU62 /DIS STATUS N
06284 13:39:04.12 IMS9 U=DBA005 LU62 . **NODE*****
06284 13:39:04.13 IMS9 U=DBA005 LU62 LF02 C1INOP
06284 13:39:04.17 IMS9 U=DBA005 LU62 LF03 DISCONN
06284 13:39:04.18 IMS9 U=DBA005 LU62 LF04 DISCONN
06284 13:39:04.19 IMS9 U=DBA005 LU62 TN3270E DISCONN
06284 13:39:04.20 IMS9 U=DBA005 LU62 PRIMELU DISCONN
06284 13:39:04.21 IMS9 U=DBA005 LU62 *06284/133904
*****Bottom of Data *****
```

*Figure 19. Log View panel*

All standard ISPF browse commands can be used, including **RIGHT** and **LEFT**, which are necessary to view the complete command and response messages. See “ISPF dialog overview” on page 170 for more general information on scrolling.

**Note:** If a message log archive job (CCFARCH0) runs while the message log is being viewed, gaps might be present in the log data. These gaps are caused by the archive job deleting log records before they have been read by the ISPF dialog. If this occurs, the missing log data can be found in the output data set created by the message log archive job.

## IMS Command panel

This section describes the IMS Command Control Facility IMS Command panel.

To display the IMS Command panel, you must select option C from the Primary Option Menu.

```
-----
                                CCF IMS Command Panel
Command ==>                                Scroll ==> CSR
IMSID/GROUP: IMS9
IMS CMD ==> /DIS STATUS NODE

*****Top of Data *****

CCF0329I - COMMAND EXECUTING ON: IMS9
/DIS STATUS NODE

**NODE*****
LF02      C1INOP
LF03      DISCONNECTED
LF04      DISCONNECTED
TN3270E   DISCONNECTED
PRIMELU   DISCONNECTED
*06284/133904*
*****Bottom of Data *****
```

Figure 20. IMS Command panel

Specify the fields below and press **Enter**.

Table 42. IMS Command Options

Option	Description
IMSID/GROUP	Specify one of the following two entries: <ul style="list-style-type: none"><li>• Enter a 4-character IMSID as defined to IMS Command Control Facility using the IMS System Information panel</li><li>• Enter a 1- 8 character IMS Command Control Facility Group as defined to IMS Command Control Facility using the IMS Command Control Facility Group IMSID List panel</li></ul>
Command	Specify an IMS command.
See <i>IMS Commands</i> for command syntax and examples.	

## Reviewing the IMS command responses

All standard ISPF browse commands can be used, including **RIGHT** and **LEFT**, which are necessary to view the complete command and response messages. See “ISPF dialog overview” on page 170 for more general information on scrolling.

---

## Troubleshooting ISPF dialog problems

This topic describes common ISPF dialog problems and suggested solutions.

*Table 43. Common ISPF dialog problems and suggested solutions*

Problem	Suggested solution
ISPF dialog user gets S0C1 abend when attempting to invoke the dialog function.	Probably an installation issue. Check to make sure the SCCFLOAD library is properly allocated to the CCFLLIB/ISPLLIB concatenation. Using ACCFLOAD instead will cause the S0C1 abends.
ISPF dialog user gets OPEN ERROR from the Primary Option Menu. After entering HELP, message CCF6104E CCFVSAM OPEN ERROR REASON=000000A0 is displayed.	The data set named as the CCF VSAM Options data set might not have been properly initialized after being allocated. Make sure batch utility CCFUODI0 has been run to initialize the VSAM cluster.
ISPF dialog user attempting to issue IMS commands gets message CCF7401E - CSLSCREG FAILED FOR: CSLPLEX1 RC=01000010 RSN=00004004.	The IMS SDFSRESL library is not available to the ISPF dialog. The library needs to be added to the STEPLIB of the TSO logon procedure, added to the LINKLIST, or dynamically added from the TSO READY prompt through the TSOLIB ACT DS(IMS.SDFSRESL) command.
ISPF dialog user attempting to view the combined message log gets a LOGSTREAM BROWSE ERROR message. After entering HELP, message CCF6711E CCF LOGSTREAM BROWSE START ERROR - RET=00000008 RSN=00000846 is displayed.	The log stream has not been written to yet. The CCFAOE00 AOI exit might not have been installed yet or the IMS system has not yet been stopped and restarted.



---

## Chapter 17. APPC/MVS routing technique

If you configure IMS Command Control Facility to use APPC/MVS as the Routing Technique for an IMS system, information must be defined to APPC/MVS and specified in the IMS Command Control Facility Global options and IMS System Information.

Topics:

- “APPC/MVS definitions” on page 202
- “Learning about your APPC/MVS environment” on page 203
- “Define APPC/MVS symbolic destinations” on page 204
- “Define APPC/MVS TP Profiles” on page 206

---

## APPC/MVS definitions

APPC/MVS definitions are only required if you use the APPC/MVS Routing Technique and the Remote STC process for issuing IMS commands. No definitions are required if you use only the APPC/IMS or IMS OM Routing Techniques.

The APPC/MVS definitions required for APPC/MVS Routing Technique and the Remote STC process include the following options.

### **APPC/MVS TP Name**

An APPC TP Name must be defined for each IMS system for IMS Command Control Facility to use. The TP Names defined must all begin with the same 1 - 59 character prefix, followed by a period (.) and the IMSID. The prefix of the TP Names must be specified in the IMS Command Control Facility Global options.

### **SYMDEST**

An APPC Symbolic Destination, or SYMDEST, is an APPC definition that specifies the Partner LU name and Mode table entry name for a TP Name.

**PLU** The Partner LU name, or PLU, used by IMS Command Control Facility is the APPC/MVS base LU on the MVS LPAR where an IMS system runs. This LU must already be defined.

### **MODE**

The logmode table entry name, or MODE, is a logmode entry that supports APPC, and must already be defined to VTAM. Your VTAM system programmer can provide you with a mode table entry name that supports APPC communication.

---

## Learning about your APPC/MVS environment

To define the required entries to APPC/MVS and IMS Command Control Facility, you must determine the APPC TP Profile data set name, the APPC Side Info data set name, the APPC/MVS base LU name, and an APPC initiator name for each MVS LPAR where an IMS system runs.

### About this task

The following two MVS commands must be entered on each MVS LPAR and the required information noted for each LPAR.

### Procedure

1. Find the APPC/MVS base LU names, and TP Profile and Side Info data set names, using the following procedure:
  - a. Issue MVS command D APPC,LU,ALL.
  - b. Find the LLUN (LU name) that has both SCHD=ASCH and BASE=YES on each MVS system where an IMS system runs.
  - c. Make a note of the LLUN and the TPDATA= data set name for each MVS system. The APPC/MVS base LU name and the TP Profile data set name are required to define the APPC/MVS Transaction Profile Name (TP Name)
  - d. Make a note of the name of the APPC/MVS side info data set, which can be found in the line showing SIDEINFO= at the beginning of the display command output. This data set name is required to define APPC/MVS symbolic destinations.
2. Find an appropriate APPC initiator class, using the following procedure:
  - a. To list the APPC initiator classes defined on each MVS system, issue MVS command D ASCH,ALL. The initiator class must be able to concurrently schedule at least 1 more than the number of IMS subsystems on that MVS system. Therefore, if an MVS system has 3 IMS subsystems that are running, the APPC initiator class must be able to schedule at least four tasks concurrently (the MAX= value for the class must be at least 4).
  - b. Make a note of the name of the initiator class. It is required to define the APPC/MVS transaction program profile for IMS Command Control Facility.

---

## Define APPC/MVS symbolic destinations

The APPC/MVS symbolic destinations that are used for IMS Command Control Facility define the LU name and mode name that direct APPC sessions to the correct MVS LPAR for each IMS system. Such APPC symbolic definitions might already be in place, because they do not require any information specific to IMS Command Control Facility.

To make IMS Command Control Facility customization easier, use a symbolic destination defined for each MVS LPAR where an IMS system might run. For example, if you have 3 MVS LPARs (SYS1, SYS2, and SYS3) with IMS system running on each LPAR, define three APPC/MVS symbolic destinations. You might want to create APPC/MVS symbolic destination names that match the MVS LPAR names (SYS1, SYS2, and SYS3).

If such definitions do not exist, they can be defined using the APPC configuration utility. A sample job is provided in the SCCFSAMP library in member CCFSIADD. The sample job is shown in the following sample.

```
//CCFSIADD JOB (TECH),CCFSIADD,CLASS=A,MSGCLASS=H,
//      REGION=4M,NOTIFY=&SYSUID,COND=(0,NE)
//*
//*      THIS SAMPLE JCL WILL ADD AN ENTRY TO THE APPC/MVS
//*      SIDE INFORMATION DATA SET.
//*
//*      THE FOLLOWING CHARACTER STRINGS MUST BE TAILORED:
//*      ##SIDEINFO - MUST BE THE SIDE INFORMATION DATA SET USED
//*                  BY APPC/MVS. THE DATA SET NAME CAN BE
//*                  OBTAINED BY ISSUING Z/OS COMMAND
//*                  "D APPC,LU".
//*      ##SYMDEST - 1-8 CHARACTER SYMBOLIC NAME OF AN IMS SYSTEM.
//*                  THE ##SYMDEST NAME MUST MATCH THE NAME
//*                  SPECIFIED IN THE SYMDEST FIELD OF THE IMS
//*                  RECORD IN THE CCF OPTIONS DATA SET.
//*      ##MODE - ANY VALID LU 6.2 VTAM LOGMODE NAME.
//*      ##LUNAME - THE NAME SPECIFIED HERE IS DEPENDENT UPON THE
//*                  COMMAND ROUTING TECHNIQUE SPECIFIED IN THE CCF
//*                  OPTIONS DATA SET IMS RECORD.
//*                  IF COMMAND ROUTING TECHNIQUE IS:
//      APPC/IMS - ##LUNAME MUST MATCH THE IMS APPC LUNAME.
//                  THIS NAME CAN BE OBTAINED BY ISSUING AN
//                  IMS "/DIS APPC" COMMAND.
//      APPC/MVS - ##LUNAME MUST MATCH AN APPC/MVS LUNAME
//                  THAT IS DEFINED ON THE Z/OS IMAGE WHERE
//                  IMS RUNS, AND MUST BE DEFINED WITH
//                  SCHED=ASCH. THE NAME CAN BE OBTAINED
//                  BY ISSUING A Z/OS "D APPC,LU,ALL"
//                  COMMAND ON THE Z/OS WHERE IMS RUNS.
//
//STEP1 EXEC PGM=ATBSDFMU
//SYSPRINT DD SYSOUT=*
//SYSSDLIB DD DISP=SHR,DSN=##SIDEINFO
//SYSSDOUT DD SYSOUT=*
//SYSIN DD *
SIADD
    DESTNAME(##SYMDEST)
    TPNAM(*)
    MODENAME(##MODE)
    PARTNER_LU(##LUNAME)
//
```

Specify the variables in the CCFSIADD sample job (found in the SCCFSAMP library) as follows:

**##SIDEINFO**

The Side Info data set name found in the D APPC,LU,ALL command. If all MVS LPARs share the same Side Info data set, you can define each symbolic destination once; otherwise you must define the symbolic destinations in each Side Info data set found in the D APPC,LU,ALL commands.

**##SYMDEST**

An APPC Symbolic Destination, or SYMDEST, is an APPC definition that specifies the Partner LU name and Mode table entry name for a TP Name. For example, you could use the name of the LPAR as the symbolic destination name.

**##MODE**

A VTAM mode table entry name that supports APPC.

**##LUNAME**

The name of the APPC/MVS Base LU found in the D APPC,LU,ALL command output for the MVS LPAR.

You define a Side Info entry for each MVS LPAR. If you have 3 MVS LPARs, you run the CCFSIADD job three times, once for each LPAR (changing the ##SYMDEST and ##LUNAME for each LPAR). If there are three different Side Info data sets, then you run the job 9 times, three times for each Side Info data set name.

---

## Define APPC/MVS TP Profiles

An APPC/MVS TP Profile entry must be defined for each IMS system used by IMS Command Control Facility. The TP Profile tells APPC/MVS how to start the remote STC used to connect to IMS as a BMP to issue IMS commands.

Because you define a TP Profile for each IMS system, you run this job multiple times. Define the TP Profile for an IMS system only on the MVS LPAR where that IMS system runs. So if there are different APPC/MVS TP Profile data sets on each LPAR, you need only define the IMS TP Profile name once.

The definitions are defined using the APPC configuration utility. A sample job is provided in the SCCFSAMP library in member CCFTPADD. The sample job is shown in the following example.

```
//CCFTPADD JOB (TECH),CCFTPADD,CLASS=A,MSGCLASS=H,
//          REGION=4M,NOTIFY=&SYSUID,COND=(0,NE)
//*
//*   !!! ALL DATA SETS IN THE STEPLIB FOR STEP !!!
//*   !!! CCFMOD MUST BE APF AUTHORIZED.           !!!
//*
//*   THIS JCL IS USED TO DEFINE THE REMOTE/STC BMP.
//*   THIS STEP IS REQUIRED ONLY WHEN AN IMS IS DEFINED
//*   IN THE CCF OPTIONS DATA SET TO USE COMMAND ROUTING
//*   TECHNIQUE APPC/MVS.
//*
//*   THE FOLLOWING ITEMS MUST BE CUSTOMIZED TO FIT YOUR ENVIRONMENT.
//*
//*   ##TPPROF   = NAME OF THE TP PROFILE DATA SET WHERE THE
//*               APPC/STC JCL IS TO BE STORED.  THE TP PROFILE
//*               DATA SET MUST BE FOR AN APPC/MVS LU THAT USES
//*               SCHED(ASCH).
//*   ##TPNAME   = IS THE TP NAME FOR THIS ENTRY.  THE NAME IS
//*               DERIVED BY USING THE APPC/STC TPNAME FROM THE
//*               CCF/IMS GLOBAL RECORD AND APPENDING THE 5 BYTE
//*               CHARACTER STRING "." (PERIOD) PLUS IMSID FOR
//*               THIS IMS.
//*               I.E. IF THE APPC/STC FROM THE GLOCAL RECORD WERE:
//*               CCF.TPNAME
//*               AND THE BMP IS FOR IMSA, THEN
//*               THE NAME USED FOR ##TPNAME WOULD BE:
//*               CCF.TPNAME.IMSA
//*   ##MSGDSN   = USED TO DEFINE THE DATA SET WHERE ERROR CONDITIONS
//*               EXPERIENCED BY THIS TASK WILL BE STORED.
//*   ##SYSUDUMP = DATA SET NAME OF WHERE THE DUMP WILL BE PLACED
//*               SHOULD AN ABEND OCCUR.
//*   ##VOLUME   = VOLSER WHERE THE ##MSGDSN AND ##SYSUDUMP DATA SETS
//*               WILL BE PLACED.
//*   ##CLASS    = APPC/MVS INITIATOR CLASS.
//*   ##PSB      = NAME OF THE GPSB DEFINITIONS ADDED TO THE IMS
//*               SYSGEN.  IF NO CHANGED BY
//*               INSTALLATION/CUSTOMIZATION, THE NAME WILL BE
//*               CCFCMD00.
//*   ##SDFSRESL = IMS SDFSRESL DATA SET NAME OF THE WITH WHICH THIS
//*               TASK WILL ATTACH AS A BMP.
//*   ##CCFLOAD  = DEFINES THE DSN OF THE LOAD LIBRARY INTO WHICH
//*               CCF WAS INSTALLED (SCCFLOAD).
//*   ##IMSID    = IMSID OF THE IMS SYSTEM WITH WHICH THIS TASK
//*               WILL ATTACH AS A BMP.
//*
//*   THE PARM FIELD FOR STEP "CCFCMD" BELOW CONTAINS THE
//*   SAME VALUES AS ANY OTHER IMS BMP.  PLEASE TAILOR ANY
//*   PARAMETERS ACCORDINGLY.
//*
//STEP01 EXEC PGM=IEFBRI4
```

```

//MSGDSN DD DISP=(,CATLG,DELETE),SPACE=(CYLS,(2,2)),
//      DSN=##MSGDSN,
//      UNIT=SYSDA,VOL=SER=##VOLUME,
//      DCB=(LRECL=133,RECFM=FBA,BLKSIZE=27930)
//SYSUDUMP DD DISP=(,CATLG,DELETE),SPACE=(CYLS,(4,3)),
//      DSN=##SYSUDUMP,
//      UNIT=SYSDA,VOL=SER=##VOLUME,
//      DCB=(LRECL=133,RECFM=FBA,BLKSIZE=27930)
//*
//STEP02 EXEC PGM=ATBSDFMU
//SYSPRINT DD SYSOUT=*
//SYSSDLIB DD DISP=SHR,DSN=##TPPROF
//SYSSDOUT DD SYSOUT=*
//SYSIN DD DATA,DLM='QT'
TPADD
TPNAME(##TPNAME)
ACTIVE(YES)
TPSCHED_DELIMITER(DLM1)
KEEP_MESSAGE_LOG(ERROR)
MESSAGE_DATA_SET(##MSGDSN)
DATASET_STATUS(OLD)
CLASS(##CLASS)
JCL_DELIMITER(DLM2)
//ZZZZZZZ JOB (IMS),'CCFCMD00',CLASS=A,MSGCLASS=H,
//      REGION=4M
//*
//CCFCMD EXEC PGM=CCFRR00,
//      PARM='BMP,CCFAPPC0,##PSB,,,,,,,,,##IMSID'
//STEPLIB DD DISP=SHR,DSN=##SDFSRESL
//      DD DISP=SHR,DSN=##CCFPGM
//SYSUDUMP DD DISP=OLD,DSN=##SYSUDUMP
DLM2
DLM1
QT

```

Specify the variables in the CCFTPADD sample job (found in the SCCFSAMP library) as follows:

#### **##TPPROF**

The TP Profile data set name found in the D APPC,LU,ALL command on the MVS LPAR where this IMS system runs.

#### **##TPNAME**

The name of the TP Profile. This name must be the APPC/STC TPname specified in the IMS Command Control Facility global options, with the ".imsid" added to the end of the name.

#### **##MSGDSN**

The data set name to be created that holds MVS SYSLOG messages for an execution of the IMS Command Control Facility remote STC process. This data set is allocated as part of the CCFTPADD job.

#### **##SYSUDUMP**

The data set name to be created that holds SYSUDUMP output if an abend occurs in the IMS Command Control Facility remote STC process. This data set is allocated as part of the CCFTPADD job.

#### **##VOLUME**

The volume serial number of the DASD volume where the ##MSGDSN and ##SYSUDUMP data sets are allocated.

#### **##CLASS**

The APPC/MVS initiator class found in the D ASCH,ALL command for the MVS LPAR where this IMS system runs.

**##PSB** The name of the PSB that was added to the IMS stage 1 sysgen source. A sample is provided in SCCFDATA member CCFSTG1.

**##SDFSRESL**

The data set name of the SDFSRESL data set for this IMS system.

**##CCFLOAD**

The data set name of the IMS Command Control Facility load library (SCCFLOAD data set).

**##IMSID**

The IMSID specified in the ##TPNAME variable.



---

## Chapter 18. Wildcard support

IMS Command Control Facility provides wildcard support for type-1 commands in addition to the support already provided by IMS.

Topics:

- “Wildcard support overview” on page 210
- “Wildcard support for /DISPLAY commands” on page 211
- “Wildcard support for non-/DISPLAY commands” on page 212
- “Commands with wildcard support” on page 213

---

## Wildcard support overview

In addition to the wildcard support offered by IMS, IMS Command Control Facility supports wildcards on database, AREA, PROG, and additional TRAN commands.

Wildcards are supported when the command driver runs as a batch (IMS BMP, IMS DL/I batch or standard z/OS batch), ISPF dialog, or callable interface.

IMS Command Control Facility uses the same characters for wildcards as IMS uses for its generic commands:

- An asterisk is used to represent 0 to one or more characters.
- A percent sign is used to represent a single character.

**Note:** Because IMS supports wildcards for most commands with the TRANSACTION keyword, IMS Command Control Facility passes those commands directly to IMS for processing. The only time IMS Command Control Facility performs any special processing of commands with the TRANSACTION keyword is when a wildcard is used on an IMS /ASSIGN command.

The first time IMS Command Control Facility command driver encounters a wildcard in one of its supported commands, the command driver builds a resource list by issuing a /DIS xx ALL command to the first IMS system in the IMS Command Control Facility group. The command driver then uses the resource list to determine which resources match the wildcard pattern and issues the original command for each name that matches the pattern.

To improve performance, the command driver places as many resource names on each command as can fit.

---

## Wildcard support for /DISPLAY commands

When a /DISPLAY AREA/DB/PROG command contains a wildcard, IMS Command Control Facility issues a /DISPLAY AREA/DB/PROG ALL command to IMS.

IMS Command Control Facility compares the returned names with the wildcard mask and displays only the matching names.

If the command is being issued to an IMS Command Control Facility group, the /DISPLAY x ALL command is sent to each member of the group.

---

## Wildcard support for non-/DISPLAY commands

When wildcards are detected in non-/DISPLAY commands, IMS Command Control Facility builds a table of resource names (for example, AREA/DB/PROG/TRAN) by issuing a /DISPLAY AREA/DB/PROG/TRAN ALL command.

IMS Command Control Facility then uses the table of names to build and execute the original command. IMS Command Control Facility populates the command with as many matching names as can fit, and issues multiple commands if required.

If the command is being issued to an IMS Command Control Facility group, the table is built by issuing the /DISPLAY x ALL command to the first IMS in the group. In order to get the proper results when using wildcards, IMS Command Control Facility expects all members of a IMS Command Control Facility group to contain identical resource definitions.

When the command driver runs as a batch job (IMS BMP, IMS D/LI batch, or standard z/OS batch), IMS Command Control Facility issues the /DISPLAY x ALL command only once. The table is retained for future commands that might also contain wildcards.

When the command driver runs from ISPF or the callable interface, it is possible that the IMS Command Control Facility group might change. IMS Command Control Facility still creates the table of names when processing the first command with a wildcard, and still retains the table for future use.

However, if IMS Command Control Facility detects a wildcard command is issued using a different IMS Command Control Facility group, the original table is freed and IMS Command Control Facility issues the /DISPLAY x ALL command to the first IMS in the new IMS Command Control Facility group.

Example:

1. IMS Command Control Facility group contains:  
IMS1, IMS2, and IMS3
2. Command entered:  
/STA PROG DFS\*
3. IMS Command Control Facility will:  
/DIS PROG ALL command on IMS1
4. Issue to IMS1, IMS2, and IMS3 (include all names that matched the pattern):  
/STA PROG DFSIVPA DFSIPVB DFSIVPC DFSIVP0 DFSIVP1 ...

IMS Command Control Facility issues multiple commands if more names match the pattern than fit on a single command.

---

## Commands with wildcard support

IMS Command Control Facility provides wildcard support for the following commands:

- /ASS CPRI *xx* TRAN *yy*
- /ASS LMCT *xx* TRAN *yy*
- /ASS LPRI *xx* TRAN *yy*
- /ASS NPRI *xx* TRAN *yy*
- /ASS PARLIM *xx* TRAN *yy*
- /ASS PLMCT *xx* TRAN *yy*
- /ASS SEGNO *xx* TRAN *yy*
- /ASS SEGSIZE *xx* TRAN *yy*
- /ASS TRAN *yy* CLASS *xx*
- /DIS AREA
- /DIS DATABASE
- /DIS PROGRAM
- /DBD AREA
- /DBD DATABASE
- /DBR AREA
- /DBR DB
- /STA AREA
- /STA DATABASE
- /STA PROGRAM
- /STO AREA
- /STO DATABASE
- /STO PROGRAM



---

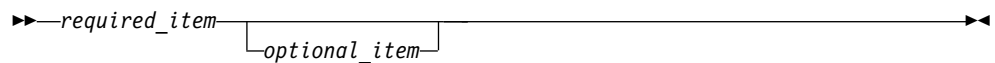
## Chapter 19. How to read syntax diagrams

The following rules apply to the syntax diagrams that are used in this information:

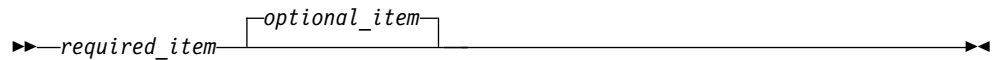
- Read the syntax diagrams from left to right, from top to bottom, following the path of the line. The following conventions are used:
  - The >>--- symbol indicates the beginning of a syntax diagram.
  - The ---> symbol indicates that the syntax diagram is continued on the next line.
  - The >--- symbol indicates that a syntax diagram is continued from the previous line.
  - The --->< symbol indicates the end of a syntax diagram.
- Required items appear on the horizontal line (the main path).



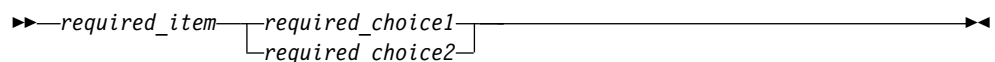
- Optional items appear below the main path.



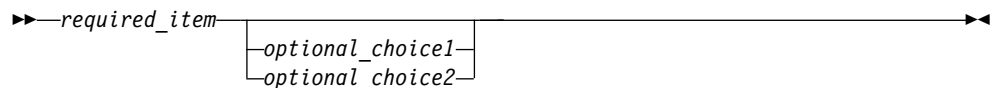
If an optional item appears above the main path, that item has no effect on the execution of the syntax element and is used only for readability.



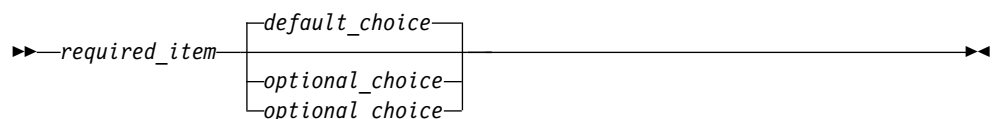
- If you can choose from two or more items, they appear vertically, in a stack. If you *must* choose one of the items, one item of the stack appears on the main path.



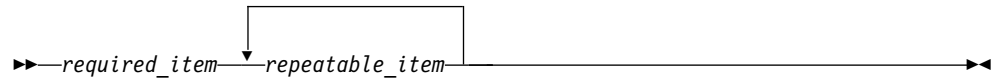
If choosing one of the items is optional, the entire stack appears below the main path.



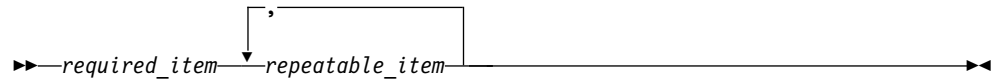
If one of the items is the default, it appears above the main path, and the remaining choices are shown below.



- An arrow returning to the left, above the main line, indicates an item that can be repeated.



If the repeat arrow contains a comma, you must separate repeated items with a comma.



A repeat arrow above a stack indicates that you can repeat the items in the stack.

- 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 6. Appendixes**



---

## Notices

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