CA MIM™ Resource Sharing for z/OS

Statement and Command Reference Guide

Release 11.8.00

CA Product References

This document references the following CA products:

- CA Common Services for z/OS
- CA MIA Tape Sharing (CA MIA)
- CA MIC Message Sharing (CA MIC)
- CA MII Data Sharing (CA MII)
- CA MIM™ Resource Sharing (CA MIM)
- CA OPS/MVS Event Management and Automation (CA OPS/MVS)
- CA Remote Console™
- CA SYSVIEW Performance Management (CA SYSVIEW)

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Chapter 1: Specifying Statements and Issuing Commands

This chapter provides an overview of the rules for specifying statements and issuing commands in CA MIM.

This chapter discusses the MIMPARMS data set. The MIMPARMS data set contains parameter values that CA MIM uses as input during product initialization to define the characteristics of the MIMplex. You specify the MIMPARMS data set on the //MIMPARMS DD statement in the JCL procedure used to start CA MIM. A sample MIMPARMS data set is installed with the CA MIM product into data set CAI.CBTDPARM.

This chapter also discusses the MIMMSGS data set. The MIMMSGS data set is used by the CA MIM Message Facility, which allows you to customize CA MIM message text and routing attributes, such as routing and descriptor codes. You specify the MIMMSGS data set on the //MIMMSGS DD statement in the JCL procedure used to start CA MIM. A sample MIMMSGS data set is installed with the CA MIM product into data set CAI.CBTDMSEN.

This section contains the following topics:

Statement Considerations

Keep in mind the following when you add statements to your data sets:

- You can specify statements only in members of the MIMPARMS and MIMMSGS data sets.
- Some statements can be specified in any member of the MIMPARMS or MIMMSGS data sets; other statements can be specified only in a certain member of the MIMPARMS data set.
- Follow the standard commenting, delimiting, and truncation rules described in this chapter.

More information:

How You Specify Statements and Commands in MIMPARMS and MIMMSGS (see page 11)

Command Considerations

Keep in mind the following when issuing commands:

- You can issue most commands from consoles, TSO sessions, ISPF panels (through TSO), or from the MIMCMNDS and MIMSYNCH members of the MIMPARMS data set. However, exceptions to this rule are noted throughout the CA MIM documentation.
- Command authority restrictions are not applicable to commands issued in the MIMPARMS data set. You cannot issue commands from consoles or through TSO unless your console or TSO user ID has the correct MCS authority level.
- Depending on where a command originates, you may need to add a prefix.
- Follow the standard delimiting and truncating rules described in this chapter.
- Follow the standard commenting rules described in this chapter if you specify commands in the MIMPARMS data set.
- You can route command output to the MIMTRACE data set, to different consoles, and to different display areas.
- The SETOPTION command cannot exceed 255 characters. If you need to specify lengthy SETOPTION commands, then use multiple commands to set your specifications.

Scope of Commands

Certain CA MIM commands affect only the local system, and may need to be repeated on all systems in the MIMplex. Other commands are global. Global commands need to be entered only on one system in the MIMplex, and they take effect on all systems. Each CA MIM command indicates whether the scope of the command is local or global. If the scope is local, then the command has no effect on any other system, and may need to be re-entered on other systems. If the scope is global, then the command needs to be entered on only one system, but affects all active systems in the MIMplex. If the scope is local *or* global, then the command could be processed either locally or globally, depending on the command syntax. CA MIM statements are not designated as local or global, because a statement cannot be changed without restarting the CA MIM address space.

How You Specify Statements and Commands in MIMPARMS and MIMMSGS

Begin each statement or command with the statement or command name (such as SETOPTION, MIMINIT, and so on), followed by any parameters or operands that you are specifying. You can include spaces before the name; CA MIM ignores all leading spaces.

Statements in MIMPARMS and MIMMSGS

You can specify statements only in members of the MIMPARMS and MIMMSGS data sets. Values on the MIMINIT statement can also be specified on the PARM parameter of the startup procedure or on the z/OS START command for CA MIM. Use the following table to determine where you can specify each CA MIM statement:

Statement	Member	Data Set
CTCPATH	MIMINIT	MIMPARMS
DEFSYS	MIMINIT	MIMPARMS
DISABLE	MIMINIT	MIMPARMS
EDIINIT	MIMINIT	MIMPARMS
GCMINIT	MIMINIT	MIMPARMS
GDIINIT	MIMINIT	MIMPARMS
GLOBALVALUE	MIMINIT	MIMPARMS
GTAINIT	MIMINIT	MIMPARMS
TPCINIT	MIMINIT	MIMPARMS

ICMINIT	MIMINIT	MIMPARMS
MIMINIT	MIMINIT	MIMPARMS
ENDIF	Any	Any
IFSYS	Any	Any
INCLUDE	Any	Any
LOG	Any	Any
NOLOG	Any	Any
QNAME	MIMQNAME	MIMPARMS
DEFAULT (for GDIF)	GDIEXMPT	MIMPARMS
GLOBAL	GDIEXMPT	MIMPARMS
LOCAL	GDIEXMPT	MIMPARMS
DATASET	EDIPARMS	MIMPARMS
DEFAULT (for EDIF)	EDIPARMS	MIMPARMS
DSORG	EDIPARMS	MIMPARMS
PATTERN	EDIPARMS	MIMPARMS
PREFIX	EDIPARMS	MIMPARMS
SUFFIX	EDIPARMS	MIMPARMS
UTILITY	EDIPARMS	MIMPARMS
MSG	Any	MIMMSGS
MSGR	Any	MIMMSGS
TABLE	Any	MIMMSGS

Commands in MIMPARMS

You can specify most commands in either the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. Commands in the MIMCMNDS member are issued before systems synchronize, while commands in the MIMSYNCH member are issued after systems synchronize. You also can specify z/OS and JES commands in the MIMSYNCH member. You may find this useful if you want to start various z/OS applications (such as VTAM, TSO, or IMS) after CA MIM has started and synchronized on all systems.

If you specify display-type commands in the MIMCMNDS member, then their output is recorded in the MIMTRACE data set, when the TRACE feature is active. If you specify display-type commands in the MIMSYNCH member, then their output is recorded in the system log.

Continuation Characters

End each statement or command before column 73. If a command or statement does not fit in columns 1-72 of a line, continue the entry on the next line by typing a comma (,) or a plus sign (+) at the end of the current line and then typing the rest of the command or statement on the next line.

How You Include Comments in MIMPARMS and MIMMSGS

CA MIM lets you include comments in members of the MIMPARMS and MIMMSGS data sets in two ways:

- Place an asterisk character (*) in column 1 to indicate that a line is a comment and not a command or statement.

  You can place lines of comments between lines of continued commands or statements.

- Place a slash and then an asterisk (/*) before a comment written on a command or statement line to distinguish the comment from the command or statement. The command or statement must precede the /* character string. Otherwise, it is treated as a comment.

z/OS System Symbols in MIMPARMS

You may include the z/OS System Symbols in your CA MIM statements in the MIMPARMS data set.

Note: For a description of the defined z/OS System Symbols, or for more information on creating installation defined symbols, see the chapter on sharing PARMLIB definitions in the current IBM *z/OS Initialization and Tuning Reference* publication.

For example, to define a unique checkpoint data set prefix value on the MIMINIT statement without having to qualify individual systems with IFSYS/ENDIF statements, specify the following:

```
MIMINIT CHKPTDSN=MIM.SYS&SYSCLONE..CKP
```

In the preceding example, the checkpoint data set prefix resolves to a unique data set prefix on each system where CA MIM is started, as long as the &SYSCLONE. symbol is uniquely defined to z/OS on each system.

Any operator command that is directed cross-system through CA MIC and that contains a system symbolic substitutable value in the command text is resolved on the target system, rather than the source system.

How You Direct Statements and Commands to Designated Systems

You can execute a block of statements or commands on a subset of the systems in your complex. To do this, use IFSYS and ENDIF statements to indicate which systems should execute the enclosed set of statements or commands.

Use the IFSYS statement to mark the beginning of a block of statements or commands. You need to specify the system aliases, system names, or index numbers of the systems that should execute the block of statements or commands on your IFSYS statement. For example, you would specify IFSYS SYS1 to execute the block of statements or commands only on system SYS1. Use the ENDIF statement to mark the end of that block.

You can specify IFSYS and ENDIF statements in any member of the MIMPARMS and MIMMSGS data sets. Because you can specify these statements in the MIMSYNCH member, you can direct even z/OS and JES commands to different systems in your complex. However, we recommend that you never enclose CTCPATH or DEFSYS statements in an IFSYS/ENDIF statement block; all systems need to examine these statements.

For example, suppose that you want to activate the TRACE feature on system 01, but not on systems 02 and 03. To do this, you could specify the following statements and commands in the MIMCMNDS member:

```
IFSYS 01
   SETOPTION TRACE=ON
ENDIF
IFSYS 02,03
   SETOPTION TRACE=OFF
ENDIF
```

How You Issue Commands

CA MIM provides you with a TSO interface that lets you issue CA MIM commands through TSO. If you are running CA MIC, then you also can issue cross-system commands through this interface.

You can issue CA MIM commands through TSO in these ways:

- Issue commands directly to CA MIM. This is useful if you want to issue several CA MIM commands at the same time.
- Issue a single command as a parameter on a TSO command, if the interface has been installed as a command processor.

Command Interface

You can issue commands directly to CA MIM by using the command interface.

To invoke the CA MIM command interface, do one of the following:

- From your TSO ready prompt, enter the following:

  ```
  MIMTSO
  ```

- From an ISPF panel, enter the following:

  ```
  TSO MIMTSO
  ```

When you do this, CA MIM displays the name of each CA MIM started task on the local system, the command prefix character for each started task, and the MIMTSO ready prompt. You then can enter any CA MIM command that you are authorized to issue. Generally TSO users are authorized to issue only display-type commands, such as the DISPLAY and EDITEST commands.

When you are finished, type END at the command prompt and press Enter.

How You Issue a Single Command Through TSO

If you installed the MIMTSO load module as a command processor, then you can issue a single CA MIM command as a parameter on a TSO command.

To issue a single command, access the CA MIM command interface, then enter the command.

For example, you can issue a single DISPLAY INIT command to the local system from a TSO ready prompt by specifying this value at the ready prompt:

```
MIMTSO @DISPLAY INIT
```

In this example, the at-sign character (@) is the CA MIM command prefix character. Omit the command prefix character if you are running only one copy of CA MIM on this system.

If you also issue a CA MIM command through a CLIST, then the response is returned through a TPUT directive.

The z/OS MODIFY Command

To issue CA MIM commands using the z/OS MODIFY command, specify the following information in order:

1. The MODIFY command (or its abbreviation F).
2. The name of the started task that should execute this command, followed by a comma.
3. The CA MIM command that you want to execute.

For example, to issue the SETOPTION SVCDUMP=NO command through the z/OS MODIFY command to the started-task named MIMGR, use this format:

```
F MIMGR,SETOPTION SVCDUMP=NO
```

Important! If you are running the different components of CA MIM as separate started tasks, then We recommend that you do not name any of them MIM. If you specify MIM on a MODIFY command, then all CA MIM started tasks (rather than a single CA MIM started task) execute the command. For example, if you issue the command F MIM,SHUTDOWN, then all started tasks for CA MIM terminate.

Authorization Requirements for Commands

CA MIM checks the MCS command authorization level assigned to your console or TSO user ID when you issue a CA MIM command.

Note: Authorization is not checked for commands or statements specified in the MIMPARMS data set.

You need to have informational command authority (that is, INFO-level authority) to issue display-type commands such as DISPLAY, EDITEST, and HELP. All other commands require system control authority (that is, SYS-level authority). TSO users generally do not have SYS-level authority. These authority levels are defaults. You can use the MIMCMDXT exit routine to prevent certain commands from being issued on the local system or to other systems (when GCMF is running), or to authorize TSO users to issue CA MIM commands that require SYS-level authority.

You can also use the DISABLE command to prevent anyone from issuing a designated CA MIM command.

You can control access to commands through command validation using operating system security software through the system authorization facility (SAF) interface.

Command Prefixes

You need to use either the z/OS MODIFY command or command prefix characters to issue CA MIM commands from a console, through TSO, or from the MIMSYNCH member. We recommend that you do not use a prefix to issue CA MIM commands from the MIMCMNDS member. You never need to use a prefix when specifying z/OS commands in the MIMSYNCH member.

Command Prefix Character String

Use the CMDPREFIX parameter on the SETOPTION command to define a unique one- to eight-character command prefix string. The command prefix string directs a command to a specific CA MIM address space.

To use a CA MIM command with a command prefix, specify the prefix string for CA MIM immediately before the command that you want to execute. By default, the CA MIM command prefix is @ (the at-sign character).

For example, if you want to issue a SETOPTION SVCDUMP=NO command and the command prefix for your site is @, issue this command:

```
@SETOPTION SVCDUMP=NO
```

If you are running multiple copies of CA MIM, then be sure to use the correct command prefix string. You can issue an F MIM,DISPLAY MIM OPTIONS command to see what prefix string is assigned to each started task.

If you are running in a sysplex, then you can use the z/OS display OPDATA command to determine the command prefix string of all CA MIM address spaces.

More information:

Valid Characters for CMDPREFIX Character String (see page 313)

How Command Output is Routed

By default, CA MIM sends command output to the console or TSO user who issued the command. Output is displayed in display area A (out-of-line) if a display area is defined; otherwise, output is sent to display area Z (inline).

MCS L Operand

To route output to a different display area, to a different console, or to the MIMTRACE data set, append the MCS L operand to any CA MIM command.

Note: For more information about display areas and console numbers, see the chapter "Control Command (K)" in the current IBM *z/OS System Commands* or IBM *MVS Planning: Operations* guide.

Note: We recommend that you do not specify the MCS L operand in the operand list when you are issuing the DEFALIAS command from a console or a TSO session. The operand list is the list of operands that are executed when a command alias is specified.

How You Abbreviate and Truncate Statements and Commands

Although you cannot truncate statement names (such as MIMINIT), you can use non-ambiguous truncations for most CA MIM command names. For example, SET is an acceptable truncation for the SETOPTION command name. Note that D is an acceptable truncation for the DISPLAY command, even though there are other command names that start with the letter D.

You can truncate parameters or operands as long as the truncations are non-ambiguous. For example, because VCFF is an acceptable truncation for the VCFFORCE operand on the SETOPTION MIM command, you can issue this command to activate the VCFFORCE function:

```
SET VCFF=ON
```

You cannot use a shorter truncation for VCFFORCE than VCFF because the abbreviation would be ambiguous with the VCFRECOVERY operand on the SETOPTION MIM command.

Note: You cannot truncate command names for the FREE, CP, or ICMF commands.

Statement and Command Syntax

Most CA MIM statements and commands have keyword parameters and operands.

Positional Parameters

The following CA MIM commands and statements have positional parameters or operands that you must specify in the order shown throughout the CA MIM documentation:

- The DEFSYS and DISABLE statements
- The DEFALIAS, DISPLAY, IDEFSYS, and VARY commands

Statement and Command Delimiters

Follow these rules when delimiting information on CA MIM statements and commands:

- When using statement and command delimiter characters as operand values, enclose the operand value with single quotes. The comma, blank, equal sign, right parenthesis, left parenthesis, and single quote are all considered to be delimiter characters.

  For example, to designate the text string, (M), as a message prefix character string operand specify:

  ```
  MIMINIT MSGPREFIX='(M)'
  ```

- When using a single quote character as an operand value, place two consecutive single quote characters together and enclose the operand value with single quotes.

  For example, to indicate that a single quote character is to be used as the subsystem command prefix character for CA MIM command recognition specify:

  ```
  SETOPTION MIM CMDPREFIX=''''
  ```

- Use a comma or space to delimit the statement name from parameters and to delimit the command name from operands.

  For example, the following commands produce the same output:

  ```
  DISPLAY,INIT
  DISPLAY INIT
  ```

- Use a comma or space to delimit parameters and operands when you specify several parameters or operands.

  For example, the following commands produce the same output:

  ```
  DISPLAY INIT,OPTIONS
  DISPLAY INIT OPTIONS
  ```

- Use an equal sign or parentheses to delimit keywords from values. If you specify more than one value (such as several system IDs) for a keyword, then enclose the set of values in parentheses.

  For example, you could specify either of the following to distinguish the keyword SYSID from the value 01:

  ```
  SYSID=01
  SYSID(01)
  ```

- Use a hyphen to delimit items in a range, and use either spaces or commas to delimit items in a list.

  For example, you could specify one of the following:

  ```
  VARY (A10-A12) ONLINE
  VARY (A10 A11 A12) ONLINE
  VARY (A10,A11,A12) ONLINE.
  ```

- If you omit a variable that represents a positional operand or parameter, then substitute a comma for that variable. You need to do this when you are displaying global or local device status information (on a DISPLAY command) or when you are defining system IDs (on a DEFSYS statement or an IDEFSYS command).

  For example, if you skip the alias name on a DEFSYS statement and you then specify the SMF ID SYS1, your DEFSYS statement would look like this:

  ```
  DEFSYS (SYSA,,SYS1)
  ```

How You Interpret Syntax Diagrams

The following legend has been provided to help you read the syntax diagrams provided for each statement and command:

***italics* in lowercase**

Signifies a variable for which the operator must supply information.

[ ] Brackets

Indicates an optional variable. If brackets are excluded, *then you are required to specify at least one variable*.

{ } Braces

Indicates a list of mutually exclusive (meaning you must specify only one) constants separated by a vertical bar or bars {|}.

Underlined Text

Indicates the default variable.

Note: Positional parameters, keywords, and operands are indicated by indented text in the syntax diagrams.

Notation Used for Components

To aid readability, the CA MIM guides use abbreviated names when referring to the components and facilities, except in cases where the abbreviation would obscure the intended meaning. The abbreviations are as follows:

GTAF

Stands for Global Tape Allocation Facility

TPCF

Stands for Tape Preferencing and Control Facility

GCMF

Stands for Global Command and Message Facility

ICMF

Stands for Intersystem Communication Facility

ECMF

Stands for Enqueue Conflict Management Facility

EDIF

Stands for Enhanced Data Set Integrity Facility

GDIF

Stands for Global Data Integrity Facility

Chapter 2: General Statements and Commands

This chapter discusses CA MIM statements and commands.

(MIM) ACTIVATE Command—Activate New Features

The ACTIVATE command initiates the activation of new release features in the CA MIM complex. If all defined members of the CA MIM complex (MIMplex) agree that they are willing to support the selected compatibility level, then the system on which the command was issued coordinates the activation of the named compatibility level and all MIMplex members begin operating at the requested compatibility level.

Scope: Global

This command has the following format:

```
ACTIVATE COMPATLEVEL=(level,[FORCE])
```

COMPATLEVEL

Indicates the format of the CA MIM control file and the associated functionality that is to be activated.

level

Specifies the compatlevel based on the product release. Acceptable values for this operand are 11.6, 11.7 or 11.8.

Note: 11.6 support is only provided for users upgrading from 11.6 to 11.8.

FORCE

(Optional) Tells CA MIM to ignore the lack of responses from any inactive or non-existent systems when processing a compatibility level activation request.

Usage Notes: ACTIVATE Command

- If any active MIMplex members reject the activation of the named compatibility level, or if any defined system fails to respond (because it is inactive, or does not exist), then the ACTIVATE command is rejected. If ACTIVATE is being rejected due to the lack of a response from inactive, or non-existent systems, then the activation of the specified compatibility level can be made by including the FORCE operand on the COMPATLEVEL keyword.
- The FORCE keyword is not honored if an active system fails to respond, or if an active system specifically rejects the activation of the specified compatibility level.

- Once the requested compatibility level has been activated in the MIMplex, the installation must ensure that the corresponding change is accurately reflected on the MIMINIT COMPATLEVEL operand specification in the MIMINIT member of the MIMPARMS data set.

  Important! Failure to do this prevents CA MIM from joining the MIMplex on any subsequent restart of the CA MIM address space until the MIMINIT COMPATLEVEL parameter change is made.

Examples: ACTIVATE Command

Suppose you are running CA MIM 11.7 with COMPATLEVEL=11.7 on three systems and want to upgrade to CA MIM 11.8. You are unable to upgrade all systems at once, so you shutdown CA MIM 11.7 on one system at a time and start CA MIM 11.8 with COMPATLEVEL=11.7.

When all systems are at Release 11.8, you can issue the following command. The FORCE keyword tells CA MIM to ignore the lack of responses from any inactive or non-existent systems.

```
ACTIVATE COMPATLEVEL=(11.8,FORCE)
```

Note: For more information, see the chapter “Advanced Topics” in the *CA MIM Programming Guide*.

(MIM) ALLOCATE Command-Dynamically Allocate Data Sets

The ALLOCATE command lets you define control files, checkpoint files, and the TRACE data set. It directs CA MIM to dynamically allocate these types of data sets. In the case of control files and the TRACE data set, use of this statement eliminates the requirement to define DD card images in the startup JCL procedure for these data sets.

Scope: Local

This command has the following format:

```
ALLOCATE {CHKPT=number |
         [CTC=unit]  |
          DDNAME=ddname {DSNAME=dsname [MEMBER=name]
                                       [UNIT=unitname]
                                       [VOLSER=volser]|
                        SYSOUT=class   [COPIES=nnn]
                                       [DEST=dddd]
                                       [FCB=xxx]
                                       [FORMS=form]
                                       [HOLD={NO|YES}]
                                       [UCS=xxxx]} |
         XESFILEID=id    STRNAME=name}]
```

CHKPT

Causes the specified checkpoint file to be allocated for use by CA MIM. The allowable values are 00 to 99. The CHKPT operand is not supported on ALLOCATE commands placed in the MIMINIT member.

CTC

Makes a CTC device available for virtual control file operations. This device must be predefined on a CTCPATH statement. Specify the logical device address of the CTC device in place of *unit*. The CTC operand is not supported on ALLOCATE commands placed in the MIMINIT member.

DDNAME

Makes a data set available to CA MIM. Specify the ddname of the data set in place of *ddname*. You can allocate a new control file by specifying a ddname of MIMTBL*nn*, where *nn* is 00 through 99. You can allocate a checkpoint file by specifying a ddname of MIMCKP*nn*, where *nn* is 00 through 99.

Note: For more information, see the *CA MIM Programming Guide*.

DSNAME

Makes a real data set (not a SYSOUT data set) available. Specify the name of the data set in place of *dsname*.

MEMBER

(Optional) Makes a data set member available to CA MIM. Specify the name of the member in place of *name*.

UNIT

(Optional) Identifies the device on which this data set resides. Specify the unit name in place of *unitname*. The unit name can be an esoteric, generic, or device address. If a four-digit device address is used, then prefix the address with a /.

VOLSER

(Optional) Identifies the location of the data set. Specify the volume serial location in place of *volser*.

SYSOUT

Makes a SYSOUT data set available to CA MIM. Specify a SYSOUT class in place of *class.* Valid classes are:

COPIES

(Optional) Determines how many copies of this SYSOUT data set are printed. Specify a value from 1 to 255 in place of *nnn*.

Default: 1

DEST

(Optional) Identifies the local or remote device on which this SYSOUT data set should be printed. Specify the name of a printer or JES node in place of *dddd*.

FCB

(Optional) Indicates what forms control buffer image should be used when this SYSOUT data set is printed.

Default: The forms control buffer image associated with the specified printing device is used.

FORMS

(Optional) Indicates what form should be used when this SYSOUT data set is printed.

Default: The form currently on the specified printing device is used.

HOLD

(Optional) Indicates whether CA MIM should place this SYSOUT data set in a held state until you release it. Specify NO or YES.

Default: HOLD=NO

UCS

(Optional) Determines what universal character set, print train, or character arrangement table is used for this SYSOUT data set. Specify a value in place of *xxxx*.

Default: The value currently associated with the printing device is used.

XESFILEID

Assigns a control file identifier to a coupling facility structure control file. The identifier, *id*, can be a numeric value from 00 to 99. Note, however, that the identifier value cannot duplicate an *nn* value specified on a MIMTBL*nn* ddname used to reference a DASD control file.

Note: For more information, see the *CA MIM Programming Guide*.

STRNAME

Specifies the name of a coupling facility structure that is to be used as a CA MIM control file. The name can be from one to sixteen characters in length. The first character must be alphabetic, while the remaining characters may be alphanumeric or national (@, $, #) characters. CA MIM does not support the underscore (_) character in structure control file names.

Usage Notes: ALLOCATE Command

- The ALLOCATE command can be issued from a console, from the MIMSYNCH member, or the MIMINIT member. If the command is issued from the MIMINIT member, then specify the full ALLOCATE command name, not an abbreviation of the command name.
- ALLOCATE commands placed in the MIMINIT member can be used to allocate control files, checkpoint files, or the trace data set. The use of ALLOCATE commands in the MIMINIT member to allocate control files and the trace data set eliminates the requirement to specify these respective data sets as DD card images in the MIMPROC JCL procedure. If the same ddname is specified in both the MIMPROC JCL procedure and on an ALLOCATE command in the MIMINIT member, then the DD specification in the JCL procedure takes precedence.
- Use ddnames of the form MIMTBL*nn*, where *nn* is a numeric value from 00 to 99, inclusive, to allocate DASD control files.
- Use ddnames of the form MIMCKP*nn*, where *nn* is a numeric value from 00 to 99, inclusive, to allocate DASD checkpoint files.
- You must be authorized to issue system control commands to issue the ALLOCATE command. TSO users generally are not authorized to issue system control commands.
- The ALLOCATE command allocates data sets with a disposition of DISP=(SHR,KEEP).

- If you allocate a control file or a checkpoint file, then the ALLOCATE command automatically formats the file, if necessary, so there is no need to restart CA MIM.
- Use XESFILEIDs of numeric values from 00 to 99 to allocate coupling facility structure control files.
- Coupling facility structure control files can only be allocated at start up by placing ALLOCATE commands in the MIMINIT member; whereas, DASD control files can be allocated at start up through either an ALLOCATE command in the MIMINIT member or a DD card image in the MIMPROC JCL procedure.
- Do not duplicate the use of control file identifiers for DASD control file and coupling facility structure control files. Specifically, do not specify a MIMTBLnn ddname and a XESFILEID=nn on ALLOCATE commands where nn is the same numeric value.

Examples: ALLOCATE Command

- To allocate a cataloged DASD data set for use as a control file using a control file identifier of 02, issue this command:

  ```
  ALLOCATE DDNAME=MIMTBL02 DSNAME=MIMGR.VSHARE0.TABLE
  ```

- To allocate a coupling facility structure for use as a control file using a control file identifier of 99, issue this command:

  ```
  ALLOCATE XESFILEID=99 STRNAME=MIMGR@STRUCT#1
  ```

- To make the CTC device with address 2C0 available, issue this command:

  ```
  ALLOCATE CTC=2C0
  ```

  You must have previously defined the CTC device by a CTCPATH statement in the initialization member. You cannot dynamically define CTC paths to systems that did not previously exist.

  CA MIM verifies that the CTC device specified has an operational path and is ONLINE before attempting to allocate the device. If either of these conditions is not met, then the CTC device is not allocated and an error message is issued.

AUTHCHK Command-Check Authorization Codes (MIM)

The AUTHCHK command performs an immediate check of the CA MIM product authorization codes as defined in the CAIRIM data set.

Scope: Local

This command has the following format:

```
AUTHCHK
```

Usage Notes: AUTHCHK Command

- The AUTHCHK command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the AUTHCHK command. TSO users generally are not authorized to issue system control commands.
- Although CA MIM periodically checks its authorization statements, you can use the AUTHCHK command to perform an *immediate* authorization check.

  Note: The interval for periodic checks is determined by the AUTHCHECK operand on the SETOPTION command.

Example: AUTHCHK Command

To check the CA MIM product authorization codes for this CPU, issue this command:

```
AUTHCHK
```

(MIM) CP Command-Issue z/VM Program Commands

The CP command lets you issue z/VM control program commands to the host z/VM operating system.

Scope: Local

This command has the following format:

```
CP command
```

command

Specifies the z/VM control program command to send to the host z/VM operating system.

Usage Notes: CP Command

- The CP command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the CP command. TSO users generally are not authorized to issue system control commands.
- You can issue more than one z/VM control program command at a time by separating the z/VM commands with the pound (#) character.

Examples: CP Command

- To attach a tape drive to your guest, use the z/VM ATTACH command:

  ```
  CP ATTACH 5C1 TO * AS 5C1 NOASSIGN
  ```

- To send a message to two z/VM user IDs, use the CP MSG command twice, as shown here:

  ```
  CP MSG OPERATOR MIM STARTED#CP MSG MAINT MIM STARTED
  ```

(MIM) CTC Command—Clear CTC Error

If a CTC error occurs, then the CTC command lets you clear and reset the status of one or more CTC devices linked to the local system. You can specify this command only in a CTCDASD or CTCONLY environment.

Scope: Local

This command has the following format:

```
CTC RESET[=device]
    SWITCH
```

RESET

(Optional) Clears the internal and external error indicators for one or more CTC devices.

By default, CA MIM clears these error indicators for all CTC devices on the local system. To clear these indicators only for a certain device, specify the address of the device in place of *device*.

SWITCH

(Optional) Switches the virtual control file to the next CTC device address.

Note: The CTC SWITCH command is not valid from a master system.

Usage Notes: CTC Command

- You must specify at least one parameter for this command.
- The CTC command can be used only when CTCDASD or CTCONLY are specified on a MIMINIT COMMUNICATION statement.
- You may need to use this command if CA MIM detects an error condition associated with a CTC device. If you correct the hardware or software problem, then CA MIM does not automatically detect that the error state no longer exists. You can use the CTC command to clear the error state and resume CTC activity.
- You can use the DISPLAY PATH command to display a list of all CTC devices known to the local system.

- The CTC command usually is issued from a console, rather than from the CA MIM parameter data set.
- You must be authorized to issue system control commands to issue the CTC command. TSO users generally are not authorized to issue system control commands.

Examples: CTC Command

- To clear the error indicators for CTC device 02C1, issue this command:

  ```
  CTC RESET=02C1
  ```

- To take a currently active CTC device offline and migrate to the next available CTC path, issue this command:

  ```
  CTC SWITCH
  ```

CTCPATH Statement-Define CTC Device

The CTCPATH statement lets you define the CTC device addresses connecting systems. It is used with the CTCONLY and CTCDASD communication methods.

This statement has the following format:

```
CTCPATH FROMSYSTEM=sysid  ADDRESS=(devn1[,devn2]) TOSYSTEM=sysid
```

FROMSYSTEM

Identifies the system from which you are creating a CTC path. Specify the system name, alias, or index number for this system in place of sysid.

ADDRESS

Indicates what logical device address the system identified on the FROMSYSTEM parameter should use to communicate with the system identified on the TOSYSTEM parameter.

You can specify two types of addresses: a primary address and a backup channel address. Specify the primary address in place of *devn1*. If you want to establish backup channels, then specify their addresses in place of *devn2*.

You can specify a maximum of 16 addresses for the ADDRESS parameter.

TOSYSTEM

Identifies the system to which you are creating a CTC path. Specify the system name, alias, or index number for this system in place of *sysid*.

Usage Notes: CTCPATH

- Do not specify CTCPATH statements between IFSYS and ENDIF statements.
- To check your CTCPATH statements, issue the DISPLAY PATH command.

- You need to reformat your control files after specifying CTCPATH statements for the first time. You do not have to reformat the control files if you change the values for a CTCPATH statement, if you specify an additional CTCPATH statement, or if you delete a CTCPATH statement, as long as one remains.
- You must specify *two* CTCPATH statements for each pair of systems that you are connecting.

  Note: For more information on CTC connectivity, see the *CA MIM Programming Guide*.
- The CTCPATH statement can be specified only in the initialization member of the CA MIM parameter data set.
- You must specify the same CTCPATH statements on all systems. The initialization member of each system should contain the complete list of CTCPATH statements, even those that define paths on other systems.
- If z/OS is running as a guest under z/VM and you want to connect systems to virtual CTC devices, then you must define virtual addresses for each device through the CP DEFINE and COUPLE commands.

Examples: CTCPATH Statement

- To connect systems SYS1 and SYS2 through the primary addresses 803 and 2C3, specify these statements in the initialization member:

  ```
  CTCPATH FROMSYSTEM=SYS1 ADDRESS=803 TOSYSTEM=SYS2
  CTCPATH FROMSYSTEM=SYS2 ADDRESS=2C3 TOSYSTEM=SYS1
  ```
- To connect systems SYSA and SYSB using a primary CTC connection and two backup or alternate CTC connections, define the following statements:

  ```
  CTCPATH FROMSYSTEM=SYSA ADDRESS=(90D0,80C1,9090) TOSYSTEM=SYSB
  CTCPATH FROMSYSTEM=SYSB ADDRESS=(70D1,A0C0,8091) TOSYSTEM=SYSA
  ```

  The first pair of CTC addresses, 90D0 and 70D1, connects SYSA and SYSB. This is the primary connection.

  The second pair of CTC addresses, 80C1 and A0C0, connects SYSA and SYSB. This is the first alternate connection.

  The third pair of CTC addresses, 9090 and 8091, connects SYSA and SYSB. This is the second alternate connection.

(MIM) DEALLOCATE Command-Deallocate a Resource

The DEALLOCATE command lets you deallocate a data set, control file, SYSOUT data set, or CTC device that currently is available to CA MIM.

Scope: Local

This command has the following format:

```
DEALLOCATE {CHKPT=number |
            CTC=unit[FORCE] |
            DDNAME=ddname |
            XESFILEID=id }
```

CHKPT

Deallocates a checkpoint file. Allowable values are 00 to 99.

CTC

Deallocates a CTC device. Specify the logical device address of the device in place of *unit*.

If you need to deallocate a CTC device that is currently active, then you can issue the command DEALLOCATE CTC=*unit* FORCE; however, you should only use the FORCE operand when all attempts to switch from the CTC device have failed.

DDNAME

Deallocates a data set. Specify the ddname of the data set.

XESFILEID

Specifies a control file identifier associated with a coupling facility structure control file that is to be deallocated. The identifier, *id*, can be a numeric value from 00 to 99.

Usage Notes: DEALLOCATE Command

- You must use the DDNAME operand on the DEALLOCATE command when deallocating the MIMTBL data set.
- The DEALLOCATE command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the DEALLOCATE command. TSO users generally are not authorized to issue system control commands.
- You cannot use the DEALLOCATE command to deallocate a data set for the TRACE feature.

- In a CTCDASD environment, use the MIGRATE command to deactivate virtual control file operation before you deallocate a CTC device. In a CTCONLY environment, use the SWITCH command to switch to an alternate CTC path before you deallocate a CTC device.
- You must use the XESFILEID operand on the DEALLOCATE command when deallocating a coupling facility structure control file.

Examples: DEALLOCATE Command

- To deallocate the data set with the ddname MIMTLB02, issue this command:

  ```
  DEALLOCATE DDNAME=MIMTBL02
  ```

- To deallocate the CTC device having logical device address 800, issue this command:

  ```
  DEALLOCATE CTC=800
  ```

- To deallocate a coupling facility structure in use as a control file using a control file identifier of 99, issue this command:

  ```
  DEALLOCATE XESFILEID=99
  ```

(MIM) DEFALIAS Command—Define Command Alias

The DEFALIAS command lets you define command aliases for CA MIM commands. You can substitute a command alias for the full command specification (including operands) when you want to issue that command.

You can use command aliases for these purposes:

- To issue a shorter version of a command (for example, in place of a display command that has several parameters)
- To issue a command in a way that is easier to remember or more consistent with commands that you already know

Use the command name, rather than the alias, when looking up information about the command or when contacting CA Technical Support. Also, because of changes in command format or function, you may need to redefine existing aliases when you upgrade to a new release of CA MIM.

Scope: Local

This command has the following format:

```
DEFALIAS alias command [operands]
```

alias

Specifies the one- to eight-character alias that can be substituted for the command.

command

Specifies the full name of the command that should be executed when this command alias is specified.

operands

(Optional) Specifies the command-specific operands that you want to execute when this command alias is specified.

Usage Notes: DEFALIAS Command

- The DEFALIAS command can be specified in the MIMCMNDS or MIMSYNCH member of the CA MIM parameter data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the DEFALIAS command. TSO users generally are not authorized to issue system control commands.
- The DEFALIAS command contains positional operands. You must specify operands in the order shown in the format box.
- You can append operands to the command alias when you are issuing a command. For example, you can define a command alias named ENQDISP, which represents the DISPLAY COUNTS command. If you also want to see information about hardware reserves, then you can append the RESERVES operand to this command alias. That is, you can issue an ENQDISP RESERVES command.
- You cannot specify the MCS L operand in the operand list when you issue the DEFALIAS command from a console or a TSO session. However, you can specify the MCS L operand if you issue the DEFALIAS command from the CA MIM parameter data set.

- If the alias text contains any special characters, the entire positional text operand should be enclosed within single quotes. For example, to use a command alias name of C=D to display GDIF ENQ count information, specify the following:

  ```
  DEFALIAS 'C=D' DISPLAY GDIF COUNTS
  ```

Examples: DEFALIAS Command

- To define the command alias DOPT for the DISPLAY OPTION command, issue this DEFALIAS command:

  ```
  DEFALIAS DOPT DISPLAY OPTIONS
  ```

- If you regularly issue the DISPLAY CONFLICTS command, you can create the following command alias to make it easier to issue:

  ```
  DEFALIAS CONF DISPLAY CONFLICTS
  ```

  Then you can issue the string CONF to issue the DISPLAY CONFLICTS command.

(MIM) DEFSYS Statement-Define MIMplex Systems

The DEFSYS statement identifies the systems participating in the MIMplex. The systems defined here will communicate using the DASDONLY, CTCONLY, CTCDASD, or XCF communication methods.

This statement has the following format:

```
DEFSYS (sysname[[,alias][,smfid]][,{INITIAL=ACTIVE|FREED}])
```

sysname

Specifies the one- to eight-character system name that CA MIM should assign to the system.

alias

(Optional) Specifies the one- or two-character alias that CA MIM should assign to the system.

Default: The system index number.

Note: System index numbers are discussed under Usage Notes for this statement.

smfid

Specifies the SMF ID or system name of the system, and should match the actual SMF ID or system name for one, and only one, of your systems. The name and alias is applied to the system whose SMF ID matches.

INITIAL

(Optional) Specifies in which state the system starts up. Valid values are:

ACTIVE

Specifies that the system starts up and is expected to be active

FREED

Specifies that the system is to start up in the freed state, meaning you will not need to manually issue the FREE command to synchronize without that system.

Important! INITIAL takes effect only when you format the control file.

Usage Notes: DEFSYS Statement

- The DEFSYS statement can be specified only in the MIMINIT member.
- DEFSYS statements must be the same on all systems (including the order in which systems are listed).
- Do not specify DEFSYS statements between IFSYS and ENDIF statements.
- You must define names to systems if you are using CTCDASD, CTCONLY, or XCF communication methods. You can omit DEFSYS statements when running in DASDONLY mode, but we recommend that you define one anyway.
- The DEFSYS statement contains positional parameters. For information of what order you must specify these positional parameters, see the DEFSYS Statement in this chapter.
- Index numbers are assigned to systems based on the order of the system names defined on the DEFSYS statement. The first system on the DEFSYS statement is assigned index number 01, the second system is assigned index number 02, and so on. These indexes must be the same on all systems, so the DEFSYS statements must be the same on all systems.
- You need to reformat your checkpoint and control files to implement modifications to the DEFSYS statement.
- You must relate the z/OS system names to the CA MIM system names to use the auto FREE feature. To do this, update the *smfid* field of the DEFSYS statement with the z/OS system name.
- **Note:** For more information on determining the z/OS system name, see the *CA MIM Programming Guide*.

Examples: DEFSYS Statement

- Use the following statement to assign a system name, SYSA, and an alias, AA, to the system having an SMFID of SYSA, and a system name, SYSB, and an alias, BB, to the system having an SMF ID of SYSB:

```
DEFSYS (SYSA,AA,SYSA) (SYSB,BB,SYSB)
```

- To assign system names IPOX1 and IPOX2 to systems SMF1 and SMF2 (respectively), specify this statement in the MIMINIT member:

  ```
  DEFSYS (IPOX1,,SMF1) (IPOX2,,SMF2)
  ```

  Because the system aliases are omitted from this statement, CA MIM uses the system index numbers for the aliases. 01 is the alias for system IPOX1 and 02 is the alias for system IPOX2.

- To assign the system names IPOX1 and IPOX2 to systems SMF1 and SMF2 (respectively) and to request that system IPOX2 be initially free, specify this statement in the initialization member:

  ```
  DEFSYS (IPOX1,B1,SMF1,INITIAL=ACTIVE),
         (IPOX2,B2,SMF2,INITIAL=FREED)
  ```

Note: Because INITIAL=FREED was specified for system IPOX2, when CA MIM is started with a control file format on system IPOX1, it is not necessary to issue a FREE command to allow system IPOX1 to synchronize. The INITIAL=FREED parameter can be useful for systems that are designated test systems or infrequently brought into the MIMplex.

(MIM) DISABLE Statement-Disable a Command

The DISABLE statement lets you disable a CA MIM command. Any command can be disabled, and individual operands can be disabled on the DISPLAY, DUMP, GLOBALVALUE, SETOPTION, and SETTRACE commands. Disabled commands and operands cannot be restored by any command, but become available again once CA MIM is restarted. The DISABLE command is typically used to prevent system operators or TSO users from issuing specific CA MIM commands.

This statement has the following format:

```
DISABLE command
        command [facility] operand
```

command

Disables an entire command. For example, DISABLE SETOPTION disables the SETOPTION command and all of its operands for all CA MIM facilities.

command* [*facility*] *operand

Disables an operand of the specified command. For example, the command DISABLE DISPLAY GTAF ALL disables the ALL operand on the DISPLAY command for the GTAF facility, but leaves ALL in use as an operand for other CA MIM DISPLAY commands. You do not need to specify *facility* for unique operands, but it should be used when the same operand is defined for a number of facilities.

Note: When you disable an operand for the SETTRACE command, it is automatically disabled for the SETPRINT, RESETTRACE, and RESETPRINT options.

Usage Notes: DISABLE Statement

- To enable a command, you must remove the DISABLE statement from the command member, and then restart CA MIM.
- If you issue DISPLAY COMMANDS to see a list of CA MIM commands and command aliases, then you do not see any of the commands that have been disabled.
- The DISABLE statement can be specified in the MIMCMNDS and MIMSYNCH members of the MIMPARMS data set, as well as issued dynamically from a console.

Examples: DISABLE Statement

- To disable the LINK command, specify this statement in the MIMCMNDS member:
  `DISABLE LINK`
- To disable the SETOPTION command, specify DISABLE SETOPTION. You also could specify this DISABLE statement in the MIMCMNDS or MIMSYNCH member:
  `DISABLE SETOPTION`

(MIM) DISPLAY MIM Command-Display Status and Operating Information

The DISPLAY MIM command lets you display information about the status of the MIMplex and operating characteristics of CA MIM.

Scope: Local

This command has the following format:

```
DISPLAY MIM [ALL] | [COMMANDS]
                    [CPOOL[,NAME=value][,POOLINFO={YES|NO}]]
                    [CTCPATH[=RESET]]
                    [EXIT[=exitid]]
                    [FACILITIES]
                    [FILES]
                    [GLOBALVALUE]
                    [INIT]
                    [IO[=CF,CHKPT[,RESET]]]
                    [MODULE[=mask][,CSECT[=mask][,ROUTINES]]
                    [MSGTABLE]
                    [OPTIONS]
                    [OSLEVEL]
                    [PATH[=RESET]]
                    [SYSTEMS={ALL|CTLFILE|ICMF}]
                    [TASK[=mask]]
                    [XCFSTATS[=RESET]]
```

ALL

Displays all status and activity information about CA MIM, except for CPOOL, MODULE, and TASK information.

COMMANDS

(Optional) Displays a list of all valid CA MIM commands and command aliases. The display does not show any commands or aliases for commands that have been disabled through the DISABLE command. Also, it shows commands only for active CA MIM facilities. Information about commands is displayed in message MIM0056, and information about command aliases is shown in MIM0053.

CPOOL

Displays information about CA MIM cell pool storage usage. This information is displayed in message MIM0447. Specify one of these values:

NAME

Requests information about virtual storage cell pools. Valid values are:

mask--Display any cell pool that matches the name mask provided. You can use the * and # wildcard characters.

The asterisk (*) means that a match occurs for any names containing the characters preceding the asterisk. The pound sign (#) means that a match occurs for the name provided, and names containing any characters located where the # is placed in the name string.

NONZERO--Display those cell pools that currently have cells allocated.

ALL--Display all defined cell pools.

Default: NAME=NONZERO

POOLINFO

Requests information about the virtual storage pool areas from which cell pools are allocated. Specify one of these values:

YES-Display information about the virtual storage pool areas.

NO-Omit information about the virtual storage pool areas.

Default: YES

CTCPATH

This parameter is currently outdated, but it has been retained for compatibility purposes.

More information:

PATH parameter

EXIT

(Optional) Displays the exit name, load module name, status, and other information about *all* active exit routines. However, if you specify a logical name for an exit routine in place of the *exitid* variable, then CA MIM displays information for only the specified exit routine. If you do not enter a value for *exitid*, then information is displayed about every routine that has ever been loaded.

FACILITIES

(Optional) Displays information about CA MIM facilities that are active on the local system and what service level you are running on each facility. This information is displayed in message MIM0090I.

FILES

(Optional) Displays information about the status of CA MIM control files and checkpoint files. Control file information is displayed in message MIM0102I, and checkpoint file information is displayed in message MIM0104I.

GLOBALVALUE

(Optional) Displays the current values of the CA MIM GLOBALVALUE parameters, which provide details about your virtual control file recovery and master selection options. This information is displayed in message MIM0373.

The display shows the VCFMASTER candidate list in effect. Systems marked with an asterisk (*) are permanently ineligible because they are not connected to one or more other systems through CTC paths. Systems marked with a minus sign (-) are temporarily ineligible because they are currently unable to communicate with one or more systems.

Note: If GLOBALVALUE ANYELIGIBLE=YES was specified on a MIMINIT statement, then the display also includes eligible master systems not in the VCFMASTER candidate list.

INIT

Displays information about the initialization values that can be set through the MIMINIT statement, in the PARM field of the startup procedure, or as an operand on the z/OS START command that invokes CA MIM. This information is displayed in message MIM0037. You can change the values displayed only by updating the MIMINIT parmlib member and restarting CA MIM.

IO

Displays statistics about CA MIM control file and checkpoint file I/O activity. Control file information is displayed in message MIM0039. Checkpoint file information is displayed in message MIM0107.

Without any operands, CA MIM displays the statistics that have accumulated for both file types since the last time CA MIM was started. To obtain statistics for control files only, specify D IO=CF. To obtain statistics for checkpoint files only, specify D IO=CHKPT.

To reset the counters, issue the command D IO=RESET. When you issue the next D IO command, CA MIM displays an additional line that includes the statistics that have accumulated since you last reset the counters.

It is also possible to perform a reset for each individual file type.

- To perform a reset for control files, enter the following:

  ```
  D IO(CF,RESET) or D IO=(CF, RESET).
  ```

- To perform a reset for checkpoint files, enter the following:

  ```
  D IO(CHKPT,RESET) or D IO=(CHKPT,RESET).
  ```

MIM

(Optional) Tells CA MIM to display information about the CA MIM product in general, rather than about a specific facility.

Specify this operand before the ALL, INIT, OPTIONS, or STATISTICS operands. You also should specify the MIM operand before any other operand that is truncated in such a way that it may be ambiguous with operands for other facilities. Because MIM is a positional operand, you must specify it before any other operand on this command.

MODULE

Displays information about all modules loaded by CA MIM. Optionally, to tailor the requested display, a module name mask can be supplied with this operand to display specific load modules. Specify one of these values:

mask

Specifies the name for any load module that matches the name mask provided. You can use the * and # wildcard characters.

The asterisk (*) means that a match occurs for any names containing the characters preceding the asterisk. The pound sign (#) means that a match occurs for the name provided, and names containing any characters located where the # is placed in the name string.

CSECT

Displays information about all CSECTs in the requested module. If this is omitted, then no CSECT information is presented in the module display. The CSECT information display can be limited through the use of a CSECT name mask. It only has meaning for CA MIM load modules.

Note: You must specify CSECT to display routines.

ROUTINES

Requests that individual subroutine information be formatted and displayed with CSECT information. It only has meaning when the CSECT operand is requested.

MSGTABLE

(Optional) Displays information about each message table (original or replacement). The name, language, and number of messages per table/language are displayed for each message table.

OPTIONS

(Optional) Displays information about the CA MIM operating values that can be set through the SETOPTION command. These are the operating values that affect more than one CA MIM facility. This information is displayed in message MIM0038. The values displayed can be dynamically changed using the SETOPTION command.

OSLEVEL

Displays the operating system level, SMF ID, and system name for the z/OS operating system currently running.

PATH

Displays information about CTCPATH statements: details about cross-system communications paths for virtual control file processing. This information is displayed in message MIM0176. By default, CA MIM displays information it gathered since the last time you started CA MIM. If you want to reset the counters, then issue the command D PATH=RESET. When you issue the next D PATH command, statistics that have accumulated since you last reset the counters, as well as the counts since initialization, are displayed.

SYSTEMS

Displays information about the status of systems. This information is displayed in message MIM0108I (and MIM6003, when ICMF systems are displayed). Specify one of these values:

ALL

Displays information for all systems (both CTC/DASD and ICMF).

CTLFILE

Displays information for all CTC/DASD systems only (excluding ICMF).

ICMF

Displays information for all ICMF systems (which excludes CTC/DASD).

Default: ALL

TASK

Displays information about CA MIM service subtasks. Optionally, to tailor the requested display, a subtask name mask can be supplied with this operand to request specific subtasks. You can use the * and # wildcard characters (described previously).

XCFSTATS

Displays statistics about XCF communications. This information is displayed in message MIM0460I. By default, CA MIM displays information it gathered since the last time it was started. If you want to reset the counters, then issue the following command:

```
D XCFSTATS=RESET
```

When you issue the next D XCFSTATS command, statistics that have accumulated since you last reset the counters, as well as the counts since initialization, are displayed.

Default: OPTIONS

Usage Notes: DISPLAY MIM Command

- The DISPLAY MIM command can be specified in the MIMCMNDS or MIMSYNCH member of the CA MIM parameter data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You can issue the DISPLAY MIM command from any console or TSO session.
- You can specify several of these operands on the same DISPLAY MIM command (for example, DISPLAY MIM COMMANDS FILES). Do not specify these operands with operands associated with other facilities.

Example: DISPLAY Command

To display the current initialization and operating values and other information for all CA MIM facilities, issue this command:

```
DISPLAY MIM ALL
```

(MIM) DUMP MIM Command-Create Dump

CA Technical Support uses the DUMP MIM command for diagnostic purposes. This command is to be used only when you are directed by CA Technical Support to do so.

Scope: Local

This command has the following format:

```
DUMP MIM [ACTAREA]
         [ADDRESS=(address[,length])]
         [CHANGEMEMORY=(addr,newvalue[,key])]
         [C0AREA]
         [DFRE]
         [DI0AREA]
         [FCV]
         [GCDAREA[={CHKPT[=00]|CTC|DASD[=00]|VCF}]]
         [GMR[={CHKPT|VCF}]]
         [GPRMBLK]
         [GQ0AREA]
         [GQ1AREA]
         [GQ2AREA]
         [GQ8AREA]
         [GSIE]
         [GVALBLK]
         [IOSTATS[=CHKPT]]
         [KILL=({TASKNAME=identifier|TCB=tcbaddr[,ASID=asid]}]
         [LOCKS]
         [LXCELL]
         [LXWA]
         [MLI]
         [MODULE=(module[,length] )]
         [MSGDIR]
         [MSGTBL]
         [PATH[=ALL]]
         [ROUTINE]
         [S1AREA]
         [STRNAME=structure]
         [T1AREA]
         [TRAPS=keywords]
         [UCB=(dddd[,length])[,UPDATE=(disp,data)]]
         [USERAUTH]
         [UXDEF]
         [UX0AREA]
         [UX1AREA]
         [VCFAREA]
         [VCFPATHS[=ALL]]
         [VCFTRACE]
         [XESDATA=structure]
```

ACTAREA

(Optional) Dumps the ACTAREA control block.

ADDRESS

(Optional) Dumps the requested storage beginning at the specified one- to four-byte *address* and for the specified *length*. The *address* is required, while *length* is optional. Both values are specified in hexadecimal format. For example, the address could be entered as X'1C000' or 1C000. The default length displayed if no value is entered for *length* is X'D0' bytes.

CHANGEMEMORY

(Optional) Changes the contents of memory.

C0AREA

(Optional) Dumps the C0AREA control block.

DFRE

(Optional) Dumps the DFRE control blocks.

DI0AREA

(Optional) Dumps the DI0AREA control block.

FCV

(Optional) Dumps the FCV control block.

GCDAREA

(Optional) Dumps the GCDAREA control block for the active control file. Optionally, you can specify CHKPT (or CKPT) for the current checkpoint file, CTC for CTC information, a DASD file ID for DASD file information, or VCF for virtual control file information.

GMR

(Optional) Dumps the GMR control block. Optionally, you can dump the GMR information for the active checkpoint data set (DUMP MIM GMR=CHKPT (or CKPT)), or for the virtual control file (DUMP MIM GMR=VCR).

GPRMBLK

(Optional) Dumps the GPRMBLK control block.

GQ0AREA

(Optional) Dumps the GQ0AREA control block.

GQ1AREA

(Optional) Dumps the GQ1AREA control block.

GQ2AREA

(Optional) Dumps the GQ2AREA control block.

GQ8AREA

(Optional) Dumps the GQ8AREA control block.

GSIE

(Optional) Dumps the GSIE control blocks.

GVALBLK

(Optional) Dumps the GVALBLK control block.

IOSTATS

(Optional) Dumps the I/O statistics control block for the active control file. Optionally, you can dump the I/O statistics for the active checkpoint data set if you specify DUMP MIM IOSTATS,CHKPT.

KILL

(Optional) Cancels a specific TCB within the CA MIM address space. Specify one of the following:

TASKNAME

Identifies a task name identifier corresponding to one listed in the DISPLAY TASK command response.

TCB

Identifies a TCB address.

ASID

(Optional.) Specifies the target address space ID. This keyword may be specified with the TCB keyword to qualify a TCB in an address space other than the CA MIM address space. If the ASID keyword is omitted, the target TCB address is assumed to be within the CA MIM address space.

Note: The TCB and TASKNAME keywords are mutually exclusive.

LOCKS

(Optional) Dumps the lock words for the CA MIM internal lock mechanism.

LXCELL

(Optional) Dumps the LXCELL control block.

LXWA

(Optional) Dumps the LXWA control block.

MLI

(Optional) Dumps the MLI control block.

MODULE

(Optional) Dumps the specified module in hexadecimal dump format. The one- to eight-character module name is required. Optionally, you can specify the one- to four-byte length. The default length displayed is X'C0' bytes.

MSGDIR

(Optional) Dumps the MSGDIR control block.

MSGTBL

(Optional) Dumps the MSGTBL control block.

PATH

(Optional) Dumps VCFPATH control blocks for all locally defined paths. If the optional keyword, ALL, is specified, then paths defined for all systems are displayed as well as the locally defined paths.

ROUTINE

(Optional) Dumps the storage where the named routine is loaded.

S1AREA

(Optional) Dumps the S1AREA control block.

STRNAME

(Optional) Specifies the name of a coupling facility structure control file that is to be dumped to a system dump data set.

T1AREA

(Optional) Dumps the T1AREA control block.

TRAPS

(Optional) Enables and disables the internal CA MIM diagnostic code.

UCB

(Optional) Provides display and update of UCB control blocks. If UPDATE is specified, then the UCB is updated. If UPDATE is not specified, then the UCB contents are displayed. These values can be specified as follows:

dddd

Specifies the device address of UCB to display or update.

length--(Optional) Specifies the length, in hex, to display.

Default: 30.

UPDATE

(Optional) Specifies that the UCB is to be updated.

disp--Specifies the displacement into UCB to update.

data--Specifies the data to place at displacement *disp* into UCB. You can specify one or more contiguous bytes.

UXDEF

(Optional) Dumps the UXDEF control block.

UX0AREA

(Optional) Dumps the UX0AREA control block.

UX1AREA

(Optional) Dumps the UX1AREA control block.

VCFAREA

(Optional) Dumps the VCFAREA control block.

VCFPATHS

(Optional) Dumps VCFPATHS control blocks for all locally defined paths. If the optional keyword, ALL, is specified, paths defined for all systems are displayed as well as the locally defined paths.

VCFTRACE

(Optional) Dumps the trace table data associated with virtual control file processing.

XESDATA

(Optional) Displays internal information regarding the named coupling facility structure control file.

Usage Notes: DUMP MIM Command

- This command is solely intended for use as a diagnostic tool under the direction of CA Technical Support.
- The displays generated by this command are unformatted, and therefore not readily usable by those unfamiliar with the CA MIM internal control blocks.
- Some parameters of this command may cause serious performance degradation of CA MIM and its facilities, or may cause unexpected system abends.

Example: DUMP MIM Command

To dump the contents of the VCFAREA control block, issue this command:

```
DUMP MIM VCFAREA
```

(MIM) ENDIF Statement-Mark End of Command Block

The ENDIF statement marks the end of a block of commands or statements that should be executed on a subset of the systems in your configuration. ENDIF statements, which are used with IFSYS statements, let you share the same MIMPARMS and MIMMSGS data sets among systems in a multiple-system configuration.

This statement has the following format:

```
ENDIF
```

Usage Notes: ENDIF Statement

- The ENDIF statement can be specified in any member of the MIMPARMS and MIMMSGS data sets.
- The ENDIF statement is used with the IFSYS statement to mark a block of commands or statements.
- You can use IFSYS and ENDIF statements to direct any command or statement except the DEFSYS or CTCPATH statement. You also can use IFSYS and ENDIF statements to direct device entries for CA MIA.

Example: ENDIF Statement

To mark the end of a group of commands that should be executed only on system SYS01 (as is identified in the IFSYS statement shown below), specify the ENDIF statement like this in your IFSYS/ENDIF block:

```
IFSYS SYS01
    SETOPTION INTERVAL=10
ENDIF
```

(MIM) FREE Command—Release Resources

The FREE command allows you to release devices and resources held by a system that is currently inactive. You should not attempt to free an active system.

Scope: Global

This command has the following format:

```
FREE sysid | (sysid1,sysid2,...)
```

sysid

Identifies the system that is inactive. You can use the system name, alias, or index number to identify this system. You can specify multiple system IDs if you want to free more than one system, but multiple IDs must be enclosed in parentheses.

Usage Notes: FREE Command

Important! You should not free a system unless you are sure that CA MIM is not running on that system. If you free a system that is active, the system will abend with user code U0322.

- Prior to synchronization in a CTCONLY environment, the FREE command can only be used to free a system that is directly connected through CTC paths. This will prevent a system from mistakenly being freed while it is still active.
- The FREE command can be issued only for a system that is considered possibly inoperative. Systems considered possibly inoperative are those indicated in messages MIM0061, MIM0062, or MIM0350.
- The FREE command must be issued from a console or a TSO session. You cannot issue this command from the CA MIM parameter data set.
- You must be authorized to issue system control commands to issue the FREE command. TSO users generally are not authorized to issue system control commands.
- Using the FREE command causes the status of the system to be considered inactive.
- Use the DISPLAY SYSTEMS command to list the names and status of all systems in the MIMplex.

Examples: FREE Command

- To inform CA MIM that system SYSB is inactive, issue the following command:

  ```
  FREE SYSB
  ```

- To inform CA MIM that systems SYSB and SYSC are inactive, issue the following command:

  ```
  FREE (SYSB,SYSC)
  ```

(MIM) GLOBALVALUE Command—Assign Global Parameters

The GLOBALVALUE command lets you assign global parameters for CA MIM. GLOBALVALUE can be used as a statement in the MIMINIT member or issued as a command after CA MIM is synchronized. When GLOBALVALUE is issued as a command on one system, the values entered are updated on all systems. The global parameters affect the way CTC or XCF communication operates.

Scope: Global

This command has the following format:

```
GLOBALVALUE [ANYELIGIBLE={NO|YES}]
            [MOSTPREFERRED={NO|YES}]
            [NOMASTER={TERMINATE|WAIT}]
            [VCFMASTER={sysids|NONE}]
```

ANYELIGIBLE

(Optional) In a recovery situation, determines whether CA MIM initiates migration to any eligible master system when none exist in the VCFMASTER candidate list.

Default: YES

MOSTPREFERRED

(Optional) Determines whether CA MIM selects the most preferred master system available in the VCFMASTER list or uses the same master that was in control the last time CA MIM was running. It also determines whether CA MIM automatically initiates migration when a more preferred master system joins the complex.

Default: NO

NOMASTER

(Optional) Determines how client systems react when the only eligible master system terminates or becomes unresponsive. The value for this operand is only valid in CTCONLY or XCF environments.

WAIT

Specifies that the client systems wait for the master to restart. During the waiting period, these systems issue periodic MIM0396 messages.

TERMINATE

Specifies that the client systems terminate after issuing MIM0397 message.

Default: WAIT

VCFMASTER

(Optional) Allows you to create the master system candidate list used to determine the master system in VCF environments. Each master system must be connected to all other systems in the complex by CTCPATH statements. The order of the systems in the candidate list is the order of preference used by CA MIM. You can specify a maximum of 32 systems.

Default: NONE

Note: Although the default is NONE, at least one master system *must* be specified in a CTCDASD, CTCONLY, or XCF environment. If you want to start CA MIM in a CTCDASD environment without using CTC devices for initial communication, then specify the following statement in the MIMINIT member:

```
COMMUNICATION=(CTCDASD,INITIAL=DASD)
```

Note: Although DASD is specified for the initial control file choice, you must still specify at least one eligible master system in the VCFMASTER list, because the communication method selected is CTCDASD.

Usage Notes: GLOBALVALUE Command

- You should specify GLOBALVALUE statements in the initialization member to have these values activated at startup. If you do, then GLOBALVALUE statements must be the same on all systems.
- The GLOBALVALUE command can be issued after synchronization or from the MIMSYNCH member to change global parameter values while CA MIM is running. When you issue the GLOBALVALUE command on one system, the values are updated on all systems in the complex automatically.
- You cannot issue the GLOBALVALUE command from the MIMCMNDS member.

Example: GLOBALVALUE Command

To indicate that CA MIM should use the most preferred master system from the VCFMASTER list, specify the following:

```
GLOBALVALUE MOSTPREFERRED=YES
```

(MIM) IFSYS Statement—Mark Beginning of Command Block

The IFSYS statement marks the beginning of a block of commands or statements that should be executed on a subset of the systems in your complex. It identifies the systems on which these commands or statements should be executed. IFSYS statements, which are used with ENDIF statements, let you conveniently share the same MIMPARMS and MIMMSGS data sets among systems in a multiple-system configuration.

This statement has the following format:

```
IFSYS sysid1[,sysid2,sysid3,...,sysidn]
```

sysidn

Specifies the IDs of the systems on which the following commands or statements should be executed, to a maximum of 16 IDs. You can use system names, aliases, or index numbers to identify systems.

Usage Notes: IFSYS Statement

- The IFSYS statement can be specified in any member of the MIMPARMS and MIMMSGS data sets.
- The IFSYS statement must be used in conjunction with the ENDIF statement to mark a block of commands or statements.
- You can use IFSYS and ENDIF statements to direct any command or statement except the DEFSYS and CTCPATH statements. You also can use IFSYS and ENDIF statements to direct device entries for CA MIA.
- CA MIM ignores all statements and commands enclosed between IFSYS and ENDIF statements unless the system ID on the IFSYS statement matches the system ID for the system that is initializing. If the system IDs match, then CA MIM executes the commands or statements.

Example: IFSYS Statement

Suppose that the EDIPARMS member contains EDIF processing statements for systems SYS1 and SYS2 and that the EDITEMP member contains EDIF processing statements for SYS3. You would specify the following IFSYS/ENDIF statement block to make each system use the correct member:

```
IFSYS SYS1,SYS2
   EDIINIT MEMBER=EDIPARMS
ENDIF
IFSYS SYS3
   EDIINIT MEMBER=EDITEMP
ENDIF
```

(MIM) INCLUDE Statement-Include Initialization Data Set

The INCLUDE statement identifies a data set member that CA MIM should read during initialization. It is most often used in MIMMSGS members.

This statement has the following format:

```
INCLUDE member
```

member

Identifies the data set member to include.

Usage Note: INCLUDE Statement

You can specify this statement in any member of the MIMMSGS and MIMPARMS data sets.

Example: INCLUDE Statement

To include additional commands or statements in the MIMCMNDS member, specify this statement:

```
INCLUDE MICCMNDS
```

Member MICCMNDS can contain any CA MIM statements or commands that could be specified in MIMCMNDS.

(MIM) LOG Statement-Enable Logging

The LOG statement enables the logging of initialization statements that are read by CA MIM. There are no parameters for this statement.

CA MIM usually records its startup values in the system log through MIM0079 messages because the default value for MIMINIT LOGPARAMETERS is YES. However, if you want to prevent these startup messages, then specify LOGPARAMETERS=NO on the MIMINIT statement on the PARM parameter of the startup procedure, or on the z/OS START command for CA MIM.

To provide more granular control over which statements are logged to the system log, a sequence of NOLOG/LOG statements can be used. MIMINIT LOGPARAMETERS can be specified only in the MIMINIT member of the MIMPARMS data set. However, the NOLOG and LOG statements can be placed in any member of the MIMPARMS and MIMMSGS data sets to control the logging of statements read from that member. Additionally, MIMINIT LOGPARAMETERS= is only applicable during CA MIM initialization. The NOLOG and LOG statements are effective during any phase of CA MIM execution.

Any number of NOLOG or LOG statements can appear in a single MIMPARMS or MIMMSGS input member. By default, when CA MIM begins reading a new member, it logs, through a MIM0079 message, all statements in that member. To suppress logging of all statements in any given input member, place a NOLOG statement as the first statement in that member. To suppress selected portions of any input member, place a NOLOG statement immediately preceding those statements for which you want logging to be suppressed. To re-enable logging, place a LOG statement immediately after the last statement for which logging is to be suppressed.

During CA MIM initialization processing, NOLOG/LOG processing is ignored for any messages that are suppressed through a MIMINIT LOGPARAMETERS=NO specification.

NOLOG and LOG statements have an effect only on the MIMPARMS or MIMMSGS input member in which they are specified. Any new input member that is processed as a result of an INCLUDE member statement does, by default, have its statements logged, even if the previous member has a NOLOG in effect when the INCLUDE statement is encountered. To continue the suppression of statement logging in the included member, a NOLOG statement should be placed as the first statement in the included member. Conversely, if logging is in effect when an INCLUDE member statement is encountered, and the included member suppresses statement logging with a NOLOG statement but does not re-enable statement logging with a LOG statement prior to the end of file, statement logging resumes when CA MIM returns to reading statements from the original member.

This statement has the following format:

```
LOG
```

Usage Notes: LOG Statement

- The LOG statement can be specified in any member of the MIMPARMS and MIMMSGS data sets.
- The LOG statement can be used in conjunction with the NOLOG statement to selectively control the logging of initialization statements to the System Log through the MIM0079I message.
- The LOG statement is in effect only for the member of the data set in which it is specified.

Example: LOG Statement

To selectively control the logging of a group of statements from the MIMCMNDS data set, specify the NOLOG, LOG statements in pairs:

```
NOLOG    /* Suppress statement logging */
SETOPTION MIM SETTRACE=BLKIO
SETOPTION MIM SETPRINT=BLKIO
SETOPTION MIM TRACE=ON
LOG      /* Resume statement logging */
SETOPTION MODE=DEMAND
SETOPTION CYCLE=1,INTERVAL=1
NOLOG    /* Suppress statement logging again */
SETOPTION CMDTIMEOUT=NONE
```

(MIM) MIGRATE Command-Migrate to New Checkpoint or Control File, or Master System

The MIGRATE command lets you initiate migration to a new checkpoint DASD file, to a new control file, or to a new master system.

Scope: Global

This command has the following format:

```
MIGRATE {CHKPTFILE[=fileid] | CONTROLFILE[=fileid] | MASTER[=sysid]}
```

CHKPTFILE

Initiates migration to the specified checkpoint file, if it is usable. If no file ID is specified, migration proceeds to the next available checkpoint file. You can abbreviate this parameter as CHKP.

CONTROLFILE

Initiates migration to the specified control file. Specify the ID of the new control file. If it is usable, CA MIM will migrate to the new control file. If no file ID is specified, the migration will be to the next available control file. This parameter can be abbreviated to CF.

fileid specifies the last two characters of the ddnames used for checkpoint and control files. This value can also be the two-character XESFILEID associated with a coupling facility structure control file. This value is always numeric.

MASTER

Initiates migration from the current master system or DASD control file to the specified master system and abandons the virtual control file managed by the master system. Specify the system ID of the new master system. The target system must be eligible to become the master in order for this process to proceed successfully. If no system ID is specified, then CA MIM migrates to the next available master system. This parameter can be abbreviated VCF.

Usage Notes: MIGRATE Command

- You can issue the DISPLAY FILES command to view the IDs associated with your control files.
- The MIGRATE command should be issued from a console, rather than from the CA MIM parameter data set.
- You must be authorized to issue system control commands to issue the MIGRATE command. TSO users generally are not authorized to issue system control commands.
- You cannot initiate migration to a DASD control file or a coupling facility structure control file unless you have already made that file available to CA MIM. If you have not done this in the startup procedure, you can use the ALLOCATE command for this purpose, but you must allocate the file on all systems before you can migrate.
- The MIGRATE command can be used to migrate to any eligible master system, including those not in the VCFMASTER list.
- In a CTCONLY or XCF environment, the MIGRATE command can only be issued after synchronization.

Examples: MIGRATE Command

- To migrate from control file 00 to control file 01, issue this command:

  ```
  MIGRATE CONTROLFILE=01
  ```

- To migrate from the current master system to a new master system, issue this command:

  ```
  MIGRATE MASTER=SYS1
  ```

- To migrate from the current checkpoint file 01 to a new checkpoint file 02, issue this command:

  ```
  MIGRATE CHKPTFILE=02
  ```

(MIM) MIMINIT Statement-Define Initialization Values

The MIMINIT statement lets you defines general initialization values that affect the entire address space, regardless of which components and facilities you are using. It is used to define the following

- Communication method
- Facilities to activate
- I/O buffer sizes
- SAF command security options
- Component-specific PDS members to use

Facilities are activated on this statement by specifying ON or OFF:

```
MIMINIT ECMF=ON, GDIF=ON, EDIF=ON,
/* ALL MII FACILITIES
       GTAF=ON, TPCF=ON,
/* ALL MIA FACILITIES
      GCMF=ON, ICMF=ON
/* ALL MIC FACILITIES
```

This statement has the following format:

```
MIMINIT [BATCHJOB={NO|YES}]
        [BLKSIZE=size]
        [CANCEL={NO|YES}]
        [CHKPTDSN=prefix]
        [CMDPREFIX={cmdprefix|NONE}]
        [COMMANDS={name|NO}]
        [COMMUNICATION=(method [,CTCDASD={NO|YES}[,INITIAL={CTC|DASD}]])]
                               [,CTCONLY]
                               [,DASDONLY]
                               [,NONE]
                               [,XCF])]
        [COMPATLEVEL=level]
        [DEVCLASS={NONE|TAPE}]
        [DEVLIST={name|NONE}]
        [ECMF={OFF|ON}]
        [EDIF={OFF|ON}]
        [FORMAT={BOTH|CF|CHKPT|NONE}]
        [GCMF={OFF|ON}]
        [GDIF={OFF|ON}]
        [GTAF={OFF|ON}]
        [ICMF={OFF|ON}]
```

```
[INITEXIT={module|NONE}]
[LOGPARAMETERS={NO|YES}]
[MEMBER=name]
[MIMplex=name]
[MODE={DEMAND|GROUPS}]
[MSGPREFIX={CMDPREFIX|NONE|ppp]
[MSGTEXT={ASIS|UPPERCASE}]
[PAGEFIX={YES|NO|COND}]
[QNAMES={name|NONE}]
[RECORDTYPE=number]
[REUSE={NO|YES}]
[SAFCMDAUTH={OFF|ON}]
[SAFPREFIX=prefix]
[SIGNON={NO|YES}]
[SUBNAME=name]
[SUPPRESSRESP={NO|YES}]
[SYNCH={name|NO}]
[SYSID=sysid]
[TPCF={OFF|ON}]
[VCFBUFFERSIZE=nn]
[VCFMAXBLOCKS=nn]
[WAITSTATE={Never|SyncComplete|InitComplete|Always}]
```

BATCHJOB

(Optional) Indicates whether CA MIM can run as a batch job. Specify NO or YES.

Default: YES

BLKSIZE

(Optional) Determines what block size CA MIM uses to access its control files. Specify a block size in place of the *size* variable. The lowest possible value is 4096 bytes. The highest possible value is 32767. The initial value 6144 is suitable for any device.

You can improve system performance in some environments by increasing the block size. This is especially true when you are running CA MIC. Most sites should use the default value for this parameter unless CA MIM issues message MIM0025, which indicates that you should increase the block size.

You need to reformat your DASD control files if you change the value for this parameter.

Default: 6144

CANCEL

(Optional) Indicates whether CA MIM can be canceled. Specify NO or YES on this parameter.

Default: YES

CHKPTDSN

(Optional) Defines the data set name *prefix* for the checkpoint files. Multiple levels of qualification are permitted. CA MIM constructs all checkpoint data set names by appending a two-digit decimal number to the prefix you specify using CHKPTDSN. For example, if you specify the following statement

```
MIMINIT CHKPTDSN=MIM.SYS5.CKP
```

then your valid checkpoint file data set names are allocated for you as follows:

```
MIM.SYS5.CKP00
MIM.SYS5.CKP01
MIM.SYS5.CKP02
```

You must use either JCL or TSO to allocate all the checkpoint files you will use prior to starting CA MIM. When you allocate the files, specify complete data set names, including the numeric suffix, as shown in the examples above. Your first checkpoint file must be numbered 00, and if you allocate backup files, the number must increase consecutively (01, 02, 03, and so on). If you leave a gap in the numbers, then the higher numbered files will not be usable.

Checkpoint files must not be shared. If your initialization member is shared between two or more systems, then you should specify CHKPTDSN on its own MIMINIT statement, separately from other MIMINIT parameters, and use IFSYS/ENDIF statements to provide different names on each system.

Default: CHKPTDSN=MIMCKP

CMDPREFIX

(Optional) Specifies the one- to eight-character subsystem interface prefix character string that identifies an operator command as one that should be directed to a given CA MIM address space. Specify the prefix in either character or hexadecimal format.

Note: The CMDPREFIX parameter replaces the CMDCHAR parameter.

Default: CMDPREFIX=@

More information:

Valid Characters for CMDPREFIX (see page 313)

COMMANDS

(Optional) Indicates whether CA MIM should use a member of its parameter data set to obtain a list of CA MIM commands that should be executed at startup (before systems are synchronized). The parmlib member referenced with this parameter typically contains CA MIM SETOPTION commands used to further customize the operation of the CA MIM product.

Specify one of these values on the COMMANDS parameter:

name

This variable represents the name of the member CA MIM should use.

NO

You are not using a member for this purpose.

Default: COMMANDS=MIMCMNDS

COMMUNICATION

(Optional) Indicates the method of multi-system communication the CA MIM Driver control program uses to communicate CA MIM transactions throughout your enterprise. Depending on your environment, you may choose to use DASD, CTC devices, or coupling facilities as vehicles for transporting CA MIM transactions. Combinations of these mediums may also be supported:

CTCDASD

Provides both methods of communication, DASD and channel-to-channel devices (CTCs). CTCDASD requires a shared DASD control file as well as CTC devices. Optionally, coupling facility structure control files can be used in place of or in conjunction with DASD control files. You can use the MIGRATE command to change the method of communication while CA MIM is running. You can specify a value for the INITIAL keyword when you select this method.

The INITIAL keyword is used to determine which method of communication is used when CA MIM first starts, CTC or DASD. The default is CTC. The following example shows how to specify CTCDASD when you select DASD as the initial control file method:

COMMUNICATION=(CTCDASD,INITIAL=DASD)

CTCONLY

Provides virtual control file communication only. CA MIM tasks communicate through CTC devices entirely with no use of shared DASD control files.

DASDONLY

Provides storage of control file information on shared DASD only. CA MIM tasks communicate by accessing the shared DASD control files or coupling facility structure control files.

NONE

This value is used only if CA MIM is running on a single system (called SOLO mode) where control files are not needed. If CTC devices or DASD control files do exist, they will not be used.

XCF

Specifies XCF communication for the CA MIM complex (MIMplex).

Default: COMMUNICATION=DASDONLY

Notes:

- The same value must be specified for COMMUNICATION on all systems.
- When you change the INITIAL value, you must shutdown CA MIM on all systems and restart with a FORMAT. INITIAL is valid only for COMMUNICATION=CTCDASD.

- If CTCDASD or CTCONLY are selected, then you must:
  - Define identical CTCPATH statements in the initialization member for each system
  - Specify at least one eligible master system for GLOBALVALUE VCFMASTER
  - Specify identical DEFSYS statements for all the systems in your complex
- If XCF is selected, then you must specify at least one system on the GLOBALVALUE VCFMASTER statement and specify identical DEFSYS statements for all systems in the complex.
- If DASDONLY or CTCDASD are selected, then at least one DASD control file or one coupling facility structure control file must be defined in the CA MIM startup procedure or allocated through the CA MIM ALLOCATE command.

COMPATLEVEL

(Optional) Indicates the format of the CA MIM control file and the associated functionality that is to be activated. The value must be the same across all systems in the CA MIM complex. You can change the value dynamically using the ACTIVATE COMPATLEVEL command. Acceptable values for this operand are 11.6, 11.7 or 11.8.

Note: 11.6 support is only provided for users upgrading from 11.6 to 11.8.

Note: For more information, see the *CA MIM Programming Guide*.

DEVCLASS

(Optional) Indicates whether you are placing the entire class of tape devices under CA MIA for z/OS management (DEVCLASS=TAPE), or you are placing selected tape devices under CA MIA management (DEVCLASS=NONE), as specified in the MIMUNITS member.

You need to use DEVCLASS=NONE and specify a MIMUNITS member if any tape device is known by different addresses on different systems, or if the same address is used by different devices on different systems.

Valid values are:

NONE

Indicates that you are not placing a class of devices under the management of CA MIA.

TAPE

Places all tape devices under the management of CA MIA.

If any of these devices has a different local name on different systems, or if a device has the same local name as a different device on a different system, then you must assign a global name to that device in MIMUNITS.

Default: DEVCLASS=NONE

DEVLIST

(Optional) Identifies the member of the CA MIM parameter data set that contains the list of tape drives to be controlled, and their associated global names. See the DEVCLASS description above. Specify one of these values on the DEVLIST parameter:

name

Represents the name of the member that CA MIM should use.

NONE

Indicates that you are not using a member for this purpose.

Default: DEVLIST=MIMUNITS

ECMF

(Optional) Determines whether the ENQ Conflict Management Facility (ECMF) of the CA MII component is activated. Specify OFF or ON.

Default: ECMF=OFF

EDIF

(Optional) Determines whether the EDIF of the CA MII component is activated. Specify OFF or ON.

Default: EDIF=OFF

FORMAT

(Optional) Determines whether the DASD checkpoint files, control files for CA MIM, or both are formatted at startup on the first system started. Specify one of the following values:

BOTH

Formats both the checkpoint file and control file.

CF

Formats the control file. In a CTC-only environment, it refers to the backup virtual control file residing in a special area on the checkpoint file.

CHKPT

Formats only the checkpoint information in the checkpoint file. You can use the abbreviation CKPT for this operand.

NONE

No formatting is done.

When COMMUNICATION=CTCONLY is specified, FORMAT=CF and FORMAT=BOTH are permitted only on an eligible master system.

Default: FORMAT=NONE

GCMF

(Optional) Determines whether the GCMF of the CA MIC component is activated. Specify OFF or ON.

Default: GCMF=OFF

GDIF

(Optional) Determines whether the GDIF of the CA MII component is activated. Specify OFF or ON.

Default: GDIF=OFF

GTAF

(Optional) Determines whether the GTAF of the CA MIA component is activated. Specify OFF or ON.

You need to reformat your DASD control files if you change the value for this parameter.

Default: GTAF=OFF

ICMF

(Optional) Determines whether the ICMF is activated for the CA MIC component. Specify OFF or ON.

Default: ICMF=OFF

Note: You also must specify GCMF=ON to activate ICMF.

INITEXIT

(Optional) Names the CA MIM Initialization Exit module to be called during product startup.

Note: For more information on CA MIM user exit processing, see the chapter "User Exits" in the *CA MIM Programming Guide*.

Valid values are:

module

Loads the specified load module and makes one initialization call to it. Error messages are sent to the system log if the module cannot be found.

NONE

No call is made to the exit routine.

If no MIMINIT INITEXIT statement is specified, module MIMINIXT will loaded and called.

Default: INITEXIT=NONE

LOGPARAMETERS

(Optional) Determines whether CA MIM statements and commands from the MIMPARMS and MIMMSGS data sets are recorded to the system log during product startup. The parameter is particularly useful for first-time users who want to diagnose errors during processing of the MIMPARMS and MIMMSGS data sets. The parameter works in conjunction with the LOG and NOLOG statements. If LOGPARAMETERS=YES, then the LOG and NOLOG statements are honored. If LOGPARAMETERS=NO, then no statements and commands are logged, even if LOG is coded in a member. Specify YES or NO.

Default: YES

MEMBER

Specifies the name of the member of the CA MIM parameter data set that CA MIM should use to obtain its initialization statements. You must specify this on the PARM parameter of the CA MIM startup procedure. *It has no effect on a MIMINIT statement.*

Default: MEMBER=MIMINIT

MIMPLEX

(Optional.) Identifies the CA MIM group name to XCF. This parameter is used only with the XCF communication method.

CA MIM uses the group name on an IXCJOIN macro when establishing communications with XCF. XCF uses the group name to connect CA MIM address spaces across systems. RMF reports, and IBM commands and displays related to XCF also reference the group name.

The MIMPLEX value must be identical on each system running CA MIM.

You may set MIMPLEX to any one- to eight-character name composed of the characters A-Z, 0-9, and $, #, and @. To avoid conflicts with IBM group names, do not begin group names with the letters A-I or the character string SYS. Also, do not use the name UNDESIG. We recommend starting the CA MIM group name with the characters “MIM” for easy identification in XCF displays and reports.

The default MIMPLEX value is a six-character name in the format MIM*aci*, where the variables are:

- a=A for CA MIA
- c=C for CA MIC
- i=I for CA MII

The corresponding position is set to # for all inactive components. For example, if you start only the CA MII component, then the default MIMPLEX name would be MIM##I.

Default: MIMplex=MIM### (depending upon which components are running)

MODE

(Optional) Determines whether CA MIM waits for a service interval or a service cycle to expire before accessing the control file. Specify one of these values on the MODE parameter:

DEMAND

Specifies that CA MIM should access the control file whenever GDIF has an ENQ or RESERVE request to propagate. If GDIF does not have a transaction by the time a service interval expires, then CA MIM sees if other global facilities (that is, GTAF and GCMF) have transactions. If so, then CA MIM accesses the control file. Otherwise, CA MIM waits until a service cycle expires to access the control file.

GROUPS

Specifies that CA MIM should wait until a service interval expires before seeing whether any of the global facilities has a transaction. If so, then CA MIM accesses the control file. Otherwise, CA MIM waits until a service cycle expires and then accesses the control file.

Default: MODE=DEMAND

Notes:

- We recommend that you specify MODE=DEMAND, especially if you are using GDIF. However, you can specify MODE=GROUPS if you experience a great deal of contention for control files.
- When you specify MODE=DEMAND or MODE=GROUPS, you can override this value through the MODE operand on the SETOPTION command.
- For a complete discussion of tuning control file access rates to optimize CA MIM performance, see the *CA MIM Programming Guide*.

MSGPREFIX

(Optional) Determines whether CA MIM messages are to be prefixed with the CA MIM command prefix character, or a different three-character identifier, or not changed at all. This parameter is designed for sites running multiple CA MIM address spaces per system that want to easily identify from which CA MIM address space a particular CA MIM message originated.

By default, all messages issued by CA MIM begin with the characters “MIM” and a four-digit number. If your installation operates more than one CA MIM started task per z/OS image, it may be difficult to identify which address space is issuing a given message. For example, you may choose to operate CA MII as a different started task from CA MIA and CA MIC for performance reasons. In this environment, it may not be readily apparent which started task is issuing certain messages. A control file lockout message (MIM0100 or MIM0200), for instance, could potentially be issued by either CA MIM started task.

To eliminate the message identification problem, you can instruct CA MIM to either append the command prefix to the message identifier, or you can change the three-character “MIM” message prefix to a three-character alphabetic prefix of your own choosing. The message editing options that you select take effect after all the MIMINIT statements have been read and processed from the MIMPARMS data set.

The following are valid values:

NONE

No editing is performed on the messages issued by CA MIM.

CMDPREFIX

Specifies that the command prefix string as specified by the MIMINIT CMDPREFIX statement or the SETOPTION MIM CMDPREFIX command is prefixed to all messages issued by CA MIM.

Note: If an installation specifies a CMDPREFIX operand of a length greater than two characters, then it should also specify MSGPREFIX=NONE or specify MSGPREFIX=*ppp* (where *ppp* is a three character replacement string for the MIM in the CA MIM message identifier). We recommend that you do not generate CA MIM message identifiers that are greater than ten characters long.

ppp

Replace 'MIM' with the three characters, *ppp*, in messages issued by CA MIM. This operand must be exactly three characters long. The characters can be either upper or lowercase alphabetic characters (A through Z or a through z).

Default: NONE

MSGTEXT

(Optional) Determines whether CA MIM messages are to be issued in uppercase and lowercase, or in only uppercase. Those messages issued through the CA MIM message facility have message text that contains both uppercase and lowercase letters. If you have console devices that do not properly display EBCDIC lowercase letters, or if you prefer to see message text in uppercase characters, you can control the case of the characters in the messages issued by the CA MIM message facility. Only CA MIM messages under the control of the CA MIM message facility are affected by this parameter.

Note: For more information on the CA MIM message facility, see the *CA MIM Programming Guide.*

Valid values are:

ASIS

Issue messages with text containing both uppercase and lowercase characters.

UPPERCASE

Issue messages with text containing only uppercase characters.

Default: MSGTXT=ASIS

PAGEFIX

(Optional) Specifies whether CA MIM should page fix cell pooled control blocks while cell pool pages are actively in use. Valid values are:

NO

Specifies that cell pooled control blocks should remain pageable

YES

Specifies that cell pooled control blocks should be page fixed unconditionally.

COND

Specifies that cell pooled control blocks should be page fixed as long as the system is not expecting a real frame storage condition.

Note: For more information on the PAGEFIX parameter, see the *CA MIM Programming Guide*.

Default: PAGEFIX=NO

QNAMES

(Optional) Identifies the *name* of the member of the CA MIM parameter data set that contains the QNAME list used by GDIF, ECMF, or both. Specify a member name, or specify NONE.

Default: QNAMES=MIMQNAME

RECORDTYPE

(Optional) Identifies the SMF record number used by the CA MIM SMF Reporting Facility when it is writing CA MIM records to your SMF data sets. The value specified here should not match record types being used by other vendor products or z/OS components.

Note: For more information, see the *CA MIM Programming Guide*.

Default: RECORDTYPE=189

REUSE

(Optional) Determines whether CA MIM intercepts and control blocks residing in common storage are to be reloaded or reused during CA MIM product startup. Allowing CA MIM to reuse previously loaded modules minimizes the amount of common storage used by the product. Forcing CA MIM to reload the intercepts during each startup may deplete common storage over an extended period of time. Specify NO or YES.

We strongly recommend that you specify REUSE=YES. However, certain CA MIM APARs require that CA MIM be restarted with REUSE=NO. In any other case, REUSE=NO should not be used unless directed by CA Technical Support. For example, Technical Support may recommend a REUSE=NO restart of the product to refresh an overlaid intercept or to obtain a version of the intercept that has a PTF applied.

Default: REUSE=YES

SAFCMDAUTH

(Optional) Indicates whether CA MIM should validate the authorization of a command issuer to use a given command by invoking the operating system security subsystem software to perform the command validation. Specify OFF or ON.

Note: For more information on command security processing, see the chapter "Advanced Topics" in the *CA MIM Programming Guide.*

Default: SAFCMDAUTH=OFF

SAFPREFIX

(Optional) Specifies the one- to eight-character prefix that is appended to the CA MIM command to allow the command to be passed to the security system software for validation. You can specify any prefix value, or the value MIMNAME, to indicate that the CA MIM job name is to be used as the command prefix value. For example, the name defined here must match a predefined resource name definition in the RACF OPERCMDS class for the validation to take place. Also, the CA MIM SAF command validation processing must first be activated using the MIMINIT SAFCMDAUTH parameter. The value MIMNAME indicates that CA MIM should use its started task name as the SAF prefix.

Default: SAFPREFIX=MIMGR

SIGNON

(Optional) Indicates whether CA MIM should display routine sign-on messages when its facilities are initialized. Specify NO or YES.

Routine sign-on messages are sent to the system log no matter what value you specify.

Default: SIGNON=YES

SUBNAME

(Optional) Specifies the z/OS subsystem name for CA MIM.

The value (*name*) must be four characters long. The first three characters must be MIM and the fourth character can be any value except, null, *, ?, or D.

If a CA MIM subsystem name was predefined in the IEFSSNxx member of SYS1.PARMLIB, then specify that same value here. Otherwise, CA MIM uses the value specified here to dynamically create a subsystem name during its first startup after an IPL.

If no subsystem name is supplied, then CA MIM attempts to use a subsystem name of MIMx where x is the subsystem command prefix character specified on the MIMINIT CMDPREFIX keyword, if a single character subsystem command prefix value is specified. If MIMINIT CMDPREFIX=NONE or if the CMDPREFIX operand value is greater than a single character, then CA MIM generates a name of MIM*f* where *f* is based on the facility or facilities that are to be activated in the address space.

Note: For more information, see the *CA MIM Programming Guide*.

Note: The subsystem name MIMD is reserved and cannot be specified.

SUPPRESSRESP

(Optional) Indicates whether CA MIM should suppress routine messages that are issued as it executes commands in the MIMCMNDS and MIMSYNCH members. Specify NO or YES.

This parameter does not stop CA MIM from issuing messages if a command in one of these members cannot be executed (for example, due to a syntax error).

Default: SUPPRESSRESP=YES

SYNCH

(Optional) Specifies whether CA MIM should use a member of its parameter data set to obtain CA MIM, z/OS, and JES commands that should be executed after CA MIM initializes. Specify one of these values:

name

Specifies the name of the member that CA MIM should use.

NO

Indicates that you are not using a member for this purpose.

Default: SYNCH=MIMSYNCH

SYSID

(Optional) Instructs CA MIM to use the value *sysid* instead of the SMF ID, when processing DEFSYS statements. If SYSID is specified and DEFSYS is not specified, then the value for *sysid* becomes the system name.

You should use the SYSID parameter only for the following reasons:

- If you need to override a name for this execution of CA MIM
- If you did not specify a DEFSYS statement and you want to assign a name other than the SMF ID of the system
- If CA MIM cannot recognize the SMF ID of a system (for example, because you specified the wrong SMF ID during an IPL).

The SYSID can be a one- to eight-character ID. It may be specified either on the PARM parameter of the startup procedure or on the z/OS START command. You can specify SYSID on a MIMINIT statement, provided the MIMINIT statement *precedes* your DEFSYS statements.

Notes:

- Never use this parameter to override the SMF identifier of a system unless you have consulted with CA MIM Technical Support.
- For more information, see the *CA MIM Programming Guide*.

TPCF

(Optional) Specifies whether the TPCF of the CA MIA component is activated. Specify OFF or ON.

Default: TPCF=OFF

VCFBUFFERSIZE

(Optional) Specifies the number of bytes in the transfer buffer for the virtual control file. The lowest possible value is seven bytes more than the block size you specify on the BLKSIZE parameter; the highest possible value is 62464 bytes.

If this buffer is too small (less than the average number of bytes read per service cycle), then data is transmitted slowly. If this buffer is too large, then an excessive amount of real storage is used. Note that you can use the DISPLAY IO command to see how many bytes are read per service cycle. We recommend that you use the initial value 32768.

You must specify the same value for the VCFBUFFERSIZE parameter on all systems.

Default: VCFBUFFERSIZE=32768

VCFMAXBLOCKS

(Optional) Tells CA MIM how many Virtual Control File blocks to pre-allocate during CA MIM initialization. If more blocks are needed by active CA MIM tasks, then CA MIM can acquire more blocks dynamically.

Notes:

- We recommend specifying the same value for the VCFMAXBLOCKS parameter on all systems in the MIMplex.
- This parameter is valid only when using the CA MIM CTCONLY or XCF cross-system communication method.
- The actual size of each block is determined by the MIMINIT BLKSIZE parameter value.
- The maximum value for this parameter is 24,000 blocks; the minimum value is 120 blocks.
- MIM0054W and MIM0072W warning messages are issued when the number of in-use VCF blocks approaches the maximum number of blocks specified here. The SETOPTION CFSIZEWARN parameter determines the percentage of use that must be reached before these warning messages are issued.
- Active CA MIM tasks can dynamically acquire additional blocks if they are needed.

Default: VCFMAXBLOCKS=1200

WAITSTATE

WAITSTATE defines the conditions CA MIM enters a disabled wait state on the MIMINIT statement and the PARM field in the CA MIM startup JCL.

Never

CA MIM termination will not initiate a disabled wait. The system will continue operating without CA MIM services. This is the default, and is equivalent to operation in all previous versions of CA MIM.

SyncComplete

After synchronization with external systems has been completed, termination of CA MIM will result in a disabled wait.

InitComplete

If there are errors in the PARM field or MIMINIT dataset, CA MIM will terminate without disabling the system. CA MIM termination at any time after successful processing of MIMINIT will result in a disabled wait state.

Always

Any CA MIM termination will result in a disabled wait state.

Usage Notes: MIMINIT Statement

- The MIMINIT statement can be specified only in the MIMINIT member of the MIMPARMS data set.
- You can override MIMINIT parameters at initialization by specifying new values for these parameters on the PARM parameter in the CA MIM startup procedure, or on the z/OS START command invoking CA MIM.
- If you will be changing the value of a parameter periodically, then you should specify that parameter on the PARM parameter of the startup procedure, rather than on the MIMINIT statement. You can override values on the PARM parameter by specifying the applicable parameter on the z/OS START command for CA MIM.
- When you are running CA MIA, you must place at least one device per system under the control of CA MIA. Otherwise, CA MIM terminates during initialization.
- When you are running GDIF, ECMF, or both you must specify at least one QNAME statement per system in the MIMQNAME member. Otherwise, CA MIM terminates during initialization.
- To display initialization values set through the MIMINIT statement, use the DISPLAY INIT command.

Examples: MIIMINIT Statement

- To use the member named OURUNITS to identify the devices that CA MIA should control, you could specify this statement in the initialization member:

  ```
  MIMINIT DEVLIST=OURUNITS
  ```

- To activate EDIF and GCMF automatically when you start CA MIM, you could specify this statement in the initialization member:

  ```
  MIMINIT EDIF=ON GCMF=ON
  ```

- To access the control file whenever a service interval expires, you could specify this statement in the initialization member:

  ```
  MIMINIT MODE=GROUPS
  ```

(MIM) MSG Statement—Define Message

The MSG statement provides a message definition for CA MIM. It is used only in the Message Facility Tables found in the MIMMSGS library.

This statement has the following format:

```
MSG 'text' [AREAID=area] [CONSID][DESC=descriptor codes]
           [MCSFLAG=mcsoptions]
           [MSGNO=msgnumber] [RESPONSE] [ROUTCDE=routinginfo]
```

text

Specifies the message prefix and text that you want CA MIM to use. This string must be enclosed in single quotes.

AREAID

(Optional) Specifies a console area identifier to which the message is to be directed.

CONSID

(Optional) Specifies that the message is to be directed to a specific console.

DESC

(Optional) Specifies WTO descriptor codes.

MCSFLAGS

(Optional) Specifies selected WTO MCS flag information for the message. Currently **RESP** and **HRDCPY** are the supported MCS options.

MSGNO

(Optional) Specifies the message number if the message number is not supplied in the message text.

RESPONSE

(Optional) Specifies that the message is a console directed command response.

ROUTCDE

(Optional) Specifies WTO routing code information.

Usage Note: MSG Statement

You can specify this statement only in a Message Facility Table member of the MIMMSGS library. Specify this statement after the TABLE statement.

Example: MSG Statement

To use the text TASK NOT ACTIVE for CA MIM message MIM1034I, specify this statement in your message table:

```
MSG 'MIM1034I TASK NOT ACTIVE'
```

(MIM) MSGR Statement—Provide Message With a Reply Definition

The MSGR statement provides a message with reply definition for CA MIM. It is used only in the Message Facility Tables found in the MIMMSGS library.

This statement has the following format:

```
MSGR 'text' [ROUTCDE=routinginfo][DESC=descriptor codes]
            [MSGNO=msgnumber][MCSFLAG=mcsoptions]
            [CONSID][RESPONSE]
```

text

Specifies the message prefix and text that you want CA MIM to use. This string must be enclosed in single quotes.

ROUTCDE

(Optional) Specifies WTO routing code information.

DESC

(Optional) Specifies WTO descriptor codes.

MSGNO

(Optional) Specifies the message number if the message number is not supplied in the message text.

MCSFLAG

(Optional) Specifies selected WTO MCS flag information for the message. Currently RESP and HRDCPY are the supported MCS options.

CONSID

(Optional) Specifies that the message is to be directed to a specific console.

RESPONSE

(Optional) Specifies that the message is a console directed command response.

Usage Note: MSGR Statement

You can specify this statement only in a Message Facility Table member of the MIMMSGS library. Specify this statement after the TABLE statement.

Example: MSGR Statement

To change the route codes on the MIM0100A control file lock out message, specify this statement in your message table:

```
MSGR 'MIM0100A File @1¦ - possible lockout @2¦ @3¦  ',
              ROUTCDE=(1,2,4,6,10)
```

(MIM) MSGTABLE Command-Load Message Definitions

The MSGTABLE command lets you immediately load the message definitions contained in (or pointed to from) a Message Facility Table member found in the MIMMSGS library. By doing this, you make those message definitions take effect immediately.

Scope: Local

This command has the following format:

```
MSGTABLE member_name
```

member_name

Identifies the member of the MIMMSGS data set that contains or points to the message definitions.

Example: MSGTABLE Command

To load message definitions stored in member MIMMSGX of the MIMMSGS data set, issue this command:

```
MSGTABL MIMMSGX
```

(MIM) NOLOG Statement-Suppress Logging

The NOLOG statement suppresses the logging of initialization statements that are read by CA MIM.

This statement has the following format:

```
NOLOG
```

Usage Notes: NOLOG Statement

- The NOLOG statement can be specified in any member of the MIMPARMS and MIMMSGS data sets.
- The NOLOG statement can be used in conjunction with the LOG statement to selectively control the logging of initialization statements to the System Log through the MIM0079I message.
- The NOLOG statement is in effect only for the member in which it is specified. Should an INCLUDE statement be encountered when a NOLOG is in effect, statement logging commences by default in the new member.

Example: NOLOG Statement

To selectively control the logging of a group of statements from the MIMCMNDS member, specify the NOLOG, LOG statements in pairs:

```
NOLOG    /* Suppress statement logging */
SETOPTION MIM SETTRACE=BLKIO
SETOPTION MIM SETPRINT=BLKIO
SETOPTION MIM TRACE=ON
LOG      /* Resume statement logging */
SETOPTION MODE=DEMAND
SETOPTION CYCLE=1,INTERVAL=1
NOLOG    /* Suppress statement logging again */
SETOPTION CMDTIMEOUT=NONE
```

(MIM) QUIESCE Command—Temporarily Inactivate CA MIM

The QUIESCE command lets you temporarily inactivate CA MIM (that is, put CA MIM in a wait state) without having to stop it.

Scope: Local

This command has the following format:

```
QUIESCE
```

Usage Notes: QUIESCE Command

- Quiesce CA MIM before you quiesce the operating system. Restart the operating system before you restart CA MIM.
- If you quiesce a system, then do not issue a FREE command for that system. Other systems eventually consider the quiesced system to be asleep.

- To reactivate CA MIM after you have issued the QUIESCE command, use the RESTART command.
- You must be authorized to issue system control commands to issue the QUIESCE command. TSO users generally are not authorized to issue system control commands.
- The QUIESCE command must be issued from a console or a TSO session. You cannot issue this command from the CA MIM parameter data set.
- Be sure to issue the CA MIM QUIESCE command with a command prefix character or with the z/OS MODIFY command so that CA MIM, rather than z/OS, executes your command.
- For more information on quiescing z/OS and CA MIM, see the *CA MIM Programming Guide*.

Example: QUIESCE Command

To quiesce CA MIM, issue this command from a console:

```
@QUIESCE
```

The at-sign character (@) represents the CA MIM command prefix character.

(MIM) REMOVE Command—Remove System ID

The REMOVE command lets you permanently remove a system ID from the CA MIM control files.

Scope: Global

This command has the following format:

```
REMOVE sysid
```

sysid

Specifies the system name, system alias, or index number of the system that should be removed permanently from the control files.

Usage Notes: REMOVE Command

- REMOVE must be issued from a console or a TSO session. You cannot issue REMOVE from the CA MIM parameter data set.
- You must be authorized to issue system control commands to issue the REMOVE command. TSO users generally are not authorized to issue system control commands.
- CA MIM cannot be active on the specified system when you issue the REMOVE command. If CA MIM is active on that system, message MIM0097 is issued and the command is ignored.
- The REMOVE command cannot be issued in a CTCDASD, CTCONLY, or XCF environment.
- The REMOVE command should not be issued before the FREE command in a two-system complex, because this prevents the first system started from initializing.

  Note: For more information, see Product Activation Considerations in the chapter "Advanced Topics" in the *CA MIM Programming Guide*.
- The local system will not synchronize if *all* external systems are removed.
- If a system is inactive temporarily, then you should use the FREE command instead of the REMOVE command.
- To determine what system IDs have been assigned to a system, issue the DISPLAY SYSTEMS command.
- After a system is removed using the REMOVE command, the system should also be deleted from the DEFSYS statement on all systems in the complex. Otherwise, the system will be added back into the control files the next time the control files are formatted.

Example: REMOVE Command

To permanently remove the entry for system SYSB from the CA MIM control files, issue this command:

```
REMOVE SYSB
```

(MIM) RESTART Command-Reactivate After QUIESCE

The RESTART command lets you reactivate CA MIM after you have issued a QUIESCE command.

Note: You *must* restart z/OS first after a quiesce before restarting CA MIM.

Scope: Local

This command has the following format:

```
RESTART
```

Usage Notes: RESTART Command

- The RESTART command must be issued from a console or a TSO session. You cannot issue this command from the CA MIM parameter data set.
- You must be authorized to issue system control commands to issue the RESTART command. TSO users generally are not authorized to issue system control commands.

Example: RESTART Command

To reactivate CA MIM on a system where CA MIM was quiesced previously, issue this command:

```
RESTART
```

(MIM) SETOPTION MIM Command-Set Operating Values

The SETOPTION MIM command lets you set operating values for general-purpose CA MIM functions.

Scope: Local

This command has the following format:

```
SETOPTION MIM [AUTHCHECK=hours]
              [CELLTRACE={NO|YES}]
              [CFSIZEWARN=percent]
              [CMDPREFIX={cmdprefix|NONE}]
              [CMDRESPMAX={nnnnn|NONE}]
              [CMDTIMEOUT={time|NONE}]
              [CTCVERIFY={minutes|NONE}]
              [CYCLES=intervals]
              [DOWNSYS={AUTOFREE|IGNORE}]
              [EXIT=(name [LOAD[=modulename]]
                          [FAILURE[={DISABLE|ENABLE}]
                                  [={DUMP|NODUMP}]]
                          [PROTECT={NO|YES}]
                          [STATUS={ACTIVE|INACTIVE}]  )]
              [HIBERNATE={minutes|NONE}]
              [INTERVAL=seconds]
              [LOCALSTOP={ABEND|NOABEND}]
              [LOCKOUT=seconds]
              [MARGIN=seconds]
              [MIHINTERVAL={seconds|NONE}]
              [MODE={DEMAND|GROUPS}]
              [RESETPRINT=(options)]
              [RESETTRACE=(options)]
              [SETPRINT=(options)]
              [SETTRACE=(options)]
              [SHUTDOWN={DUMP|FREE|GLOBAL|LOCAL|RESERVE}]
              [STATCOLLECT={ALL|NONE |NOSUBTYPE(list)}
```

```
                                SUBTYPE(list)}]
[STATCYCLE=seconds]
[STATINTERVAL=minutes]
[TRACE[={ALLOCATE[CLASS=class] |
       {OFF|ON} |
       SPIN[CLASS=class] } ]
       [JOBNAME=jobname ]
       [MAXQUEUED={nnnn | NOLIMIT}]
[VCFDEBUG={OFF|ON}]
[VCFFORCE={minutes|NONE}]
[VCFMAXDELAY=seconds]
[VCFMINDORM=milliseconds]
[VCFRECOVERY={seconds|NONE}]
```

AUTHCHECK

(Optional) Specifies the number of hours for CA MIM to wait before rechecking its authorization statements. CA MIM checks the LMP product license keys at startup to see if any of its licenses are about to expire. CA MIM also performs periodic license key checks. Specify a value from 1 to 23 (integers only) in place of the *hours* variable.

When you issue a SETOPTION AUTHCHECK command, CA MIM automatically checks its authorization statements and issues the appropriate authorization messages.

Note: For information on how to specify LMP license keys for CA MIM, see the *Installation Guide*.

Default: AUTHCHECK=23

CELLTRACE

(Optional) Controls the CA MIM cell pool internal trace. It should always be set to NO, unless CA Technical Support tells you to set this parameter to YES.

Default: CELLTRACE=NO

CFSIZEWARN

(Optional) Defines the control file space usage threshold percentage above which CA MIM is to issue a warning message. Specify a value from 1 to 100 (integers only) in place of the percent variable.

Note: For more information, see the chapter “Advanced Topics” in the *CA MIM Programming Guide*.

Default: CFSIZEWARN=50

CMDPREFIX

(Optional) Specifies the one- to eight-character subsystem interface prefix character string that identifies an operator command as one that should be directed to a given CA MIM address space.

Specify the prefix in either character or hexadecimal format.

Note: If an installation specifies a CMDPREFIX parameter of a length greater than two characters, then they should also specify MSGPREFIX=NONE or specify MSGPREFIX=*ccc* (where *ccc* is a three-character replacement string for the MIM in the CA MIM message identifier). We recommend that you do not generate CA MIM message identifiers that are greater than ten characters long.

The CMDPREFIX parameter replaces the CMDCHAR parameter.

Default: CMDPREFIX=@

More information:

Valid Characters for CMDPREFIX (see page 313)

CMDRESPMAX

(Optional) Specifies the threshold limit of command responses to any given CA MIM command response. The value will either be the character string NONE or a number between 20 and 32767.

If a given command generates responses over the CMDRESPMAX threshold, then the command response will be truncated and message MIM0640W is issued as the final data line of the truncated command response.

Default: 2048

CMDTIMEOUT

(Optional) Controls the number of seconds any CA MIM command is permitted to execute before it is canceled. This helps prevent a command from permanently hanging the CA MIM command task. Valid values are the character string NONE or the number of seconds between 10 and 300.

Default: CMDTIMEOUT=60

CTCVERIFY

(Optional) Determines how often CA MIM checks device status after a soft error occurs. If you do not want CA MIM to check the CTC paths for errors, then specify NONE. However, we recommend that you do specify a value for this operand.

To have CA MIM check CTC paths for error-free status, indicate the number of minutes for the checking interval. The minimum is 1 minute and the maximum interval is 1440 minutes (24 hours).

The CTC path marked in error cannot be used again until a CTC RESET command is issued or CA MIM determines that the path is error-free.

Note: Use the MIHINTERVAL operand to eliminate IOS071I messages that occur due to device verification. The MIHINTERVAL value should always be less than the CTCVERIFY value. Keep in mind that the CTCVERIFY value is set in minutes, while the MIHINTERVAL value is set in seconds.

Default: CTCVERIFY=2

CYCLES

(Optional) Determines how many service intervals are in a service cycle. CA MIM uses service cycles to determine how often to access control files if none of its global facilities have transactions for other systems. Specify a value from 1 to 100 (integers only) in place of the *intervals* variable.

Note that this operand uses *service intervals* as a unit of measurement. The number of seconds per service interval is set through the INTERVAL operand. Therefore, it is the product of the CYCLES and INTERVAL operands that determines how many seconds pass before CA MIM accesses the control files.

Note: For more information, see the description of the MODE operand. For more information on CA MIM performance considerations, see the chapter “Advanced Topics” in the *CA MIM Programming Guide*.

Default: CYCLES=1

DOWNSYS

(Optional) Controls how CA MIM automatically responds to a sysplex notification event of a down system by freeing that system from the CA MIM complex.

The DOWNSYS parameter is honored at COMPATLEVEL=4.6 and higher.

Note: For a discussion of the DOWNSYS parameter, see Automatically Freeing a System from the MIMplex in the *CA MIM Programming Guide*.

Specify one of these values:

AUTOFREE

Automatically FREEs a down system.

IGNORE

Requires operator intervention to FREE a down system.

Default: DOWNSYS=AUTOFREE

EXIT

(Optional) Specifies to CA MIM which exit routine you want to control and lets you set exit routine options by specifying one of the following module names in place of the *name* variable. You must issue a separate SETOPTION EXIT command for each module to be loaded.

Note: For more information, see the chapter “User Exits” in the *CA MIM Programming Guide*.

Valid exit routine *names* are:

EDIABNXT

Keeps EDIF from abending a task for these violations: read-access, utility, exempt, attribute, and DISP=SHR.

EDIATRXT

Changes the EDIF attribute verification processing for data sets. This exit routine is available only when you run EDIF.

EDIOPTXT

Sets the status of EDIF processing for various programs or data sets. This exit routine is available only when you run EDIF.

GCMCMDXT

Prevents certain local commands from being directed to external systems. This exit routine is available only when you run GCMF.

GCMDELXT

Changes the way CA MIC handles messages that are contained in its message tracking tables. This exit routine is available only when you run GCMF.

GCMDSTXT

Prevents all destinations on the local system from receiving collected messages, based on routing data associated with the messages. This exit routine is available only when you run GCMF.

GCMSRCXT

Prevents certain local messages from being directed to external systems based on routine data associated with the messages. This exit routine is available only when you run GCMF.

GDIXMPXT

Exempts resources from global ENQ propagation. This exit routine is available only when you run GDIF.

MIMATHXT

Customizes the CA MIM command authorization process.

MIMCMDXT

Prevents certain CA MIM commands from being issued on the local system or across systems.

TPCEDLXT

Marks devices as ineligible in EDL, during allocation, and removes them from the offline device list, during allocation recovery. This exit routine is available only when you run TPCF.

TPCRECXT

Customizes the TPCF processing of allocation recovery messages. This exit routine is available only when you run TPCF.

TPCSRMXT

Customizes the TPCF preferencing of devices. This exit routine is available only when you run TPCF.

XCMCMDXT

Issues installation-specific commands in place of commands that ECMF issues when requeuing batch jobs or sending messages to a JOBLOG data set. This exit routine is available only when you run ECMF.

XCMCNFXT

Changes the way unconditional resource conflicts are processed. This exit routine is available only when you run ECMF.

XCMMSGXT

Changes the way resource requesters are notified of a resource conflict when they request a resource that is not available. This exit routine is available only when you run ECMF.

XCMNAVXT

Changes the way conditional resource conflicts are processed. This exit routine is available only when you run ECMF.

XCMNFYXT

Changes the way TSO resource owners are notified when they are involved in a resource conflict. This exit routine is available only when you run ECMF.

XCMPGMXT

Changes the way conditional resource conflicts are processed. This exit routine is available only when you run ECMF.

XCMREQXT

Changes the way batch job requeue processing occurs for batch jobs that are waiting for control of data sets. This exit routine is available only when you run ECMF

The following values let you define the status of each exit routine as well as options for protection:

FAILURE

Specifies either DISABLE or ENABLE for the status of the exit routine in the event of an abend, and DUMP or NODUMP following an abend.

Defaults: ENABLE and DUMP

LOAD

Defines the site-specific load module that contains the routine. Every time this command is issued, this operand and value causes a module to be loaded.

If you specify LOAD without a module name, then CA MIM loads the most recently loaded module. To load a module other than this one, specify a module name.

PROTECT

Specifies the abend protection used for the routine. YES designates that, in the event of an abend, abend protection is invoked and CA MIM attempts to recover. NO lets you avoid the overhead of raising and lowering the protection for each invocation of the routine. However, in the event of an abend, CA MIM does not attempt to recover.

Default: NO

STATUS

Specifies the status of the exit routine. ACTIVE allows you to activate the exit routine. INACTIVE allows you to stop the exit routine without having to shut down the entire product.

Default: ACTIVE

HIBERNATE

(Optional) Specifies how many minutes CA MIM waits before putting an active system into a sleep state. If this is done, then the sleeping system does not accumulate transactions on the CA MIM control file. Specify a value from 1 to 60, or NONE if you do not wish to implement this function.

Note: For more information on CA MIM performance considerations, see the *CA MIM Programming Guide*.

Default: HIBERNATE=3

INTERVAL

(Optional) Determines how many seconds are in a service interval. CA MIM uses service intervals to determine how often to access control files if GDIF does not have transactions for other systems. Specify a value from .001 to 60 in place of the *seconds* variable.

Note: For more information on CA MIM performance considerations, see the chapter "Advanced Topics" in the *CA MIM Programming Guide*.

Default: INTERVAL=1.000

LOCALSTOP

(Optional) Indicates whether CA MIM shuts down with or without abend codes U1222(SHUTDOWN LOCAL and SHUTDOWN FREE) or U1223(SHUTDOWN RESERVE). Specify one of these values on the LOCALSTOP operand:

ABEND

CA MIM shuts down with abend codes.

NOABEND

CA MIM shuts down without abend codes.

Note that the other operands of the SHUTDOWN command (DUMP and GLOBAL) are not affected by the SETOPTION LOCALSTOP command.

Default: ABEND

LOCKOUT

(Optional) Indicates how many seconds of inaccessibility CA MIM should tolerate before notifying you that a lockout may have occurred with its current DASD control file. CA MIM issues message MIM0100 to notify you about possible lockouts on DASD or XES control files and message MIM0200 to notify you about lockouts on a virtual control file.

Specify a value from 5 to 120 in place of the *seconds* variable.

Default: LOCKOUT=15

MARGIN

(Optional) Indicates how many seconds of inactivity CA MIM should tolerate before notifying you that a system may be inactive. CA MIM considers a system to be inactive if that system has not updated its time stamp in the control file in more than this number of seconds. You will receive message MIM0061 if a system appears to be inactive. This operand also indicates how often the MIM0350 message is issued when a system is not responding to CTC communication.

Specify a value from 5 to 120 in place of the *seconds* variable.

Default: MARGIN=30

MIHINTERVAL

(Optional) Determines how long CA MIM waits before purging outstanding I/O on a CTC device. Specify from 15 seconds to 3600 seconds (one hour), or NONE to disable this function.

Default: MIHINTERVAL=60

Note: The MIHINTERVAL value should always be less than the value specified for the IOS MIH value specified for CTC-type devices.

MIM

(Optional) Tells CA MIM that you are setting operating values for the CA MIM product rather than for a specific facility. Because SVCDUMP is the name of both a CA MIM operand and an EDIF operand, you must specify the MIM operand before the SVCDUMP operand to distinguish it from the EDIF version of this operand. Also specify the CA MIM operand if you want to truncate an operand in a way that may be ambiguous with operands for a facility.

Because CA MIM is a positional operand, you must specify it before any other operand.

MODE

(Optional) Determines whether CA MIM waits for a service interval or a service cycle to expire before accessing the control file. You can use this operand to override the value for the MODE parameter on the MIMINIT statement.

Note: For more information on CA MIM performance considerations, see the *CA MIM Programming Guide*.

Specify one of these values on the MODE operand:

DEMAND

Specifies that CA MIM should access the control file whenever GDIF has an ENQ or RESERVE request to propagate. If GDIF does not have a transaction by the time a service interval expires, then CA MIM sees whether the other global facilities (that is, GTAF and GCMF) have transactions. If so, CA MIM accesses the control file. Otherwise, CA MIM waits until a service cycle expires and then accesses the control file.

GROUPS

Specifies that CA MIM should wait until a service interval expires before seeing whether any of the global facilities has a transaction. If so, then CA MIM accesses the control file. Otherwise, CA MIM waits until a service cycle expires and then accesses the control file.

Default: MODE=DEMAND

RESETPRINT

(Optional) Reverses or turns off settings that were previously made using the SETPRINT option. After using RESETPRINT, the options you specify will no longer be sent to the MIMTRACE data set, but will continue to be stored in the CA MIM internal trace table.

For a list of values that can be used for RESETPRINT, see SETTRACE.

Note: For more information on CA MIM diagnostic tracing, see the chapter "Troubleshooting" in the *CA MIM Programming Guide*.

RESETTRACE

(Optional) Reverses or turns off settings that were previously made using SETTRACE. After using RESETTRACE, the options you specify are no longer recorded in the CA MIM internal trace table. For a list of values that can be used for RESETTRACE, see SETTRACE.

Note: For more information on CA MIM diagnostic tracing, see the chapter "Troubleshooting" in the *CA MIM Programming Guide*.

SETPRINT

(Optional) Controls whether events that are recorded in the CA MIM internal trace table are also sent to the MIMTRACE data set. For a list of values that can also be used for SETPRINT, see SETTRACE. SETPRINT is dependent upon SETTRACE, because only operands that have been specified in both SETTRACE and SETPRINT are sent to the MIMTRACE data set.

Note: For more information on CA MIM diagnostic tracing, see the chapter "Troubleshooting" in the *CA MIM Programming Guide*.

SETTRACE

(Optional) Enables the recording of specific program events in the CA MIM internal trace table. You can specify one or more of the values listed below to activate different kinds of traces. When you issue multiple SETOPTION MIM SETTRACE commands, the effect is cumulative. For more information on CA MIM diagnostic tracing, see the *CA MIM Programming Guide*.

Valid *options* are:

ALL

Activates all of the following trace options, except DIAGNOSE.

ALLVCF

Activates tracing for the options: VCFBLKIO, VCFIO, VCFLOGIC, VCFPUSHPOP, and VCFSTATE.

APISERV

The following are valid values:

ALL--Activates tracing for all service types

TPDVD--Activates tracing for CA MIA Device Data API request processing.

DRENV--Activates tracing for DRENV API service type events.

BLKIO

Traces block reads and writes to the CA MIM DASD control file.

CHKPTIO

Traces checkpoint subtask I/O functions.

COMMANDS

Traces CA MIM commands.

DIAGNOSE

Traces diagnostic records.

MIMPUSHPOP

Traces routine entry/exit flow through the various CA MIM facilities.

STATE

Traces CA MIM complex and member state values at various points in the control file cycle.

TRANSACTION

Traces basic information about transactions sent and received. Specify the transaction identifiers in hexadecimal format using the following syntax:

SETTRACE=TRANSACTION=(*n*1,*n*2,...)

n --specifies a transaction identifier.

Note: Transaction identifiers are internally defined values unique to CA MIM. You should only use the SETTRACE=TRANSACTION command when directed by CA Technical Support.

When you specify the SETPRINT option, you do not specify any additional operands. You will receive information based on what identifiers you set on the command:

SETTRACE=TRANSACTION

VCFBLKIO

Traces block reads and writes to the CA MIM virtual control file.

VCFIO

Traces VCF I/O operations.

VCFLOGIC

Traces VCF virtual reserve/release processing.

VCFPUSHPOP

Traces routine entry/exit flow through VCF-specific modules.

VCFSTATE

Traces state values at various points in VCF-specific logic.

SHUTDOWN

(Optional) Specifies the default value for how you want to stop CA MIM. The value you choose for the SHUTDOWN operand is the default value chosen if you issue a CA MIM SHUTDOWN command without any operands.

If you choose to shut down CA MIM with a value other than the default you set with the SHUTDOWN operand, then you must use that value as an operand on the CA MIM SHUTDOWN command. Specify one of the following values on the SHUTDOWN operand:

DUMP

(Optional) Stops CA MIM on the local system with a U1122 user abend code. CA MIM also requests an abend dump.

Warning! Integrity exposures can occur when you specify this operand.

Note: For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

FREE

(Optional) Shuts down CA MIM on the local system and leaves it in a freed state (as if a 'FREE' sysid was issued on an external system). No abend dump is requested. CA MIM stops with an abend code U1222 if SETOPTION MIM LOCALSTOP=ABEND. FREE is similar to LOCAL, except that it prevents MIM0061 messages from being issued on other systems.

Warning! Integrity exposures can occur when you specify this operand. For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

GLOBAL

Stops CA MIM on all systems without producing an abend or an abend dump.

We recommend that you specify the GLOBAL operand when you are stopping CA MIM in multiple-system or multiple-image environments, except in an emergency.

This value stops CA MIM without allowing integrity exposures to occur. CA MIM does not stop until all RESERVE requests that were converted have been released through DEQ requests.

LOCAL

(Optional) Stops CA MIM on the local system immediately. No abend dump is requested. CA MIM stops with an abend code U1222 if SETOPTION MIM LOCALSTOP=ABEND.

Warning! Integrity exposures can occur when you specify this operand. For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

RESERVE

(Optional) Stops CA MIM on the local system with a U1223 abend if SETOPTION MIM LOCALSTOP=ABEND. On other systems, GDIF stops eliminating hardware reserves and stops propagating RESERVE requests as global ENQ requests. GDIF retains hardware reserves unconditionally until you identify this system as temporarily inactive (through the FREE command) or until CA MIM is restarted on this system. You can use the abbreviation RSV for this operand.

WARNINGS!

- An integrity exposure can occur if a converted RESERVE request issued from this system currently is involved in a cross-system conflict.
- Integrity exposures can occur when you specify this operand.

Note: For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

STATCOLLECT

(Optional) Controls the creation of statistical records for CA MIM reports. Specify one of the following values:

ALL

Turns on statistical record collection for all record subtypes.

NONE

Turns off all statistical record collection.

NO-SUBTYPE

Specifies the record subtypes for which statistical recording is turned off.

SUBTYPE

Specifies the record subtypes for which statistical recording is turned on.

Default: STATCOLLECT=NONE

The record subtypes for the CA MIM general reports are:

CF-Control file performance data record subtype.

CP-Cell pool storage data record type.

FC-Control file I/O count data record subtype.

LS-Lost event records.

VF-Virtual control file performance data record subtype.

STATCYCLE

(Optional) Specifies how often, in seconds, statistical data is sampled for CA MIM reports. The range is from .01 to 60.00.

Default: STATCYCLE=60.00

STATINTERVAL

(Optional) Specifies how often, in minutes, statistical data samples are recorded for use in CA MIM reports. The range is from 1 to 1440.

Default: STATINTERVAL=15

TRACE

(Optional) Activates and deactivates the TRACE feature. It also lets you deallocate the existing MIMTRACE data set and allocate a new SYSOUT data set dynamically. Specify one of these values on the TRACE operand:

ALLOCATE

Deallocates the current MIMTRACE data set and dynamically allocates a new SYSOUT data set for the TRACE feature.

CLASS

Specofoes the SYSOUT class CA MIM should use for the SYSOUT data set you are allocating.

Default: CLASS=A

JOBNAME

Specifies an optional job name (or mask) that is used to filter trace events that are created by front-end intercept routines. To determine which trace events support job name filtering, see the SETTRACE operand descriptions. You can use the following wildcard characters:

-- Matches a single character in the job name. For example, PAYROLL# matches job names of PAYROLL1, PAYROLL2, and so on.

***** -- Matches the remainder of the job name string. For example, SYS* matches job names SYSPROG, SYSTEST, and SYSTEM3.

MAXQUEUED

Specifies the threshold of internally queued MIMTRACE- and MIMEVENT-generated trace records.

nnnn--Specifies the MAXQUEUED threshold. This value can be an integer between 1024 and 99999999, inclusive.

NOLIMIT--Indicates that no threshold is to be set.

Default: MAXQUEUED=1024

OFF

Deactivates the TRACE feature.

ON

This activates the TRACE feaure

SPIN

Queues the current MIMTRACE data set for printing and dynamically allocates a new SYSOUT data set for the TRACE feature.

Default: TRACE=NONE

VCFDEBUG

(Optional) This is a diagnostic parameter and is to be used only when you are directed to do so by CA Technical Support.

Default: VCFDEBUG=OFF

VCFFORCE

(Optional) Determines whether CA MIM should cancel a virtual control file reserve held by a non-master system for a lengthy period of time. If you do not want CA MIM to cancel long control file reserves, then specify NONE. However, we recommend that you do specify a value for this operand, since without it you would be allowing an indefinite control file lock to occur in your complex.

To activate VCFFORCE, specify the time CA MIM should wait before the master system cancels the reserve held by the non-communicating system. The minimum time is 3 minutes and the maximum time is 60 minutes. The default is 5 minutes.

Note: Use caution with this function, because problems can result when a reserve is canceled on a system that is only temporarily inactive. A system may become active again after the virtual control file reserve has been canceled. To prevent possible integrity exposures, CA MIM forces that system to terminate.

Default: VCFFORCE=5

VCFMAXDELAY

(Optional) Determines how long a delay CA MIM should tolerate when trying to access its virtual control file. CA MIM issues message MIM0200 to notify you about possible lockouts.

Specify a value from 1.00 to 240.00 in place of the *seconds* variable.

This operand affects CA MIM only when you are using CTCDASD, CTCONLY, or XCF communication.

Default: VCFMAXDELAY=15

VCFMINDORM

(Optional) Determines what minimum waiting period must pass between the times CA MIM accesses its virtual control file. This operand affects CA MIM only when using virtual control files.

Specify the number of milliseconds CA MIM should wait in place of the milliseconds variable. If you specify 0, then CA MIM sends transactions immediately. Otherwise, specify a value from .001 to 500 (inclusive).

You should use the initial value 0 unless CA MIM services requests so quickly that a system experiences too many I/O operations.

This parameter has no affect on a slave system, only the current VCFMASTER system.

Default: VCFMINDORM=0

VCFRECOVERY

(Optional) Determines whether CA MIM should initiate automatic recovery when the current master system stops communicating. If you do not want CA MIM to perform this function, then specify NONE. However, we recommend that you do specify a value for this operand.

To activate VCFRECOVERY, specify the time CA MIM should wait before initiating recovery. The minimum time for this option is 20 seconds and the maximum is 3600 seconds (1 hour). The default is 120 seconds.

During automatic recovery, CA MIM selects a new master system and initiates migration to the new master. CA MIM issues periodic MIM0200 messages until the master begins communicating again.

Default: VCFRECOVERY=120

Note: The VCFRECOVERY value should always be greater than the value specified for the SETOPTION VCFMAXDELAY command. It is recommended that you specify a value for VCFRECOVERY at least two times greater than the value specified for VCFMAXDELAY.

Usage Notes: SETOPTION MIM

- The SETOPTION command can be specified in the MIMCMNDS or MIMSYNCH members of the parameter data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION command. TSO users generally are not authorized to issue system control commands.
- You can specify multiple CA MIM operands on the same SETOPTION command (for example, SETOPTION CMDPREFIX=% TRACE=ON). Do not specify CA MIM operands with operands associated with other facilities.
- To display the operating values set using the SETOPTION MIM command, issue the DISPLAY MIM OPTIONS command.

Example: SETOPTION MIM Command

To set the authorization-checking interval to 12 hours and set the command character as %, issue the following command:

```
SETOPTION MIM AUTHCHECK=12 CMDPREFIX=%
```

To represent the command character in hexadecimal format, you would specify CMDPREFIX=X'6C' in place of CMDPREFIX=%.

(MIM) SHUTDOWN Command-Stop CA MIM

The SHUTDOWN command lets you stop CA MIM.

Note: Data integrity exposures occur when the CA MIM address space is terminated on an active operating system.

Scope: Local or Global

This command has the following format:

SHUTDOWN[{DUMP | FORCE | FREE | GLOBAL | LOCAL | RESERVE | WAIT}]

SHUTDOWN

Lets you set the default value for how you want to stop CA MIM. The value you choose for the SHUTDOWN parameter is the default value chosen if you issue a CA MIM SHUTDOWN command (for example, MI SHUTDOWN) without any parameters.

If you choose to shut down CA MIM with a value other than the default you set with the SHUTDOWN parameter, you must use that value as a parameter on the SHUTDOWN command. Specify one of the following values on the SHUTDOWN parameter:

DUMP

(Optional) Stops CA MIM on the local system with a U1122 user abend code. CA MIM also requests an abend dump.

Warning! Integrity exposures can occur when you specify this operand.

Note: For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

FREE

(Optional) Shuts down CA MIM on the local system and leaves it in a freed state (as if a 'FREE' sysid was issued on an external system). No abend dump is requested. CA MIM stops with an abend code U1222 if SETOPTION MIM LOCALSTOP=ABEND. FREE is similar to LOCAL, except that it prevents MIM0061 messages from being issued on other systems.

Warning! Integrity exposures can occur when you specify this operand. For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

GLOBAL

Stops CA MIM on all systems without producing an abend or an abend dump.

We recommend that you specify the GLOBAL operand when you are stopping CA MIM in multiple-system or multiple-image environments, except in an emergency.

LOCAL

(Optional) Stops CA MIM on the local system immediately. No abend dump is requested. CA MIM stops with an abend code U1222 if SETOPTION MIM LOCALSTOP=ABEND.

Warning! Integrity exposures can occur when you specify this operand. For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

RESERVE

(Optional) Stops CA MIM on the local system with a U1223 abend if SETOPTION MIM LOCALSTOP=ABEND. On other systems, GDIF stops eliminating hardware reserves and stops propagating RESERVE requests as global ENQ requests. GDIF retains hardware reserves unconditionally until you identify this system as temporarily inactive (through the FREE command) or until CA MIM is restarted on this system. You can use the abbreviation RSV for this operand.

WARNINGS!

- An integrity exposure can occur if a converted RESERVE request issued from this system currently is involved in a cross-system conflict.
- Integrity exposures can occur when you specify this operand.

Note: For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

Note: This parameter has no effect on z/VM systems. It is shown here only for consistency with CA MIM for z/OS.

Default: SHUTDOWN=GLOBAL

DUMP

(Optional) Stops CA MIM on the local system with a U1122 user abend code. CA MIM also requests an abend dump.

Warning! Integrity exposures can occur when you specify this operand.

Note: For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

FORCE

(Optional) Stops CA MIM when the communication method is CTC or XCF, and when the system being shut down is the only eligible master system in a virtual control file environment. Using this operand prevents accidental shutdown of the master system while non-master systems are still active. FORCE should only be specified after you have received a MIM0468W message.

When the FORCE operand is specified on a SHUTDOWN command after another operand, the first operand is executed before the FORCE operand. For additional information about the FORCE operand, see the *Messages and Codes* guide.

WARNING! Integrity exposures can occur when you specify this operand.

FREE

(Optional) Shuts down CA MIM on the local system and leaves it in a freed state (as if a 'FREE' sysid was issued on an external system). No abend dump is requested. CA MIM stops with an abend code U1222 if SETOPTION MIM LOCALSTOP=ABEND. FREE is similar to LOCAL, except that it prevents MIM0061 messages from being issued on other systems.

Warning! Integrity exposures can occur when you specify this operand. For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

GLOBAL

Stops CA MIM on all systems without producing an abend or an abend dump.

We recommend that you specify the GLOBAL operand when you are stopping CA MIM in multiple-system or multiple-image environments, except in an emergency.

This value stops CA MIM without allowing integrity exposures to occur. CA MIM does not stop until all RESERVE requests that were converted have been released through DEQ requests.

LOCAL

(Optional) Stops CA MIM on the local system immediately. No abend dump is requested. CA MIM stops with an abend code U1222 if SETOPTION MIM LOCALSTOP=ABEND.

Warning! Integrity exposures can occur when you specify this operand. For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

RESERVE

(Optional) Stops CA MIM on the local system with a U1223 abend if SETOPTION MIM LOCALSTOP=ABEND. On other systems, GDIF stops eliminating hardware reserves and stops propagating RESERVE requests as global ENQ requests. GDIF retains hardware reserves unconditionally until you identify this system as temporarily inactive (through the FREE command) or until CA MIM is restarted on this system. You can use the abbreviation RSV for this operand.

WARNINGS!

- An integrity exposure can occur if a converted RESERVE request issued from this system currently is involved in a cross-system conflict.
- Integrity exposures can occur when you specify this operand.

Note: For more information about possible integrity exposures when stopping CA MIM, see the *CA MIM Programming Guide*.

WAIT

Sets the status of the local system to a freed state (as if a 'FREE' sysid was issued on an external system), then places the system into a disabled wait state code ‘FFF’. Unlike SHUTDOWN FREE, this ensures complete integrity, because the local system does not continue processing. No abend dump is requested. If WAITSTATE=NEVER, SHUTDOWN WAIT command is equivalent to SHUTDOWN FREE.

This option is required when MIMINIT keyword WAITSTATE set to anything other than NEVER.

Usage Notes: SHUTDOWN Command

- The SHUTDOWN command must be issued from a console or TSO session. You cannot issue this command from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the SHUTDOWN command. TSO users generally are not authorized to issue system control commands.
- You can use the SETOPTION MIM SHUTDOWN command to set the default value for how you want to stop CA MIM.
- You also can use the z/OS STOP command to stop CA MIM.

Examples: SHUTDOWN Command

- To stop CA MIM on all systems (if the SETOPTION SHUTDOWN operand was set to GLOBAL), issue this command:

  ```
  SHUTDOWN
  ```

- To stop CA MIM on the local system only and simultaneously free it from the MIMplex, issue this command:

  ```
  SHUTDOWN FREE
  ```

(MIM) SYSDUMP Command-Obtain a System Dump

The SYSDUMP command lets you obtain a system dump of CA MIM, and optionally, a list of other named address spaces. You can request the dump on the issuing system, all systems in the CA MIM complex, and all external systems to the issuing system, or a list of selected systems in the complex.

Scope: Local or Global

This command has the following format:

```
SYSDUMP [COLLECT={DEFAULTS|MAXIMUM|MINIMAL}]
        [JOBNAMES=(name1,name2,...name15) ]
        [QUIESCE={NO|YES} ]
        [SYSTEM={ALL|EXTERNAL|LOCAL|sysname} ]
        [TITLE=title ]
```

COLLECT

(Optional) This parameter controls the content of the system dump requested by CA MIM. Select one of the following:

DEFAULTS

Uses the installation-defined default options for the content of the system dump.

MINIMAL

Gathers the least amount of information in the system dump.

MAXIMUM

Gathers the greatest amount of information in the system dump.

Default: COLLECT=MAXIMUM

JOBNAMES

(Optional) Specifies the list of jobs to be dumped.

QUIESCE

(Optional) Determines whether the system should be set to non-dispatchable (YES) or remain dispatchable (NO) while the content of system storage areas are being dumped.

Default: QUIESCE=NO

SYSTEM

(Optional) Determines the target systems that are to obtain the system dump. Specify one of the following values:

ALL

Obtains a system dump on every system in the MIMplex.

EXTERNAL

Obtains a system dump on all systems in the MIMplex except the system on which the command is issued.

LOCAL

Obtains a system dump only on the system where the command is issued.

sysname

Obtains a system dump on the named systems. You can specify any system named in the DEFSYS initialization statements, such as SMF ID, CA MIM alias names, or CA MIM system names.

Default: SYSTEM=LOCAL

TITLE

(Optional) Specifies the title, 1 to 100 characters, used in the generation of the system dump. The default title is '*name* MIMGR REQUESTED DUMP', where *name* is the name of the system requesting the dump. As indicated, you must enclose the title in single quotes.

Usage Notes: SYSDUMP Command

- The SYSDUMP command must be issued from a console or a TSO session. You cannot issue this command from the parameter data set.
- You must be authorized to issue system control commands to issue the SYSDUMP command. TSO users generally are not authorized to issue system control commands.

Example: SYSDUMP Command

To request a system dump on system SYS1, you could issue the following:

```
SYSDUMP COLLECT=MAXIMUM SYSTEM=SYS1
```

(MIM) TABLE Statement—Identify Message Table

The TABLE statement identifies a message table for the CA MIM Message Facility.

This statement has the following format:

```
TABLE name [language]
```

name

Identifies the message table. Each product determines what table name to use.

language

(Optional) Identifies the message table language. If no language is specified, then the default language, English, is used. Any text is valid.

Usage Notes: TABLE Command

- You can specify this statement only in message table members. Specify the TABLE statement before MSG statements.

Example: TABLE Command

To name a German language message table for CA MIM, specify this statement in your primary message table:

```
TABLE MIMMSGX GERMAN
```

(MIM) VCF Command-Recover Virtual Control File Failure

The VCF command allows you to initiate recovery when virtual control file operations fail.

Scope: Global

This command has the following format:

```
VCF RECOVERY
```

RECOVERY

Initiates recovery when virtual control file operations fail in a CTC or XCF environment or coupling facility structure control file.

In a CTCDASD environment, recovery takes place by migrating to a new DASD control file.

In a CTCONLY or XCF environment, recovery takes place when all systems resynchronize and communicate with the new master system.

Note: This operand should only be used if you cannot initiate migration to a backup DASD or coupling facility structure control file or new master system using the MIGRATE command.

Usage Notes: VCF Command

- The VCF command can be used only when CTCDASD, CTCONLY, or XCF are specified on a MIMINIT COMMUNICATION statement.
- The VCF command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the VCF command. TSO users generally are not authorized to issue system control commands.
- You can also specify VCF ABEND to initiate virtual control file recovery. This command has the same effect as VCF RECOVERY.

Example: VCF Command

To initiate virtual control file recovery, issue this command:

```
VCF RECOVERY
```

Chapter 3: CA MIA Statements and Commands

This chapter discusses CA MIA statements and commands.

(MIA) DIAGNOSE Command-Diagnose Allocation Delays

This command allows you to diagnose the causes of allocation delays.

Scope: Local

This command has the following format:

```
DIAGNOSE [ALL]
         [EDT]
         [GROUP]
         [JOBSTATUS={ALL|DELAYED|DEVICES|GIVEN|RELEASED|WAITING}]
         [SYSTEMS]
         [VARY]
```

ALL

(Optional) Displays the information for JOBSTATUS, SYSTEMS, and VARY. This is the default for the DIAGNOSE command.

EDT

(Optional) Displays the current device generics/esoterics, referenced by each tape UNITNAME. It lists the devices contained in each generic/esoteric.

GROUP

(Optional) Displays the tape device groups currently being managed by CA MIA.

JOBSTATUS

(Optional) Lists jobs currently in allocation and their lock status. You can specify one of the following:

ALL

(Optional) Shows jobs for all of the JOBSTATUS options.

DELAYED

(Optional) Shows jobs that have requested device locks and are being delayed by CA MIA.

DEVICES

(Optional) Shows jobs that have been released by GTAF that are being delayed by z/OS because of another job that is currently using the specific device.

GIVEN

(Optional) Shows jobs that have been released by GTAF and have been given control of device locks by z/OS.

RELEASED

(Optional) Shows jobs that have requested device locks and are not being delayed by CA MIA (but may be delayed by z/OS).

WAITING

(Optional) Shows jobs that have been released by GTAF that are being delayed by z/OS because of another job that already owns the locks.

Default: JOBSTATUS=ALL

SYSTEMS

(Optional) Displays devices locked on each system in the complex.

VARY

(Optional) Displays the status of any VARY device request that is actively being processed or is queued for processing.

Example: DIAGNOSE Command

In the following example of the DIAGNOSE ALL command, system XE13 is identified in the SYSTEMS DISPLAY portion of the MIM2150I as holding both the 'A' and 'B' device group locks for devices 740 through 747. No other task running on any system in the MIAplex will be able to enter allocation if any of these devices appear on its EDL.

In the JOBSTATUS DISPLAY, GTAF is delaying the request of TAPE3 for 'A' locks. This is because the locks requested by TAPE3 are held by a task on system XE13. Job TAPE3 would be displayed as waiting for a shared ENQ on resource GTALOCAL/Waiting_For_Device_Group_Locks in a display of ENQ contention for Resource GTALOCAL.

Job TAPE2 has gone into allocation recovery, where a reply of WAIT/NOHOLD was entered for it. This job waits on the z/OS Waiting-For-Devices chain, and will be redriven through allocation when one of the listed devices deallocates or a CA MIA Vary Available is issued for a listed device.

```
MIM2150I DIAGNOSE ALLOCATION DISPLAY
  BEGIN SYSTEMS DISPLAY =========>
    System XE13 has 'AB' locks for devices
       740  741  742  743  744  745  746  747
  END OF SYSTEMS DISPLAY
  BEGIN JOBSTATUS DISPLAY =======>
  JOBSTATUS: DELAYED
    GTAF is delaying TAPE3's request for 'A' group locks for devices
       740  741  742  743  744  745  746  747
  JOBSTATUS: RELEASED
    NO ENTRIES FOR JOBSTATUS.RELEASED
  JOBSTATUS: WAITING
    NO ENTRIES FOR JOBSTATUS.WAITING
  JOBSTATUS: GIVEN
    NO ENTRIES FOR JOBSTATUS.GIVEN
  JOBSTATUS: WAITING FOR DEVICES
    MVS has TAPE2 waiting for devices, REPLY WAS NOHOLD
       A60   A61   A62   A63
  END OF JOBSTATUS DISPLAY
  BEGIN managed VARY display =>
        No managed VARY in progress
  END managed VARY display
END OF DIAGNOSE COMMAND
```

(MIA) DISPLAY GTAF Command-Display GTAF Information

The DISPLAY GTAF command lets you display information about the options and initialization values for the GTAF.

Scope: Local

This command has the following format:

```
DISPLAY GTAF
    [ALL ]
    [DEVICEGROUPS]
    [EDT]
    [GLOBALUNITS [{ALLOCATED[=sysid]|AVAILABLE[=sysid]|MOUNTPENDING[=sysid]

                  |OVERGENNED[=sysid]|ONLYOVERGENNED[=sysid]}]
                      [dddd] [,number]
                                  [,SYSLIST={INDEX|sysid|(sysid1,sysid2,...)}]
                                  [,SYSNUM={ALL|MAX|nn}]
                                  [,SYSTEM={FIRST|sysid}]
                            [,SYSLIST={INDEX|sysid|(sysid1,sysid2,...)}]
                            [,SYSNUM={ALL|MAX|nn}]
                            [,SYSTEM={FIRST|sysid}]

                      [,number]
                            [,SYSLIST={INDEX|sysid|(sysid1,sysid2,...)}]
                            [,SYSNUM={ALL|MAX|nn}]
                            [,SYSTEM={FIRST|sysid}]

                      [SYSLIST={INDEX| sysid|(sysid1,sysid2,...)}]
                      [SYSNUM={ALL|MAX|nn}]
                      [SYSTEM={FIRST|sysid}] ]
    [INIT]
    [LOCALUNITS [{ALLOCATED | AVAILABLE | MOUNTPENDING | OVERGENNED |
ONLYOVERGENNED}][dddd[,number]]
                                                          [,number] ]
    [OPTIONS]
```

ALL

(Optional) Displays the same information as the INIT and OPTIONS operands; that is, it displays the GTAF initialization values in message MIM2031 and the GTAF operating values in message MIM2030.

DEVICEGROUPS

(Optional) Tells CA MIA to display the z/OS device groups in message MIM2091.

Notes:

- CA Technical Support uses the information displayed for diagnostic purposes.
- The D GTAF DEVICEGROUPS and D TPCF DEVICEGROUPS commands are equivalent.

EDT

(Optional) Tells CA MIM to display the way your tape devices are defined in the system Eligible Device Table. This information is shown in message MIM2090.

Notes:

- CA Technical Support uses the information displayed for diagnostic purposes.
- The D GTAF EDT and D TPCF EDT commands are equivalent.

GLOBALUNITS

(Optional) Displays global information about managed devices. The format of the display and the amount of information provided depend on what global display values you specified on the SETOPTION command.

The standard display is shown in message MIM2064, and the inverse display is shown in message MIM2053. GTAF displays global status information only for devices that are managed by GTAF and only for the systems on which those devices are being managed.

You can limit the display to allocated devices, available devices, or devices that have a pending mount by specifying the following operands:

ALLOCATED

Tells GTAF to include only allocated devices in the device status display.

You can use the abbreviation ALC for this operand.

To limit the display to devices allocated on a particular system, specify a system name, alias, or index number in place of *sysid*.

AVAILABLE

Tells GTAF to include only available devices in the device status display.

You can use the abbreviation AVL for this operand.

To limit the display to devices available on a particular system, specify a system name, alias, or index number in place of *sysid*.

MOUNTPENDING

Tells GTAF to include only devices with a pending mount in the status display.

You can use the abbreviation MTP for this operand.

To limit the display to devices mount-pending on a particular system, specify a system name, alias, or index number in place of *sysid*.

OVERGENNED

Tells GTAF to include OVERGENNED devices in the device status display.

To limit the display to devices on a particular system, specify a system name, alias, or index number in place of *sysid*.

You can use the abbreviation OVG for this operand.

ONLYOVERGENNED

Tells GTAF to only include ONLYOVERGENNED devices in the device status display. If the device is OVERGENNED on any system that is to be displayed, device status for all displayed systems are shown.

To limit the display to devices on a particular system, specify a system name, alias, or index number in place of *sysid*.

You can use the abbreviation OOVG for this operand.

***dddd* (device)**

Determines which is the first device shown in the display. If you are displaying local status information, then enter the local name of the device. If you are displaying global status information, then enter the global name of the device. You can enter only a single device name.

Default: For the *global* status display, GTAF uses the current value of the command SETOPTION GLOBALDISPLAY(DEVICE). The initial value is FIRST, which starts the display with the device that has the lowest alphanumerical global name.

For the *local* status display, GTAF uses the current value of the command SETOPTION LOCALDISPLAY(DEVICE). The initial value is FIRST, which starts the display with the device that has the lowest alphanumerical local name.

If a device is overgenned on all systems, then the device information is omitted from the display of global status information. If the device is overgenned on some (but not all) systems, then the device information is displayed only for the systems on which the device is not overgenned. For example, if a device is overgenned on system A and not on system B, then GTAF displays the device information only for system B.

number

Specifies the number of devices that should be included in the display. The maximum value is 999.

Default: For the display of *global* status information, GTAF uses the current value of the SETOPTION GLOBALDISPLAY(NUMBER=*nn*) command. The initial value is 8.

For the display of *local* status information, GTAF uses the current value of the SETOPTION LOCALDISPLAY(NUMBER=*nn*) command. The initial value is 8.

GTAF

(Optional) Tells CA MIM to display information about GTAF rather than about any other facility. Specify this operand before the ALL, INIT, or OPTIONS operands. You also should specify the GTAF operand before any other operand that is truncated in such a way that it may be ambiguous with operands for other facilities.

Because GTAF is a positional operand, you must specify it before any other operand on the DISPLAY command.

Default: OPTIONS

INIT

(Optional) Displays the GTAF initialization values that are set by the GTAINIT statement. This information is shown in message MIM2031.

LOCALUNITS

(Optional) Displays information about the local status of managed devices. GTAF shows you all managed devices unless you specifically limit the display to allocated devices, available devices, or devices that have a pending mount. This information is shown in message MIM2018.

You can limit the display to allocated devices, available devices, or devices that have a pending mount by specifying the following operands:

ALLOCATED

Tells GTAF to include only allocated devices in the device status display.

You can use the abbreviation ALC for this operand.

AVAILABLE

Tells GTAF to include only available devices in the device status display.

You can use the abbreviation AVL for this operand.

MOUNTPENDING

Tells GTAF to include only devices with a pending mount in the status display.

You can use the abbreviation MTP for this operand.

OVERGENNED

Tells GTAF to include OVERGENNED devices in the device status display.

You can use the abbreviation OVG for this operand.

ONLYOVERGENNED

Tells GTAF to include only ONLYOVERGENNED devices in the device status display.

You can use the abbreviation OOVG for this operand.

***dddd* (device)**

Determines which is the first device shown in the display. If you are displaying local status information, then enter the local name of the device. If you are displaying global status information, then enter the global name of the device. You can enter only a single device name.

Default: For the *global* status display, GTAF uses the current value of the command SETOPTION GLOBALDISPLAY(DEVICE). The initial value is FIRST, which starts the display with the device that has the lowest alphanumerical global name.

For the *local* status display, GTAF uses the current value of the command SETOPTION LOCALDISPLAY(DEVICE). The initial value is FIRST, which starts the display with the device that has the lowest alphanumerical local name.

If a device is overgenned on all systems, then the device information is omitted from the display of global status information. If the device is overgenned on some (but not all) systems, then the device information is displayed only for the systems on which the device is not overgenned. For example, if a device is overgenned on system A and not on system B, then GTAF displays the device information only for system B.

number

Specifies the number of devices that should be included in the display. The maximum value is 999.

Default: For the display of *global* status information, GTAF uses the current value of the SETOPTION GLOBALDISPLAY(NUMBER=*nn*) command. The initial value is 8.

For the display of *local* status information, GTAF uses the current value of the SETOPTION LOCALDISPLAY(NUMBER=*nn*) command. The initial value is 8.

OPTIONS

(Optional) Displays the GTAF operating values that can be set using the SETOPTION command. This information is shown in message MIM2030.

SYSLIST

(Optional) Determines the order of the systems in the DISPLAY GLOBALUNITS display for the current display only.

Specify full system name, two-character system alias, or two-digit system index number for the *sysid* variables. A system you identify for *sysid* must be defined to CA MIM using the DEFSYS statement. Specifying a value of INDEX causes systems to be displayed in order of system index number.

Note: INDEX must be fully qualified, so as to distinguish it from a possible valid system ID.

Default: Value specified by the SETOPT GTAF GLOBALDISPLAY=SYSLIST command.

SYSNUM

(Optional) Determines the number of the systems in the DISPLAY GLOBALUNITS display for the current display only. The following are valid values:

ALL

This value causes all systems to be displayed, and is the equivalent of specifying SYSNUM=32.

MAX

Causes the maximum number of systems possible for the format of the display (STANDARD or INVERSE) to be displayed, without wrapping of the STANDARD display. For INVERSE format, the maximum number of systems displayed is unlimited (meaning MAX value is the same as ALL value). For STANDARD format, the maximum number of systems displayed is limited by the width of the console display.

Note: This value generates the same displays as in previous versions of CA MIM without the SYSNUM option.

nn

Specifies the number of systems to be displayed. For INVERSE format, the number of systems displayed may be reduced if *nn* is less than the maximum number of systems. For STANDARD format, a wrapped display is generated if *nn* exceeds the maximum number of systems that can be displayed on one line.

Default: Value specified by the SETOPT GTAF GLOBALDISPLAY=SYSNUM command.

SYSTEM

(Optional) Determines which is the first system shown in the display. Enter a full system name, two-character system alias, or two-digit system index number for the *sysid* variable. The system you identify for *sysid* may be defined to CA MIM using the DEFSYS statement.

Specifying the value of FIRST causes the first system in the current display to be the system with the lowest index number. In addition, FIRST must be fully qualified so as to distinguish it from a possible valid system id.

Default: GTAF uses the current value set with the SETOPTION GTAF GLOBALDISPLAY SYSTEM command.

Usage Notes: DISPLAY GTAF Command

- You cannot specify the GLOBALUNITS or LOCALUNITS operand with any other operands on the DISPLAY command. You can specify any combination of the ALL, INIT, and OPTIONS operands. Do not specify GTAF operands with operands associated with other facilities.
- The DISPLAY command contains positional operands. Therefore, you must specify operands in the order shown previously in the Display GTAF format box. If you skip the *dddd* operand, then you must specify an additional comma before the *number* operand.
- You can control the format and the amount of information shown in the display of global status information and local status information by setting values for the GLOBALDISPLAY and LOCALDISPLAY operands on the SETOPTION command.
- Avoid truncating GTAF operands so that they become ambiguous with other operands available on the DISPLAY command.
- The DISPLAY command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log
- You can issue the DISPLAY command from any console or TSO session.
- When you display information about devices, CA MIA shows you the true volume serial number for mounted tapes. z/OS display commands show you the pseudo-volume serial number when a device is externally allocated, and the true volume serial number for local allocations.

  Note: A pseudo-volume serial number is generated and propagated by CA MIA to identify the system on which a device is allocated. This number appears in the format *ss*=GTA, where *ss* represents the system alias associated with the system on which the device is allocated.

Example: DISPLAY GTAF Command

To display the current initialization and operation values for only GTAF, issue this command:

```
DISPLAY GTAF ALL
```

(MIA) DISPLAY TPCF Command-Display TPCF Information

The DISPLAY TPCF command lets you display information about the options and initialization values for the TPCF.

Scope: Local

This command has the following format:

```
DISPLAY TPCF [ALL]
             [DEVICEGROUPS]
             [EDT]
             [INIT]
             [JOBRESERVE [dddd[number]
                         [,number] ]]
             [LOCALUNITS
[{ALLOCATED|AVAILABLE|MOUNTPENDING|OVERGENNED|ONLYOVERGENNED]}] [dddd[,number]]
                                                                 [,number]
             [OPTIONS]
```

ALL

Displays the all TPCF initialization values (in message MIM2034).

DEVICEGROUPS

(Optional) Tells CA MIM to display its representation of the z/OS device groups. This information is shown in message MIM2091.

Although you can issue a DISPLAY TPCF DEVICEGROUPS command and view the subsequent message display, primarily CA Technical Support uses the information that appears for diagnostic purposes.

Note: The D TPCF DEVICEGROUPS and D GTAF DEVICEGROUPS commands are equivalent.

EDT

(Optional) Tells CA MIM to display the way your tape devices are defined and grouped in the system Eligible Device Table. This information is shown in message MIM2090.

Although you can issue the DISPLAY TPCF EDT command and view the subsequent message display, primarily CA Technical Support uses the information that appears for diagnostic purposes.

Note: The D TPCF EDT and D GTAF EDT commands are equivalent.

INIT

(Optional) Displays the TPCF initialization values that are set using the TPCINIT statement. This information is shown in message MIM2058.

JOBRESERVE

(Optional) Displays global information about devices that have been reserved for certain jobs. This information is displayed in message MIM2019.

If you specify RESERVE=YES on a SETOPTION command, you can then display this information by issuing the DISPLAY TPCF GLOBALUNITS command.

LOCALUNITS

(Optional) Displays information about the local status of managed devices. TPCF shows you all managed devices unless you limit the display through the ALLOCATED, AVAILABLE, or MOUNTPENDING operands. This information is displayed in message MIM2018.

ALLOCATED

Tells TPCF to include only allocated devices in the device status display.

You can use the abbreviation ALC for this operand.

AVAILABLE

Tells TPCF to include only available devices in the device status display. You can use the abbreviation AVL for this operand.

MOUNTPENDING

Tells TPCF to include only devices with a pending mount when displaying device status information. You can use the abbreviation MTP for this operand.

OVERGENNED

Tells TPCF to include OVERGENNED devices in the device status display.

You can use the abbreviation OVG for this operand.

ONLYOVERGENNED

Tells TPCF to include only ONLYOVERGENNED devices in the device status display.

You can use the abbreviation OOVG for this operand.

***dddd* (device)**

Determines which is the first device shown in the display. Enter the local name of the device. You can enter only a single device name.

Default: TPCF uses the current value of the command SETOPTION LOCALDISPLAY(DEVICE=*dddd)*. The initial value is FIRST, which starts the display with the device that has the lowest alphanumerical local name.

number

Indicates how many devices are to be included in the display.

Default: TPCF uses the value set for the SETOPTION LOCALDISPLAY(NUMBER=*n*) command. The initial value is 8.

Notes:

- TPCF omits devices with overgenned status from this display.

  The D TPCF LOCALUNITS and D GTAF LOCALUNITS commands are equivalent.

OPTIONS

(Optional) Displays the TPCF operating values that can be set using the SETOPTION command. This information is displayed in message MIM2034.

TPCF

Displays information about TPCF rather than about any other facility.

Because TPCF is a positional operand, you must specify it before any other operand on the DISPLAY command.

Default: OPTIONS

Usage Notes: DISPLAY TPCF Command

- You cannot specify the JOBRESERVE or LOCALUNITS operands with the OPTIONS operand. Do not specify TPCF operands with operands associated with other facilities.
- If you skip the *dddd* operand, then specify an extra comma in its place.
- Use the LOCALDISPLAY operand on the SETOPTION command to control the amount of information shown in the local status display.
- The DISPLAY command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You can also issue the DISPLAY command from any console or TSO session.

Example: DISPLAY TPCF Command

To display only devices with a pending mount, issue this command:

```
DISPLAY LOCALUNITS MOUNTPENDING
```

(MIA) DUMP GTAF/TPCF Command—Create a Dump of GTAF or TPCF

CA Technical Support uses the DUMP command for diagnostic purposes for problems that occur with the GTAF or TPCF facilities.

Important! This command is to be used only when you are directed by CA Technical Support to do so.

Scope: Local

This command has the following format:

```
DUMP {GTAF|TPCF} [{ACEJ |
                   DLIST |
                   DVE |
                   FORMAT,dev [,devn ] |
                   GRP |
                   M0AREA |
                   M1AREA |
                   M2AREA}]
```

ACEJ

Displays the contents of the ACEJ control block.

DLIST

Displays the contents of the DLIST control block.

DVE

Displays the contents of the DVE control block.

FORMAT

Displays the contents of the DVE and DLIST control blocks, starting with device *dev* for the number of devices *devn*.

GRP

Displays the contents of the GRP control block.

M0AREA

Displays the contents of the M0AREA control block.

M1AREA

Displays the contents of the M1AREA control block.

M2AREA

Displays the contents of the M2AREA control block.

Usage Notes: DUMP GTAF/TPCF Command

- This command is solely intended for use as a diagnostic tool under the direction of CA Technical Support.
- The displays generated by this command are unformatted and not usable if you are unfamiliar with the CA MIA internal control blocks.
- Some operands of this command may cause serious performance degradation of CA MIA and its facilities.

Example: DUMP Command

To dump the contents of the M1AREA control block, issue this command:

```
DUMP GTAF M1AREA
```

(MIA) GTAINIT Statement-Set GTAF Initialization Values

The GTAINIT statement lets you set initialization values for the GTAF of the CA MIA component.

Scope: N/A

This command has the following format:

```
GTAINIT [ASSIGN={ASIS | (MULTISYSTEM,password,' NON-JES') | NOASSIGN} ]
```

ASSIGN

(Optional) Determines the response of GTAF when GTAF intercepts a request for ASSIGN processing for an IBM 3480-type tape device. Specify one of these values on the ASSIGN parameter:

ASIS

Tells GTAF to let z/OS handle requests for ASSIGN processing and not to modify z/OS ASSIGN processing in any way for z/OS VARY ONLINE commands. CA MIA VARY ONLINE commands have ,SHR appended to them, which issues a multi-system assign request.

MULTISYSTEM

Tells GTAF to convert all ASSIGN requests to *multiple-system* ASSIGN requests and to let any system that provides the correct password share devices with other systems that use the same password.

By default, GTAF lets systems share devices when they provide the password ' NON-JES' (including the quotation marks and the preceding blank). To establish a different password, specify the new password in place of the *password* variable. The new password can be up to 11 characters long. If it contains non-numeric characters, then enclose the password in single quotation marks.

NOASSIGN

Suppresses z/OS ASSIGN processing, which prevents 3480 tape devices from being assigned to a certain system or group of systems. This value *must* be specified if you are running CA MIA for z/VM.

You need to specify the same value for the ASSIGN parameter on all systems that are sharing a group of devices. Also, when you specify ASSIGN=NOASSIGN for one system, you must specify this value for all systems, whether they are sharing devices.

Default: ASSIGN=(MULTISYSTEM,' NON-JES')

Note: There is a blank space before the term NON-JES, following the first single quotation mark.

Usage Notes: GTAINIT Statement

- The GTAINIT statement can be specified only in the initialization member of the CA MIM parameter data set.
- If you are running CA MIA for z/VM, then you must specify GTAINIT ASSIGN=NOASSIGN.
- If you are running in a configuration with two or more z/VM systems that each have z/OS guests, then you should consider specifying ASSIGN=NOASSIGN for the same set of devices. Otherwise, if you run ASSIGN=ASIS or MULTISYSTEM, then you may experience ASE errors if one of the z/OS guests is IPLed.

Examples: GTAINIT Statement

- To tell GTAF to let z/OS handle requests for ASSIGN processing, specify this statement in the initialization member:

  ```
  GTAINIT ASSIGN=ASIS
  ```

- To convert all ASSIGN requests to multiple-system ASSIGN requests (using the password JES), specify this statement in the initialization member:

  ```
  GTAINIT ASSIGN=(MULTISYSTEM,JES)
  ```

(MIA) RESYNCH Command—Change Managed Devices

The RESYNCH command allows you to change the devices managed by CA MIA without the need to restart your system or CA MIA.

Scope: Local

This command has the following format:

```
RESYNCH [COMMANDS={member|NONE}]
        [DEVCLASS={NONE|TAPE}]
        [DEVLIST={member|NONE}]
```

COMMANDS

(Optional) Allows commands to be issued automatically from a data set after resynchronization takes place. This parameter is similar to the MIMINIT COMMANDS statement specified at startup. Specify one of the following values:

member

Specifies the member that CA MIM for z/OS should use.

NONE

Specifies that you are not using a commands data set.

Default: See the RESYNCH operand for the SETOPTION GTAF command.

DEVCLASS

(Optional) Indicates which class of devices CA MIA will automatically manage after resynchronization. Specify one of the following values:

NONE

Indicates that you are not placing a class of devices under CA MIA management.

TAPE

Places all tape devices under CA MIA management.

Default: See the RESYNCH operand for the SETOPTION GTAF command.

DEVLIST

(Optional) Identifies the member that CA MIA uses to obtain device control information. Specify one of the following values:

member

Specifies the name of the member that CA MIA should use.

NONE

You are not using a member for this purpose.

Usage Notes: RESYNCH Command

- The RESYNCH command is a local command. That is, it only takes effect on the system where it is issued. If the devices managed by CA MIA are to be changed on more than one system, then the RESYNCH command must be issued on each system requiring the change.
- During RESYNCH processing, CA MIA uses the default values for DEVCLASS, DEVLIST, and COMMANDS as defined on the SETOPTION RESYNCH command in the MIMCMNDS member. You can temporarily override these default values using the DEVCLASS, DEVLIST, and COMMANDS parameters of the RESYNCH command.

- You can perform dynamic I/O reconfiguration using the z/OS ACTIVATE command or the Hardware Configuration Definition (HCD). This action can change how your tape devices are configured. Therefore, CA MIA automatically goes through a "resynchronization" process after any dynamic I/O configuration to handle any changes made to tape devices by the new I/O configuration.
- If a task is in the tape allocation process and a resynchronization occurs that removes all the devices requested by the task from CA MIA management, then CA MIA discontinues the cross-system serialization of the allocation. However, CA MIA may continue its involvement in some parts of the allocation until the allocation completes. For example, if the task should go into allocation recovery, then CA MIA will manage the recovery until the allocation recovery messages are responded to.
- For more information, see the description of the RESYNCH operand for the SETOPTION GTAF and SETOPTION TPCF commands.

Example: RESYNCH Command

To change the class of devices managed by CA MIA from NONE to TAPE, issue the following command:

```
RESYNCH DEVCLASS=TAPE
```

In this example, CA MIA uses TAPE for the DEVCLASS option, which temporarily overrides the value set on the SETOPTION RESYNCH command for DEVCLASS. The values for the COMMANDS and DEVLIST options remain the same.

(MIA) SETOPTION GTAF Command-Set GTAF Operating Values

The SETOPTION GTAF command lets you set operating values for the GTAF.

Scope: Local

This command has the following format:

```
SETOPTION GTAF [AUTOPATH=([ATTACH={ON|OFF}]
                          [DETACH={ON|OFF}]
                          [HOSTMIM=sysname]
                          [MAXATTACH=number]
                          [MAXTIME=minutes]
                          [MINTIME=minutes]  )]
               [GLOBALDISPLAY ([DEVICE={device|FIRST}]
                              [FORMAT={INVERSE|STANDARD}]
                              [FREE={NO|YES}]
                              [HEADER={ALIAS|SYSNAME}]
                              [JOBNAME={NO|YES}]
                              [MOUNTPEND={NO|YES}]
                              [NUMBER=number]
                              [RESERVE={NO|YES}]
                              [SYSLIST={INDEX|sysid|(sysid1,sysid2,...)}]
                              [SYSNUM={ALL|MAX|nn}]
                              [SYSTEM={FIRST|sysid}]
                              [USERDATA={NO|YES}]
                              [VOLSER={NO|YES}]     )]
               [LOCKTUNING=(FREELOCK=number,HOLDLOCK=number )
               [MIM216X=seconds]
               [RESETPRINT=*See SETTRACE]
               [RESETTRACE=*See SETTRACE]
               [RESYNCH[=([COMMANDS={membername|NONE} ]
                          [DEVCLASS={NONE|TAPE} ]
                          [DEVLIST={membername|NONE} ]
                          [SAMEDEVS={NO|YES} ]) ]
               [SETPRINT=*See SETTRACE.]
               [SETTRACE=(ALL|
                         [LOCKS]
                         [MASKS]
                         [RESYNCH]
                         [SWAP]
                         [UNITALOC]
                         [VARY] ) ]
```

```
[STATCOLLECT=(ALL | NONE) | (NOSUBTYPE(list) | SUBTYPE(list))]
[STATCYCLE=seconds]
[STATINTERVAL=minutes]
[VARYDELAY={NONE|seconds}]
[VARYSCOPE={EXTERNAL|GLOBAL|LOCAL|sysid} ]
```

AUTOPATH

(Optional) Applies when your site is running one or more z/OS systems that are operating as guests under the same z/VM system. More specifically, it allows CA MIA running on z/OS guest systems to attach and detach drives in response to the need to allocate drives. It is used as follows: When an Autopath-managed device is idle and is attached to one z/OS guest system, that drive can be detached from the idle system and then attached to a system requiring its use in response to jobs going into allocation recovery. You can specify one or more of the following options:

ATTACH

Controls whether CA MIM can automatically request that an Autopath-managed device be made available to the local system when it is needed by an attach request from the local system.

ON--Autopath will request that an available Autopath-managed device be made available to the local system.

OFF--Autopath will not request that an available Autopath-managed device be made available to the local system.

Default: ATTACH=OFF

DETACH

Controls whether CA MIA can automatically detach an Autopath-managed device when another system requests use of the device.

ON--Specifies that CA MIA be allowed to detach an Autopath-managed device when another system requests use of the device.

OFF--Prevents automatic detaching of an Autopath-managed device.

Default: DETACH=OFF

HOSTMIM

Sets the name of the CA MIA server machine running on the z/VM host. This name is used by CA MIM to issue ATTACH and DETACH commands using CA MIA for devices managed by CA MIA. This option has no effect in native z/OS systems, in systems where no devices are managed by Autopath, or in systems where CA MIA is not running on the z/VM host or not managing any devices .

Default: HOSTMIM=MIMGR

Note: You must specify the name of the CA MIA server machine if you are using Autopath for z/OS in conjunction with Autopath for z/VM.

For more information, see the section z/VM Considerations in the chapter "Advanced Topics" in the *CA MIA Programming Guide*.

MAXATTACH

Sets the maximum number of Autopath-managed devices CA MIA may have attached at any one time. The legal values are 1 - 9999.

Default: MAXATTACH=8

MAXTIME

Sets the maximum time, in minutes, that Autopath processing waits for a device to become available to the local system before cancelling the request.

Valid values are 1 to 60.

Default: MAXTIME=2

MINTIME

Sets the minimum time, in minutes, that a device must remain attached to the local system before it becomes eligible for automatic reattachment to another system by Autopath. This parameter is intended to prevent thrashing behavior in which tape devices are frequently moved from one system to another without ever being allocated. Legal values available for use are 1 - 60.

Default: MINTIME=5

GLOBALDISPLAY

(Optional) Controls the amount and type of information that appears in the global status display for GTAF-managed devices. You can use the DISPLAY GLOBALUNITS command to obtain this display. The GLOBALDISPLAY operand also controls the format of the display. You can specify one or more of the following values on the GLOBALDISPLAY operand:

FORMAT

Controls the format of the display for global device information. Specify one of the following values on the FORMAT operand:

INVERSE--This value displays the global names of devices along the horizontal axis and the names of systems along the vertical axis. This format limits the maximum number of devices that can be displayed to eight per line. The format does not limit the number of systems that can be displayed.

STANDARD -- This value displays the names of systems along the horizontal axis and the global names of devices along the vertical axis. This format limits the maximum number of systems that can be displayed to seven. The format does not limit the number of devices that can be displayed.

Default: FORMAT=STANDARD

FREE

(Optional) Determines whether devices that are only defined to systems that have been freed are included in the display of global status information. Specify the following values on FREE:

YES--All global devices are displayed, even if they are not defined on any active system.

NO--Devices will be excluded from the display if they are not defined on any active system.

Default: FREE=YES

DEVICE

Determines which managed device is shown first by default in the global status display for devices. Specify one of the following values on the DEVICE operand:

device--GTAF displays the device having this global name first.

FIRST--GTAF displays the device having the lowest alphanumeric global name first.

You can override this value when you issue the DISPLAY command.

Default: DEVICE=FIRST

HEADER

(Optional) Indicates whether you want to include full system names or system aliases in the display of global status information for GTAF-managed devices. Specify one of these values on the HEADER operand:

ALIAS--This value displays the alias associated with each system. The system aliases can be up to two bytes long.

SYSNAME--This value displays the full system name associated with each system. System headers appear on the horizontal axis for standard displays and on the vertical axis for inverse displays. The system names can be up to eight bytes long. In the standard display, specifying HEADER=SYSNAME reduces the number of systems that GTAF can display by one.

Default: HEADER=SYSNAME

JOBNAME

(Optional) Determines whether the job status is included in the display of global status information when at least one device is allocated to a job. Specify one of these values on the JOBNAME operand:

NO--This value omits the job status from the display.

YES--This value displays the name of the job that has the device allocated. GTAF uses JOBNAME as the label for this information. The job status appears on the horizontal axis for standard displays and on the vertical axis for inverse displays.

Because a job can require up to eight bytes of space in the display, specifying JOBNAME=YES limits the number of devices or systems that GTAF can display per line. For the standard display, the maximum number of *systems* that GTAF can display per line is reduced by one. For the inverse display, the maximum number of *devices* that GTAF can display per line is six.

Default: JOBNAME=NO

MOUNTPEND

Determines whether the device mount-pending time should be included in the GTAF options display. Specify one of these values on the MOUNTPEND operand:

NO--Omits the mount-pending line from the display.

YES--Displays the tape drive mount-pending time. This value limits the number of devices or systems that can be displayed. On a standard display, the maximum number of systems that GTAF can display per line is decreased by one. On an inverse display, the maximum number of devices that GTAF can display is six per line.

Default: MOUNTPEND=NO

NUMBER

Determines how many devices are included by default in the global status display for devices. You can override this value when you issue the DISPLAY command.

Specify a value from 1 to 9999 (integers only). If you request inverse format for the display (by specifying FORMAT=INVERSE) and this value exceeds the maximum number of devices that GTAF can fit on a line, then GTAF places the additional device information in a separate global status display.

Default: NUMBER=8

RESERVE

Determines whether reserve status is included in the global status display when at least one device is reserved for a job mask. Specify one of these values on the RESERVE operand:

NO--This value omits the reserve line from the display.

YES--This value displays the name of the job mask that has the device reserved. GTAF uses RESERVE as the label for this information. The reserve status appears on the horizontal axis for standard displays and on the vertical axis for inverse displays.

Specifying RESERVE=YES limits the number of devices or systems that can be displayed. On a standard display, the maximum number of *systems* that GTAF can display per line is decreased by one. On an inverse display, the maximum number of *devices* that GTAF can display per line is six.

Default: RESERVE=NO

SYSLIST

Determines the default order of the systems in the DISPLAY GLOBALUNITS display. Specify the full system name, two-character system alias, or two-digit system index number for the *sysid* variables. A system you identify for *sysid* must be defined to CA MIM through the DEFSYS statement. Specifying a value of INDEX causes systems to be displayed in order of system index number.

Note: INDEX must be fully qualified, so as to distinguish it from a possible valid system ID.

Default: SYSLIST=INDEX

SYSNUM

Determines the default number of systems returned when you issue the DISPLAY GLOBALUNITS command.

ALL--This value causes all systems to be displayed, and is the equivalent of specifying SYSNUM=32.

MAX--This value causes the maximum number of systems possible for the format of the display (STANDARD or INVERSE) to be displayed, without wrapping of the STANDARD display. For INVERSE format, the maximum number of systems displayed is unlimited (meaning MAX value is the same as ALL value). For STANDARD format, the maximum number of systems displayed is limited by the width of the console display.

Note: This value generates the same displays as in previous releases of CA MIM without the SYSNUM option.

nn--This value specifies the number of systems to be displayed. For INVERSE format, the number of systems displayed may be reduced if *nn* is less than the maximum number of systems. For STANDARD format, a wrapped display will be generated if *nn* exceeds the maximum number of systems that can be displayed on one line.

Default: SYSNUM=MAX

SYSTEM

Determines which system is shown first by default in the global status display for devices. Specify one of the following values on the SYSTEM operand:

FIRST--This value displays information about the system having the lowest system index number first.

sysid--This value displays information about the system having this system ID first. The system ID can be the system name, alias, or internal index number. You can use the DISPLAY SYSTEMS command to display the index numbers for your systems.

You can override this value when you issue the DISPLAY command.

Default: SYSTEM=FIRST

USERDATA

Determines whether data in the user data field for the specified device is included in the global status display for GTAF-managed devices. Specify one of the following values on the USERDATA operand:

NO--Do not display user data on the global display.

YES--Display device user data on the global device status display.

Specifying USERDATA=YES limits the number of devices or systems that can be displayed. On a standard display, the maximum number of *systems* that GTAF can display per line is decremented by one. On an inverse display, the maximum number of *devices* that GTAF can display per line is six.

You can set the user data values using the USERDATA command.

Default: USERDATA=NO

VOLSER

Determines whether volume serial status is included in the display of global status information when at least one device has a volume serial number to be displayed. Specify one of the following values on the VOLSER operand:

NO--This omits volume serial information from the display.

YES--This displays the volume serial number associated with each device. GTAF uses VOLSER as the label for this information. The volser status appears on the horizontal axis for standard displays and on the vertical axis for inverse displays. For the standard display, the maximum number of systems that GTAF can display is decremented by one. On an inverse display, the maximum number of *devices* that GTAF can display per line is six.

Default: VOLSER=NO

GTAF

Tells CA MIM that you are setting operating values for GTAF rather than any other facility. Specify the GTAF operand if you want to truncate an operand in a way that may be ambiguous with operands for other facilities.

Because GTAF is a positional operand, you must specify it before any other operand.

LOCKTUNING

(Optional) You can specify one or both of the following values for LOCKTUNING

FREELOCK

Controls the length of time, in control file cycles, that CA MIA allows allocations to occur on the local system before permitting external systems to attempt allocation. Valid values are from 0-9999.

Default: FREELOCK=0

HOLDLOCK

Sets number of control file cycles that CA MIA defers local system allocation requests to allow external systems device access once FREELOCK expires. Valid values are from 0-9999.

Default: HOLDLOCK=0

WARNING! Use this operand only at the direction of CA Technical Support.

MIM216X

(Optional) Determines whether the warning messages MIM2161W, MIM2162W, and MIM2165W are displayed. These messages warn you of potential system hangs due to the global enqueue serialization process, and assist in the diagnosis of delays encountered in the process.

If this parameter is set to zero, then the warning messages are not displayed. Otherwise, the setting indicates the number of seconds allotted for delay before a warning is issued, and how often the warning is issued until the delay is resolved.

Default: MIM216X=30

RESETPRINT

(Optional) Allows you to turn off trace event printing for the specified trace option or all options. For an explanation of the available options, see the SETTRACE operand.

Note: Resetting the RESYNCH, SWAP, or VARY options for this parameter through the SETOPTION GTAF command resets the same options for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both the GTAF and TPCF facilities. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

RESETTRACE

(Optional) Allows you to turn off tracing for the specified option or for all options. For an explanation of the available options, see the SETTRACE operand.

Note: Resetting the RESYNCH, SWAP, or VARY options for this parameter through the SETOPTION GTAF command resets the same options for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both the GTAF and TPCF facilities. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

RESYNCH

(Optional) Determines the values used for resynchronization, whether it is due to the CA MIA RESYNCH command or the z/OS dynamic I/O reconfiguration (z/OS ACTIVATE or HCD). The values set on this operand may be temporarily overridden by a RESYNCH command. You can specify one or more of the following:

COMMANDS

Allows commands to be issued from a member of the parameter data set after resynchronization. Specify the member name or NONE.

Default: COMMANDS= NONE.

DEVCLASS

Indicates which class of devices CA MIA will manage. Specify TAPE or NONE. The default value is the value specified on the MIMINIT DEVCLASS statement.

DEVLIST

Identifies the data set member that CA MIA uses to obtain device control information. Specify the member name or NONE. The default value is the value specified on the MIMINIT DEVLIST statement.

SAMEDEVS

Determines whether CA MIA begins managing new devices as soon as they are created by a z/OS I/O reconfiguration.

Specify NO to indicate that new devices will be recognized, and that the values for DEVCLASS and DEVLIST will be used. Specify YES to indicate that new devices will not be recognized, and that the values for DEVCLASS and DEVLIST will be ignored.

Default: SAMEDEVS=NO.

Note: Setting a value for any of the RESYNCH parameters using the SETOPTION TPCF command sets the same value for the equivalent SETOPTION GTAF RESYNCH parameter. In this case, the function is available to both the GTAF and TPCF facility. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

SETPRINT

(Optional) Turns on the print function for the specified trace event options. For an explanation of the available options, see the SETTRACE operand.

Note: Resetting the RESYNCH, SWAP, or VARY options for this parameter through the SETOPTION GTAF command resets the same options for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both the GTAF and TPCF facilities. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

SETTRACE

(Optional) Turns on the trace feature for the specified trace event options. You can specify one or more of the following options:

ALL

Traces all GTAF processing.

LOCKS

Traces locks.

MASKS

Traces masks.

RESYNCH

Traces RESYNCH command processing.

SWAP

Traces SWAP processing.

UNITALOC

Traces unit allocation/eallocation.

VARY

Traces VARY command processing.

Note: Resetting the RESYNCH, SWAP, or VARY options for this parameter through the SETOPTION GTAF command resets the same options for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both the GTAF and TPCF facilities. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

STAT

(Optional) Specifies, in seconds, how often statistical data is sampled for the GTAF report.

Default: 60

Note: Setting a value for the STATCYCLE parameter using the SETOPTION GTAF command sets the same value for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both the GTAF and TPCF facilities. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

STATCOLLECT

(Optional) Controls the creation of statistical records for the GTAF report. Specify one of the following values:

ALL

Turns on statistical record collection for all record subtypes.

NONE

Turns off all statistical record collection.

NOSUBTYPE

Specifies the record subtypes for which statistical recording is turned off.

SUBTYPE

Specifies the record subtypes for which statistical recording is turned on.

Default: STATCOLLECT=NONE

The record subtype for GTAF is TP, for the GTAF tape statistics record subtype.

Note: Setting a value for the STATCOLLECT parameter using the SETOPTION GTAF command sets the same value for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both the GTAF and TPCF facilities. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

STATINTERVAL

(Optional) Specifies, in minutes, how often statistical data samples are recorded for use in the GTAF report.

Default: STATINTERVAL=15

Note: Setting a value for the STATINTERVAL parameter using the SETOPTION GTAF command sets the same value for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both the GTAF and TPCF facilities. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

VARYDELAY

(Optional) Specifies the interval, in seconds, that CA MIA waits for completion of VARY device processing before considering the VARY activity delayed. When the VARYDELAY time expires, CA MIA issues a message, indicating that there is a delay in VARY device processing.

Note: Setting a value for this parameter sets the same value for the equivalent SETOPTION TPCF parameter. In this case, the function is available to both GTAF and TPCF facilities. The settings are available under both the SETOPTION GTAF and SETOPTION TPCF for installations that may only have one of these facilities activated.

Valid values are:

NONE

Specifies that no IEEVARYD VARY interval timing is performed.

seconds

An integer from 30 to 120, specifying the length of the interval in seconds

Default: 30

VARYSCOPE

(Optional) Specifies the default scope value for the VARY command. GTAF uses the value you specify for the VARYSCOPE operand if a user issues the VARY command and does not provide a scope value with one of these operands: ONLINE, OFFLINE, AVAILABLE, NOTAVAILABLE, OVERGENNED, and NOTOVERGENNED. Specify one of the following values on the VARYSCOPE operand:

EXTERNAL

Modifies the device status on all external systems; that is, on all but the local system.

GLOBAL

Modifies the device status on all systems. When specified, this value also sets a GLOBAL status for the job identified in VARY JOB=*name*.

LOCAL

Modifies the device status on the local system.

Note: When specified, this value also sets a LOCAL status for the job identified in VARY JOB=*name*.

sysid

Modifies the device status only on the system you identify. The *sysid* variable represents the full system name, alias, or index number associated with a system defined to CA MIM.

You can override the default value set on the VARYSCOPE operand by specifying a scope value on the VARY command.

Default: VARYSCOPE=LOCAL

Usage Notes

- You can specify multiple GTAF operands on the same SETOPTION command (for example, SETOPTION GLOBALDISPLAY(VOLSER=YES) VARYSCOPE=GLOBAL). Do not specify GTAF operands with operands associated with other facilities.
- The maximum number of systems that can be displayed in the standard format depends on the number of display options that you request by specifying one or more of the following operands on the SETOPTION command: HEADER=SYSNAME, JOBNAME=YES, MOUNTPEND=YES, RESERVE=YES, USERDATA=YES, or VOLSER=YES. Each display option you specify reduces the number of systems that can be displayed by one.
- The SETOPTION command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION command. TSO users generally are not authorized to issue system control commands.

Example: SETOPTION GTAF Command

To indicate that GTAF should display information about the global status of devices with the global names of devices along the horizontal axis and the names or aliases of systems along the vertical axis, issue this command:

```
SETOPTION GLOBALDISPLAY(FORMAT=INVERSE)
```

(MIA) SETOPTION TPCF Command-Set TPCF Operating Values

The SETOPTION TPCF command lets you set operating values for the TPCF.

Scope: Local

This command has the following format:

```
SETOPTION TPCF  [AUTOREPLY(  [IEF238D[={CANCEL | CONDITIONAL | MANUAL | WAIT}]]
                             [IEF433D[={HOLD | MANUAL | NOHOLD}] ]
                             [MIM2046[={CONSOLE | HARDCOPY}]]
                             [NOWAIT [CANCEL={YES|NO}]
                                     [EXTDEDDISP={YES|NO}]
                                     [NOTAVLDISP={YES|NO}] ]
                             [{OFF|ON}]
                             [OFFLNMAXNWAIT={nn | UNLIMITED}]
                             [SPECMAXNWAIT={nn | UNLIMITED}] ) ]
                [JOBFORCE={NO|YES}]
                [LOCALDISPLAY (DEVICE={device|FIRST}| NUMBER=number ) ]
                [MIM2032={HIGHLIGHT | NO | YES} ]
                [MIM2044DIAG={YES | NO}]
                [OVGINELIG={YES| NO |JOBRESV}]
                [RESETPRINT=*See SETTRACE.]
                [RESETTRACE=*See SETTRACE.]
                [RESYNCH=[COMMANDS={membername|NONE}]
                         [DEVCLASS={NONE|TAPE}]
                         [DEVLIST={membername|NONE}
                         [SAMEDEVS={NO|YES}] ]
                [SETPRINT=*See SETTRACE.]
                [SETTRACE= {[ACE] |
                            [ALL] |
                            [DEVSEL24] |
                            [DEVSEL78] |
                            [RECOVERY] |
                            [RESYNCH] |
                            [SSTAFULL] |
                            [SWAP] |
                            [VARY] } ]

                [SOLOSHUTOPTN={YES|NO}
                [STATCOLLECT={ALL|NONE}|NOSUBTYPE(list)|SUBTYPE(list)}]
                [STATCYCLE=seconds]
                [STATINTERVAL=minutes]
                [USERDATA={FULL | PARTIAL | MIM2069={NO|YES} ]
                [VARYDELAY={NONE|seconds}]
```

AUTOREPLY

(Optional) Determines the following:

- If and how TPCF should automatically respond to allocation recovery prompts IEF238D and IEF433D
- What action TPCF should take in allocation recovery when wait is *not* an option on the IEF238D prompt
- Where to record the responses of TPCF in allocation recovery
- How many times TPCF should respond for a DD in allocation recovery

TPCF responds to z/OS allocation messages for a job only if a device that CA MIA is managing is on the eligible device list of that job.

You can specify multiple values on the AUTOREPLY operand. You can specify the LOCALDISPLAY operand and the AUTOREPLY operand on the same SETOPTION command.

IEF238D

Determines the response to the z/OS IEF238D message, which z/OS issues whenever there is no suitable device to satisfy an allocation request. Specify one of these values:

CANCEL--Indicates that TPCF should reply CANCEL if all offline devices are not available or externally dedicated. Otherwise, TPCF removes devices from the offline device list before asking the operator to respond to this message.

CONDITIONAL--Indicates that TPCF should give the operator a chance to reply manually to the z/OS message when an offline device is available (after TPCF removes devices) or when a job cannot wait for an online device to be deallocated.

This parameter indicates that TPCF replies WAIT if WAIT is an option on the z/OS message and no offline devices remain in the offline device list after TPCF removes devices from this list. Otherwise, TPCF requests operator intervention.

MANUAL--Indicates that TPCF should let the operator reply manually to this message. TPCF removes devices from the offline device list before requesting operator intervention on the MIM2060 message.

WAIT---Indicates that TPCF should reply WAIT whenever WAIT is an option on the z/OS IEF238D message. If WAIT is not an option, then TPCF removes devices from the offline device list before requesting operator intervention.

Note: WAIT is usually not an option on the z/OS IEF238D message for jobs doing dynamic allocation.

If TPCF can respond automatically to the z/OS IEF238D message, then TPCF issues a multi-line WTO containing the IEF238D and MIM2046 messages. If TPCF cannot reply automatically (including when IEF238D=MANUAL), then TPCF reissues the z/OS IEF238D message as message MIM2060.

TPCF cancels a job, no matter what value you specify for the IEF238D operand, if *both* of these conditions exist:

- WAIT is not an option on the z/OS IEF238D message.
- All devices in the offline device list are reserved for other jobs, removed by the elimination logic in the TPCEDLXT routine, or have overgenned status.

Default: IEF238D=MANUAL

IEF433D

Determines the response of TPCF to the z/OS IEF433D message, which z/OS issues whenever you or TPCF replies WAIT to the z/OS IEF238D message. This value tells z/OS whether to allow other allocation requests to be processed while the current request waits for an available device. Enter one of these values on the IEF433D operand:

HOLD --Tells z/OS that all other allocation requests for this device type, except dynamic allocations, will wait until the current request is satisfied.

MANUAL --Indicates that the operator should control the situation and that TPCF should take no action.

NOHOLD--Tells z/OS that the current job reenters allocation and that other requests continue processing.

Do not specify IEF433D=HOLD if you are reserving devices using the VARY command or if you have defined elimination logic in the TPCEDLXT exit routine. Replying HOLD under these circumstances can cause jobs to terminate.

We recommend that you do not specify IEF433D=HOLD even when you are not reserving devices or using an exit routine, since this can potentially lead to long delays in allocation processing.

Default: IEF433D=MANUAL

MIM2046

Determines whether TPCF sends message MIM2046 to the console *and* to the system log or only to the system log when TPCF replies to a z/OS IEF238D or IEF433D message. The MIM2046 message indicates what response was given to the z/OS message. Specify one of these values on the MIM2046 operand:

CONSOLE--TPCF should send all MIM2046 messages to the console and to the system log.

HARDCOPY--TPCF should send all MIM2046 messages to the system log only.

Default: MIM2046=CONSOLE

Note: When an operator replies to these z/OS messages, TPCF always sends the MIM2046 message only to the system log.

NOWAIT

Controls TPCF AUTOREPLY processing when WAIT is not an option on the IEF238D WTOR and all offline devices remaining after TPCF device elimination are either NOTAVAILABLE or EXTERNALLY DEDICATED. You can specify one of the following options:

CANCEL--Determines whether a job is automatically canceled when no devices appear in the offline device list.

Note: The job is not automatically canceled if you specify CANCEL=NO. The MIM2060 WTOR is issued with CANCEL as the only option. The operator will be forced to reply CANCEL. Until the operator replies CANCEL, the job in allocation recovery will hold tape device allocation resources that will be serialized across the CA MIM complex and tape allocations on all systems in the CA MIM complex will experience delays.

We strongly recommend that you specify CANCEL=YES unless you have some specific reason for not doing so.

Default: CANCEL=YES

EXTDEDDISP--Determines whether EXTERNALLY DEDICATED devices are displayed on the MIM2042 device list.

Default: EXTDEDDISP=YES

NOTAVLDISP--Determines whether NOTAVAILABLE devices are displayed on the MIM2042 device list.

Note: NOTAVAILABLE devices are not displayed if there are externally dedicated devices and EXTDEDDISP=YES.

Default: NOTAVLDISP=YES

Note: If both externally dedicated and not available devices exist in the offline device list and EXTDEDDISP=YES, then only the externally dedicated devices are displayed. If there are no externally dedicated devices or EXTDEDDISP=NO, then not available devices are displayed.

OFF

Prevents TPCF from issuing its own allocation recovery messages and affects how TPCF eliminates devices from the IEF247I offline device list. TPCF always eliminates overgenned devices and all devices removed by a job reserve or TPCEDLXT exit routine processing. During normal allocation recovery processing, TPCF may eliminate not-available and externally dedicated devices from the offline device list. However, if you specify OFF on the AUTOREPLY operand, then TPCF does not eliminate not-available or externally dedicated devices from the offline device list.

OFFLNMAXNWAIT

Overrides the value set in SYS1.PARMLIB(ALLOCxx) for the z/OS exit routine ALLC OFFLN MAXNWAIT for how many times an allocation recovery exit (like TPCF) can reply to an allocation recovery request. The value specified for the SETOPTION AUTOREPLY command is only valid for devices managed by CA MIA. You can specify a number from 1 to 255, or accept the default value, UNLIMITED.

ON

Allows TPCF to perform its normal allocation recovery processing. TPCF issues its own allocation recovery messages, eliminates all overgenned and all devices removed by job reserve or TPCEDLXT exit routine processing, and may eliminate not-available and externally dedicated devices. This is the default value for AUTOREPLY.

SPECMAXNWAIT

Overrides the value set in SYS1.PARMLIB(ALLOCxx) for the z/OS exit routine SPEC WAIT MAXNWAIT for how many times an allocation recovery exit (like TPCF) can reply to an allocation recovery request. The value specified for the SETOPTION AUTOREPLY command overrides the z/OS default for devices managed by CA MIA. You can specify a number from 1 to 255, or accept the default value, UNLIMITED.

This setting affects the way CA MIM responds when a job has requested a specific device, for example, UNIT=580, and the requested device is allocated already.

Default: SETOPTION TPCF AUTOREPLY=ON

JOBFORCE

(Optional) Provides the default setting for the FORCE option on the VARY JOB command when no FORCE option is specified on that command.

Default: JOBFORCE=NO

LOCALDISPLAY

(Optional) Determines which managed device is shown first and how many devices are included by default in the local status display for devices. You can use the DISPLAY LOCALUNITS command to obtain this display. Specify one or both of these values on the LOCALDISPLAY operand:

DEVICE

Determines which managed device is shown first by default. Specify DEVICE=FIRST to start with the device that has the lowest alphanumeric local name. To start with a different device, specify a local device name in place of the *device* variable.

Default: DEVICE=FIRST

NUMBER

Determines how many devices are displayed by default. Specify a value from 1 to 9999 in place of the *number* variable.

Default: NUMBER=8

MIM2032

(Optional) Determines whether TPCF issues message MIM2032 if it recognizes a change in the active status on the local system for an assignable device with an active ACL feature. The change in status is recognized by TPCF sampling the UCB for the device. Specify one of these values on the MIM2032 operand:

HIGHLIGHT

Indicates that TPCF should issue MIM2032 as a non-rollable, non-deletable highlighted message (WTO).

YES

Indicates that TPCF should issue MIM2032 as an unhighlighted message.

NO

Indicates that TPCF should not issue MIM2032.

Default: MIM2032=NO

MIM2044DIAG

(Optional) Determines whether additional diagnostics are performed at the time the message MIM2044 ALL DEVICES HAVE BEEN ELIMINATED DURING ALLOCATION RECOVERY is issued. If YES is specified, then the MIM2196I or MIM2197I messages are issued. These messages contain the CA MIA input and output device lists. The lists aid in determining why all devices were eliminated for the allocation.

Default: MIM2044DIAG=YES

OVGINELIG

(Optional) Determines whether OVERGENNED devices are marked ineligible in the EDL (eligible device list). When devices are marked ineligible, they are no longer considered eligible for allocation by the operating system.

Note: CA MIA always removes OVERGENNED devices from the offline device list in allocation recovery, regardless of the value set for OVGINELIG.

NO

OVERGENNED devices are not marked ineligible in the EDL

YES

OVERGENNED devices are always marked ineligible in the EDL

JOBRESV

OVERGENNED devices are marked ineligible in the EDL when *both* of the following are true:

- JOBRESERVE is in effect
- The OVERGENNED device is not reserved for any job

Default: NO

RESETPRINT

(Optional) Tells TPCF to stop writing trace records to the MIMTRACE data set. For an explanation of the available options, see the SETTRACE operand. To cancel a SETOPTION SETPRINT command that you issued previously, specify the same value for the RESETPRINT operand that you specified for the SETPRINT operand.

Note: Resetting the RESYNCH, SWAP, or VARY options for this parameter through the SETOPTION TPCF command resets the same options for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both the TPCF and GTAF facilities. The settings are made available under both SETOPTION TPCF and SETOPTION GTAF for sites that may only be activating one of the facilities.

RESETTRACE

(Optional) Tells TPCF to stop generating trace records. For an explanation of trace options, see the SETTRACE operand. To cancel a SETOPTION SETTRACE command that you issued previously, specify the same value for the RESETTRACE operand that you specified for the SETTRACE operand.

Note: Resetting the RESYNCH, SWAP, or VARY options for this parameter through the SETOPTION TPCF command resets the same options for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both the TPCF and GTAF facilities. The settings are made available under both SETOPTION TPCF and SETOPTION GTAF for sites that may only be activating one of the facilities.

RESYNCH

(Optional) Determines the values used for resynchronization, whether it is due to the CA MIA RESYNCH command or a z/OS I/O reconfiguration (z/OS ACTIVATE or HCD). The values set on this operand may be temporarily overridden by a RESYNCH command. You can specify one or more of the following:

COMMANDS

Allows commands to be issued from a member of the parameter data set after resynchronization. Specify the member name or NONE.

Default: COMMANDS= NONE.

DEVCLASS

Indicates which class of devices CA MIA will manage. Specify TAPE or NONE. The default value is the value specified on the MIMINIT DEVCLASS statement.

DEVLIST

Identifies the data set member that CA MIA uses to obtain device control information. Specify the member name or NONE. The default value is the value specified on the MIMINIT DEVLIST statement.

SAMEDEVS

Determines whether CA MIA begins managing new devices as soon as they are created by a z/OS I/O reconfiguration.

Specify NO to indicate that new devices will be recognized, and that the values for DEVCLASS and DEVLIST will be used. Specify YES to indicate that new devices will not be recognized, and that the values for DEVCLASS and DEVLIST will be ignored.

Default: SAMEDEVS=NO.

Note: Setting a value for any of the RESYNCH parameters using the SETOPTION TPCF command sets the same value for the equivalent SETOPTION GTAF RESYNCH parameter. In this case, the function is available to both the GTAF and TPCF facility. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

SETPRINT

(Optional) This turns on the print function for the specified trace event options. For an explanation of the available options, see the SETTRACE parameter.

Note: Resetting the RESYNCH, SWAP, or VARY options for this parameter through the SETOPTION TPCF command resets the same options for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both the TPCF and GTAF facilities. The settings are made available under both SETOPTION TPCF and SETOPTION GTAF for sites that may only be activating one of the facilities.

SETTRACE

(Optional) Causes TCPF to generate trace records. CA Technical Support may ask you to specify this operand for diagnostic purposes. Specify one of these values on the SETTRACE operand:

ACE

Traces ACE record processing.

ALL

Traces all TPCF processing.

DEVSEL24

Traces the CA MIA SSI 24 device selection processing. Job name filtering is available for this tracing using the SETOPTION MIM TRACE=(JOBNAME=*jjjjjjjj*) command.

DEVSEL78

Traces the CA MIA SSI 78 device selection processing. Job name filtering is available for this tracing using the SETOPTION MIM TRACE=(JOBNAME=*jjjjjjjj*) command.

RECOVERY

Traces allocation recovery processing. Job name filtering is available for this tracing using the SETOPTION MIM TRACE=(JOBNAME=*jjjjjjjj*) command.

RESYNCH

Traces RESYNCH command processing.

SSTAFULL

Traces entire SSTA in CA MIA SSI 78 processing. Job name filtering is available for this tracing using the command SETOPTION MIM TRACE=(JOBNAME=*jjjjjjjj*).

SWAP

Traces SWAP processing.

VARY

Traces VARY command processing.

For the format of the MIM2076 trace records, see the description of the MIM2076 message in the *Messages and Codes* guide.

Note: Setting the RESYNCH, SWAP, or VARY options for this parameter using the SETOPTION TPCF command sets the same options for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both the GTAF and TPCF facility. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

SOLOSHUTOPTN

(Optional) Provides the default setting of CA MIA with Communication=NONE. Setting this option to YES causes all CA MIA-managed devices to be varied OFFLINE upon shutdown. Otherwise, all devices are left in their current state.

Default: SOLOSHUTOPTN=NO

STATCOLLECT

(Optional) Controls the creation of statistical records for the TPCF report. Specify one of the following values:

ALL

Turns on statistical record collection for all record subtypes.

NONE

Turns off all statistical record collection.

NOSUBTYPE

Specifies the record subtypes for which statistical recording is turned off.

SUBTYPE

Specifies the record subtypes for which statistical recording is turned on.

The record subtype for TPCF is TP, or GTAF tape statistics record subtype.

Default: STATCOLLECT=NONE

Note: Setting a value for the STATCOLLECT parameter using the SETOPTION TPCF command sets the same value for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both the GTAF and TPCF facility. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

STATCYCLE

(Optional) Specifies, in seconds, how often statistical data is sampled for the TPCF report.

Default: 60

Note: Setting a value for the STATCYCLE parameter using the SETOPTION TPCF command sets the same value for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both the GTAF and TPCF facility. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

STATINTERVAL

(Optional) Specifies, in minutes, how often statistical data samples are recorded for use in the TPCF report.

Default: 15

Note: Setting a value for the STATINTERVAL parameter using the SETOPTION TPCF command sets the same value for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both the GTAF and TPCF facility. The settings are made available under both SETOPTION GTAF and SETOPTION TPCF for sites that may only be activating one of the facilities.

TPCF

Tells CA MIM that you are setting operating values for TPCF rather than for any other facility. Specify the TPCF operand if you want to truncate an operand in a way that may be ambiguous with operands for other facilities.

Because TPCF is a positional operand, you must specify it before any other operand.

USERDATA

(Optional) Controls the updating of the user data field using the USERDATA command, and the issuing of message MIM2069 after the successful completion of USERDATA command processing. Specify one of these values on the USERDATA operand:

FULL

Indicates that, when a USERDATA command is processed, you want to clear the entire user data field before the loading of new user data information specified on the USERDATA command.

PARTIAL

Indicates that, when a USERDATA command is processed, you do not want to clear the entire user data field before the loading of new user data information specified on the USERDATA command.

MIM2069

Indicates whether CA MIA should issue message MIM2069 after successful completion of USERDATA command processing. Possible values are NO and YES.

Defaults: USERDATA=FULL or USERDATA=(MIM2069=NO)

VARYDELAY

(Optional) Specifies the interval, in seconds, that CA MIA waits for completion of VARY device processing before considering the VARY activity delayed. When the VARYDELAY time expires, CA MIA issues a message, indicating that there is a delay in VARY device processing.

Note: Setting a value for this parameter sets the same value for the equivalent SETOPTION GTAF parameter. In this case, the function is available to both GTAF and TPCF faclities. The settings are available under both the SETOPTION GTAF and SETOPTION TPCF for installations that may only have one of these facilities activated.

Valid values are:

NONE

Specifies that no IEEVARYD VARY interval timing is performed.

seconds

An integer from 30 to 120, specifying the length of the interval in seconds

Default: VARYDELAY=30

Usage Notes: SETOPTION TPCF Command

- You can specify multiple TPCF operands on the same SETOPTION command (for example, SETOPTION AUTOREPLY=OFF LOCALDISPLAY(NUMBER=6)). Do not specify TPCF operands with operands associated with other facilities.
- The SETOPTION command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You can also issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION command. TSO users generally are not authorized to issue system control commands.
- TPCF responds to z/OS allocation messages for a job only if a device that CA MIA is managing is on the eligible device list of that job.

Example: SETOPTION TPCF Command

- To let other jobs allocate devices when a job in allocation recovery is waiting for a device to become available, issue the following command:

  ```
  SETOPTION AUTOREPLY(IEF433D=NOHOLD)
  ```

- To specify that CA MIA should display 12 devices by default in the local display, issue the following command:

  ```
  SETOPTION TPCF LOCALDISPLAY(NUMBER=12)
  ```

- To specify a permissible drive idle time of 45 minutes, issue the following command:

  ```
  SETOPTION TPCF TIMEOUT=45
  ```

(MIA) TPCINIT Statement-Set TPCF Exit Routine Order

The TPCINIT Statement determines the POS value specified by TPCF on the z/OS CSVDYNEX macro when TPCF adds its Autoreply exit routines as z/OS Allocation Recovery user exit routines for z/OS user exits IEF_ ALLC_ OFFLN and IEF_ SPEC_ WAIT. The value specified determines where in the list of possible multiple exit routines, z/OS places the TPCF exit routines. The order in which the exit routines are placed on the z/OS list is the order in which they will be called by z/OS.

Scope: N/A

This statement has the following format:

```
TPCINIT [AUTOREPLYPOS=FIRST|LAST|SYSTEM]
```

AUTOREPLYPOS

(Optional) Determines where z/OS places the TCPF exit routines in the list of possible multiple exit routines. Valid values are:

FIRST

Specifies that z/OS should call the TPCF exit routines before any other exit routines, unless other exit routines added after them also specify POS=FIRST.

LAST

Specifies that z/OS should call the TPCF exit routines after any other exit routines, unless other exit routines added after them also specify POS=LAST.

SYSTEM

Specifies that z/OS should call the TPCF exit routines in any order relative to other exit routines.

Default: AUTOREPLYPOS=LAST

Usage Notes: TPCINIT Statement

- You may need to use this parameter when there are multiple z/OS Allocation Recovery exit routines active on the system. In addition to the TPCF exit routines, this would include user-written exit routines and exit routines added by other software products.
- You can determine what z/OS Allocation Recovery exit routines are active on the system, and in what order they will be called, by examining displays generated by the following z/OS operator commands:

  ```
  D PROG,EXIT,EXITNAME=IEF_ALLC_OFFLIN
  D PROG,EXIT, EXITNAME=IEF_SPEC_WAIT
  ```

  In the preceding displays, the CA MIA recovery exit can be identified by the name MIAALOCX.
- The TPCF exits are usually last (TPCINIT AUTOREPLYPOS=LAST) for correct AUTOREPLY and device elimination. However, different placement of the TPCF exits may be required, depending on the other exit routines that are loaded. If you experience problems with AUTOREPLY or device elimination, then use the D PROG displays above to determine what other exits are loaded and check with the appropriate vendor/exit author to determine the order required by the exits.

Examples: TPCINIT Statement

- To specify that z/OS should call the TPCF exit routines after other exit routines, place the following statement in the MIMINIT member:

  ```
  TPCINIT AUTOREPLYPOS=LAST
  ```
- To specify that z/OS should call the TPCF exit routines in any order relative to other exit routines, specify this statement in the initialization member:

  ```
  TPCINIT AUTOREPLYPOS=SYSTEM
  ```

(MIA) USERDATA Command—Populate Device Data Field

The USERDATA command lets you put data into the user data field for a specific device. This command is used most often to pass information to the CA MIA application program interface (API). GTAF propagates the data to all systems. You can then retrieve the data by invoking the application program interface, or display it by issuing the DISPLAY GLOBALUNITS command.

Scope: Local

This command has the following format:

```
USERDATA device text
```

device

Specifies the local or global name of a GTAF-managed device.

text

Defines the one- to eight-byte character string that you want to put into the user data field associated with the device.

Notes:

- You can specify this text in either character or hexadecimal format. For example, you can specify A123 or X'C1F1F2F3'.
- If you want to include spaces in a character string, then place the entire string between single quotation marks.
- The length of the CA MIA user data field is defined in bytes, and two hexadecimal positions are equal to one byte of data; therefore, an odd number of hexadecimal positions is ambiguous if it is entered as text to be moved into a data field defined in terms of bytes.

Default: The user data field is initialized to nulls (X'00').

Usage Notes: USERDATA Command

- You determine how the USERDATA field is updated based on the value specified in the SETOPTION USERDATA command. FULL causes the entire data field to be updated, while PARTIAL causes only affected bits to be updated.
- The SETOPTION TPCF USERDATA command also gives you control over whether the MIM2069 message is issued after successful completion of the USERDATA command processing. You may specify YES to receive the MIM2069 message after successful completion of the USERDATA command. Otherwise, specify NO if you do not want to receive this message.

- The maximum number of bytes is eight. If the data you input is less than the maximum length of the user data field, then GTAF left-justifies the data in the field and pads the remainder of the field to the right with nulls (X'00'). GTAF does not verify that the length of the user data field is the same on all systems.
- In cases where hexadecimal text is entered with an odd number of positions, the USERDATA field is filled to the left with one hexadecimal digit '0' (one half-byte of nulls).

  For example:

Command	Updated User Data Field
USERDATA T123 X'1'	X'0100000000000000'
USERDATA T123 X'01'	X'0100000000000000'
USERDATA T123 X'123'	X'0123000000000000'
USERDATA T123 X'0123'	X'0123000000000000'

- You can display the user data field by issuing the DISPLAY GLOBALUNITS command if the USERDATA operand on the SETOPTION GLOBALDISPLAY is set to YES. In this display, nulls and other non-EBCDIC characters are displayed as dots, except that a USERDATA field of nulls is displayed as blank.
- You can retrieve data from the user data field by invoking the application program interface (module name MIMAPI1).
- User data is not restricted to EBCDIC codes, but if you use DISPLAY GLOBALUNITS to view the user data, non-displayable characters are translated to dots for the display. An exception is made when user data is in its initial state of all nulls (X'00'). In this case, the user data field remains blank in the DISPLAY GLOBALUNITS display.

More information:

(MIA) SETOPTION TPCF Command-Set TPCF Operating Values (see page 144)

-
- You can specify the USERDATA command in the MIMCMDS or MIMSYNCH member of the MIMCMDS data set. You can also issue this command from a console.
- You must be authorized to issue system commands to issue the USERDATA command. TSO users generally are not authorized to issue system control commands.

Examples: USERDATA Command

- To enter the characters CLASSA into the user data field associated with device 01A0, issue the following command:

  ```
  USERDATA 01A0 CLASSA
  ```

- To input this same data in hexadecimal format, issue the following command:

  ```
  USERDATA 01A0 X'C3D3C1E2E2C1'
  ```

(MIA) VARY Command-Change Device Status

The VARY command lets you change the status of devices that are being managed by the CA MIA component. You can VARY devices online or offline through the MIMSYNCH parmlib member or through a console. If a special CA MIA status, such as NOTAVAILABLE, AVAILABLE, OVERGENNED, NOTOVERGENNED, JOBRESERVED, or EXTERNALLY DEDICATED is to be given or removed from a device, then the CA MIA VARY command must be used.

Note: For in-depth information on how to use the VARY commands to achieve the device status desired, see Changing the Status of Managed Devices (VARY) in the chapter “Advanced Topics” in the *CA MIA Programming Guide*.

Scope: Local or Global

This command has the following format:

```
VARY (devices),{ {ACTIVE|NOTACTIVE} |
                {AVAILABLE|NOTAVAILABLE} [{EXTERNAL|FORCE|GLOBAL|LOCAL|sysid}] |
                {DEDICATED|NOTDEDICATED} |
                JOB=(name,FORCE={NO|YES}) [{GLOBAL | LOCAL}] | NOJOB |
                {NOTOVERGENNED|OVERGENNED} [{EXTERNAL|GLOBAL|LOCAL|sysid}] |
                {ONLINE|OFFLINE} [{EXTERNAL|GLOBAL|LOCAL|sysid}] |
                PREFERENCE={value|NONE} }.
```

devices

Identifies the device for which you are making a status change. The device is identified by its three- or four-character global name. Enter a single device name, a range of device names, or a list of device names. Specify a range of tape drives by typing two global names separated by a hyphen (for example, 03A0-03A2).

A list of tape drives is specified as two or more global names separated by a comma or space. A list always must be enclosed in parentheses. A list may include a range of drives. For example,

```
03A0
03A0-03A2
(03A0,03A1,03A2)
(03A0 03A1 03A2)
(03A0-03A2,07E0-07E1)
```

Note: The devices specified on a VARY RANGE command are presented to the operating system for processing as individual VARY Device requests in ASCENDING device address order, regardless of the order in which device address ranges are specified on the VARY RANGE command.

If you want a specific sequence of VARY command processing, code individual VARY or VARY RANGE commands to achieve the desired VARY completion sequence.

ACTIVE

Activates the automatic cartridge loader (ACL) feature for an assignable tape device, even if there are no cartridges in the loader. TPCF makes this status change on all systems.

AVAILABLE

Releases a not-available device and varies that device online. This makes the device available for allocation.

The VARY AVAILABLE command also wakes up the jobs waiting in allocation recovery for a device.

You can specify the following operands:

EXTERNAL

Modifies device status on all external systems (that is, on all systems except the local system).

GLOBAL

Modifies device status on all systems.

LOCAL

Modifies device status on the local system.

sysid

Represents the ID of a system to which you want to direct this VARY command.

The system ID represents the full system name or alias that is assigned to the system using the DEFSYS statement or the one- or two-digit index number of the system. If CA MIM for z/OS cannot find a match between the value you specify for *sysid* and any known system, then it issues message MIM2063 and ignores the VARY command.

Notes:

- *FORCE can only be used with NOTAVAILABLE*. By default, GTAF uses the scope value that is specified for the VARYSCOPE operand on the SETOPTION command.
- You can use the abbreviation AVL for this operand.
- We recommend that you do not use the GLOBAL operand when specifying this command in the MIMCMNDS or MIMSYNCH member unless you are directing the command to a single system (using IFSYS and ENDIF statements).

DEDICATED

Dedicates the device to jobs on the local system and varies the device offline on all external systems. This makes the device unavailable for allocation on external systems unless there is no other suitable device.

JOB

Reserves the devices for the job name specified. The name can be a started-task name. You can specify the following operands for this parameter:

GLOBAL

Modifies device status on all systems.

LOCAL

Modifies device status on the local system.

If you specify the GLOBAL operand, then the device is reserved for the specified job, regardless of the system on which the job is running. Otherwise, the device is reserved for a specified *local* job and cannot be allocated by any other local job or on any external system.

You may enter a single job name or you may use the asterisk (*) wildcard character to reserve a device for any job name matching the preceding characters. The wildcard character cannot be specified in the first position of the job name, and no characters can be specified after the wildcard character.

Note: You can force the job to use only the devices reserved for it by specifying YES on the FORCE operand (or simply specify FORCE). Otherwise, specify FORCE=NO to indicate that the job is not restricted to the devices reserved for it. If the FORCE operand is not specified, then CA MIA uses the value specified on the SETOPTION TPCF JOBFORCE command. The default value for that command is NO.

Important! TPCF ignores the reserve if all devices in the eligible device list are eliminated due to job reserve, any allocation exits, and device preferencing, and FORCE=NO.

NOJOB

Releases a reserved device.

NOTACTIVE

Deactivates the ACL feature for an assignable tape device. TPCF makes this status change on all systems.

NOTAVAILABLE

Assigns not-available status to the device and varies the device offline. This makes that device unavailable for allocation unless no other device is available.

You can specify the following operands for NOTAVAILABLE:

EXTERNAL

Modifies device status on all external systems (that is, on all systems except the local system).

FORCE

Takes a device that is in use on another system offline on the local system. If the device is allocated externally, then it is taken offline locally and given a status of not available. If the device is online but not allocated, then it is varied offline and also given a status of not available. To bring the device back online after issuing a VARY NOTAVL FORCE command, issue a VARY AVAILABLE command.

GLOBAL

Modifies device status on all systems.

LOCAL

Modifies device status on the local system.

sysid

Represents the ID of a system to which you want to direct this VARY command.

The system ID represents the full system name or alias that is assigned to the system using the DEFSYS statement or the one- or two-digit index number of the system. If CA MIM for z/OS cannot find a match between the value you specify for *sysid* and any known system, then it issues message MIM2063 and ignores the VARY command.

Notes

- *The FORCE parameter can only be used with NOTAVAILABLE.* By default, GTAF uses the scope value that is specified for the VARYSCOPE operand on the SETOPTION command.
- You can use the abbreviation NOTAVL for this operand.
- We recommend that you do not use the GLOBAL operand when specifying this command in the MIMCMNDS or MIMSYNCH member unless you are directing the command to a single system (using IFSYS and ENDIF statements).

NOTDEDICATED

Releases a dedicated device and varies that device online to all systems. This makes that device available for allocation on any system.

NOTOVERGENNED

Returns a device from the overgenned status to normal status and varies the device online. The following operands limit the scope of this parameter:

EXTERNAL

Modifies device status on all external systems (that is, on all systems except the local system).

GLOBAL

Modifies device status on all systems.

LOCAL

Modifies device status on the local system.

sysid

Represents the ID of a system to which you want to direct this VARY command.

The system ID represents the full system name or alias that is assigned to the system using the DEFSYS statement or the one- or two-digit index number of the system. If CA MIM for z/OS cannot find a match between the value you specify for *sysid* and any known system, then it issues message MIM2063 and ignores the VARY command.

You can use the abbreviation NOTOVG for this operand.

Default: GTAF uses the defined value that is specified for the VARYSCOPE operand on the SETOPTION command.

OFFLINE

Varies the device offline. The following operands limit the scope of this parameter:

EXTERNAL

Modifies device status on all external systems (that is, on all systems except the local system).

GLOBAL

Modifies device status on all systems.

LOCAL

Modifies device status on the local system.

sysid

Represents the ID of a system to which you want to direct this VARY command.

The system ID represents the full system name or alias that is assigned to the system using the DEFSYS statement or the one- or two-digit index number of the system. If CA MIM for z/OS cannot find a match between the value you specify for *sysid* and any known system, then it issues message MIM2063 and ignores the VARY command.

Default: GTAF uses the scope value that is specified for the VARYSCOPE operand on the SETOPTION command.

ONLINE

Varies the device online. The following operands limit the scope of this parameter:

EXTERNAL

Modifies device status on all external systems (that is, on all systems except the local system).

GLOBAL

Modifies device status on all systems.

LOCAL

Modifies device status on the local system.

sysid

Represents the ID of a system to which you want to direct this VARY command.

The system ID represents the full system name or alias that is assigned to the system using the DEFSYS statement or the one- or two-digit index number of the system. If CA MIM for z/OS cannot find a match between the value you specify for *sysid* and any known system, then it issues message MIM2063 and ignores the VARY command.

Default: GTAF uses the scope value that is specified for the VARYSCOPE operand on the SETOPTION command.

OVERGENNED

Assigns overgenned status to a device and varies the device offline. You can use the abbreviation OVG for this operand.

You can specify following operands to indicate the scope of the status change:

EXTERNAL

Modifies device status on all external systems (that is, on all systems except the local system).

GLOBAL

Modifies device status on all systems.

LOCAL

Modifies device status on the local system.

sysid

Represents the ID of a system to which you want to direct this VARY command.

The system ID represents the full system name or alias that is assigned to the system using the DEFSYS statement or the one- or two-digit index number of the system. If CA MIM for z/OS cannot find a match between the value you specify for *sysid* and any known system, then it issues message MIM2063 and ignores the VARY command.

Default: GTAF uses the scope value that is specified for the VARYSCOPE operand on the SETOPTION command.

PREFERENCE

Specifies the preference value you are assigning to this device (the *higher* the preference value, the more preferred the device). TPCF assigns this preference value on the local system only. You can specify a value from 1 to 255, or NONE. NONE causes device preferencing to not be done for the specified devices.

Default: PREFERENCE=NONE

Note: When NONE is specified, no preference value will be displayed.

Usage Notes: VARY Command

- The VARY command contains positional operands. Therefore, you must specify operands in the order shown in the previous VARY Command Format box.
- You can use the VARYSCOPE operand on the SETOPTION command to determine whether TPCF should use LOCAL, EXTERNAL, GLOBAL, or *sysid* as the default scope value for the VARY command.
- The VARY command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue the VARY command from a console.
- You must be authorized to issue system control commands to issue the VARY command. TSO users generally are not authorized to issue system control commands.
- Be sure to issue the VARY command with the CA MIM command prefix character (or the z/OS MODIFY command). If you omit the command character, then the VARY command will be interpreted as the z/OS VARY command rather than as the CA MIA VARY command.

Examples: VARY Command

- To reserve tape drive 01A2 for job PAYROLL on the local system, issue this command:

  ```
  VARY 01A2 JOB=PAYROLL
  ```

- To reserve tape drive 01A2 for jobs whose names begin with "PAY" on the local system, issue the following command:

  ```
  VARY 01A2 JOB=PAY*
  ```

- To dedicate tape drives 01A3, 01A4, and 01A5 to the local system, issue this command:

  ```
  VARY (01A3-01A5) DEDICATED
  ```

- To assign a preference value of 10 on the local system to device 01A4, issue this command:

  ```
  VARY 01A4 PREFERENCE=10
  ```

- To make tape devices 01A5 and 03B5 unavailable to system SYSA, issue this command:

  ```
  VARY (01A5,03B5) NOTAVAILABLE SYSA
  ```

Chapter 4: CA MIC Statements and Commands

This chapter discusses CA MIC statements and commands.

(MIC) COLLECT Command-Create Message Routing Definition

You can manage cross-system message traffic by creating message routing definitions. Message routing definitions, or *collection sets*, are defined using the CA MIC COLLECT command. A collection set is identified by its local destination (unless the SETNAME parameter is also specified).

Each COLLECT command allows you to create, modify, replace, or delete a collection set. GCMF and ICMF use collection sets to control the routing of messages between systems.

The COLLECT command differs from the LINK command in that collection sets are used to route UNSOLICITED WTOs (such as tape mounts, job start and end messages, and printer messages). Linkages are used to issue cross-system commands and automatically receive command responses (SOLICITED WTOs). These responses are returned to the issuing system regardless of any collection sets defined.

Collection sets define the routing of unsolicited cross-system messages. The COLLECT command defines a collection set by identifying:

- Types of messages that need to be imported to the local system
- Systems from which the messages are to be imported
- Local destination to which the imported messages are to be routed

Message selection criteria are quite flexible, as is the number of local destinations that can receive imported messages. As a result, you can create collection sets that are tailored to the requirements of your site. Some of the most common uses of collection sets are listed below:

- Direct imported messages to all local consoles, individual local consoles, local products, or local TSO users
- Record imported messages to the local SYSLOG
- Direct messages from specific jobs to specific TSO users

Note: For more information, see the chapter “Advanced Topics” in the *CA MIC Programming Guide*.

Each collection set you create using the COLLECT command has a two-part name, consisting of the destination you specify (such as CONSOLE=SYSAMSTR) and the SETNAME value. Multiple collection sets can exist for the same destination only if you use the optional SETNAME operand on at least one of them. If you issue two or more COLLECT commands for the same collection set, then the first command creates the collection set by default, while all subsequent commands will modify the original collection set.

Note: The Local Destination for Collected Messages parameter is required when the COLLECT command is issued from the CA MIM parmlib. This parameter *is not required* when the COLLECT command is issued directly from a command source (for example, from a console, or from in an application).

Scope: Local

This command has the following format:

COLLECT Modifier	Collection Set Name	Local Destination for Collected Message	Message Inclusion/ Exclusion Criteria	From System Scope	Inclusion/Exclusion Filter
COLLECT [{ADD| DELETE| REPLACE}]	[SETNAME [= {DEFAULT| *name*}]]	[{CONSOLE=*conname*| [DMONITOR[={ASIS| JOBNAMES| SESSIONS| STATUS}]]| [DROUTCDE[={ASIS| (*codes*)]]| [PRODUCT=*name*]| [SOURCE]| [SYSLOG]| [TSOUSER]}]	{ACTION|NOACTION} {JOBNAME=(*names*)| NOJOBNAME=(*names*)} {LOGONLY|NOLOG} {MONITOR=([JOBNAMES] [SESSION] [STATUS])| NOMONITOR=([JOBNAMES] [SESSIONS] [STATUS])} {MSGID=(*msgids*)| NOMSGID=(*msgids*)} {ROUTCDE={ALL|(*codes*)}| NOROUTCDE={ALL|(*codes*)} {WTOR|NOWTOR}	[SYSID[={ALL| ALLICMF| ALLSYS| EXTERNAL| EXTSYS| LOCAL| *sysid*}]]	[{ALL|ANY}]

ACTION

Selects action type messages. By default, messages having descriptor codes 1, 2, 3, or 11 are considered action messages. Descriptor code 12 can also be specified as an action message. You can change this by using the SETOPTION ACTIONCODE command.

WTOR messages are not automatically considered action messages, although they are highlighted on the display. ACTION selects WTOR messages only if they have the descriptor code of an action message.

ADD

(Optional) This parameter creates a collection set if the one you are defining does not exist. Otherwise, CA MIC modifies the existing collection set. ADD is the default value.

ALL

Indicates that a message must meet the requirements of *all* inclusion operands in this collection set.

ANY

Indicates that a message must meet the requirements of *any* single inclusion operand in this collection set. When you create a new collection set, ANY is used by default. If you wish to use ALL to require that all inclusion operands be met, then you must specify it.

When modifying a collection set, the default (ANY or ALL) is the previously set value for that collection set. You can change ANY to ALL or ALL to ANY by explicitly specifying the new value on your collection set.

CONSOLE

Directs messages to a local console. Specify the console name. You can abbreviate this operand as CN.

DELETE

Deletes part of a collection set or the entire collection set, depending on what other operands you specify on this command.

DMONITOR

Broadcasts messages to consoles by matching the WTO monitor type of the message with the MCS monitor type of consoles. You can specify one or more of the following values on the DMONITOR parameter:

ASIS

Using MCS monitor types, this directs cross-system messages as though they are local messages. CA MIC directs cross-system TSO session messages to all local consoles receiving local TSO session messages. For example, cross-system job initiation messages go to local consoles receiving local job initiation messages.

JOBNAMES

Directs messages to consoles that are receiving job initiation, job termination, and unit record allocation monitor messages.

SESSION

Directs messages to consoles that are receiving TSO session initiation and termination monitor messages.

STATUS

Directs messages to consoles that are receiving monitor messages concerning data set dispositions.

Default: ASIS

You can specify any combination of the JOBNAMES, SESSION, and STATUS operands.

DROUTCDE

Broadcasts messages to consoles by matching the WTO routing code of the message with the MCS routing codes of consoles. You can specify one of the following values on the DROUTCDE operand:

ASIS

Directs messages to consoles by matching MCS routing codes on messages and on consoles. For example, routing code 3 messages from external systems are sent to local consoles receiving routing code 3 messages. Routing code 5 messages are sent to consoles receiving routing code 5 messages, and so on.

codes

Represents the routing codes of the consoles that should receive these messages. Specify a single routing code, a range of routing codes, or a list of routing codes in place of *codes*.

Default: ASIS

JOBNAME

Selects messages issued by designated jobs. Specify a single job name, a list of job names, or a range of job names (to a maximum of 20 job names).

You can use the * and # wildcard characters in a job name. See the Usage Notes (see page 178) for the COLLECT command.

LOGONLY

Selects messages destined only for the system log.

For information about using the CAPTURELOG operand to enable CA MIC to collect these message types, see (MIC) SETOPTION GCMF Command in this chapter.

MONITOR

Selects messages that have been assigned this monitor type. You can use the abbreviation MN for this operand. Specify one or more of the following values on the MONITOR operand:

JOBNAMES

Selects all job initiation, job termination, and unit record allocation monitor messages.

SESSION

Selects all TSO-session initiation and termination monitor messages.

STATUS

Selects all monitor messages regarding data set dispositions.

MSGID

Selects messages that have a designated message ID. Specify a single ID, a list of IDs, or a range of IDs (to a maximum of 20 IDs). Message IDs can be up to 12 characters long.

You can use the * and # wildcard characters in a message prefix. See the Usage Notes (see page 178) for the COLLECT command.

NOACTION

Excludes all action messages defined on the SETOPTION ACTIONCODE command.

NOJOBNAME

Excludes all messages issued by the designated jobs. Specify a single name, a list of names, or a range of names (to a maximum of 20 job names).

You can use the * and # wildcard characters in a job name. See the Usage Notes (see page 178) for the COLLECT command.

NOLOG

Excludes messages destined only for the system log.

NOMONITOR

Excludes monitor-type messages. You can specify NOMONITOR without any operands because it defaults to all types of monitor messages, or you can specify one or any combination of the following values:

JOBNAMES

Excludes all job initiation, job termination, and unit record allocation monitor messages.

SESSION

Excludes all TSO-session initiation and termination monitor messages.

STATUS

Excludes all monitor messages regarding data set dispositions.

NOMSGID

Excludes messages with the designated message IDs. Specify a single ID, a list of IDs, or a range of IDs (to a maximum of 20 IDs). Message IDs can be up to 12 characters long.

You can use the * and # wildcard characters, which are described in a message prefix. See the Usage Notes (see page 178) for the COLLECT command.

Note: NOMSGID and SETOPTION GCMF EXCLUDEPREFIX perform similar functions, but NOMSGID operates on a single collection set only. Also, NOMSGID handles 12-character messages, while EXCLUDEPREFIX handles 10-character messages.

NOROUTCDE

Excludes messages assigned this routing code. Specify one of these values on the NOROUTCDE operand:

ALL

Excludes all messages that have been assigned routing codes.

codes

Represents the routing codes that should be excluded. Specify a single code, a range of codes, or a list of codes.

NOWTOR

Excludes the echoing of all WTOR replies.

PRODUCT

Directs messages to local products. Currently, you can direct messages to CA Remote Console and CA OPS/MVS.

If you want to direct messages to CA Remote Console, then specify the CA Remote Console subsystem name of RCS in place of *ssname*. If you want to direct messages to CA OPS/MVS, then specify the OPS subsystem name of OPSS in place of *ssname*.

For example,

```
PRODUCT=RCS
PRODUCT=OPSS
```

Note for CA Remote Console Users: The subsystem name for CA Remote Console is identified on the CA Remote Console SSNAME parameter.

Note for CA OPS/MVS users: For more information, see CA OPS/MVS Considerations in the chapter "Advanced Topics" in the *CA MIC Programming Guide*.

REPLACE

Deletes an existing collection set and replaces it with the values created by this command. Unlike the DELETE operand, REPLACE effects the entire collection set.

ROUTCDE

Selects messages that have been assigned a routing code. Specify one of the following values on the ROUTCDE operand:

ALL

Selects all messages that have been assigned routing codes.

codes

Represents the routing codes that should be selected. Specify a single code, a range of codes, or a list of codes.

SETNAME

Assigns a name to a collection set. Specify one of these values on the SETNAME operand:

DEFAULT

Assigns the name DEFAULT to this collection set.

name

Represents the unique one- to eight-character name you want to use.

Default: SETNAME=DEFAULT

SOURCE

Directs messages to the current console (that is, the console from which you are issuing this command). SOURCE is the default value. This operand is not valid when COLLECT is issued from the MIMCMNDS or MIMSYNCH members.

SYSLOG

Directs messages to the local system log.

SYSID

Identifies systems from which you want to collect messages. Specify one of these values on the SYSID operand:

ALL

Identifies all systems in a CA MIM complex, including ICMF.

ALLICMF

Identifies all ICMF systems, excluding control file systems.

ALLSYS

Identifies all control file systems, excluding ICMF.

EXTERNAL

Identifies all systems except the local system, including ICMF. This is the default value.

EXTSYS

Identifies all control file systems except the local system, excluding ICMF.

LOCAL

Identifies the local system only.

sysid

Represents the ID of a system from which you want to collect messages (to a maximum of 32 IDs, or 128 IDs if using ICMF). You can use system names, aliases, or index numbers to identify these systems.

Default: SYSID=EXTERNAL

TSOUSER

Directs messages to a local TSO user. Specify the TSO ID of the user in place of *userid*.

Note: You can specify only one TSO user ID here.

WTOR

Selects all WTOR messages. Because most WTOR messages are assigned routing codes, you also can select WTOR messages by specifying ROUTCDE=ALL.

Usage Notes: COLLECT Command

- The COLLECT command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands (AUTH=SYS) to issue the COLLECT command. TSO users generally are not authorized to issue system control commands.
- You can specify any number of the following operands (as long as they are not mutually exclusive):
  - ACTION/NOACTION
  - JOBNAME/NOJOBNAME
  - LOGONLY/NOLOGONLY
  - MONITOR/NOMONITOR
  - MSGID/NOMSGID
  - ROUTCDE/NOROUTCDE
  - WTOR/NOWTOR
- CA MIC looks at only the first ten characters of a message prefix and ignores the following characters:
  - Any single preceding asterisk (*), plus (+), or at-sign (@) character
  - All preceding blanks
- CA MIC ignores the + and @ characters only when the operating system has inserted these characters. CA MIC accepts imbedded blanks if you specify the pound (#) character in that position.

- You can use the following wildcard characters with the JOBNAME/NOJOBNAME and MSGID/NOMSGID operands:

  *

  Use the asterisk (*) wildcard character to exclude or include messages with a job name or message ID that matches the character string preceding the * character. The asterisk wildcard character can be specified only at the end of a character string, and only one asterisk can be specified per string. No additional characters can be specified after the asterisk.

  For example, if you specify NOMSGID=IST*, then the collection set excludes any message with a message ID that begins with IST, no matter what the rest of the message ID is.

  #

  Use the pound (#) wildcard character to indicate a single character position that CA MIC should ignore when determining whether to exclude messages. The job name or message ID must be exactly the same length as the character string you specify. You can specify multiple pound sign wildcard characters in a character string.

- Messages destined only for the system log are not displayed at active MCS consoles. Therefore, CA MIC does not check hardcopy-only type messages to determine whether they should be routed cross-system. To allow CA MIC to check these hardcopy-only messages, specify the command SETOPTION CAPTURELOG=YES. Once CAPTURELOG is activated, hardcopy message types can be collected for or excluded from external destinations by using the LOGONLY/NOLOGONLY operands on the COLLECT command.
- You must define an ICMF system on an IDEFSYS command before you specify the ICMF ID of the system on the SYSID operand.

Examples: COLLECT Command

- To collect messages from the job named TEST1 on system SYS1 and to direct those messages to the console from which this COLLECT command is being issued, issue this command:

  ```
  COLLECT JOBNAME=TEST1 SYSID=SYS1
  ```

- Suppose that the current console is receiving messages from an external system, and you want this console to start receiving messages from system 01 as well. To accomplish this task, issue this command:

  ```
  COLLECT SYSID=01
  ```

- To create a collection set that imports messages having route codes from external systems to the local copy of CA Remote Console, issue this command:

  ```
  COLLECT PRODUCT=RCS SYSID=EXTERNAL ROUTCDE=ALL
  ```

- To delete the collection set for the current console with a SETNAME of SET1, issue this command:

  ```
  COLLECT DELETE SETNAME=SET1
  ```

- To have the console CON1 collect messages from system SYS1, in addition to the systems it is currently collecting messages from, issue this command:

  ```
  COLLECT CONSOLE=CON1 SYSID=SYS1
  ```

(MIC) DISPLAY GCMF Command-Display GCMF Information

The DISPLAY GCMF command lets you display information about the status of the GCMF.

Scope: Local

This command has the following format:

```
DISPLAY GCMF [ALL]
             [COLLECT {ALL |
                       CONSOLE=name |
                       DMONITOR |
                       DROUTCDE |
                       PRODUCT=ssname |
                       SOURCE |
                       TSOUSER={ALL | userid}]       [DETAIL|SUMMARY]
             [DOM     {ALL |
                       ASID=asid|
                       MSGID=msgid |
                       JOBNAME=jobid}]               [DETAIL|SUMMARY]
             [INIT]
             [LINK    {ALL|
                       CONSOLE=name |
                       INSTREAM|
                       INTERNAL|
                       PRODUCT=ssname |
                       SOURCE |
                       TSOUSER={ALL|userid}}]]
             [OPTIONS=([ACTIONPREFIX]
                       [ALL]
                       [BROADCAST]
                       [EXCLUDEJOB]
                       [EXCLUDEPREFIX]
                       [SAFSYSTEMS]
                       [SYSLOG]
                       [VALUES]))]
           [POOLCONSOLES]
```

ALL

(Optional) Displays one of these types of information:

- The GCMF initialization values (in message MIM3031) and operating values (in message MIM3030), collection set information (in message MIM3054), linkage information (in message MIM3016), console pool information (in message MIM3065), and DOM information (in message MIM3061), if you specify DISPLAY GCMF ALL
- Information about all local consoles, products, and TSO users (if specified with the COLLECT or LINK operands)
- Information about outstanding messages (if specified with the DOM operand)

Specify the ALL operand only once per command, even when it qualifies two or more operands. For example, you can specify DISPLAY DOM ALL to see the GCMF initialization and operating values and to see information about all outstanding messages. Note that ALL is a default value when you specify DISPLAY DOM.

ASID

Displays information about messages that have a designated address space ID. Specify the ID in place of the *asid* variable.

COLLECT

(Optional) Displays information about collection sets for the console, product, or TSO user you have specified. This information is displayed in message MIM3055 (if you specify DISPLAY COLLECT DETAIL) or in message MIM3054 (if you specify DISPLAY COLLECT SUMMARY). Possible values are:

ALL

Displays collection set information for all destinations.

CONSOLE

Displays collection set information for a designated console. Specify a console name.

DMONITOR

Displays collection set information for all consoles receiving messages by monitor type.

DROUTCDE

Displays collection set information for all consoles receiving messages by routing code.

PRODUCT

Displays collection set information for a designated product. Specify the subsystem name of the product.

SOURCE

Displays collection set information for the console from which you issue the DISPLAY COLLECT command.

TSOUSER

Displays collection sets for one or more TSO users on the local system. Specify TSOUSER=ALL to display collection sets for all local TSO users or specify a user ID to display collection sets for one TSO user.

CONSOLE

Displays information for a designated console. Specify the name of this console.

DETAIL

Displays detailed information about a collection set or about outstanding messages. Note that DETAIL is a default value under certain conditions.

DMONITOR

Displays information for all consoles receiving messages by monitor type.

DOM

(Optional) Displays information about outstanding action messages. This information is displayed in message MIM3061 (if you specify DISPLAY DOM DETAIL) or in message MIM3062 (if you specify DISPLAY DOM SUMMARY).

DROUTCDE

Displays information for all consoles receiving messages by routing code.

GCMF

Tells CA MIM to display information about GCMF rather than any other facility. Specify this operand before the ALL, INIT, or OPTIONS operands. You also should specify the GCMF operand before any other operand that is truncated in such a way that it may be ambiguous with operands for other facilities.

Because GCMF is a positional operand, you must specify it before any other operand on the DISPLAY command.

INIT

(Optional) Displays information about the GCMF initialization values that are set through the GCMINIT statement. This information is shown in message MIM3031.

INSTREAM

Displays information about the link for instream sources.

INTERNAL

Displays information about the link for internal sources.

JOBNAME

Displays information about outstanding messages that have been issued by a designated job. Specify a job name in place of the *jobid* variable.

LINK

Displays information about linkages for the console, instream source, internal source, product, or TSO user you have specified. This information is shown in message MIM3016.

ALL

Displays linkages that enable local consoles, TSO users, and products to issue cross-system commands.

CONSOLE

Displays linkages that enable a designated console to issue cross-system commands. Specify a console name.

INSTREAM

Displays information about the link for instream sources.

INTERNAL

Displays information about the link for internal sources.

PRODUCT

Displays linkages that enable a designated product to issue cross-system commands. Specify the subsystem name of the product.

SOURCE

Displays linkage information for the console on which the DISPLAY LINK command was issued.

TSOUSER

Displays linkages that enable one or more TSO users on the local system to issue cross-system commands. Specify ALL or a TSO user ID.

Default: TSOUSER=ALL

MSGID

Displays information about outstanding messages that have a designated message ID. Specify the ID in place of the *msgid* variable.

OPTIONS

Displays information about the GCMF operating values set by the SETOPTION command. The GCMF OPTIONS information is shown in message MIM3030.

You can enter one or more of the following values for GCMF OPTIONS:

ACTIONPREFIX (ACTP)

Displays the list of additional highlighted messages, in addition to the standard display.

ALL

Displays all GCMF operating values.

BROADCAST

Displays the value you entered on the SETOPTION command for routing broadcast messages to a defined list of systems.

EXCLUDEJOB (EXJ)

Displays the list of job names used to unconditionally exclude messages from cross-system message routing, in addition to the standard display.

EXCLUDEPREFIX (EXP)

Displays the list of message IDs used to unconditionally exclude messages from cross-system message routing, in addition to the standard display.

SAFSYSTEMS

Displays the systems supporting the system authorization facility.

SYSLOG

Displays the list of systems from which imported messages are being written to the system log, in addition to the standard display.

VALUES

Displays the GCMF operating values listed in the standard display.

Default: OPTIONS=VALUES

POOLCONSOLES

Displays information about the target consoles that are being used to execute cross-system commands. This information is shown in message MIM3065.

PRODUCT

Displays information for a designated product. Specify the subsystem name of that product in place of the *ssname* variable. For example, if RCS is the subsystem name for CA Remote Console, then you can display this information for CA Remote Console by specifying PRODUCT=RCS.

The default subsystem name for CA Remote Console is RCS, and the default subsystem name for CA OPS/MVS is OPSS.

SOURCE

Displays information for the console, product, or TSO user that issued this DISPLAY command. Note that SOURCE is a default value if you specify DISPLAY COLLECT from a TSO session or from a console.

SUMMARY

Displays summarized information about collection sets (when used with the COLLECT command), or about outstanding action messages (when used with the DOM command). Specify the SUMMARY operand only once per command, even when it qualifies two or more operands. For example, you can specify DISPLAY COLLECT LINK SUMMARY to display summary information about collection sets and linkages. You cannot specify the SUMMARY and DETAIL operands on the same command.

SUMMARY is a default value if you specify DISPLAY COLLECT ALL or DISPLAY DOM ALL.

TSOUSER

Displays information for one or more TSO users.

To display information for a single TSO user, specify the TSO user ID of that user in place of the *userid* variable. To display information for all TSO users, specify TSOUSER=ALL.

Usage Notes: DISPLAY GCMF Command

- The DISPLAY command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You also can issue the DISPLAY command from any console or TSO session.
- You can specify several operands for GCMF on the same DISPLAY command (for example, DISPLAY LINK COLLECT). GCMF operands cannot be mixed with operands from other facilities, such as ICMF, on a single DISPLAY command.
- The default for this command is OPTIONS=VALUES. However, the following values are defaults under certain circumstances:
  - SOURCE is a default value when you specify DISPLAY COLLECT or DISPLAY LINK from a console or TSO session.
  - VALUES is a default value when you specify DISPLAY OPTIONS.
  - ALL is a default value when you specify DISPLAY DOM.
  - SUMMARY is a default value when you specify DISPLAY COLLECT ALL or DISPLAY DOM ALL. Otherwise, DETAIL is a default value when you display COLLECT or DOM.

Example: DISPLAY GCMF Command

To display collection set information for the console named TAPE1, issue this command:

```
DISPLAY COLLECT CONSOLE=TAPE1
```

(MIC) DISPLAY ICMF Command-Display ICMF Information

The DISPLAY ICMF command lets you display information about the status of the ICMF. This parameter tells CA MIM to display information about ICMF rather than any other facility. Specify this operand before the ALL, INIT, OPTIONS, or SYSTEMS operands. You also should specify the ICMF operand before any other operand that is truncated in such a way that it may be ambiguous with operands for other facilities. Because ICMF is a positional operand, you must specify it before any other operand on the DISPLAY command.

Scope: Local

This command has the following format:

```
DISPLAY ICMF [{ALL| [INIT] [OPTIONS] [SYSTEMS]
```

ALL

Displays the ICMF initialization values (in message MIM6020) and operating values (in message MIM6004).

INIT

Displays information about the ICMF initialization values that are set by the ICMINIT statement. This information is shown in message MIM6020.

OPTIONS

Displays information about the ICMF operating values that can be set by the SETOPTION command. The result of this command appears in message MIM6004.

SYSTEMS

Displays information about the status of ICMF systems. The ICMF system information is displayed in message MIM6003.

Default: OPTIONS

Usage Notes: DISPLAY ICMF Command

- The DISPLAY command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You also can issue the DISPLAY command from any console or TSO session.
- You can specify several operands for ICMF on the same DISPLAY command (for example, DISPLAY ICMF INIT SYSTEMS). ICMF operands cannot be mixed with operands from other CA MIM facilities, such as GCMF, on a single DISPLAY command.
- When you issue DISPLAY ICMF, you can truncate subsequent values to the first letter of the operand (A for ALL, I for INIT, and so on).

Example: DISPLAY ICMF Command

To display information for ICMF initialization and operating values, issue the following command:

```
DISPLAY ICMF ALL
```

(MIC) DOM Command-Delete Action Messages

The DOM command lets you immediately delete one or more action messages from local and external consoles. In this context, *delete* actually means that highlighted messages are changed to normal intensity, so they scroll off the console.

The DOM command only deletes messages that have been reissued by GCMF as a result of a COLLECT command. The DOM command must be issued on the same system from which the original message came. To display the action messages eligible for deletion, issue the DISPLAY DOM DETAIL command.

You would use this command if you did not want to wait for the highlighted message to be automatically changed to a non-highlighted message by GCMF (see SETOPTION AUTODELETE, DELETEINTERVAL). The DOM command is available only when you are running GCMF of the CA MIC component.

Scope: Local

This command has the following format:

```
DOM [ASID=asid]
    [CLEAR]
    [ERASE]
    [JOBNAME=jobname]
    [MSGID=msgid]
```

ASID

Deletes messages that have a designated address space ID. Specify this ID in place of the *asid* variable. GCMF deletes these messages from all MCS consoles, local and external.

You can use the DISPLAY DOM DETAIL command to see what address space IDs are assigned to messages.

CLEAR

Deletes all action messages from all MCS consoles, local and external.

ERASE

Deletes all action messages from external MCS consoles but not from local MCS consoles.

JOBNAME

Deletes all action messages issued by the designated job. Specify a single name in place of the *jobname* variable. GCMF deletes these messages from all MCS consoles, local and external.

MSGID

Deletes all action messages with the designated message ID. Specify a single ID in place of the *msgid* variable. GCMF deletes these messages from all MCS consoles, local and external.

Usage Notes: DOM Command

- The DOM command will *not* delete WTOR messages.
- The DOM command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the DOM command. TSO users generally are not authorized to issue system control commands.
- When you delete action messages, you are changing the message to non-highlighted so it scrolls off the console screen.

- You can use the * and # wildcard characters with the JOBNAME and MSGID operands. For a description, see the Usage Notes (see page 178) for the COLLECT command in this chapter.
- The DOM options ASID, CLEAR, JOBNAME, and MSGID delete the messages from consoles on the originating system and on the systems where they were collected. ERASE deletes them only from the systems where they were collected.

Examples: DOM Command

- To delete all GCMF-managed action messages from all local and external MCS consoles, issue this command:

  ```
  DOM CLEAR
  ```

- To delete all messages issued by job PAYROLL from all local and external consoles, issue this command:

  ```
  DOM JOBNAME=PAYROLL
  ```

  Assume for this example that some or all messages from job PAYROLL have been collected to local consoles, external consoles, or both.

(MIC) DROPSYS Command-Remove System from ICMF Complex

The DROPSYS command lets you remove an external system from your ICMF complex.

Scope: Local

This command has the following format:

```
DROPSYS sysid
```

sysid

Specifies the system name, system alias, or index number of the ICMF system that you are removing.

Note: If the ID of this system on the IDEFSYS command does not match the ID of the system on the DEFSYS statement, then specify an ID from the IDEFSYS command.

Usage Notes: DROPSYS Command

- The DROPSYS command must be issued from a console or a TSO session. You cannot issue this command from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the DROPSYS command. TSO users generally are not authorized to issue system control commands.

- You should issue this command only if the system you are removing will not rejoin the ICMF complex soon.
- To determine what ICMF system IDs have been assigned to a system, issue the DISPLAY ICMF SYSTEMS command. Message MIM6003 appears to display the system IDs.

Examples: DROPSYS Command

- To remove the entry for system SYSB from the local system, issue this command:

  ```
  DROPSYS SYSB
  ```

- If you are removing system LA from a star-type ICMF complex, then issue a command like this one from system LA:

  ```
  @EXT @DROPSYS LA
  ```

  By issuing this command from the system you are removing, and by specifying the EXT parameter, you direct your DROPSYS command to all systems except system LA.

  Note: In this example, the CA MIM command character is @.

(MIC) DUMP GCMF Command

CA Technical Support uses the DUMP GCMF command for diagnostic purposes.

WARNING! This command is to be used only when you are directed by CA Technical Support to do so.

Scope: Local

This command has the following format:

```
DUMP GCMF [CAES]
          [D0AREA]
          [D1AREA]
          [D10AREA]
          [HASH]
          [LINK]
          [SE [(systemid)[,CE] [,DE] [,OE]]
          [UCMBASE]
          [WHE]
```

CAES

(Optional) Dumps the CAE control blocks on the external and available chains.

D0AREA

(Optional) Dumps the D0AREA control block.

D1AREA

(Optional) Dumps the D1AREA control block.

D10AREA

Dumps the D10AREA control block.

HASH

(Optional) Dumps the HASH table.

LINK

(Optional) Dumps the CAE control blocks on the link chain.

SE

(Optional) Dumps the SE control blocks for all active systems. Optionally, you can specify the one- to eight-character system name for *systemid* to select the SE control block for the named system, regardless of active status.

You can also specify dumping the CE, DE, and OE control blocks associated with the SE control blocks being dumped.

UCMBASE

(Optional) Dumps the UCMBASE control block.

WHE

(Optional) Dumps the WHE control blocks.

Usage Notes: DUMP GCMF Command

- This command is solely intended for use as a diagnostic tool under the direction of CA Technical Support.
- The displays generated by this command are unformatted, and therefore, not readily usable by those unfamiliar with the CA MIM internal control blocks.
- Some operands of this command may cause serious performance degradation of CA MIM and its facilities.

Example: DUMP GCMF Command

To dump the contents of the CAE control blocks on the external and available chains, issue the following command:

```
DUMP GCMF CAES
```

(MIC) DUMP ICMF Command

CA Technical Support uses the DUMP ICMF command for diagnostic purposes.

WARNING! This command is to be used only when you are directed to do so by CA Technical Support.

Scope: Local

This command has the following format:

```
DUMP ICMF [I1AREA]
          [I2AREA]
          [I7AREA]
          [I8AREA[=sysid] ]
          [QUEUES]
          [SEND]
```

I1AREA

(Optional) Dumps the I1AREA control block.

I2AREA

(Optional) Dumps the I2AREA control block.

I7AREA

(Optional) Dumps the I7AREA control block.

I8AREA

(Optional) Dumps the I8AREA control blocks for active systems. Optionally, you can specify *system* to select the I8AREA control block for the named system. Specify a one- to eight- character name for *system* (such as SYS1).

QUEUES

(Optional) Dumps queues related to ICMF processing.

SEND

(Optional) Dumps send information related to ICMF processing.

Usage Notes: DUMP ICMF Command

- This command is solely intended for use as a diagnostic tool under the direction of CA Technical Support.
- The displays generated by this command are unformatted, and therefore, not readily usable by those unfamiliar with the CA MIM internal control blocks.
- Some parameters of this command may cause serious performance degradation of CA MIM and its facilities.

Example: DUMP ICMF Command

To dump the contents of the I1AREA control block, issue this command:

```
DUMP ICMF I1AREA
```

(MIC) FREECONS Command-Deallocate Target Consoles

The FREECONS command allows you to deallocate target consoles allocated to the current CA MIC address space. Consoles can be allocated to the CA MIC target console pool dynamically (using SETOPT MAXCONS), directly (using GCMINIT CONSLIST), or exclusively (using LINK TGTCONS). The MINCONS value establishes the minimum number of consoles CA MIC retains should you issue a FREECONS MINCONS command.

Scope: Local

This command has the following format:

```
FREECONS {ALL | MINCONS | CONSLIST | console}
```

ALL

Deallocates all consoles from the pool, regardless of the allocation method used.

MINCONS

Deallocates consoles allocated to the pool dynamically, except for the minimum number set by the SETOPTION MINCONS command.

CONSLIST

Deallocates all consoles allocated to the pool directly using the GCMINIT CONSLIST statement.

console

Specifies the name of a console that you want to deallocate from the pool, regardless of the allocation method that was used to assign it.

Usage Notes: FREECONS Command

- FREECONS has no effect on established linkages. It deallocates the console, not the links issued from that console.
- The FREECONS command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the FREECONS command. TSO users generally are not authorized to issue system control commands.

- When you deallocate a target console, GCMF returns that console to the operating system. Unless the console is reallocated, you will not see the ID of that console if you use the DISPLAY POOLCONSOLES command to see which consoles are associated with linkages.

Examples: FREECONS Command

- Assume that MAXCONS=5 and MINCONS=2 are specified in the MIMCMNDS member of the MIMPARMS data set. This allows CA MIC to dynamically allocate up to five consoles for the pool. If CA MIC had five consoles in the pool, and a FREECONS MINCONS command is issued, CA MIC would deallocate three consoles, and save two consoles for the console pool. To deallocate all dynamically allocated consoles, except for the minimum number reserved for GCMF, issue this command:

  ```
  FREECONS MINCONS
  ```

- To deallocate console GCMAA000, issue this command:

  ```
  FREECONS GCMAA000
  ```

(MIC) GCMINIT Statement-Set GCMF Initialization Statements

The GCMINIT statement lets you set initialization values for the GCMF of the CA MIC component.

Scope: N/A

This command has the following format:

```
GCMINIT [CONSLIST=(connames)]
        [EDITMESSAGE={ALL| EXTERNAL|LOCAL|NONE}]
        [EXTCON={NONE | PREFIX=ppp}]
        [JOBID={LEADING0|TRUNCATE0}]
        [REPLYLIMIT=(n1,n2)]
        [SAFNOTOKEN={ISSUE|REJECT}]
        [SUPPRESS={NO|YES}]
        [SYSNAME={EXTERNAL|LOCAL|NONE}]
        [SYSTYPE={ALIAS|SYSNAME}]
        [TRANSLATE={NO|YES}]
```

CONSLIST

(Optional) Assigns a designated group of subsystem consoles, inactive consoles, or both to the target console pool. GCMF uses these consoles to execute cross-system commands issued through linkages. Specify a single console name or console names (to a maximum of 40) in place of *connames*.

We recommend that you use the MAXCONS operand on the SETOPTION command to allow GCMF to dynamically allocate consoles to the console pool. Use the CONSLIST parameter to directly assign consoles to the pool.

EDITMESSAGE

(Optional) Determines whether GCMF inserts a system alias in the job-stamp field for messages. EDITMESSAGE and SYSNAME are both used to insert system IDs into messages.

It is important that system personnel be able to identify where a cross-system message originates, especially when you are consolidating message traffic from multiple system images to one or more local consoles. The message format presented to active consoles is dictated by the z/OS MFORM=(T,S,J) parameter for the console (you can specify T, S, J, or all three). Message text is always displayed. The MFORM value indicates what type of additional information should be displayed with the message text as follows:

- **T**--indicates the time stamp should be displayed
- **S**--indicates the system name should be displayed
- **J**--indicates the job ID should be displayed.

When you set MFORM=(T,J), a typical console message would look like this:

```
17:27:42.11 JOB 919 IEF453I TESTJOB - JOB FAILED - JCL ERROR
```

However, by allowing CA MIC to edit the JOBID field, you can easily identify the originating system by its two-digit system alias (from DEFSYS):

```
17:27:43.09 S2 J 919 IEF453I TESTJOB - JOB FAILED - JCL ERROR
```

The GCMINIT EDITMESSAGE statement allows you to edit the JOBID field and tell CA MIC which system's messages should be edited: ALL, EXTERNAL, LOCAL, or NONE. The default value is EXTERNAL. In the above example, S2 is the alias of the originating EXTERNAL system.

The GCMINIT JOBID statement affects how the job ID is displayed after CA MIC edits the JOBID field.

Specify one of the following values on the EDITMESSAGE parameter:

ALL

This causes CA MIC to insert system aliases in messages being routed both externally and locally.

EXTERNAL

This causes CA MIC to insert system aliases in messages being routed to external systems.

LOCAL

This causes CA MIC to insert system aliases in local messages.

NONE

This prevents CA MIC from inserting system aliases in any messages.

Default: EDITMESSAGE=EXTERNAL

EXTCON

(Optional) Specifies how GCMF should allocate extended target consoles for the dynamic target console pool. The EXTCON parameter has the following options:

NONE

This indicates that GCMF is not to use MCS extended consoles for the dynamic target console pool. GCMF allocates subsystem consoles for the dynamic target console pool instead. CA does not recommend this option, but advises that you use MCS extended consoles for the dynamic target console pool.

PREFIX

This value defines a one- to three-character prefix used in generating extended target console names. The first character must be alphabetic or national. The remaining characters can be alphabetic, national, or numeric.

The prefix will be used as the first one to three characters of the extended target console name in the format *pppssnnn*, where *ppp* is the first one to three characters in the console name, *ss* is the system alias or system index number (depending on whether a DEFSYS appears for this system) and the remaining characters *(nnn/nnnn/nnnnn)* of the extended target console name will be a numeric value, in ascending sequence, generated by GCMF, for example, GCMAA000.

Default: PREFIX=GCM

JOBID

(Optional) Determines how the JOBID field is modified when GCMINIT EDITMESSAGE edits the job stamp. This parameter affects both local and imported messages with regard to the leading zero in JES2 systems supporting five-digit job numbers. Specify one of the following:

LEADING0

This value indicates that the leading zero is always retained. Using the previous examples, the JOBIDs would be 32J00302 and 32J10351 respectively.

Note that the leading zero remains in the JOBID 32J00302.

TRUNCATE0

This value means that CA MIC modifies the eight-character JOBID field by condensing the JOB prefix into one character, moving that character to the right, and inserting the CA MIC system alias.

For example, if the original JES2 JOBID is JOB00302 in message text, and 32 is the CA MIC system alias, then the resulting field after editing would appear as 32 J0302. Note that there is a space between the system alias and the JOBID. The JES2 JOBID for JOB10351, however, would be 32J10351.

Default: JOBID=TRUNCATE0

REPLYLIMIT

(Optional) Indicates what range of reply IDs GCMF should use for WTOR replies issued on the local system. Specify the lower number first. The valid range is 0 to 9999, but not exceeding the value set on the IBM RMAX parameter (contained in the CONSOLxx member of the data set SYS1.PARMLIB). You must assign at least ten IDs per system.

Default: REPLYLIMIT(00,99)

Note: The GCMINIT REPLYLIMIT statement is not valid in a sysplex environment. CA MIM issues message MIM3126 when this conflict is detected.

SAFNOTOKEN

(Optional) Determines how CA MIC handles commands that do not contain a security UTOKEN, that are received on a system running a command security software package.

You can specify ISSUE to instruct the receiving system to attempt to issue the command, or REJECT to have the receiving system automatically reject any command without a security UTOKEN.

Default: SAFNOTOKEN=ISSUE

SUPPRESS

(Optional) Indicates whether GCMF should suppress the command text when a cross-system REPLY command is echoed on the issuing system. To prevent CA MIC from echoing this text on the local system for a cross-system reply, specify YES.

For example, if you issue the cross-system command @S2,35,PASSWORD=XXX from the local system in reply to message 35 on system S2, CA MIC suppresses command text so the log of the issuing console and the log of the local system record the reply as: @S2,35,SUPPRESSED.

Default: SUPPRESS=NO

SYSNAME

(Optional) Indicates which system ID GCMF places in the system ID field of imported messages. SYSNAME and EDITMESSAGE are both used to insert system IDs into messages. Specify one of these values on the SYSNAME parameter:

EXTERNAL

This uses the ID of the system where the message originated.

LOCAL

This uses the ID of the local system.

NONE

This causes GCMF to leave the system ID field of imported messages unaltered.

You can disable the system name field editing action by specifying GCMINIT SYSNAME=NONE in the initialization member.

Note: For JES3 users, due to the structure of JES3 messages, we recommend editing the system name field rather than the job ID field.

Default: SYSNAME=LOCAL

SYSTYPE

(Optional) Indicates whether the system name or alias (as defined on the DEFSYS statement) appears in the system ID field of imported messages in the system log or on the console. This parameter is also used in conjunction with the SYSNAME parameter to identify systems more explicitly. Specify one of these values on the SYSTYPE parameter:

ALIAS

This variable indicates that the system alias is inserted in the system ID field.

SYSNAME

This variable indicates that the system name is inserted in the system ID field.

Default: SYSTYPE=SYSNAME

TRANSLATE

(Optional) Indicates whether GCMF should convert non-printable and non-displayable message characters into blanks. Specify NO or YES on this parameter.

Default: TRANSLATE=YES

Usage Notes: GCMINIT Statement

- Beginning with z/OS 1.2, JES2 can dynamically begin generating job numbers greater than the traditional 5-digit limit. Activating the 7-digit job number format impacts the ability of CA MIC to insert the system alias into the job ID field of messages. CA MIC cannot insert the system alias into the job ID field without the possibility of truncating job numbers. Therefore, as CA MIC examines messages, it determines if the 7-digit job format is in effect for a message. If it is, then CA MIC bypasses editing of the job ID field, regardless of the value specified on the GCMINIT EDITMESSAGE parameter.
- The GCMINIT statement can be specified only in the MIMINIT member of the MIMPARMS data set.

Examples: GCMINIT Statement

- To tell GCMF not to insert the system alias into the job stamp field for local or cross-system messages, specify this statement in the initialization member:

```
GCMINIT EDITMESSAGE=NONE
```

- To directly assign console SYSSAA02 and console SYSSAA05 to the GCMF console pool, specify this statement in the initialization member:

```
GCMINIT CONSLIST(SYSSAA02,SYSSAA05)
```

(MIC) ICMF Command-Manage ICMF Connections

Use the ICMF commands to manage logical connections between CA MIC and CA L-Serv. The ICMF facility sends and receives commands and messages between systems. ICMF coordinates message activity between CA MIC and CA L-Serv. This command is available only when you have activated the ICMF facility.

Scope: Local

This command has the following format:

```
ICMF [RESTART|STATUS|TERMINATE]
```

RESTART

Reverses the effect of the TERMINATE operand. RESTART orders CA L-Serv to begin accepting communications from the ICMF facility again.

STATUS

Displays the communication status between ICMF and CA L-Serv. The status information appears in message MIM6005.

TERMINATE

Instructs CA L-Serv to stop processing messages to or from the ICMF facility on the local system. Remote systems will automatically recognize that the local system has stopped communicating, and will not attempt to route any further messages to that system.

Default: STATUS

Usage Note:

You must be authorized to issue system control commands to use the ICMF command. TSO users generally are not authorized to issue system control commands.

(MIC) ICMINIT Statement-Set CA L-Serv Interface Values

The ICMINIT statement lets you set initialization values that allow CA MIC to interface with the CA L-Serv product. This statement is valid only when you are running ICMF of the CA MIC component.

This command has the following format:

```
ICMINIT ISSNAME=name [AUTOIDEFSYS=NO|YES]
                     [ICMNAME=name]
                     [ISYSID=sysid]
```

ISSNAME

Tells ICMF what subsystem name the local copy of CA L-Serv is using. This name must match the name on the CA L-Serv SSNAME parameter.

Default: ISSNAME=LSRV

AUTOIDEFSYS

(Optional) Determines whether the local ICMF system automatically defines a remote ICMF system when the local system finds an active CA L-Serv connection to the remote system, even if an IDEFSYS statement does not exist for the remote system. Specify YES to automatically define a remote ICMF system. If NO is specified, then all remote ICMF systems must be pre-defined to the local ICMF system with IDEFSYS statements. This option can be changed with the SETOPTION ICMF AUTOIDEFSYS command.

Default: AUTOIDEFSYS=YES

ICMNAME

(Optional) Assigns ICMF a primary name, which enables ICMF to communicate with CA L-Serv. The primary name must be identical for all systems in your ICMF complex. We recommend using the initial value on all systems.

Default: ICMNAME=ICMF

ISYSID

(Optional) Specifies the name by which the local system will be known to other ICMF-connected systems. We recommend that you omit setting this parameter, since this creates a different system identity for CA L-Serv connections and control file connections.

Usage Notes: ICMINIT Statement

- The ICMINIT statement can be specified only in the MIMINIT member of the MIMPARMS data set.
- Change the default value of the ISSNAME parameter only if you have changed the default subsystem name (LSRV) used by the CA L-Serv communication component.

Example: ICMINIT Statement

If the default subsystem name of CA L-Serv has been changed to LSR1, then specify this statement in the initialization member to identify the CA L-Serv subsystem name to ICMF:

```
ICMINIT ISSNAME=LSR1
```

(MIC) IDEFSYS Command-Manage ICMF System Names

The IDEFSYS command serves two purposes. It defines a list of system names that will communicate by ICMF, and it permits you to specify the alias name for each system. Alias names can be used in place of the system name in many commands. This command is available only when you are running ICMF of the CA MIC component.

This command is required. Although ICMF is capable of communicating with systems you have not defined on an IDEFSYS statement, the results can be unpredictable. For instance, ICMF always assigns a name and an alias to each system. If you do not choose an alias using IDEFSYS, then ICMF assigns its own alias to the system.

Another possibility is that ICMF can assign an alias that is already in use to a new system. These kinds of problems can be avoided by specifying all ICMF systems in an IDEFSYS statement. You can disable this automatic system definition feature and require all systems to be defined with an IDEFSYS statement by specifying AUTOIDEFSYS=NO on the ICMINIT statement or the SETOPTION ICMF command.

Usually, the systems that communicate through ICMF will not have shared control files available for communication. When both ICMF and a control file are available, ICMF communication takes precedence. Also when both are available, the system name and system alias for ICMF purposes will default to the name and alias defined on the DEFSYS statement. Nevertheless, we recommend using the IDEFSYS statement for all systems communicating through ICMF, even when control file communication is available.

Scope: Local

This command has the following format:

```
IDEFSYS (sysname1[,alias1]) [(sysname2[,alias2])...]
```

sysname

Specifies the one- to eight-character ICMF system name. Each ICMF system must have a unique ICMF system name. For most installations, the system name will be defined on the DEFSYS statement in the initialization member. The system name used on the IDEFSYS statement should match exactly the name used on the DEFSYS statement. If you change the system name using the ISYSID parameter on the ICMINIT statement, then you should match the name used on the IDEFSYS statement to the one used in the ICMINIT statement. CA does not recommend changing the system name on the ISYSID parameter.

Setting the ICMF system name different from the DEFSYS system name is confusing for operators, and can lead to commands and messages being routed twice, once through the control file and once through ICMF/CA L-Serv.

aliasn

Specifies the one- to two-character ICMF system alias. We strongly recommend that the alias of a system on an IDEFSYS command match its alias on a DEFSYS statement.

Usage Notes: IDEFSYS Command

- **Important!** All system names and aliases must be unique.
- You can specify up to 16 *sysnames* and *aliases* on an IDEFSYS command. If you need to specify more than 16, then you must code an additional IDEFSYS command.
- You can define some systems for ICMF communications and others for control file communications. By using both methods, you can route commands and collect messages to/from a total of 144 systems (32 systems through control files and 112 through ICMF/CA L-Serv).
- A system can have IDs defined on both the DEFSYS statement (for control file communications) and on an IDEFSYS command for ICMF. When two systems are connected by both methods, CA MIC uses ICMF/CA L-Serv to route commands and messages between those systems.
- You do not need to issue IDEFSYS commands for the local system. If you do so, then you will receive message MIM6010. It is sometimes convenient to use identical IDEFSYS statements on all systems, even though doing this will cause the message MIM6010 to be issued. This will not harm anything.
- If you specify IDEFSYS commands in the initialization member, then you must enter them after the MIMINIT ICMF=ON statement. You also may issue IDEFSYS commands in the MIMCMNDS member, MIMSYNCH member, and from a console.

Examples: IDEFSYS Command

- To define an ICMF system with name SYS1 and alias S1 (assuming that you have specified a DEFSYS statement for SYS1), issue this command:

  ```
  IDEFSYS (SYS1,S1)
  ```

- To define a system name for SYS1 and allow it to default to the alias, issue this command:

  ```
  IDEFSYS SYS1
  ```

  Although you can do this, it is preferable to define your own alias, rather than accepting the default.

- To define aliases for more than one system, issue this IDEFSYS command:

  ```
  IDEFSYS (SYS1,S1) (SYS2,S2)
  ```

(MIC) LINK Command-Manage Command Linkages

The LINK command lets you create, modify, and delete linkages that enable consoles, products, internal and in-stream command sources, and TSO users on the local system to issue commands to any system. Each linkage you create by using the LINK ADD command has a unique name based on the command source you specify. The following are examples of linkage command sources:

```
CONSOLE=TAPECON1
PRODUCT=RCS
TSOUSER=DSIMK11
```

After a linkage is defined, you can modify or delete the linkage by specifying the same command source named on subsequent LINK commands. There cannot be two linkages with the same command source (except for exclusive linkages).

Scope: Local

This command has the following format:

Link Modifier	Local Command Source	Target Systems	Target Pool	Target Authority
LINK [{ADD| DELETE| REPLACE}]	[{ALL| CONSOLE={*conmask* | *conname*} | INSTREAM | INTERNAL | PRODUCT={ALL|*ssname*} | SOURCE | TSOUSER={ALL|*userid*}}]	[SYSID [=ALL | ALLICMF | ALLSYS | EXTERNAL | EXTSYS | LOCAL | *sysids*}]]	[POOL={DEDICATE | SHARE}] [TGTCONS=*tgtconname*]	[{AUTHORITY = {ALL | INFO | MASTER | NONE | SOURCE} | CONS | IO | SYS}] *and for z/VM...* [USERPRIV] [OPERPRIV]

ADD

(Optional) Creates a linkage if this linkage does not exist. Otherwise, GCMF modifies the existing linkage.

ALL

(Optional) Authorizes all local consoles to issue commands through this linkage. ALL does not include extended consoles for security reasons.

Note: Do not confuse the ALL operand with the value ALL that you can specify on the PRODUCT, TSOUSER, SYSID, and AUTHORITY operands.

When you specify ALL, do not specify a TGTCONS. Either accept the default value, POOL=SHARE, or specifically set POOL=DEDICATE or POOL=SHARE.

AUTHORITY

(Optional.) Assigns the specified authority level to the target console when executing a cross-system command. When a cross-system command is directed to a z/OS system, the target console assumes the assigned authority, and commands are restricted to that authority level.

When a cross-system command is directed to a z/VM system, CA MIC uses the LINKAUTH MIM file to determine the authority level required to execute the command. The command is rejected if the user does not have adequate authority.

Specify one of the following values on the AUTHORITY operand:

ALL

Authorizes the target console to execute any information request, system control, I/O control, or console control command. This option is equivalent to specifying the command AUTH=(CONS, IO, and SYS). The ALL authority level does not include MASTER authority, or the z/VM OPERPRIV and USERPRIV authority levels.

CONS

(Optional) Authorizes the target console to execute console control commands, such as VARY, when changing the status of a console.

INFO

Authorizes the target console to execute informational commands, such as MONITOR, DISPLAY, and REPLY, when replying to a WTOR.

IO

(Optional) Authorizes the target console to execute I/O control commands, such as MOUNT, UNLOAD, and VARY, for any device except a console.

MASTER

Authorizes the target console to execute commands that require master console authority. The MASTER authority level includes ALL authority, as well as the z/VM OPERPRIV and USERPRIV authority levels.

NONE

Prevents the target console from executing any cross-system command.

OPERPRIV

Used with z/VM, authorizes the user to execute any cross-system command that has been assigned to the OPERPRIV class file in the LINKAUTH MIM file of the target system.

SOURCE

Authorizes the target console to execute any cross-system command that the command source is authorized to issue.

Note: AUTHORITY=SOURCE is a default value.

SYS

(Optional) Authorizes the target console to execute system control commands, such as SET, START, and STOP.

USERPRIV

Used with z/VM, authorizes the user to execute any cross-system command that has been assigned to the USERPRIV class file in the LINKAUTH MIM file of the target system.

From your own console, you cannot issue a LINK command that increases the authority of that console. However, another console can issue a LINK command that increases the authority of your console to any level, but not exceeding the authority of the other console.

For example, if you want to issue cross-system console control commands from your INFO-level console, then you need to specify LINK AUTHORITY=CONS from a console that is authorized to issue console control commands.

Note: You only need SYS authority to issue a LINK command with MASTER authority.

Default: AUTHORITY=SOURCE

ALL

Authorizes the target console to execute any information request, system control, I/O control, or console control command. This option is equivalent to specifying the command AUTH=(CONS, IO, and SYS). The ALL authority level does not include MASTER authority, or the z/VM OPERPRIV and USERPRIV authority levels.

CONS

(Optional) Authorizes the target console to execute console control commands, such as VARY, when changing the status of a console.

INFO

Authorizes the target console to execute informational commands, such as MONITOR, DISPLAY, and REPLY, when replying to a WTOR.

IO

(Optional) Authorizes the target console to execute I/O control commands, such as MOUNT, UNLOAD, and VARY, for any device except a console.

MASTER

Authorizes the target console to execute commands that require master console authority. The MASTER authority level includes ALL authority, as well as the z/VM OPERPRIV and USERPRIV authority levels.

NONE

Prevents the target console from executing any cross-system command.

OPERPRIV

Used with z/VM, authorizes the user to execute any cross-system command that has been assigned to the OPERPRIV class file in the LINKAUTH MIM file of the target system.

SOURCE

Authorizes the target console to execute any cross-system command that the command source is authorized to issue.

Note: AUTHORITY=SOURCE is a default value.

SYS

(Optional) Authorizes the target console to execute system control commands, such as SET, START, and STOP.

USERPRIV

Used with z/VM, authorizes the user to execute any cross-system command that has been assigned to the USERPRIV class file in the LINKAUTH MIM file of the target system.

From your own console, you cannot issue a LINK command that increases the authority of that console. However, another console can issue a LINK command that increases the authority of your console to any level, but not exceeding the authority of the other console.

For example, if you want to issue cross-system console control commands from your INFO-level console, then you need to specify LINK AUTHORITY=CONS from a console that is authorized to issue console control commands.

Note: You only need SYS authority to issue a LINK command with MASTER authority.

Default: AUTHORITY=SOURCE

CONSOLE

(Optional) Specifies the name of the console permitted to issue cross-system commands through this linkage. We recommend you use console names containing alphanumeric characters. You can use the CONSOLE parameter for both MCS and extended consoles.

You can use masking for console names to define a linkage that involves more than one console. For *conmask*, you can use the pound sign (#) wildcard to substitute for a single character, or the asterisk (*) wildcard to substitute for multiple characters in the console name.

Note: You cannot use dedicated or exclusive linkages when masking a console name. You must use a discrete shared link.

DELETE

(Optional) Deletes part of the linkage or the entire linkage, depending on what other operands you specify.

INSTREAM

(Optional) Authorizes JCL to issue commands through this linkage (for example, through //COMMAND in JCL).

INTERNAL

(Optional) Authorizes programs to issue commands internally (without a console name associated with the command) through this linkage. For example, this could be done using the CA SYSVIEW LOG or MTT panels.

POOL

(Optional) Indicates that GCMF should use the next available member of the console pool to execute commands. Specify one of the following values on the POOL operand.

DEDICATE

Creates a dedicated linkage in which the same console pool member is used to execute all commands from the source on the linkage. The console is removed from the pool.

SHARE

Creates a shared linkage in which any available console pool member is used to execute commands. GCMF may share (or reassign) the selected console to another linkage as needed.

Default: POOL=SHARE

PRODUCT

(Optional) Identifies the products that are authorized to issue commands through this linkage. Specify one of these values on the PRODUCT operand:

ALL

Authorizes all products to issue commands.

ssname

Specifies the subsystem name of the product that is authorized to issue commands. For example, if RCS is the subsystem name for CA Remote Console, then you can authorize CA Remote Console to issue cross-system commands by specifying PRODUCT=RCS.

The default subsystem names are as follows:

- OPSS for CA OPS/MVS
- RCS for CA Remote Console

REPLACE

Replaces part or all of the linkage definition, depending on what other operands you specify.

SOURCE

(Optional) Authorizes the current console to issue commands through this linkage. This operand is invalid when the LINK command is issued from the MIMCMNDS or MIMSYNCH member or from internal or in-stream (JCL) sources.

SYSID

(Optional) Identifies the systems to which the command source can issue commands. Specify one of the following values:

ALL

Allows the command source to issue commands to all systems, including ICMF systems. ALL is the default.

ALLICMF

Allows the command source to issue commands to all ICMF systems only (excluding control file systems).

ALLSYS

Allows the command source to issue commands to all control file systems only (excluding ICMF systems).

EXTERNAL

Allows the command source to issue commands to all systems except the local system.

EXTSYS

Allows the command source to issue commands to all control file systems except the local system (excluding ICMF systems).

LOCAL or *

Allows the command source to issue commands to the local system only.

sysids

Specifies the IDs of the systems to which the command source can issue commands. Specify up to 32 IDs. You can use system names, aliases, or index numbers to identify systems.

You must specify POOL=DEDICATE or POOL=SHARE if you specify more than one system ID for *sysids*, or if you specify any keyword value except LOCAL. The default is POOL=SHARE.

To issue a cross-system command with a scope value of ALL, you must create a linkage that specifies SYSID=ALL. To issue a cross-system command with a scope value of EXTERNAL, you must create a linkage that specifies SYSID=EXTERNAL or SYSID=ALL.

Default: SYSID=ALL

TGTCONS

(Optional) Creates an exclusive linkage to the designated console, *tgtconname*. The console executes all commands using this linkage. This console can be an active or an inactive MCS console; however, it cannot be a member of the console pool of GCMF, and it cannot be currently allocated to another product.

Notes:

- This parameter is ignored when linking to a z/VM system.
- Do not specify the TGTCONS parameter on a LINK ALL command. Use POOL=SHARE or POOL=DEDICATE when you want to authorize all consoles to use this link.
- We recommend that you not use this parameter because exclusive linkages establish a one-to-one relationship between a command source on the local system and the target console on one *and only one* external system. For more information, see the chapter "Advanced Topics" in the *CA MIC Programming Guide*.

TSOUSER

(Optional) Authorizes a TSO user to issue commands through this linkage. Specify *one* of the following values on the TSOUSER operand:

ALL

Authorizes all TSO users on the local system.

userid

Specifies the ID of the TSO user who is authorized to issue commands through this linkage.

Default: LINK=ADD

Usage Notes: LINK Command

- The LINK command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the LINK command. TSO users generally are not authorized to issue system control commands.
- GCMF always uses a specific linkage first if both a specific and a nonspecific linkage can be used to direct a command to another system. For example, if there is a specific linkage between console SYSAMSTR on the local system and a console on system SYSB as well as a nonspecific linkage between local consoles and system SYSB, then GCMF uses the specific linkage to route commands from console SYSAMSTR. Similarly, if a console issuing a cross-system command is on a specific linkage and the name of the console also matches a linkage with a wildcard name, then the specific linkage is used.

- Cross-system commands and responses are seen on both the issuing console and the target console when an active MCS console is the target. Because this may cause confusion, we recommend that you do not use an active MCS console as the target.
- Cross-system commands and responses are never seen on the target system when a subsystem console, extended console, or inactive console is the target.
- If you issue a LINK command in the MIMPARMS data set with an ID for an ICMF system on the SYSID operand, then you must have previously defined the ICMF system using an IDEFSYS command.
- When you specify the SOURCE operand, the command source for the linkage is the source from which the LINK command is being issued.

Examples: LINK Command

- To create a linkage between all consoles (MCS, subsystem, and Extended MCS) on the local system and all external systems that allow INFO level commands only, issue this command:

  ```
  LINK CONSOLE=* AUTHORITY=INFO SYSTEM=EXTERNAL
  ```

- To create a linkage for all consoles (or TSO CONSOLE users) with names starting with B1 to issue MASTER level commands to all systems, issue this command:

  ```
  LINK CONSOLE=B1* AUTHORITY=MASTER
  ```

- To create a shared linkage between product AA and the first available member of the console pool on system B1, issue this command:

  ```
  LINK PRODUCT=AA SYSID=B1 POOL=SHARE
  ```

- To change the shared linkage for console MSTR to a dedicated linkage, issue this command:

  ```
  LINK CONSOLE=MSTR POOL=DEDICATE
  ```

- To delete the shared linkage between the current console and all other systems, issue this command:

  ```
  LINK DELETE
  ```

- To create an exclusive linkage between the local console named TAPECON1 and console SYSCMSTR on system A1, issue this command:

  ```
  LINK CONSOLE=TAPECON1 SYSID=A1 TGTCONS=SYSCMSTR
  ```

- To create a shared linkage between all consoles with names beginning with ABC and all systems, except the local system, issue this command:

  ```
  LINK CONSOLE=ABC* SYSID=EXT
  ```

(MIC) SETOPTION GCMF Command-Set GCMF Operating Values

The SETOPTION GCMF command lets you set operating values for the GCMF.

Scope: Local

This command has the following format:

```
SETOPTION GCMF [DELETE]
               [ACTIONCODE=descriptor]
               [ACTIONPREFIX={msgids|NONE}]
               [AUTODELETE={GCMONLY|GLOBAL}]
               [BROADCAST={ON|OFF}
{ALL|ALLICMF|ALLSYS|EXTERNAL|EXTSYS|LOCAL|NONE|sysids}]
               [BUFLIMIT=nnn
               [CAPTURELOG={NO|YES}]
               [CART={INTERNAL|SYSTEM}]
               [COLORSUPP={NO|YES}]
               [DELETEINTERVAL=nnnn]
               [EXCLUDEJOB={names|NONE}]
               [EXCLUDEPREFIX={msgids|NONE}]
               [GCMDUMP={NO|YES}]
               [GCMRETRY=nn]
               [MAXCONS=nn]
               [MINCONS=nn]
               [MSGFILTER={nn|OFF}]
               [RESETPRINT=(options)]
               [RESETTRACE=(options)]
               [SAFSYSTEMS=(sysids)]
               [SETPRINT=(options)]
               [SETTRACE=(options)]
               [STATCOLLECT [={{ALL|NONE} |[NOSUBTYPE=(list)]
               [SUBTYPE=(list)]}]
               [STATCYCLE=seconds]
               [STATINTERVAL=minutes]
               [SYSLOG[= {ALL|ALLICMF|ALLSYS|EXTERNAL|EXTSYS|LOCAL|NONE|sysids}]
```

ACTIONCODE

(Optional) Indicates which descriptor codes are used to designate action (highlighted) messages. The ACTION operand on the COLLECT command requests message routing based on the descriptor code of a message. The ACTIONCODE operand defines the descriptor codes GCMF should consider to be action type codes.

SETOPTION GCMF ACTIONCODE affects the way local messages are interpreted for routing by the ACTION operand on the COLLECT command. If the descriptor code for a message is not in the ACTIONCODE list, then the message is not considered an action type message for cross-system routing.

Valid codes for this parameter are 1, 2, 3, 11, and 12.

Default: ACTIONCODE=(1,2,3,11)

ACTIONPREFIX

(Optional) This parameter indicates whether GCMF should reissue a designated group of messages as highlighted messages. Specify one of these values on the ACTIONPREFIX operand:

msgids

Specifies the IDs of the messages that GCMF should reissue (to a maximum of 20 IDs). You can specify additional IDs on a separate SETOPTION command. You also can use the asterisk (*) and pound (#) wildcard characters.

NONE

Deletes the existing list of IDs.

To delete an individual ID from this list, specify the DELETE operand before the ACTIONPREFIX operand.

Default: ACTIONPREFIX=NONE

For more information, see the description of the COLLECT Command (see page 169).

AUTODELETE

(Optional) Tells GCMF how to delete obsolete action messages that have been reissued locally or externally by GCMF. Specify one of these values on the AUTODELETE operand:

GCMONLY

Deletes obsolete action messages that have been reissued by GCMF, but not the original action messages on the local (originating) system.

GLOBAL

Deletes obsolete action messages that have been reissued by GCMF, and the original action messages on the local (originating) system.

Note: Action messages are considered obsolete when they have remained highlighted longer than the number of minutes specified on the SETOPTION GCMF DELETEINTERVAL command.

BROADCAST

(Optional) Indicates which system is to receive broadcast messages. Specify one of the following values on the BROADCAST operand:

ALL

Specifies broadcasting for all systems (including ICMF systems) in the CA MIM complex.

ALLICMF

Specifies broadcasting for all ICMF systems (excluding control file systems).

ALLSYS

Specifies broadcasting for all control file systems in a complex (excluding ICMF systems).

EXTERNAL

Specifies broadcasting for all systems except the local system.

EXTSYS

Specifies broadcasting for all control file systems except the local system (excluding ICMF).

LOCAL (or *)

Specifies broadcasting for the local system only.

NONE

Clears the broadcasting list of all previously set values. This is the default value.

sysids

Specifies the IDs of the systems to which GCMF should route broadcasting messages. Specify one or more system IDs in place of sysid (up to 16 system IDs). You can use system names, aliases, or index numbers to identify systems.

You can control whether BROADCAST is active for the previous options by setting one of the following:

OFF -- Turns the broadcast function off without changing the defined systems for the BROADCAST command.

ON -- Turns the broadcast function on.

To activate the BROADCAST facility, you must issue the command SETOPTION BROADCAST=ON. Then, you must specify the scope of the broadcast by issuing a second command. For example, if you want the scope to be all systems, including ICMF systems, then you would issue SETOPTION BROADCAST=ALL.

Messages can be routed to active MCS consoles in a number of ways. One method is to set the broadcast bit in the MCS flag field when the WTO macro is issued. When this bit is set, COMMTASK routes the message to all active consoles, regardless of any other console attribute. When CA MIC is routing broadcast messages to external systems, this routing is done independently of any collection sets defined.

Default: BROADCAST=OFF

BUFLIMIT

(Optional) Limits the number of 4 KB pages of ECSA storage that CA MIC can use for managing cross-system message traffic.

You can experience a storage shortage when, for example, an error (program loop) or unusually heavy message traffic causes the writing of many WTO messages. The BUFLIMIT parameter restricts the amount of ECSA storage CA MIM can use at these times.

Important! If you specify too small a value, then CA MIC may be temporarily forced to discontinue cross-system message routing.

Default: BUFLIMIT=500

CAPTURELOG

(Optional) Indicates whether GCMF routes messages destined only for the system log.

Typically, CA MIC does not allow local messages destined only for the system log to be routed externally. Hardcopy-only messages are recorded to the local SYSLOG, but are not displayed at local consoles. To make these messages eligible for external routing, specify the command SETOPTION CAPTURELOG=YES on the system where the messages are generated. When this option is set, local messages that are marked as system log messages, also known as hardcopy-only, can be routed externally. When CAPTURELOG=NO is set, no hardcopy-only messages are routed externally from this system.

When NOLOG is specified on a collection set, hardcopy-only messages are not collected, even if CAPTURELOG=YES is specified on the system where the messages originate.

Default: CAPTURELOG=NO

CART

(Optional) Determines how GCMF processes CARTs (Command and Response Tokens) when present on commands imported from external systems (that is, when this system is the target of a cross-system command).

You can specify one of the following:

INTERNAL

Indicates that GCMF should simulate CART processing by saving the CART of the command issuer and manually editing it in the command response before transmitting the response back to the issuer. The actual command on the target system is not issued with a CART.

This option allows GCMF to return CARTs to command issuers even when the operating system of the target system does *not* support CARTs. It also allows CARTs to be returned from older command processors not updated to handle CARTs.

SYSTEM

Indicates that the CART of the command issuer is issued with the actual command on the target system, and that GCMF *does not manually edit* the CART of the command issuer in the collected command response (as with normal CART processing).

The CART of the command issuer is returned in the command response assuming that both the operating system and the command processor on the target system support CART processing.

We recommend specifying CART=SYSTEM if the operating system supports CART processing.

COLORSUPP

(Optional) Indicates whether GCMF supports z/OS color attributes for messages.

NO

The local MPFLSTxx definitions determines the message presentation attributes.

YES

Local MPFLSTxx definitions are overridden and the message is presented as it was on the originating system. In other words, the message is presented based upon the attribute modifications made by the MPF exit or subsystem on the originating system.

Color information is always sent with messages that have color attributes, regardless of the COLORSUPP setting. The receiving system decides whether to display a message in color depending on the COLORSUPP setting on that system.

Default: COLORSUPP=NO

DELETE

(Optional) Tells GCMF to delete prefixes or job names for these operands. Message MIM0121 appears if you specify the DELETE operand with any other operands. This parameter is valid only for the operands ACTIONPREFIX, EXCLUDEJOB, EXCLUDEPREFIX, and SAFSYSTEMS.

DELETEINTERVAL

(Optional) Indicates how many minutes GCMF should wait before considering an outstanding action message to be obsolete. Specify a value from 1 to 32767. If you set DELETEINTERVAL=0, then the previous setting remains unchanged.

Action messages are highlighted on MCS consoles and remain on the screen until they are deleted by a program or by operator action. When CA MIC sends an action message to another system, the message retains its action message highlighting and remains on the console screen on that system. Action messages remain on an MCS console display if the console is in roll-deletable mode.

If, after a period of time, a program has not deleted an action message that has been sent to another system, then CA MIC deletes the action message to provide space on the screen for more recent messages.

Default: DELETEINTERVAL=120

EXCLUDEJOB

(Optional) Tells GCMF whether to prevent users from collecting messages that are issued by certain jobs. Specify one of these values on the EXCLUDEJOB operand:

names

Represents the names of the jobs for which messages should not be collected (to a maximum of 20 names). You can specify additional job names on a separate SETOPTION command. You also can use the asterisk (*) and pound (#) wildcard characters in a job name. For a description, see Wildcard Characters in (MIC) COLLECT Command in this chapter.

NONE

Tells GCMF to delete any existing list of names.

You can use the abbreviation EXJ for this operand.

To delete an individual name from this list, specify the DELETE operand before the EXCLUDEJOB operand.

Default: EXCLUDEJOB=NONE

EXCLUDEPREFIX

(Optional) Tells GCMF whether to prevent users from collecting messages that have a specified ID. Specify one of these values on the EXCLUDEPREFIX operand:

msgids

Specifies the IDs of the messages that should not be collected (to a maximum of 20 IDs). You can specify additional IDs on a separate SETOPTION command. You also can use the asterisk (*) and pound (#) wildcard characters in an ID. For a description, see Wildcard Characters in (MIC) COLLECT Command in this chapter.

NONE

Tells GCMF to delete any existing list of IDs.

You can use the abbreviation EXP for this operand.

To delete an individual ID from this list, specify the DELETE operand before the EXCLUDEPREFIX operand.

Default: EXCLUDEPREFIX=NONE

GCMDUMP

(Optional) Indicates whether CA MIC should generate a dump in the event of an error. Specify one of these values on this operand:

NO

Specifies that CA MIC should not generate a dump.

YES

Specifies that CA MIC should generate a dump.

Default: GCMDUMP=YES

GCMF

Tells CA MIM that you are setting operating values for GCMF rather than any other facility. Specify the GCMF operand if you want to truncate an operand in a way that may be ambiguous with operands for other facilities.

GCMF is a positional operand that you must specify before any other operand.

GCMRETRY

(Optional) Indicates how many times the CA MIC subsystem interface attempts to recover after encountering an error condition. Specify a value from 0 to 99 in place of the *nn* variable.

Default: GCMRETRY=3

MAXCONS

(Optional) Specifies the maximum number of consoles that GCMF can dynamically allocate to the target console pool.

CA MIC can dynamically choose and allocate target consoles for use when issuing imported cross-system commands. To enable this function, specify a non-zero value.

The MAXCONS value specifies the maximum number of dynamically allocated target consoles CA MIC acquires throughout the life of the CA MIC address space. Each console is allocated on demand until the MAXCONS limit is reached. Once the limit is reached, CA MIC continually re-assigns the least recently used target console to the current command source.

Default: MAXCONS=3

MINCONS

(Optional) Specifies the minimum number of dynamically allocated consoles to be retained by GCMF when the FREECONS MINCONS command is issued.

For example, setting MAXCONS=5 and MINCONS=2 allows CA MIC to dynamically allocate up to five consoles for the pool.

You can also use the FREECONS command to free all consoles, or a specific console, from the pool.

Note: For direct allocation, adding consoles to a hard-assigned console pool can only be accomplished by updating the GCMINIT SSCONID parameter and restarting CA MIC.

Default: MINCONS=1

MSGFILTER

(Optional) Filters messages when GCMF encounters the specified number of duplicate messages issued in succession.

A WTO buffer shortage can occur when, for example, a program loops while issuing WTOs. You can use the MSGFILTER parameter on the SETOPTION command to limit the number of identical messages that CA MIC routes cross-system.

When the number of consecutive WTOs with the same message ID is issued, CA MIC stops routing that message cross-system. CA MIC resets its counter when it processes a different message.

Specify one of the following values:

OFF

GCMF should not filter duplicate (looping) messages from the same job.

nn

GCMF should not route duplicate (looping) messages after *nn* consecutive messages with the same ID, issued by the same job. Specify a number between 1 and 1000.

Default: MSGFILTER=50

RESETPRINT

(Optional). Allows you to turn off trace event printing for the specified trace option or options. For an explanation of the available options, see the SETTRACE operand.

RESETTRACE

(Optional) Allows you to turn off trace event capturing for the specified trace option or options. For an explanation of the available options, see the SETTRACE operand.

SAFSYSTEMS

(Optional) Allows the commands originating on systems in this list to be reissued locally with the UTOKEN associated with the user on the original system. The local security system then decides whether to permit the command to execute based on the profile passed by the UTOKEN.

You can dynamically add or delete systems in this list by including ADD or DELETE in your command. For example, to add SYSD to your list, simply issue the command SETOPTION GCMF ADD SAFSYSTEMS=SYSD.

SETPRINT

(Optional). Activates trace event printing for the specified trace option or options. For an explanation of the available options, see the SETTRACE parameter.

SETTRACE

(Optional) Activates trace event capturing for the specified trace options. You can specify one or more of the following:

COMMANDS

Traces events for GCMF cross-system command processing.

DOMS

Traces events for GCMF DOM processing.

GCMPUSHPOP

Traces events for the flow through various GCMF routines.

WTOS

Traces events for GCMF cross-system message processing.

STATCOLLECT

(Optional) Controls the creation of statistical records for the GCMF report. Specify one of the following values:

ALL

Turns on statistical record collection for all record subtypes.

NONE

Turns off all statistical record collection.

NOSUBTYPE

Specifies the record subtypes for which statistical recording is turned off.

SUBTYPE

Specifies the record subtypes for which statistical recording is turned on.

The record subtype for GCMF is CN, for the GCMF command data record subtype.

Default: STATCOLLECT=NONE

STATCYCLE

(Optional) Specifies how often, in seconds, statistical data is sampled for the GCMF report.

Default: STATCYCLE=60

STATINTERVAL

(Optional) Specifies how often, in minutes, statistical data samples are recorded for use in the GCMF report.

Default: STATINTERVAL=15

SYSLOG

(Optional) Tells GCMF whether to include messages imported from other systems in the log of the local system. Specify one of these values on the SYSLOG operand:

ALL

Tells GCMF to log messages from all systems (including ICMF systems).

ALLICMF

Tells GCMF to log messages for all ICMF systems only (excluding control file systems).

ALLSYS

Tells GCMF to log messages for all control file systems only (excluding ICMF systems).

EXTERNAL

Tells GCMF to log messages for all systems except the local system.

EXTSYS

Tells GCMF to log messages for all control file systems only except the local one, excluding ICMF systems.

LOCAL (or *)

Tells GCMF to log messages for the local system only.

NONE

Tells GCMF to log no messages from any system.

sysids

Specifies the IDs of the system IDs for which GCMF should log messages, up to 16 systems. Use system names, aliases, or index numbers here.

Default: SYSLOG=NONE

Usage Notes: SETOPTION GCMF Command

- The SETOPTION command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION command. TSO users generally are not authorized to issue system control commands.
- You can specify multiple GCMF operands on the same SETOPTION command (for example, SETOPTION AUTODELETE=GLOBAL SYSLOG=ALL). Do not specify GCMF operands with operands associated with other facilities on the same SETOPTION command.

- You can use the wildcard characters * and # with the ACTIONPREFIX, EXCLUDEJOB, and EXCLUDEPREFIX operands.

  Note: For more information about using wildcard characters, see Usage Notes (see page 178) in the description of the (MIC) COLLECT Command in this chapter.

Examples: SETOPTION GCMF Command

- To exclude all messages from cross-system routing for jobs having names that begin with DFHS, issue the following command:

  ```
  SETOPTION EXCLUDEJOB=(DFHS*)
  ```

- To exclude all messages issued by jobs PAYROLL and LEDGER from cross-system message routing, issue this command:

  ```
  SETOPTION EXCLUDEJOB=(PAYROLL,LEDGER)
  ```

(MIC) SETOPTION ICMF Command-Set ICMF Operating Values

The SETOPTION ICMF command lets you set operating values for the ICMF.

Scope: Local

This command has the following format:

```
SETOPTION ICMF [AUTOIDEFSYS={NO|YES}]
               [RESETPRINT=(options)]
               [RESETTRACE=(options)]
               [SETPRINT=(options)]
               [SETTRACE=(options)]
```

AUTOIDEFSYS

Tells ICMF to automatically define remote ICMF systems when the local system detects an active CA L-Serv route to the external systems, even if they have not been pre-defined on an IDEFSYS statement. Specify YES to automatically define remote ICMF systems. If you specify NO, then all ICMF systems must be pre-defined on an IDEFSYS statement. You can also control this option by specifying the AUTOIDEFSYS parameter on the ICMINIT statement in the initialization member.

RESETPRINT

Tells ICMF to stop writing trace records to the MIMTRACE data set. To cancel a SETOPTION SETPRINT command issued previously, specify the same value for the SETOPTION RESETPRINT command.

RESETTRACE

Tells ICMF to stop generating trace records. To cancel a SETOPTION SETTRACE command issued previously, specify the same value for the SETOPTION RESETTRACE command.

SETPRINT

Turns on the print function for the specified event trace options.

SETTRACE

Turns on the trace feature for the specified event trace options. The trace options are:

ALL

Activates all tracing options.

ICMLOGIC

Traces values at various points in ICMF-specific logic.

LCOMRECV

Traces CA L-Serv data receive activity.

LCOMROUT

Traces CA L-Serv route change event notification.

LCOMSEND

Traces CA L-Serv data send activity.

SCHDSEND

Traces scheduling of CA L-Serv data sends.

Usage Notes: SETOPTION ICMF Command

- The SETOPTION ICMF command can be specified in the MIMCMNDS or MIMSYNCH members of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION ICMF command. TSO users generally are not authorized to issue system control commands.

Example: SETOPTION ICMF Command

To activate event tracing for CA L-Serv data send scheduling, issue the following command:

```
SETOPTION ICMF SETTRACE=LCOMSEND
```

Chapter 5: CA MII Statements and Commands

This chapter discusses CA MII statements and commands.

(MII) ADDQNAME Command-Add a New QNAME

The ADDQNAME command lets you temporarily add a new QNAME to the QNAME list, without the need to restart CA MII.

Scope: Global

This command has the following format:

`ADDQNAME [QNAME=`*`qname`*`] `*`keywords`*

More information:

(MII) QNAME Statement-Handle ENQ and RESERVE Requests (see page 282)

Usage Notes: ADDQNAME Command

- The changes you make through the ADDQNAME command are in effect until you restart CA MIM.
- The ADDQNAME command makes temporary changes to the QNAME list without the need to globally restart CA MII. These changes are discarded when you stop CA MII on all systems. Update the MIMQNAME member if you want to make permanent changes, which are preserved when you stop CA MII on all systems.

  Note: For more information on modifying the QNAME list, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.
- We recommend that you use a single MIMQNAME member for all systems.
- This command need only be issued on one system in the complex. CA MIM then communicates the information to the other systems. A system joining the complex will adjust its QNAME list to match the other systems.

- This command is not available prior to CA MIM synchronization; therefore it is not advisable to use it in the MIMCMNDS member.
- Default values for ADDQNAME operands are the same as those for the QNAME statement.

Note: For more information about temporary and permanent changes of the QNAME list, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.

Example: ADDQNAME Command

To begin propagating enqueues and converting reserves for the QNAME, NEWQNAME, with a scope of SYSTEMS, and conflict messages every two minutes, you would issue this command:

```
ADDQNAME QNAME=NEWQNAME ECMF=YES GDIF=YES SCOPE=SYSTEMS,
   RESERVES=CONVERT REPORTCYCLE=120
```

(MII) ALTER Command-Modify QNAME Attributes

The ALTER command lets you modify certain attributes of a QNAME in your QNAME list, which provides GDIF, ECMF, or both with information on how to handle ENQ and RESERVE requests for classes of resources. This command is available only when you are running the GDIF or the ECMF of the CA MII component.

The ALTER command affects only the system on which it is issued. You cannot add or delete QNAMEs from the list by using this command.

Scope: Local

This command has the following format:

```
ALTER QNAME=qname [ECMF={NO|YES}]
                  [REPORTAFTER=seconds]
                  [REPORTCYCLE=seconds]
                  [TRACE={ALL | CONFLICT | NONE}]
```

ECMF

Indicates whether ECMF should issue messages when a conflict occurs for one of these resources. Specify NO or YES.

QNAME

Identifies the QNAME statement that you are modifying. The statement must appear in your QNAME list already. Specify the QNAME for this statement in place of *qname*.

You can specify this QNAME in either character or hexadecimal format. For example, you can specify QNAME=A123 or QNAME=X'C1F1F2F3'. If you use character format and the QNAME contains embedded blanks, then enclose that QNAME in single quotation marks.

REPORTAFTER

Indicates how many seconds ECMF should wait before issuing the first conflict message when an ENQ conflict occurs. Specify a value from 0 to 999 (integers only) in place of seconds.

You can use the abbreviation RPTAFTER for this operand.

REPORTCYCLE

Indicates how many seconds ECMF should wait before reissuing conflict messages when an ENQ conflict occurs. Specify an integer from 0 to 600 in place of seconds. A value of zero results in a single conflict message being issued. You can use the abbreviation RPTCYCLE for this operand.

TRACE

Indicates what type of trace information should be collected by GDIF for these resources. Specify one of these values on the TRACE operand:

ALL

Collects information about ENQ requests, RESERVE requests, and conflicts for these resources.

CA MII tracing must be active in order to collect this information. You can activate this feature through the SETTRACE operand on the SETOPTION command.

CONFLICT

Collects information about conflicts for these resources.

CA MII tracing must be active to collect this information. You can activate this feature through the SETTRACE operand on the SETOPTION command.

NONE

Indicates that you do not want trace information.

Usage Notes: ALTER Command

- The ALTER command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the ALTER command. TSO users generally are not authorized to issue system control commands.
- You can specify any combination of the ECMF, REPORTAFTER, REPORTCYCLE, and TRACE operands on the same ALTER command.
- For more information, see the descriptions of the ADDQNAME command (see page 225) and the DELQNAME command (see page 240).

Examples: ALTER Command

- To receive conflict messages every 20 seconds for resources when the QNAME SYSDSN is specified on the ENQ or RESERVE request, issue this command:

  ```
  ALTER QNAME=SYSDSN ECMF=YES REPORTAFTER=20 REPORTCYCLE=20
  ```

- To collect information about conflicts and requests on which the QNAME SYSZ TSS is specified, issue the following command:

  ```
  ALTER QNAME='SYSZ TSS' TRACE=ALL
  ```

(MII) DATASET Statement-Apply EDIF Processing Options

The DATASET statement lets you apply a set of EDIF processing options to a specific data set. This statement is available when you are running the EDIF of the CA MII component.

This command has the following format:

```
DATASET NAME=dsname  [ACCESSLIST PROGRAMS(programs)
                              UTILITY(statements)]
                     [AUTHORIZED PROGRAMS(programs)
                              UTILITY(statements)]
                     [BLKSIZE={ANY | DSCB | size]
                     [CHECKEXCLUSIVE PROGRAMS(programs)
                                   UTILITY(statements) ]
                     [DSORG={ANY | DSCB | type}]
                     [EXEMPT PROGRAMS(programs)
                             UTILITY(statements) ]
                     [LRECL={ANY | DSCB | length}]
                     [OPTION ([{ABEND|NOABEND}]
                             [{ACCESSCHECK|NOACCESSCHECK}]
                             [{ATTRIBUTES|NOATTRIBUTES}]
                             [{CONFLICTMESSAGES|NOCONFLICTMESSAGES}]
                             [{ENQUEUE|NOENQUEUE}]
                             [{IGNORECC|NOIGNORECC}]
                             [NONE]
                             [{SMF|NOSMF|RECORD|NORECORD}]
                             [{SUPPRESSMESSAGES|NOSUPPRESSMESSAGES]}
                             [{UTILITY|NOUTILITY]}
                             [{WAIT|NOWAIT}]  )]
                   [RECFM={ANY | DSCB | format ]
```

ACCESSLIST

(Optional) Identifies the programs that are authorized to read this data set. This parameter is used during read verification. Use the ACCESSCHECK option to have EDIF verify the authority of a program to read this data set.

PROGRAMS

Identifies authorized programs. Specify the names of these programs in place of *programs*.

UTILITY

Indicates which UTILITY statements identify authorized programs. Specify the names of these statements in place of *statements*.

AUTHORIZED

(Optional) Identifies the programs that are authorized to update this data set. This parameter is used during utility verification. Use the UTILITY option to have EDIF verify the authority of a program to update this data set.

If you omit the AUTHORIZED parameter, then EDIF scans UTILITY statements to identify authorized programs. EDIF compares the record format and data set organization values on UTILITY statements with the values in the DSCB of the data set. If these values match, then EDIF lets programs named on that UTILITY statement update the data set.

PROGRAMS

Identifies authorized programs. Specify the names of these programs in place of *programs*.

UTILITY

Indicates which UTILITY statements identify authorized programs. Specify the names of these statements in place of *statements*.

BLKSIZE

(Optional) Indicates whether EDIF should verify the block size attribute and what block size value EDIF should use. This parameter is used during attribute verification. EDIF compares this value to the value on the BLKSIZE parameter in the JCL of a job or in the DCB of a program. Use the ATTRIBUTES option to have EDIF verify data set attributes during an update.

ANY

Tells EDIF to ignore this attribute.

DSCB

Tells EDIF to use the block size value in the DSCB of the data set.

size

Specifies the correct block size for this data set. Specify an integer from 1 to 32768.

Default: BLKSIZE=DSCB

CHECKEXCLUSIVE

(Optional) Tells EDIF to disallow updates by any of the specified programs or utilities if the JCL of the job specifies DISP=SHR. EDIF issues message MIM4006 to record this type of violation in the system log and in the log of the job (for batch jobs). EDIF also broadcasts this message to TSO sessions and consoles that are receiving routing code 11 messages. To prevent this type of update, you also need to specify the ABEND option.

PROGRAMS

Identifies the programs that EDIF should check. Specify the names of these programs in place of *programs*.

UTILITY

Indicates which UTILITY statements identify the programs that EDIF should check. Specify the names of these statements in place of *statements.*

DSORG

(Optional) Indicates whether EDIF should verify the data set organization attribute and what data set organization value EDIF should use. This parameter is used during attribute verification. EDIF compares this value to the value on the DSORG parameter in the JCL of a job or in the DCB of a program. Use the ATTRIBUTES option to have EDIF verify data set attributes during an update. Specify one of the following:

ANY

Tells EDIF to ignore this attribute.

DSCB

Tells EDIF to use the data set organization value in the DSCB.

type

Specifies the data set organization value that EDIF should use. Specify one of these values in place of this variable:

- DIRECT (or DA)
- ISAM
- PARTITIONED (or PO)
- SEQUENTIAL (or PS)
- UNMOVABLE-PARTITIONED (or POU)
- UNMOVABLE-SEQUENTIAL (or PSU)
- VSAM

Default: DSORG=DSCB

EXEMPT

(Optional) Used during attribute verification, identifies programs that are exempted from attribute verification for this data set. Use the ATTRIBUTES option to have EDIF verify data set attributes during an update.

PROGRAMS

Identifies exempted programs. Specify the names of these programs in place of programs.

UTILITY

Indicates which UTILITY statements identify exempted programs. Specify the names of these statements in place of *statements.*

LRECL

(Optional) Used during attribute verification, indicates whether EDIF should verify the logical record length attribute and what logical record length value EDIF should use. EDIF compares this value to the value on the LRECL parameter in the JCL of a job or in the DCB of a program. Use the ATTRIBUTES option to have EDIF verify data set attributes during an update.

ANY

Tells EDIF to ignore the logical record length attribute.

DSCB

Tells EDIF to use the logical record length value in the DSCB of the data set.

length

Specifies the correct logical record length for this data set. Specify an integer from 1 to 32768.

Default: LRECL=DSCB

OPTION

(Optional) Indicates which EDIF processing options should be applied to this data set. Specify one or more of the following options:

ABEND | NOABEND

Indicates whether EDIF should prevent inappropriate updates by abending jobs. Specify ABEND to abend tasks or NOABEND to negate an ABEND option on another statement.

EDIF issues messages about the abended task to all TSO sessions and consoles receiving routing code 11 messages.

ACCESSCHECK | NOACCESSCHECK

Indicates whether EDIF should see if a program is authorized to read this data set. Specify ACCESSCHECK to perform read verification or NOACCESSCHECK to negate an ACCESSCHECK option on another statement. Use the ACCESSLIST parameter to identify authorized programs. To prevent unauthorized programs from reading this data set, the ABEND option also must be in effect.

EDIF issues message MIM4069 to record read violations in the system log and in the log of the job (for batch jobs). EDIF also broadcasts this message to TSO sessions and consoles that are receiving routing code 11 messages.

ATTRIBUTES | NOATTRIBUTES

Indicates whether EDIF should determine if a program changes the attributes of this data set during an update. Specify ATTRIBUTES to perform attribute verification or NOATTRIBUTES to negate an ATTRIBUTES option on another statement. EDIF verifies the attributes of non-VSAM data sets only.

You can use the EXEMPT parameter to identify programs that should not be checked. The BLKSIZE, DSORG, LRECL, and RECFM parameters determine what attribute values EDIF uses. To prevent an attribute change, the ABEND option also must be in effect.

EDIF issues message MIM4004 or MIM4005 to record attribute violations in the system log and in the log of the job (for batch jobs). EDIF also broadcasts this message to TSO sessions and consoles that are receiving routing code 11 messages.

CONFLICTMESSAGES| NOCONFLICTMESSAGES

Indicates whether EDIF should issue conflict messages if two or more jobs try to update this data set at the same time. Specify CONFLICTMESSAGES to receive these messages or NOCONFLICTMESSAGES to negate a CONFLICTMESSAGES option on another statement.

EDIF issues conflict messages only if the ENQUEUE option also is enabled for this data set. EDIF issues message MIM4009 to record conflicts in the system log and in the log of the job (for batch jobs). EDIF also broadcasts this message to TSO sessions and consoles that are receiving routing code 11 messages.

The CA MII ENQ Conflict Management Facility (ECMF) provides similar conflict information. However, because the ECMF messages also identify the task that is holding the data set, you probably do not need to specify the CONFLICTMESSAGES option if you specify EDIDSN ECMF=ON in your QNAME list.

ENQUEUE | NOENQUEUE

Indicates whether EDIF should determine if two or more jobs are updating this data set at the same time. Specify ENQUEUE to check for simultaneous updates or NOENQUEUE to negate an ENQUEUE option on another statement.

To send messages about simultaneous updates to the system log, to the job log (for batch jobs), and to all TSO sessions and consoles receiving routing code 11 messages, the CONFLICTMESSAGES option also must be enabled. To prevent simultaneous updates, the WAIT option must be enabled.

IGNORECC | NOIGNORECC

Indicates whether EDIF should differentiate record formats by carriage control characters (for example, whether EDIF should treat record formats FB, FBA, and FBM differently). These options are used only during attribute verification. Specify IGNORECC to tell EDIF not to differentiate by these characters or NOIGNORECC to negate an IGNORECC option on another statement.

NONE

Negates all EDIF processing for this data set.

SMF | NOSMF | RECORD | NORECORD

SMF and RECORD are synonyms, as are NOSMF and NORECORD.

The SMF | RECORD option causes an SMF record to be written for each action taken by EDIF. The NOSMF | NORECORD option negates the SMF | RECORD option that may have been specified on a more generic statement.

SUPPRESSMESSAGES | NOSUPPRESSMESSAGES

Indicates whether EDIF should suppress notification messages that it sends to the system log, to the job log, and to TSO users and consoles receiving routing code 11 messages. Specify SUPPRESSMESSAGES to suppress these messages or NOSUPPRESSMESSAGES to negate the SUPPRESSMESSAGES option on another statement.

UTILITY | NOUTILITY

Indicates whether EDIF should determine if a program is authorized to update this data set. Specify UTILITY to perform utility verification or NOUTILITY to negate the UTILITY option on another statement.

You can use the AUTHORIZED parameter or UTILITY statements to identify programs that are authorized to update this data set. To prevent an unauthorized update, the ABEND option also must be in effect.

EDIF issues message MIM4002 to record utility violations in the system log and in the log of the job (for batch jobs). EDIF also broadcasts this message to TSO sessions and consoles that are receiving routing code 11 messages.

WAIT | NOWAIT

Indicates whether EDIF should wait until this data set is free before letting a second task update the data set. Specify WAIT to make tasks wait or NOWAIT to negate the WAIT option on another statement. EDIF issues message MIM4010 to notify you when a task is waiting for a data set to be freed. To prevent simultaneous updates, the ENQUEUE option also must be in effect.

Notes:

- You can specify any number of values on the OPTION parameter, as long as those values are not mutually exclusive.
- You can negate processing options on other EDIF statements by specifying options that have the NO prefix. For example, you can negate the CONFLICTMESSAGES option on another statement by specifying OPTION=NOCONFLICTMESSAGES on the DATASET statement.

RECFM

Used during attribute verification, indicates whether EDIF should verify the record format attribute and what record format value EDIF should use. EDIF compares this value to the value on the RECFM parameter in the JCL of a job or in the DCB of a program. Use the ATTRIBUTES option to have EDIF verify data set attributes during an update.

ANY

Tells EDIF to ignore the record format attribute.

DSCB

Tells EDIF to use the record format value in the DSCB of the data set.

format

Specifies the correct record format for this data set. Specify one of these record formats or record format combinations in place of *format*:

- ASA
- BLOCKED
- FIXED
- MACHINE
- SPANNED
- STANDARD
- VARIABLE

- UNDEFINED
- FB
- FBA
- MVB
- VBA
- VBM

Default: RECFM=DSCB

Usage Notes: DATASET Statement

- The DATASET statement can be specified only in the EDIPARMS member of the CA MIM parameter data set.
- Because the DATASET statement is the last statement in the merge process of the EDIF, you cannot negate the processing options specified on this statement.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.

Note: For more information, see the *CA MII Programming Guide*.

Example: DATASET Statement

To bypass ENQ processing, which was activated on another EDIF processing statement, and to allow only LOGON, ACCOUNT, and SEND processing to update the SYS1.UADS data set, specify this statement in the EDIPARMS member:

```
DATASET NAME=SYS1.UADS OPTION(NOENQUEUE,UTILITY),
   AUTHORIZED(PROGRAM(ACCOUNT,IEEVSEND,IKJEFLA1,IKJEFLA))
```

(MII) DEFAULT Statement (for EDIF)-Globally Apply EDIF Processing Options

The EDIF DEFAULT statement lets you apply a set of EDIF processing options to all data sets. This statement is available when you are running the EDIF of the CA MII component.

This command has the following format:

```
DEFAULT [AUTHORIZED(options)]
        [CHECKEXCLUSIVE(options)]
        [EXEMPT(options)]
        [OPTION(options)]
```

AUTHORIZED

(Optional) Identifies programs that are authorized to update data sets. You can specify the same values for the AUTHORIZED parameter on any EDIF processing statement.

CHECKEXCLUSIVE

(Optional) Identifies programs that cannot update data sets when those data sets are allocated with DISP=SHR. You can specify the same values for the CHECKEXCLUSIVE parameter on any EDIF processing statement.

EXEMPT

(Optional) Identifies programs that are exempted from attribute verification. You can specify the same values for the EXEMPT parameter on any EDIF processing statement.

OPTION

(Optional) Indicates what processing options EDIF should apply to these data sets.

You can specify any combination of the following values:

- ABEND
- ACCESSCHECK
- ATTRIBUTES
- CONFLICTMESSAGES
- ENQUEUE
- IGNORECC
- SMF | RECORD
- SUPPRESSMESSAGES
- UTILITY
- WAIT

You also can specify values that negate these options (for example, NOABEND, NOACCESSCHECK, NONE, and so on). Values that you specify on the same statement cannot be mutually exclusive.

Usage Notes: DEFAULT Statement

- You must specify at least one parameter for this statement.
- The DEFAULT statement can be specified only in the EDIPARMS member of the MIMPARMS data set.
- You can override options on the DEFAULT statement with other EDIF processing statements.

- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.
- **Note:** For more information, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.
- Because processing options on a DEFAULT statement apply to all data sets choose options carefully. We recommend that you do not specify these options on a DEFAULT statement:

  OPTION(ENQUEUE,WAIT)

  This places jobs in a *wait state* when a requested data set is unavailable.

  OPTION(UTILITY,ABEND)

  This *abends* tasks that are not authorized to update data sets.

  OPTION(ATTRIBUTES,ABEND)

  This *abends* tasks that are not allowed to change data set attributes.

  OPTION(ACCESSCHECK,ABEND)

  This *abends* tasks that are not authorized to read data sets.

  For more information, see the description of the DATASET Statement.

Example: DEFAULT Statement (EDIF)

Suppose that you want EDIF to perform this processing for all data sets:

- Issue conflict messages if several users or jobs simultaneously open a data set for update.
- Record data set conflicts, attribute violations, and utility violations in an SMF record.
- Exempt programs SAS, SASLIB, SASLPA, and MIMDRGBN from attribute verification.
- Prevent programs NOSHARE1 and NOSHARE2 from updating data sets when DISP=SHR is specified in their JCL.

To achieve these results, specify this statement in the EDIPARMS member:

```
DEFAULT OPTION(UTILITY,ENQUEUE,ATTRIBUTES,SMF,
   CONFLICTMESSAGES) EXEMPT(PROGRAM(SAS,SASLIB,SASLPA,
   MIMDRGBN)) CHECKEXCLUSIVE(PROGRAM(NOSHARE1,NOSHARE2))
```

(MII) DEFAULT Statement (for GDIF)-Set ENQ Request Options

The GDIF DEFAULT statement lets you indicate whether GDIF should propagate ENQ requests by default for QNAMEs that have EXEMPT=YES specified on their QNAME statements. This statement is available only when you are running the GDIF of the CA MII component.

This command has the following format:

```
DEFAULT [{RESOURCE={GLOBAL | LOCAL} |
        JOB={GLOBAL | LOCAL} } ]
```

RESOURCE

(Optional) Indicates whether GDIF should propagate ENQ requests by default, no matter what resource is requested. Specify one of these values on the RESOURCE parameter:

GLOBAL

GDIF should propagate ENQ requests by default, unless that resource is named on a LOCAL statement.

LOCAL

GDIF should not propagate ENQ requests unless that resource is named on a GLOBAL statement.

JOB

(Optional) Indicates whether GDIF should propagate ENQ requests by default, no matter what job issued the ENQ request. Specify one of these values on the JOB parameter:

GLOBAL

GDIF should propagate ENQ requests by default, unless the job that issued the request is named on a LOCAL statement.

LOCAL

GDIF should not propagate ENQ requests unless the job that issued the request is named on a GLOBAL statement.

Usage Notes: DEFAULT Statement (GDIF)

- The GDIF DEFAULT statement can be specified only in the GDIEXMPT member of the CA MIM parameter data set.
- You must specify the DEFAULT statement before any other statements in the GDIEXMPT member. Also note that you can specify the DEFAULT statement only one time.

- You must specify RESOURCE=GLOBAL JOB=GLOBAL to propagate ENQ requests by default. You can use LOCAL and GLOBAL statements to override this default processing for certain resources or jobs.

Examples: DEFAULT Statement (GDIF)

- To propagate ENQ requests by default, no matter what resource is needed or what job issued the ENQ request, specify this statement in the GDIEXMPT member:

  ```
  DEFAULT RESOURCE=GLOBAL JOB=GLOBAL
  ```

- To propagate ENQ requests only for the resources that you name on GLOBAL statements, specify this statement in the GDIEXMPT member:

  ```
  DEFAULT RESOURCE=LOCAL JOB=GLOBAL
  ```

(MII) DELQNAME Command-Temporarily Delete QNAME

The DELQNAME command lets you temporarily delete a QNAME from the QNAME list, without the need to restart CA MII.

Scope: Global

This command has the following format:

```
DELQNAME [QNAME=qname]
```

QNAME

Specifies the QNAME to delete. All keywords specified for the QNAME are also deleted.

Usage Notes: DELQNAME Command

- DELQNAME has no effect on the current status of resources in this QNAME class (that is, for resources currently enqueued).
- The DELQNAME command makes temporary changes to the QNAME list, without the need to globally restart CA MII. These changes are discarded when you stop CA MII on all systems. Update the MIMQNAME member if you want to make permanent changes that are preserved when you stop CA MII on all systems.

  Note: For more information about the QNAME list, see the chapter “Advanced Topics” in the *CA MII Programming Guide*.
- We recommend that you use a single MIMQNAME member for all systems.
- This command need only be issued on one system in the complex. CA MIM then communicates the information to the other systems. A system joining the complex will adjust its QNAME list to match the other systems.

- This command is not available prior to CA MIM synchronization, therefore it is not advisable to use it in the MIMCMNDS member.
- For additional restrictions that affect the DELQNAME command, see Usage Information for QNAME in this chapter.

Note: For more information about temporary and permanent changes of the QNAME list, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.

More information:

(MII) DEQJOB Command-Dynamically Release a Resource (see page 241)

Example: DELQNAME Command

To eliminate the QNAME OLDQNAME as a managed QNAME, issue this command:

```
DELQNAME QNAME=OLDQNAME
```

(MII) DEQJOB Command-Dynamically Release a Resource

The DEQJOB command lets you bypass the integrity processing of GDIF for a local job that needs a resource held on another system. You can use this command to create an immediate, controlled integrity exposure when a local job is involved in a cross-system resource conflict and no other local job needs that resource. As soon as the job releases the resource, integrity processing of GDIF is restored.

Scope: Local

This command has the following format:

```
DEQJOB JOB=name
```

JOB

Identifies the job for which GDIF should bypass its integrity processing. GDIF bypasses integrity processing for all resources that this job cannot obtain currently. Specify the name of this job in place of *name*.

The resource that this job needs must be held by a task on another system. In addition, this job must be the only task on the local system that needs the resource.

Usage Notes: DEQJOB Command

- The DEQJOB command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the DEQJOB command. TSO users generally are not authorized to issue system control commands.
- All QNAMEs that you want to dequeue must be managed QNAMEs, and must have EXEMPT=YES specified on the QNAME statement.
- Because the DEQJOB command immediately suspends the GDIF integrity processing for the jobs whose requests are currently in global conflict, you must ensure that no other local job needs those resources. You can use the DISPLAY CONFLICTS command to display information about resources that other local jobs need.

Example: DEQJOB Command

To enable job LEDGER to use a resource that is held by a task on another system, issue this command:

```
DEQJOB JOB=LEDGER
```

(MII) DISPLAY ECMF Command-Display ECMF Information

The DISPLAY ECMF command lets you display information about the status and activities of the ENQ Conflict Management Facility.

Scope: Local

This command has the following format:

```
DISPLAY ECMF [CONFLICTS[={GLOBAL|LOCALONLY}] [TRUNCATE]]
             [ENQRESOURCE= (qname,rname),
                           (qname,PREFIX=prefix),
                           (qname) [TRUNCATE]]
             [OPTIONS]
             [QNAMES ]
             [REQUEUE]
```

ECMF

Displays information about ECMF rather than about any other facility. Specify this operand before the OPTIONS operand. Also specify the ECMF operand before any other operand that is truncated in such a way it may be ambiguous with operands for other facilities. Because ECMF is a positional operand, you must specify it before any other operand on the DISPLAY command.

CONFLICTS

(Optional) Displays information about all outstanding resource conflicts. Global conflicts are displayed for managed resources, while local-only conflicts are displayed for both managed and non-managed resources. This information is shown in message MIM1028. If you issue the command DISPLAY CONFLICTS, then you receive both global and local-only conflict information.

GLOBAL

Specifies that only global conflicts are displayed. No conflicts are displayed that are local-only (all tasks that are requesting a resource are in the same system).

LOCALONLY

Specifies that all local-only conflicts are displayed. This command must be issued on the system where the local-only conflict exists. Note that this command will not show a conflict that is both global and local (a minimum of three tasks conflicting for a resource, when at least one task is on an external system).

TRUNCATE

Causes the RNAMES displayed by the CONFLICTS parameter to truncate at 32 characters. The default is to display the entire RNAME.

ENQRESOURCE

(Optional) Displays status information for a resource. Specify the QNAME and RNAME for this resource in place of *qname* and *rname*. Or, you can specify this command using the *qname* and the *prefix* to display all resources in this QNAME class that match on the specified prefix. This information is shown in message MIM1091. If there are no requestors for this resource, then ECMF also displays message MIM1092. If this resource is not managed by ECMF, then ECMF also displays message MIM1093.

You can specify the QNAME and RNAME, or the QNAME and prefix, or the QNAME only in either character or hexadecimal format. For example, you can specify any of the following:

- ENQRESOURCE(A123,B123)
- ENQRESOURCE(X'C1F1F2F3',X'C2F1F2F3')
- ENQRESOURCE(A123,PREFIX=B123)
- ENQRESOURCE(X'C1F1F2F3',PREFIX=X'C2F1F2F3')
- ENQRESOURCE(A123)

If you use character format and the QNAME or RNAME contains embedded blanks, then enclose the QNAME or RNAME in single quotation marks.

The TRUNCATE option causes the RNAMES displayed by the ENQRESOURCE parameter to truncate at 32 characters. The default is to display the entire RNAME.

OPTIONS

(Optional) Displays following information about the ECMF operating values that can be set through the SETOPTION command:

- Whether AUTOFREE and REQUEUE are active
- The prefix character ECMF uses to issue JES2 commands
- How ECMF is handling jobs that need unavailable resources
- How ECMF is handling requeued jobs and checkpoint information at termination
- Settings for other ECMF options

Because the OPTIONS parameter can be used to display values for any CA MIM facility or for the entire product, you also need to specify the ECMF parameter to indicate that you want information about ECMF.

Information is shown in message MIM1072.

QNAMES

(Optional) Displays the contents of the QNAME list, which contains information on how GDIF, ECMF, or both should handle ENQ and RESERVE requests for resources.

You can also limit the display by selecting a specific QNAME, or group of QNAMEs, using the DISPLAY QNAMES=*qname* command. You can additionally specify wildcard characters with this command.

This information is shown in message MIM1074.

REQUEUE

(Optional) Displays information about batch jobs that ECMF has requeued. This information is shown in message MIM1035.

Default: OPTIONS

Usage Notes: DISPLAY ECMF Command

- The DISPLAY ECMF command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You also can issue the DISPLAY command from any console or TSO session.
- You can specify several operands for ECMF on the same DISPLAY command (for example, DISPLAY ECMF OPTIONS CONFLICTS). Do not specify ECMF operands with operands associated with other facilities.
- An asterisk in the far right column of the resulting display indicates that this job was exempted by job name from GDIF global processing at the time the request was issued.

Example: DISPLAY ECMF Command

To display the contents of the CA MII QNAME list and information about batch jobs that have been requeued by ECMF, issue this command:

```
DISPLAY ECMF REQUEUE QNAMES
```

(MII) DISPLAY EDIF Command-Display EDIF Information

The DISPLAY EDIF command lets you display information about the status and activities of the EDIF.

Scope: Local

This command has the following format:

```
DISPLAY EDIF [{ALL |
              [DATASET=dsname]
              [DEFAULT]
              [DSORG=organization]
              [INIT]
              [OPTIONS]
              [PATTERN=pattern]
              [PREFIX=prefix]
              [STATISTICS=RESET]
              [SUFFIX=suffix]
              [UTILITY=name] }
```

ALL

(Optional) Displays the messages associated with all of the EDIF display operands, including messages MIM4053 through MIM4062.

DATASET

(Optional) Displays information about DATASET statements and how many times they were matched. This information is displayed in message MIM4060.

EDIF displays information about all DATASET statements unless you ask for information about only a certain DATASET statement. To display information for a certain statement, specify the data set name on that statement in place of the *dsname* variable.

DEFAULT

(Optional) Displays information about the DEFAULT statement. This information is displayed in message MIM4055.

DSORG

(Optional) Tells CA MIM to display information about the DSORG statement. For example, to display information for partitioned data sets, you would specify DISPLAY DSORG=PARTITIONED.

INIT

(Optional) Shows the abend code EDIF uses when it terminates inappropriate operations and what member it is using to obtain its processing statements.

OPTIONS

(Optional) Indicates what member EDIF is using to obtain its processing statements, whether EDIF is active, whether EDIF is generating SVC dumps in response to errors, statistical report information, and other EDIF option values and settings.

PATTERN

(Optional) Displays information about PATTERN statements and how many times they were matched. This information is displayed in message MIM4059.

EDIF displays information about all PATTERN statements unless you ask for information about only a certain PATTERN statement. To display information for a certain statement, specify the pattern on that statement in place of the *pattern* variable.

PREFIX

(Optional) Displays information about PREFIX statements and how many times they were matched. This information is displayed in message MIM4057.

EDIF displays information about all PREFIX statements unless you ask for information about only a certain PREFIX statement. To display information for a certain statement, specify the prefix on that statement in place of the *prefix* variable.

STATISTICS

(Optional) Displays information about the activities of EDIF. This command lets you see how many times programs opened data sets inappropriately and how many times EDIF has prevented such updates. These statistics pertain only to data sets on the local system.

On this display, the first column displays cumulative statistics from the time EDIF was started. The second column displays statistics accumulated since the last reset.

SUFFIX

(Optional) Displays information about SUFFIX statements and how many times they were matched. This information is displayed in message MIM4058.

EDIF displays information about all SUFFIX statements unless you ask for information about only a certain SUFFIX statement. To display information for a certain statement, specify the suffix on that statement in place of the *suffix* variable.

UTILITY

(Optional) Displays information about UTILITY statements. This information is displayed in message MIM4054.

EDIF displays information about all UTILITY statements unless you ask for information about only a certain UTILITY statement. To display information for a certain statement, specify the name on that statement in place of the *name* variable.

Usage Notes: DISPLAY EDIF Command

- You can specify ALL OR one or more of the remaining parameters.
- The DISPLAY command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You also can issue the DISPLAY command from any console or TSO session.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements. See the chapter “Advanced Topics” in the *CA MII Programming Guide*.
- You can specify several operands for EDIF on the same DISPLAY command (for example, DISPLAY DATASET PREFIX). Do not specify EDIF operands with operands associated with other facilities.

Example: DISPLAY EDIF Command

To display information about the EDIF initialization values, issue this command:

```
DISPLAY EDIF INIT
```

(MII) DISPLAY GDIF Command-Display GDIF Information

The DISPLAY GDIF command lets you display information about the status and activities of the Global Data Set Integrity Facility.

Scope: Local

This command has the following format:

```
DISPLAY GDIF [{ALL |
              [BENEFITS]
              [CFSIZE={SUMMARY|DETAIL}]
              [CONFLICTS={GLOBAL|LOCALONLY} [TRUNCATE]]
              [COUNTS={ALL|MANAGED|NONMANAGED|RESET|
                       SINCE={INITIALIZATION | LASTRESET}}[FILTER=maskvalue]]
              [ENQRESOURCE=(qname,rname) [TRUNCATE]
                           (qname,PREFIX=prefix  ) [TRUNCATE]
                           (qname) [TRUNCATE] ]
              [EXEMPT]
              [INIT]
              [OPTIONS]
              [QNAMES=qnames SOURCE=value]
              [RESERVES={CONVERTED | HARDWARE} [TRUNCATE]]
              [SERVICE=RESET] } ]
```

ALL

(Optional) Displays the same information as the INIT and OPTIONS operands. That is, it displays the GDIF initialization values in message MIM1019 and the GDIF operating values in message MIM1022.

BENEFITS

(Optional) Displays the number of cross-system conflicts that have occurred for managed resources since the last time you started GDIF on this system. This information is shown in message MIM1015.

CFSIZE

(Optional) Displays the recommended size of the CA MIM control file for the GDIF facility. The control file size required by GDIF is dependent on ENQ workload or, more specifically, the peak number of global ENQ resources. This command takes this number and other metrics, which are maintained by GDIF, and calculates the GDIF size required for the control file. GDIF maintains both current and peak metrics; therefore, both current and peak requirements are displayed by the command.

This command calculates only space requirements for the GDIF facility; therefore, the recommended primary control file size is correct only if the CA MII component is running in its own MIMplex (that is, CA MII is running in its own address space on each system). If you run the CA MIA component, the CA MIC component, or both in addition to CA MII (not recommended), then you could add the space requirements of the additional components to the recommendation provided by this command.

The number of GHBs and GCBs may vary widely by system since the scope of these data structures is local. The current number of global resources and QNAMEs should typically be the same since this information is global in nature. However, this command does not serialize its calculations, so the current numbers may vary across systems, particularly for the more volatile numbers, such as the number of global resources.

The peak numbers may vary widely across systems as well. The peak numbers are based on peak metrics that are maintained on a system-by-system basis. This information is not passed to external systems. Furthermore, the peak numbers are not persistent across product restarts since peak number metrics are reset to zero with each restart of CA MIM. As CA MIM runs, the peak numbers increase and become more accurate. This increase in peak numbers and accuracy, coupled with rolling IPLs or product restarts, cause the peak numbers to vary across systems. We recommend that you issue this command late in the IPL process or CA MIM restart cycle and, if you execute the command on multiple systems, that you take the highest of all recommended sizes.

Note: The peak numbers are based on observed peaks. Historical observed peaks may not predict future requirements.

The space calculations provided by this command do not include any values that may be media dependent. The sizes produced by this command indicate actual usable space from the perspective of the CA MII application. You may need to adjust these numbers for the target media.

SUMMARY

Displays only the recommended GDIF control file size. This is the default.

DETAIL

Displays the recommended GDIF control file size, followed by supporting details. The supporting details include peak and current values for the GDIF data structure size metrics that are used to calculate the recommended size.

This information is shown in message MIM1154I.

Assume your control file is allocated on a 3390 DASD device and the DISPLAY GDIF CFSIZE command indicates a recommended size of 13255 KB. There are 1024 bytes in 1 KB so you would calculate the following to determine the total number of bytes recommended:

1024 x 13255 = 13542400 bytes

A 3390-9 DASD device contains 849960 bytes per cylinder. Calculate the following to determine the total number of cylinders you should allocate:

13542400 / 849960 = 15.9 cylinders (round this number up to 16 cylinders)

Allocate the primary DASD control file at 16 cylinders, using the ALLOCCF member provided in the CAI.ACTDJCL library. You should allocate slightly more cylinders for the alternate files.

Assume your control file is allocated on an XES list structure and the DISPLAY GDIF CFSIZE command indicates a recommended size of 13255 KB. XES list structures are allocated in kilobytes, not cylinders. Enter the desired size in KB into the SIZE parameter in the ALLOCSTR member provided in the CAI.ACTDJCL library. You should make the alternate file slightly larger.

Note: Not all space allocated in a XES structure is available for use by an application because a portion of the allocated space is reserved for system use. The amount of space reserved by the system is furthermore dependant on the CFCC level. The DISPLAY GDIF CFSIZE command does not provide any media-dependant values. However, the recommended size displayed by this command is padded to account for some incremental growth. The recommended size is 125% of the peak-required size, and the minimum recommended size is 10240Kb (10Mb). This guarantees that the recommended size calculated by the DISPLAY GDIF CFSIZE command includes a minimum of 2Mb of slack space. You must determine whether this extra space is adequate for the target media. For more information, see the MVS *Setting Up a Sysplex* manual from IBM .

Important! We recommend at least 10000 KB for the primary control file. Also, if MIMINIT COMMUNICATIONS=CTCONLY/XCF, CA MIM will *automatically* size the virtual control file.

CFSIZE

(Optional) Displays the recommended size of the CA MIM control file for the GDIF facility. The control file size required by GDIF is dependent on ENQ workload or, more specifically, the peak number of global ENQ resources. This command takes this number and other metrics, which are maintained by GDIF, and calculates the GDIF size required for the control file. GDIF maintains both current and peak metrics; therefore, both current and peak requirements are displayed by the command.

This command calculates only space requirements for the GDIF facility; therefore, the recommended primary control file size is correct only if the CA MII component is running in its own MIMplex (that is, CA MII is running in its own address space on each system). If you run the CA MIA component, the CA MIC component, or both in addition to CA MII (not recommended), then you could add the space requirements of the additional components to the recommendation provided by this command.

The number of GHBs and GCBs may vary widely by system since the scope of these data structures is local. The current number of global resources and QNAMEs should typically be the same since this information is global in nature. However, this command does not serialize its calculations, so the current numbers may vary across systems, particularly for the more volatile numbers, such as the number of global resources.

The peak numbers may vary widely across systems as well. The peak numbers are based on peak metrics that are maintained on a system-by-system basis. This information is not passed to external systems. Furthermore, the peak numbers are not persistent across product restarts since peak number metrics are reset to zero with each restart of CA MIM. As CA MIM runs, the peak numbers increase and become more accurate. This increase in peak numbers and accuracy, coupled with rolling IPLs or product restarts, cause the peak numbers to vary across systems. We recommend that you issue this command late in the IPL process or CA MIM restart cycle and, if you execute the command on multiple systems, that you take the highest of all recommended sizes.

Note: The peak numbers are based on observed peaks. Historical observed peaks may not predict future requirements.

The space calculations provided by this command do not include any values that may be media dependent. The sizes produced by this command indicate actual usable space from the perspective of the CA MII application. You may need to adjust these numbers for the target media.

SUMMARY

Displays only the recommended GDIF control file size. This is the default.

DETAIL

Displays the recommended GDIF control file size, followed by supporting details. The supporting details include peak and current values for the GDIF data structure size metrics that are used to calculate the recommended size.

This information is shown in message MIM1154I.

Assume your control file is allocated on a 3390 DASD device and the DISPLAY GDIF CFSIZE command indicates a recommended size of 13255 KB. There are 1024 bytes in 1 KB so you would calculate the following to determine the total number of bytes recommended:

1024 x 13255 = 13542400 bytes

A 3390-9 DASD device contains 849960 bytes per cylinder. Calculate the following to determine the total number of cylinders you should allocate:

13542400 / 849960 = 15.9 cylinders (round this number up to 16 cylinders)

Allocate the primary DASD control file at 16 cylinders, using the ALLOCCF member provided in the CAI.CBTDJCL library. You should allocate slightly more cylinders for the alternate files.

Assume your control file is allocated on an XES list structure and the DISPLAY GDIF CFSIZE command indicates a recommended size of 13255 KB. XES list structures are allocated in kilobytes, not cylinders. Enter the desired size in KB into the SIZE parameter in the ALLOCSTR member provided in the CAI.CBTDJCL library. You should make the alternate file slightly larger.

Note: Not all space allocated in a XES structure is available for use by an application because a portion of the allocated space is reserved for system use. The amount of space reserved by the system is furthermore dependant on the CFCC level. The DISPLAY GDIF CFSIZE command does not provide any media-dependant values. However, the recommended size displayed by this command is padded to account for some incremental growth. The recommended size is 125% of the peak-required size, and the minimum recommended size is 10240Kb (10Mb). This guarantees that the recommended size calculated by the DISPLAY GDIF CFSIZE command includes a minimum of 2Mb of slack space. You must determine whether this extra space is adequate for the target media. For more information, see the MVS *Setting Up a Sysplex* manual from IBM .

Important! We recommend at least 10000 KB for the primary control file. Also, if MIMINIT COMMUNICATIONS=CTCONLY/XCF, CA MIM will *automatically* size the virtual control file.

CONFLICTS

(Optional) Displays information about all outstanding resource conflicts. Global conflicts are displayed for managed resources, while local-only conflicts are displayed for both managed and non-managed resources. This information is shown in message MIM1028. If you issue the command DISPLAY CONFLICTS, then you will receive both global and local-only conflict information.

GLOBAL

Displays only global conflicts. No conflicts are displayed that are local-only (all tasks that are requesting a resource are in the same system).

LOCALONLY

Displays all local-only conflicts. This command must be issued on the system where the local-only conflict exists. Note that this command will not show a conflict that is both global and local (a minimum of three tasks conflicting for a resource, when at least one task is on an external system).

TRUNCATE

Causes the RNAMES displayed by the CONFLICTS on the ENQRESOURCE parameter to truncate at 32 characters. The default is to display the entire RNAME.

COUNTS

(Optional) Displays the number of ENQ or RESERVE requests that have been made for resources. This information is shown in message MIM1016. You can specify one of these optional values on the COUNTS operand:

ALL

Displays information about all requests.

MANAGED

Displays information about requests for resources that are being managed by GDIF.

NONMANAGED

Displays information about requests for resources that are not being managed by GDIF.

RESET

Resets COUNTS.

SINCE=INITIALIZATION

Displays the counts since CA MIM initialized.

SINCE=LASTRESET

Displays the counts since the last COUNTS=RESET was issued.

FILTER=*maskvalue*

Specifies an eight-character masking value to filter the COUNT display.

You can use an asterisk (*) wildcard character with this operand to display information about all QNAMEs beginning with the same characters. For example, you could specify 'DISPLAY COUNTS FILTER=QNAM*' to display information for QNAMEs QNAM0001, QNAM0002, QNAME003, and so on.

You can also use the pound sign (#) wildcard character to display information about all QNAMEs starting and ending with the same characters. The pound sign represent a single-character wild card. For example, you could specify 'DISPLAY COUNTS FILTER=SYS#XYZ' to display information for QNAMEs SYS1XYZ, SYS2XYZ, SYS3XYZ, and so on.

Default: COUNTS=ALL

Use the COUNT operand on the SETOPTION command to select requests by scope.

Note: When GDIF displays information about non-managed resources, you see only RESERVE requests. If you also want to see other types of requests, then you need to specify a new value for the COUNT parameter on the SETOPTION command.

ENQRESOURCE

(Optional) Displays status information for a resource. Specify the QNAME and RNAME for this resource in place of the *qname* and *rname* variables, or specify the *qname* and the PREFIX *rname,* or specify the *qname* only. This information is shown in message MIM1091.

When you specify *rname*, your display will show only resources in which the *rname* matches your specification exactly. When you specify *prefix*, your display will show all resources in which the first characters of the *rname* match your specification. For example, PREFIX=AB matches RNAMEs AB, ABC, and ABCD, but not A and not AC. No wild card characters are supported in PREFIX statements. PREFIX=AB* will attempt to show resources with an *rname* of AB* or AB*C and so on, but will not find ABC.

The resource *qname* must always be fully specified; no *prefix* is allowed.

You can specify the QNAME and RNAME, or the QNAME and prefix, in either character or hexadecimal format. For example, you can specify any of the following:

- ENQRESOURCE(A123,B123)
- ENQRESOURCE(X'C1F1F2F3',X'C2F1F2F3')
- ENQRESOURCE(A123,PREFIX=B123)
- ENQRESOURCE(X'C1F1F2F3',PREFIX=X'C2F1F2F3')
- ENQRESOURCE(A123)

If you use character format and the QNAME or RNAME contains embedded blanks, then enclose that QNAME or RNAME in single quotation marks.

An asterisk in the far right column of the resulting display indicates that this job was exempted by job name from GDIF global processing at the time the request was issued.

The TRUNCATE option causes the RNAMES displayed by the ENQRESOURCE parameter to truncate at 32 characters. The default is to display the entire RNAME.

EXEMPT

(Optional) Displays the contents of the GDIF exempt list, which contains supplemental and more specific processing information for one or more resource classes that GDIF is managing. This information is shown in message MIM1023.

GDIF

Tells CA MIM to display information about GDIF rather than about any other facility. Specify this operand before the ALL, INIT, or OPTIONS operands. You also should specify the GDIF operand before any other operand that is truncated in such a way that it may be ambiguous with operands for other facilities.

Because GDIF is a positional operand, you must specify it before any other operand on the DISPLAY command.

INIT

(Optional) This parameter shows how GDIF is handling ENQ and RESERVE requests and hardware reserves, as well as other initialization values. This information is shown in message MIM1019.

OPTIONS

(Optional) Indicates which resources are included in statistical displays, whether the ENQTRACE feature is active, and the settings for other GDIF options. This information is shown in message MIM1022.

QNAMES

(Optional) Displays the contents of the QNAME list, which contains information on how GDIF, ECMF, or both should handle ENQ and RESERVE requests for resources. This information is shown in message MIM1074.

qname

Displays the status of a specific QNAME. If the specified QNAME is not managed, then the MIM1074 message will indicate that the QNAME was not found in the QNAME list. You can use the asterisk (*) wildcard character with this operand to display information about all QNAMEs beginning with the same characters. For example, you could specify DISPLAY QNAMES=QNAM* to display the status of QNAMEs QNAM0001, QNAM0002, QNAME003, and so on.

You can also use the pound sign (#) wildcard character to display information about all QNAMEs starting and ending with the same characters. The pound sign represent a single character wild card. For example, you could specify ‘DISPLAY QNAMES=SYS#XYZ’ to display information for QNAMEs SYS1XYZ, SYS2XYZ, SYS3XYZ, and so on.

SOURCE=*value*

(Optional) This parameter limits the QNAMEs shown by DISPLAY GDIF QNAMES. The specific values of SOURCE are:

- ADDQNAME
- ALLSYSTEMS
- ANY
- DELQNAME
- MEMBER.

Omit this parameter (or specify SOURCE=ANY) if you want to display QNAMEs without being selective according to the SOURCE: *value.*

WARNING! SOURCE=ALL does *not* mean "display QNAMEs without being selective". SOURCE=ALL is interpreted as an abbreviation for SOURCE=ALLSYSTEMS. If you want to display QNAMEs without being selective, then you should omit the SOURCE= keyword.

RESERVES

(Optional) Displays information about outstanding hardware reserves. You can specify one of these optional values on the RESERVES operand:

CONVERTED

Displays outstanding hardware reserves that have been converted to global ENQ requests by GDIF.

This information is shown in message MIM1096. This message also shows global ENQ requests for resources with RESERVE=KEEP.

HARDWARE

Displays outstanding hardware reserves that have not been converted to global ENQ requests. This information is shown in message MIM1017.

TRUNCATE

Causes the RNAMES displayed by the RESERVES parameter to truncate at 32 characters.

Default: Display the entire RNAME.

Note: CONVERTED and HARDWARE are mutually exclusive.

Default: RESERVES=HARDWARE

SERVICE

Displays information about how quickly GDIF is processing ENQ or RESERVE requests for managed resources. This information is shown in message MIM1021.

The first line of the display shows cumulative statistics from the time GDIF was started. The second line shows statistics from the time the reset command was issued.

By default, GDIF bases its statistics on the average service time since the last start or reset. To reset the display and base the statistics on the GDIF current service time, specify SERVICE=RESET.

Default: OPTIONS

Usage Notes: DISPLAY GDIF Command

- The DISPLAY command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You can issue the DISPLAY command from any console or TSO session.
- You can specify several operands for GDIF on the same DISPLAY command (for example, DISPLAY QNAMES EXEMPT). Do not specify GDIF operands with operands associated with other facilities.

Examples: DISPLAY GDIF Command

To display all outstanding conflicts for managed resources, issue this command:

```
DISPLAY COUNTS=MANAGED
```

To see other examples of how to use the DISPLAY GDIF command, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.

(MII) DSORG Statement-Appy EDIF Processing Options

The DSORG statement lets you apply a set of EDIF processing options to all data sets that have a specified data set organization. This statement is available when you are running the EDIF of the CA MII component.

This command has the following format:

```
DSORG NAME=organization [ACCESSLIST(options)]
                        [AUTHORIZED(options)]
                        [BLKSIZE=option]
                        [CHECKEXCLUSIVE(options)]
                        [EXEMPT(options)]
                        [LRECL=option]
                        [OPTION(options)]
                        [RECFM=option]
```

NAME

Identifies the data sets to which you are applying these options. Specify the data set organization type for these data sets in place of the *organization* variable. These are the valid data set organizations that you can specify:

- DIRECT (or DA)
- ISAM
- PARTITIONED (or PO)
- SEQUENTIAL (or PS)
- UNMOVABLE-PARTITIONED (or POU)
- UNMOVABLE-SEQUENTIAL (or PSU)
- VSAM

ACCESSLIST

(Optional) Identifies programs that are authorized to read these data sets. You can specify the same values for the ACCESSLIST parameter on any EDIF processing statement on which this parameter is available.

For more information, see the description of the DATASET Statement.

AUTHORIZED

(Optional) Identifies programs that are authorized to update these data sets. You can specify the same values for the AUTHORIZED parameter on any EDIF processing statement.

BLKSIZE

(Optional) Indicates what block size value EDIF should use during attribute verification. You can specify the same values for the BLKSIZE parameter on any EDIF processing statement on which this parameter is available.

CHECKEXCLUSIVE

(Optional) Identifies programs that cannot update these data sets when these data sets are allocated with DISP=SHR. You can specify the same values for the CHECKEXCLUSIVE parameter on any EDIF processing statement.

EXEMPT

(Optional) Identifies programs that are exempted from attribute verification. You can specify the same values for the EXEMPT parameter on any EDIF processing statement.

LRECL

(Optional) Indicates what logical record length EDIF should use during attribute verification. You can specify the same values for the LRECL parameter on any EDIF processing statement on which this parameter is available.

OPTION

(Optional) Indicates what processing options EDIF should apply to these data sets.

You can specify any combination of the following values:

- ABEND
- ACCESSCHECK
- ATTRIBUTES
- CONFLICTMESSAGES
- ENQUEUE
- IGNORECC
- SMF | RECORD
- SUPPRESSMESSAGES
- UTILITY
- WAIT

You also can specify values that negate these options (for example, NOABEND, NOACCESSCHECK, NONE, and so on). Values that you specify on the same statement cannot be mutually exclusive.

RECFM

(Optional) Indicates what record format EDIF should use during attribute verification. You can specify the same values for the RECFM parameter on any EDIF processing statement on which this parameter is available.

Usage Notes: DSORG Statement

- You can specify the DSORG statement only in the EDIPARMS member of the MIMPARMS data set.
- You can negate options on the DEFAULT statement by specifying options that have the NO prefix. For example, you can negate the ABEND option on the DEFAULT statement by specifying OPTION=NOABEND on the DSORG statement.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.

  Note: For more information, see the chapter “Advanced Topics” in the *CA MII Programming Guide*.

- Because processing options on DSORG statements apply to many data sets, you should choose options carefully. We recommend that you *do not* specify the following options on a DSORG statement:

  OPTION(ENQUEUE,WAIT)

  Places jobs in a *wait state* when a requested data set is unavailable.

  OPTION(UTILITY,ABEND)

  Abends tasks that are not authorized to update data sets.

  OPTION(ATTRIBUTES,ABEND)

  Abends tasks that are not allowed to change data set attributes.

  OPTION(ACCESSCHECK)

  Checks read authority for each of these data sets.

  For more information, see the description of the DATASET Statement.

Example: DSORG Statement

Suppose that you want EDIF to perform the following processing for partitioned data sets:

- Verify data set attributes
- Issue ENQ requests whenever these data sets are opened
- Negate the WAIT option on the DEFAULT statement

To achieve these results, specify this statement in the EDIPARMS member:

```
DSORG NAME=PARTITIONED OPTION(ATTRIBUTES,ENQUEUE,NOWAIT)
```

(MII) DUMP GDIF Command

CA Technical Support uses the DUMP GDIF command for diagnostic purposes.

Important! This command is to be used only when you are directed by CA Technical Support to do so.

Scope: Local

This command has the following format:

```
DUMP GDIF   [EQ1AREA]
            [EXEMPTLIST]
            [GNT[= QNAME({x'qname'|qname})]
                [= EXEMPT({NO|YES})] ]
            [GNX]
            [GQB[=FORMAT({NO|YES})] ]
                [=GCB({NO|YES})]
                [QNAME=({x'qname'|qname})]
                [RNAME=({x'rname'|rname})] ]
            [GQ0AREA]
            [GQ4AREA]
            [REPAIRQ]
            [SERVICE[=RESET]]
```

EQ1AREA

(Optional) Dumps the EQ1AREA control block.

EXEMPTLIST

(Optional) Dumps the GQ4AREA control blocks. This produces the same result as the DUMP GDIF GQ4AREA command.

GNT

(Optional) Dumps the GNT control blocks. Optionally, the QNAME, exempt QNAME status, or both can selectively dump the GNT control blocks. The *qname* can be a one- to eight-character name, such as SYSIEFSD, or a hexadecimal value, such as X'E2E8E2C9C5C6E2C4'.

The EXEMPT option indicates that the GNT control blocks dumped should be for either exempt resources (YES) or non-exempt resources (NO). The default is to dump all GNT control blocks.

GNX

(Optional) Dumps the GNX control blocks.

GQB

(Optional) Dumps the GQB control blocks. Optionally, the GQB control blocks can be selectively dumped by QNAME or RNAME. The *qname* can be a one- to eight-character name, such as SYSIEFSD, or a hexadecimal value, such as X'E2E8E2C9C5C6E2C4'. The *rname* can be either a 1- to 255-character value, such as Q4, or a 1- to 255-hexadecimal value, such as X'D8F4'. The default (if no other options are specified) is to dump all GQB control blocks in hexadecimal format, ignoring any GCB control blocks.

You can specify GCB to specify whether any GCB control blocks, queued from the GQB control blocks, should be dumped (YES) or (NO).

FORMAT controls the form of the displayed output. NO indicates that the information is presented in hexadecimal dump format. YES indicates that information is presented in message text format.

GQ0AREA

(Optional) Dumps the GQ0AREA control block.

GQ4AREA

(Optional) Dumps the GQ4AREA control blocks. This produces the same results as the DUMP GDIF EXEMPTLIST command.

REPAIRQ

(Optional) Causes GDIF to perform a reconciliation of GDIF control blocks with local GRS control blocks. Discrepancies, if any, result in an SVC DUMP.

SERVICE

(Optional) Displays information regarding the performance times of the last execution of selected events, if any. Currently, performance data is captured only for ACTIVATION and GLBLCOPY, two processes that occur during GDIF startup and synchronization. This information is shown in message MIM1121I.

If one of the above events has not yet occurred since the startup of the product, then zeros will be displayed. If one of the above events is currently in progress when this command is issued, then unpredictable results will be returned.

The optional RESET parameter resets all the service performance metrics.

Usage Notes: DUMP GDIF

- This command is solely intended for use as a diagnostic tool under the direction of CA Technical Support.
- The displays generated by this command are unformatted, and therefore, not readily usable by those unfamiliar with the CA MIM internal control blocks.
- Defaults for most GDIF statements, when not specified, depend on how they are used with other statements.

  Note: For more information, see the chapter “Advanced Topics” in the *CA MII Programming Guide*.

- Some operands of this command may cause serious performance degradation of CA MIM and its facilities.
- You can specify one or more options for this command.

Examples: DUMP GDIF Command

- To dump the contents of the EQ1AREA control block, issue this command:

  ```
  DUMP GDIF EQ1AREA
  ```

- To dump the contents of the GNT control block for QNAME SYSIGGV2, issue this command:

  ```
  DUMP GDIF GNT=QNAME(SYSIGGV2)
  ```

(MII) DUMP ECMF Command

CA Technical Support uses the DUMP ECMF command for diagnostic purposes.

Scope: Local

This command has the following format:

```
DUMP ECMF [RCN [=( QUEUE=RESOURCE|DURATION [,QNAME=mask] [,RNAME=mask])]]
          [RCQ [=( QUEUE=ASID|DURATION} [,JOBNAME=mask] [,ASID=X'asid'])]]
          [EQ1AREA]
          [GNT[= QNAME({x'qname'|qname})]
              [= EXEMPT({NO|YES})] ]
          [GNX]
```

Important! This command is to be used only when you are directed by CA Technical Support to do so.

RCN

Dumps the Resource Conflict control block.

RCQ

Dumps the Requestor Conflict control block.

EQ1AREA

(Optional) Dumps the EQ1AREA control block.

GNT

(Optional) Dumps the GNT control blocks. Optionally, the QNAME, exempt QNAME status, or both can selectively dump the GNT control blocks. The *qname* can be a one- to eight-character name, such as SYSIEFSD, or a hexadecimal value, such as X'E2E8E2C9C5C6E2C4'.

The EXEMPT option indicates that the GNT control blocks dumped should be for either exempt resources (YES) or non-exempt resources (NO). The default is to dump all GNT control blocks.

GNX

(Optional) Dumps the GNX control blocks.

(MII) EDIINIT Statement-Set EDIF Initialization Values

The EDIINIT statement lets you set initialization values for the EDIF of the CA MII component.

This command has the following format:

```
EDIINIT [ABENDCODE=code]
        [MEMBER=name]
```

ABENDCODE

(Optional) Determines what user abend code EDIF uses when it terminates inappropriate operations, such as update violations. Specify a value from 1 to 4095 (integers only).

Default: ABENDCODE=913

MEMBER

(Optional) Indicates what member of the CA MIM parameter data set EDIF should use to obtain its processing statements.

Default: MEMBER=EDIPARMS

Usage Notes: EDIINIT Statement

- The EDIINIT statement can be specified only in the MIMINIT member of the MIMPARMS data set.
- You can use the SETOPTION command to dynamically change the member that EDIF is using to obtain its processing statements.
- You can specify more than one parameter on a single EDIINIT statement.

Example: EDIINIT Statement

To tell EDIF to use the member named EDITEST to obtain its processing statements, specify this statement in the initialization member:

```
EDIINIT MEMBER=EDITEST
```

(MII) EDITEST Command-Display EDIF Processing Options

The EDITEST command lets you display the EDIF processing options that are in effect for a specific data set. This command is available only when you are running the EDIF of the CA MII component.

Scope: Local

This command has the following format:

```
EDITEST [DATASET=dsname]
        [DSORG=organization]
```

DATASET

(Optional) Identifies the data set for which you want information. Specify the dsname of this data set in place of the *dsname* variable.

You can use the abbreviation DSNAME for this operand.

DSORG

(Optional) Identifies the data set organization of the data set for which you want information. You need to specify this operand only if a DSORG statement in the EDIPARMS member will affect this data set.

Specify one of these values in place of the *organization* variable:

- DIRECT (or DA)
- ISAM
- (PARTITIONED (or PO)
- SEQUENTIAL (or PS)
- UNMOVABLE-PARTITIONED (or POU)
- UNMOVABLE-SEQUENTIAL (or PSU)
- VSAM

Usage Notes: EDITEST Command

- The EDITEST command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. When you specify this command in the MIMCMNDS member and the TRACE feature is active, the output is sent to the MIMTRACE data set. When you specify this command in the MIMSYNCH member, the output is sent to the system log.
- You also can issue the EDITEST command from any console or TSO session.
- EDIF displays processing information in message MIM4063.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.

  Note: For more information, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.

Example: EDITEST Command

To see what processing options are in effect for the SYS1.LOAD data set (when you have specified a DSORG statement for partitioned data sets), issue this command:

```
EDITEST DATASET=SYS1.LOAD DSORG=PO
```

(MII) EXEMPT Command-Modify Exempt List

The EXEMPT command lets you modify the exempt list, which provides GDIF with supplemental and more specific information on propagating ENQ requests and handling hardware reserves. This command is available only when you are running the GDIF of the CA MII component.

Scope: Local

This command has the following format:

```
EXEMPT  {LOCAL {JOB=name \ RNAME=rname [QNAME=qname]} |
        GLOBAL  {JOB=name \ RNAME=rname [QNAME=qname]} }
```

GLOBAL

Tells GDIF to add a new GLOBAL statement (if the one you specify here does not exist); otherwise, GDIF negates the LOCAL statement for this job or RNAME/QNAME combination.

If you add a new GLOBAL statement, then GDIF will propagate ENQ requests for the specified resource or job, unless overridden by other exempt list statements. If you negate an existing LOCAL statement, then GDIF will start propagating ENQ requests for the specified resource or job, unless overridden by other exempt list statements.

JOB

Identifies the job for which you want to propagate or stop propagating ENQ requests. Specify the name of this job in place of the *name* variable.

LOCAL

Tells GDIF to add a new LOCAL statement (if the one you specify here does not exist); otherwise, GDIF negates the GLOBAL statement for this job or RNAME/QNAME combination.

If you add a new LOCAL statement, then GDIF will stop propagating ENQ requests for the specified resources or ENQ requests issued by the specified job (as long as other statements in the exempt list do not override this statement). If you negate an existing GLOBAL statement, then GDIF will stop propagating ENQ requests for the specified resource or job as long as other statements do not override this statement.

QNAME

Tells GDIF that the statement you are adding or negating affects only the ENQ requests that use this QNAME. Specify the QNAME you want to use in place of the *qname* variable.

You can specify this QNAME in either character or hexadecimal format. For example, you can specify QNAME=A123 or QNAME=X'C1F1F2F3'. If you use character format and the QNAME contains embedded blanks, then enclose that QNAME in single quotation marks. You also can use the pound (#) wildcard character to match more than one QNAME with the QNAME you specify here.

RNAME

Identifies the resource for which you want to propagate or stop propagating ENQ requests. Specify the RNAME of this resource in place of the *rname* variable.

You can specify this RNAME in either character or hexadecimal format. For example, you can specify RNAME=A123, or you can specify RNAME=X'C1F1F2F3'. If you use character format and the RNAME contains embedded blanks, then enclose that RNAME in single quotation marks. You also can use the asterisk (*), pound (#), and question mark (?) wildcard characters (described below) to match more than one RNAME with the RNAME you specify here.

Usage Notes: EXEMPT Command

- The EXEMPT command usually is issued from a console, rather than from the MIMPARMS data set.
- You must be authorized to issue system control commands to issue the EXEMPT command. TSO users generally are not authorized to issue system control commands.
- The EXEMPT command applies only to the resources for which EXEMPT=YES is specified on a QNAME statement.

- You can use these wildcard characters:

  #

  This character matches a single character in a name string. For example, SY#.OBJ matches SYS.OBJ and SYP.OBJ, but not SIAB.OBJ.

  *****

  This character matches the remainder of the name string (if specified as the last character of the name). For example, SYS* matches SYSDSN and SYS, but not SASPROC.

  Note: There is an implied asterisk at the end of all RNAME and JOBNAME operands. If you place a * before the end of the RNAME, it is replaced by a # (single character) because the * is only valid at the end of the RNAME.

  ?

  This character matches the remainder of the current index level for a name string. For example, the string SYS1.?.LOAD matches SYS1.A.LOAD and SYS1.ABC.LOAD, but not SYS1.LOAD.

Examples: EXEMPT Command

- To stop propagating ENQ requests for the SYS1.PROCLIB data set, issue this command:

  ```
  EXEMPT LOCAL RNAME=SYS1.PROCLIB
  ```

- To propagate ENQ requests for the SYS1.LINKLIB data set only when the QNAME SYSDSN is specified on the ENQ request, issue this command:

  ```
  EXEMPT GLOBAL RNAME=SYS1.LINKLIB QNAME=SYSDSN
  ```

(MII) GDIINIT Statement-Set GDIF Initialization Values

The GDIINIT statement lets you set initialization values for the GDIF.

This command has the following format:

```
GDIINIT [EXEMPT={name|NONE}]
        [MISMATCHQNAME={ACCEPT|QUIT} ]
        [NMCOUNT=number]
        [PROCESS={ALLSYSTEMS|SELECT} ]
        [RESERVES={CONVERT|KEEP} ]
        [TEMPORARYDSN={NO|YES} ]
```

EXEMPT

(Optional) Identifies the member of the CA MIM parameter data set that contains the GDIF exempt list. This member provides GDIF with supplemental and more specific information on how to process ENQ requests, hardware reserves, or both for resources.

By default, GDIF uses the member named GDIEXMPT. To use a different member, specify its name in place of the *name* parameter. If you do not want to exempt anything, then specify the statement

GDIINIT EXEMPT=NONE.

Default: EXEMPT=GDIEXMPT

MISMATCHQNAME

(Optional) Tells CA MII how to handle discrepancies between the QNAME list read from parmlib and the QNAME list used by other systems of the MIMplex. The discrepancies are discovered during a CA MII restart. We recommend that you do not specify this parameter and allow it to take the default; this parameter will be eliminated in a future version of CA MII.

Note: MISMATCHQNAME affects only the system executing the GDIINIT statement.

ACCEPT

If CA MII discovers a QNAME list mismatch during a CA MII system restart, it discards the QNAME list read from parmlib and uses the QNAME list already in use other systems in the MIMplex. CA MII produces informational messages about the mismatch and restarts successfully. We recommend using MISMATCHQNAME=ACCEPT, as this will be the only mode of operation in a future version of CA MII.

QUIT

If CA MII discovers a QNAME list mismatch during a CA MII system restart, it issues fatal error messages, issues a U0095 user abend, and will not successfully restart. This mode of operation will be eliminated in a future version of CA MII, and is discouraged by CA.

Default: MISMATCHQNAME=ACCEPT

NMCOUNT

(Optional) Specifies the maximum number of displayable non-managed resources on the DISPLAY COUNTS command. Specify a number from 1 to 255. If this parameter is not specified, the default value is 255.

Default: 255

PROCESS

(Optional) Indicates whether GDIF should propagate certain requests by default or only the requests that you designate. Specify one of these values on the PROCESS parameter:

ALLSYSTEMS

Specifies that GDIF should propagate all requests that have a scope of SYSTEMS, plus any other requests that you designate through the QNAME list. When SCOPE=SYSTEMS, ENQ and RESERVE requests are dynamically added to the QNAME list.

SELECT

Specifies that GDIF should propagate only the requests that you designate.

Important! With GDIINIT PROCESS=SELECT, administrators currently must monitor ENQ activity to ensure that the ENQs were properly defined to avoid integrity exposure for ENQs with SCOPE=SYSTEMS. Because of the much lower maintenance requirements associated with GDIINIT PROCESS=ALLSYSTEMS mode, and the elimination of multi-systems data integrity exposures with this mode, we recommend that you use GDIINIT PROCESS=ALLSYSTEMS.

Notes:

- You *must* specify the same value on all systems.
- You need to reformat your DASD control files if you change the value for this parameter.

Default: PROCESS=SELECT

RESERVES

Indicates whether GDIF should eliminate hardware reserves when propagating a RESERVE request to other systems. Specify one of these values on the RESERVES parameter:

CONVERT

Specifies that GDIF should convert (that is, eliminate) the hardware reserve.

KEEP

Specifies that GDIF should retain the hardware reserve.

You can override this value for a class of resources (through a QNAME statement) or for a specific resource (through a GLOBAL statement).

Default: RESERVES=CONVERT

TEMPORARYDSN

Indicates whether GDIF should propagate ENQ requests for temporary data sets. Specify NO or YES on this parameter. Do not specify the statement GDIINIT TEMPORARYDSN=NO if any job on the local system scratches undeleted temporary data sets on volumes that other systems are using.

Default: YES

Usage Note: GDIINIT Statement

- The GDIINIT statement can be specified only in the MIMINIT member of the MIMPARMS data set.

Example: GDIINIT Statement

To tell GDIF to use the member MYEXMPT to obtain its exempt list, specify this statement in the initialization member:

```
GDIINIT EXEMPT=MYEXMPT
```

(MII) GLOBAL Statement-Manage ENQ Requests and Hardware Reserves

The GLOBAL statement lets you identify ENQ requests that should be propagated and lets you change the way GDIF handles hardware reserves for a specified resource. You can use this statement to override values you specified on the DEFAULT, LOCAL, and GDIINIT statements. The GLOBAL statement is available only with the GDIF of the CA MII component.

This command has the following format:

```
GLOBAL {JOB=name [PERMANENT={NO|YES}] | RNAME=rname [PERMANENT={NO|YES}]
                                                     [QNAME=qname]
                                                     [RESERVES={CONVERT|KEEP}] }
```

JOB

Indicates that GDIF should propagate ENQ requests for the resources requested by this job. Specify the name of this job in place of the *name* variable. You can use the asterisk (*) and pound (#) wildcard characters to match more than one job with this statement.

PERMANENT

(Optional) Determines whether you can use the EXEMPT command to negate this statement dynamically. Specify one of these values on the PERMANENT parameter:

NO

Indicates that this statement is not permanent. You can use the EXEMPT command to negate it.

YES

Indicates that this statement is permanent and you cannot negate it.

Default: PERMANENT=NO

QNAME

Tells GDIF to use this GLOBAL statement only when the QNAME on the ENQ request matches the QNAME specified in place of the *qname* variable. You can use the pound (#) wildcard character to match more than one QNAME with this statement.

RESERVES

Indicates whether GDIF should change the way it handles hardware reserves for this resource. The value you specify here overrides the values you specified on a QNAME or GDIINIT statement. Specify one of these values on the RESERVES parameter:

CONVERT

Specifies that GDIF should eliminate the hardware reserve.

KEEP

Specifies that GDIF should retain the hardware reserve.

WARNING! Specifying RESERVES=KEEP on a GLOBAL Statement can cause deadlocks and is not recommended.

RNAME

Indicates that GDIF should propagate ENQ requests for the resource with the RNAME specified in place of the *rname* variable. You can use the asterisk (*), pound (#), and question mark (?) wildcard characters to match more than one RNAME.

Note: If you place a * before the end of the RNAME, it is replaced by a # (single character).

Usage Notes: GLOBAL Statement

- The GLOBAL statement can be specified only in the GDIEXMPT member of the MIMPARMS data set.
- You can specify more than one GLOBAL statement in the GDIEXMPT member.
- You can specify a QNAME or RNAME in either character or hexadecimal format. For example, you can specify QNAME=A123 or QNAME=X'C1F1F2F3'. If you use character format and the QNAME or RNAME contains embedded blanks, then enclose that QNAME or RNAME in single quotation marks.

Examples: GLOBAL Statement

- To propagate ENQ requests and retain hardware reserves for the SYS1.PROCLIB data set, specify this statement in the GDIEXMPT member:

  ```
  GLOBAL RNAME=SYS1.PROCLIB RESERVES=KEEP
  ```

- To propagate ENQ requests for the SYS1.PROCLIB data set only if the QNAME on the ENQ request is SYSDSN, specify this statement in the GDIEXMPT member:

  ```
  GLOBAL RNAME=SYS1.PROCLIB QNAME=SYSDSN
  ```

- To propagate ENQ requests for jobs that have names starting with the letters HWT, specify this statement in the GDIEXMPT member:

  ```
  GLOBAL JOB=HWT*
  ```

(MII) LOCAL Statement-Manage Local ENQ Requests

The LOCAL statement lets you identify ENQ requests that should not be propagated by GDIF. You can use this statement to override values you specified on the DEFAULT and GLOBAL statements. The LOCAL statement is available only with the GDIF of the CA MII component.

Note: Local statements may not apply to RESERVE requests, depending on the value of the SETOPTION GDIF EXEMPTRESERVES command.

This command has the following format:

```
LOCAL {JOB=name} [PERMANENT={NO|YES}] | RNAME=rname [QNAME=qname]
                                                    [PERMANENT={NO|YES}]}
```

JOB

Indicates that GDIF should not propagate ENQ requests for the resources requested by this job. Specify the name of this job in place of the *name* variable.

You can use the asterisk (*) and pound (#) wildcard characters to match more than one job name with this statement.

PERMANENT

Determines whether you can use the EXEMPT command to negate this statement dynamically. Specify one of these values on the PERMANENT parameter:

NO

Indicates that this statement is not permanent. You can use the EXEMPT command to negate it.

YES

Indicates that this statement is permanent and you cannot negate it.

Default: PERMANENT=NO

QNAME

Tells GDIF to use this LOCAL statement only when the QNAME on the ENQ request matches this QNAME. Specify the QNAME in place of the *qname* variable. You can use the pound (#) wildcard character, which is described in Usage Information for EXEMPT, to match more than one QNAME with this statement.

RNAME

Indicates that GDIF should not propagate ENQ requests for the resource with the RNAME specified in place of the *rname* variable. You can use the asterisk (*), pound (#), and question mark (?) wildcard characters, which are described in Usage Information for EXEMPT to match more than one RNAME with this statement.

Note: If you place a * before the end of the RNAME, it is replaced by a # (single character).

Usage Notes: LOCAL Statement

- The LOCAL statement can be specified only in the GDIEXMPT member of the MIMPARMS data set.
- You can specify more than one LOCAL statement in the GDIEXMPT member.
- You can specify a QNAME or RNAME in either character or hexadecimal format. For example, you can specify QNAME=A123 or QNAME=X'C1F1F2F3'. If you use character format and the QNAME or RNAME contains embedded blanks, then enclose that QNAME or RNAME in single quotation marks.
- For more information, see the description of the SETOPTION GDIF Command (see page 300).

Examples: LOCAL Statement

- To prevent GDIF from propagating ENQ requests for the SYS1.PROCLIB data set, specify this statement in the GDIEXMPT member:

  ```
  LOCAL RNAME=SYS1.PROCLIB
  ```

- To prevent GDIF from propagating ENQ requests for the SYS1.PROCLIB data set when the QNAME on the request is SYSDSN, specify this statement in the GDIEXMPT member:

  ```
  LOCAL RNAME=SYS1.PROCLIB QNAME=SYSDSN
  ```

- To prevent GDIF from propagating ENQ requests for jobs that have names starting with the letters HWT, specify this statement in the GDIEXMPT member:

  ```
  LOCAL JOB=HWT*
  ```

(MII) PATTERN Statement-Apply EDIF Processing Options to Data Sets with Specific Patterns

The PATTERN statement lets you apply a set of EDIF processing options to all data sets that have a specified pattern in their data set names. This statement is available when you are running the EDIF of the CA MII component.

This command has the following format:

```
PATTERN NAME=pattern [ACCESSLIST(option)]
                     [AUTHORIZED(option)]
                     [BLKSIZE=option]
                     [CHECKEXCLUSIVE(options)]
                     [DSORG=option]
                     [EXEMPT(options)]
                     [LRECL=option]
                     [OPTION(options)]
                     [RECFM=option]
```

ACCESSLIST

(Optional) Identifies programs that are authorized to read these data sets. You can specify the same values for the ACCESSLIST parameter on any EDIF processing statement on which this parameter is available.

AUTHORIZED

(Optional) Identifies programs that are authorized to update these data sets. You can specify the same values for the AUTHORIZED parameter on any EDIF processing statement.

BLKSIZE

(Optional) Indicates what block size value EDIF should use during attribute verification. You can specify the same values for the BLKSIZE parameter on any EDIF processing statement on which this parameter is available.

CHECKEXCLUSIVE

(Optional) Identifies programs that cannot update these data sets when these data sets are allocated with DISP=SHR. You can specify the same values for the CHECKEXCLUSIVE parameter on any EDIF processing statement.

DSORG

(Optional) Indicates what data set organization EDIF should use during attribute verification. You can specify the same values as those for the DSORG parameter on the DATASET statement.

EXEMPT

(Optional) Identifies programs that are exempted from attribute verification. You can specify the same values for the EXEMPT parameter on any EDIF processing statement.

LRECL

(Optional) Indicates what logical record length EDIF should use during attribute verification. You can specify the same values for the LRECL parameter on any EDIF processing statement on which this parameter is available.

NAME

Identifies the data sets to which this PATTERN statement applies. Specify a pattern in the names for these data sets in place of the *pattern* variable. You can use the wildcard characters.

Note: For more information, see the Usage Notes under the description of the EXEMPT command.

OPTION

(Optional) Indicates what processing options EDIF should apply to these data sets.

You can specify any combination of the following values:

- ABEND
- ACCESSCHECK
- ATTRIBUTES
- CONFLICTMESSAGES
- ENQUEUE
- IGNORECC
- SMF | RECORD
- SUPPRESSMESSAGES
- UTILITY
- WAIT

You also can specify values that negate these options (for example, NOABEND, NOACCESSCHECK, NONE, and so on). Values that you specify on the same statement cannot be mutually exclusive.

RECFM

(Optional) Indicates what record format EDIF should use during attribute verification. You can specify the same values for the RECFM parameter on any EDIF processing statement on which this parameter is available.

Usage Notes: PATTERN Statement

- The PATTERN statement can be specified only in the EDIPARMS member of the MIMPARMS data set.
- EDIF scans PATTERN statements in the order in which they are specified in the EDIPARMS member. When EDIF finds a match, it uses that statement.
- You can negate options on any EDIF statement except the DATASET statement by specifying options that have the NO prefix. For example, you can negate the ABEND option on a DSORG statement by specifying OPTION=NOABEND on a PATTERN statement.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.

  Note: See the chapter "Advanced Topics" in the *CA MII Programming Guide*.
- Because processing options on PATTERN statements apply to many data sets, you should choose options carefully. Until you have done some preliminary testing, we recommend that you *do not* specify the following options:

  OPTION(ENQUEUE,WA*IT)*

  Places jobs in a wait state when a requested data set is unavailable.

  OPTION(UTILITY,ABEND)

  Abends tasks that are not authorized to update data sets.

  OPTION(ATTRIBUTES,ABEND)

  Abends tasks that are not allowed to change data set attributes.

  OPTION(ACCESSCHECK,ABEND)

  Checks read authority for each of these data sets.

  For more information, see the description of the DATASET Statement.

Examples: PATTERN Statement

- Suppose that you want EDIF to issue messages if a program changes the attributes of a data set with a name that matches the pattern ABCD.?.*. To do this, specify this statement in the EDIPARMS member:

  ```
  PATTERN NAME=ABCD.?.* OPTION=ATTRIBUTE
  ```
- Suppose that you want EDIF to make tasks wait if a data set with a name that matches the pattern SYS#.L### is being updated already. To do this, specify this statement in the EDIPARMS member:

  ```
  PATTERN NAME=SYS#.L### OPTION(ENQUEUE,WAIT)
  ```

(MII) PREFIX Statement-Apply EDIF Processing Options to Data Sets with Specific Prefix

The PREFIX statement lets you apply a set of EDIF processing options to all data sets that have a specified prefix in their names. This statement is available when you are running the EDIF of the CA MII component.

This command has the following format:

```
PREFIX NAME=prefix  [ACCESSLIST(option)]
                    [AUTHORIZED(option)]
                    [BLKSIZE=option]
                    [CHECKEXCLUSIVE(options)]
                    [DSORG=option]
                    [EXEMPT(options)]
                    [LRECL=option]
                    [OPTION(options)]
                    [RECFM=option]
```

ACCESSLIST

(Optional) Identifies programs that are authorized to read these data sets. You can specify the same values for the ACCESSLIST parameter on any EDIF processing statement on which this parameter is available.

AUTHORIZED

(Optional) Identifies programs that are authorized to update these data sets. You can specify the same values for the AUTHORIZED parameter on any EDIF processing statement.

BLKSIZE

(Optional) Indicates what block size value EDIF should use during attribute verification. You can specify the same values for the BLKSIZE parameter on any EDIF processing statement on which this parameter is available.

CHECKEXCLUSIVE

(Optional) Identifies programs that cannot update these data sets when these data sets are allocated with DISP=SHR. You can specify the same values for the CHECKEXCLUSIVE parameter on any EDIF processing statement.

DSORG

(Optional) Indicates what data set organization EDIF should use during attribute verification. You can specify the same values as those for the DSORG parameter on the DATASET statement.

EXEMPT

(Optional) Identifies programs that are exempted from attribute verification. You can specify the same values for the EXEMPT parameter on any EDIF processing statement.

LRECL

(Optional) Indicates what logical record length EDIF should use during attribute verification. You can specify the same values for the LRECL parameter on any EDIF processing statement on which this parameter is available.

NAME

Identifies the data sets to which you are applying these options. Specify a prefix that identifies these data sets in place of the *prefix* variable.

OPTION

(Optional) Indicates what processing options EDIF should apply to these data sets.

You can specify any combination of the following values:

- ABEND
- ACCESSCHECK
- ATTRIBUTES
- CONFLICTMESSAGES
- ENQUEUE
- IGNORECC
- SMF | RECORD
- SUPPRESSMESSAGES
- UTILITY
- WAIT

You also can specify values that negate these options (for example, NOABEND, NOACCESSCHECK, NONE, and so on). Values that you specify on the same statement cannot be mutually exclusive.

RECFM

(Optional) Indicates what record format EDIF should use during attribute verification. You can specify the same values for the RECFM parameter on any EDIF processing statement on which this parameter is available.

Usage Notes: PREFIX Statement

- The PREFIX statement can be specified only in the EDIPARMS member of the MIMPARMS data set.
- You can negate options on DEFAULT and DSORG statements by specifying options that have the NO prefix. For example, you can negate the ABEND option on a DSORG statement by specifying OPTION=NOABEND on a PREFIX statement.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.

  Note: For more information, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.
- Because processing options on PREFIX statements apply to many data sets, you should choose options carefully. Until you have done some preliminary testing, we recommend that you *do not* specify the following options on a PREFIX statement:

  OPTION(ENQUEUE,WAIT)

  This places jobs in a wait state when a requested data set is unavailable.

  OPTION(UTILITY,ABEND)

  This abends tasks that are not authorized to update data sets.

  OPTION(ATTRIBUTES,ABEND)

  This abends tasks that are not allowed to change data set attributes.

  OPTION(ACCESSCHECK,ABEND)

  This checks read authority for each of these data sets.

Examples: PREFIX Statement

- Suppose that you want EDIF to perform this processing for data sets that have the prefix DSI.MIM:
  - Issue exclusive ENQ requests for these data sets when they are opened for update purposes.
  - Prevent simultaneous updates by forcing other jobs to wait when one of these data sets already is opened for update purposes.

  To achieve these results, specify this statement in the EDIPARMS member:

```
PREFIX NAME=DSI.MIM OPTION(ENQUEUE,WAIT)
```

- Suppose that you want EDIF to perform this processing for data sets that have the prefix ABC:
  - Verify that DSORG=PARTITIONED or DSORG=PO is specified in the JCL of a job, but ignore all other data set attributes.
  - Issue messages when attribute violations occur without abending the task.

  To achieve these results, specify this statement in the EDIPARMS member:

```
PREFIX NAME=ABC. OPTION=ATTRIBUTES DSORG=PO RECFM=ANY, BLKSIZE=ANY LRECL=ANY
```

(MII) QNAME Statement-Handle ENQ and RESERVE Requests

The QNAME statement lets you indicate how the GDIF, ECMF, or both of these CA MII facilities should handle ENQ and RESERVE requests for classes of resources.

This command has the following format:

```
QNAME=qname   [ECMF={NO|YES}]
              [EXEMPT={NO|YES}]
              [GDIF={NO|YES}]
              [REPORTAFTER=nnn]
              [REPORTCYCLE=nnn]
              [RESERVES={CONVERT|KEEP}]
              [SCOPE={ALL | RESERVES | SYSTEM | SYSTEMS}]
              [TRACE={ALL | CONFLICT | NONE}]
```

qname

Specifies the major name (or QNAME) of the class of resources that should be processed. You can specify the QNAME in either character or hexadecimal format. If you use character format and the QNAME contains embedded blanks, then you need to enclose the QNAME in single quotation marks.

ECMF

(Optional) Indicates whether ECMF should issue messages when a conflict occurs for one of these resources. Specify NO or YES on this parameter.

Default: ECMF=NO

EXEMPT

(Optional) Tells GDIF whether to use an exempt list (which is contained in the GDIEXMPT member) to obtain supplemental and more specific information on how to handle ENQ requests for resources in this class. You can use the exempt list to tell GDIF to propagate ENQ requests for some but not all of the resources in this class. Specify NO or YES on this parameter.

Default: EXEMPT=YES for the resources with the SYSDSN QNAME. EXEMPT=YES when GDIF is running in ALLSYSTEMS mode and it adds a QNAME statement to the QNAME list dynamically. In ALLSYSTEMS mode, GDIF adds QNAME statements dynamically when an ENQ or RESERVE request is issued for a resource with a SCOPE value of SYSTEMS. Otherwise, the default value is EXEMPT=NO.

GDIF

(Optional) Tells GDIF whether to propagate ENQ and RESERVE requests as global ENQ requests and eliminate hardware reserves for this class of resources. Specify NO or YES on this parameter.

Default: GDIF=YES

REPORTAFTER

(Optional) Indicates how many seconds ECMF should wait before issuing the first conflict message when several tasks need one of these resources at the same time. Specify a value from 0 to 999 (integers only) in place of the *nnn* variable. You can use the abbreviation RPTAFTER for this parameter.

Default: REPORTAFTER=0

REPORTCYCLE

(Optional) Indicates how many seconds ECMF should wait before reissuing conflict messages when several tasks need one of these resources at the same time. Specify a value from 0 to 600 (integers only) in place of the *nnn* variable. A value of zero will result in a single conflict message being issued. You can use the abbreviation RPTCYCLE for this parameter.

Default: REPORTCYCLE=60

Note: You cannot use the exempt list to tell ECMF to perform special processing for resources. If you do not want ECMF to process some of the resources with the same QNAME, then you need to code one of the optional user exit routines.

RESERVES

(Optional) Indicates whether GDIF should change the way it handles hardware reserves for this class of resources. The value you specify here overrides the value on a GDIINIT statement when GDIF is handling this class of resources; you can override this value for a designated resource through a GLOBAL statement. Specify one of the following values:

CONVERT

Specifies that GDIF should eliminate hardware reserves.

KEEP

Specifies that GDIF should retain hardware reserves.

If you specify the RESERVES parameter, then the value will override the value you specify on the RESERVES parameter on a GDIINIT statement.

Note: You can use the RESERVES parameter on a GLOBAL statement in the exempt list to override this value, based on the name of a resource.

By default, GDIF propagates ENQ and RESERVE requests for a class of resources whenever you specify a QNAME statement for those resources. If you do not want to propagate requests for those resources, then specify GDIF=NO on the QNAME statement.

Typically, GDIF propagates all requests for a QNAME whenever you specify a QNAME statement for that class of resources. However, you can tell GDIF to propagate only certain types of requests for that QNAME. To tell GDIF which requests to propagate, specify one of the values for SCOPE on the QNAME statement.

SCOPE

(Optional) Indicates whether GDIF should propagate only certain ENQ and RESERVE requests, depending on what scope is specified on the request. Specify one of the following values:

ALL

Specifies that GDIF should propagate all requests that have a scope of SYSTEM or SYSTEMS, including requests that produce hardware reserves.

RESERVES

Specifies that GDIF should propagate requests that have a scope of SYSTEMS and produce hardware reserves.

Note: Requests that do not produce hardware reserves are not propagated, even if they have a scope of SYSTEMS.

SYSTEM

Specifies that GDIF should propagate requests that have a scope of SYSTEM.

SYSTEMS

Specifies that GDIF should propagate requests that have a scope of SYSTEMS.

Note: This includes requests that produce hardware reserves.

Default: SCOPE=SYSTEMS

Note: For SYSDSN and SYSZVOLS, the SCOPE defaults to SYSTEM. CA does not recommend specifying a SCOPE of ALL for any QNAME unless specifically recommended by the vendor responsible for the QNAME.

TRACE

(Optional) Indicates whether trace information should be collected by GDIF for these resources. Specify one of these values on the TRACE parameter:

ALL

Collects information about ENQ requests, RESERVE requests, and conflicts for these resources.

Because collecting information about ENQ and RESERVE requests takes additional processing time, you should not specify this value for a QNAME if requests for that QNAME need to be propagated as quickly as possible.

The ENQTRACE feature must be active to collect this information. You can activate this feature through the SETTRACE operand on the SETOPTION GDIF command.

CONFLICT

Collects information about conflicts for these resources.

The ENQTRACE feature must be active to collect this information. You can activate this feature through the SETTRACE operand on the SETOPTION command.

NONE

Indicates that you do not want trace information.

All trace information is sent to the MIMTRACE data set.

Default: TRACE=NONE

Usage Notes: QNAME Statement

- The QNAME statement can be specified only in the MIMQNAME member of the MIMPARMS data set. However, identical parameters may be specified on the ADDQNAME command of CA MII.
- You can specify the hexadecimal format for a QNAME on this statement.
- For the RESERVES parameter, you must specify the same value on all systems. The recommended way to achieve this is to use a single MIMQNAME member for all systems.

Example: QNAME Statement

Suppose that you want GDIF and ECMF to perform the following processing for the ENDEVOR resource class:

- Propagate all RESERVE requests as global ENQ requests
- Eliminate hardware reserves
- Notify you when conflicts occur for these resources
- Collect trace information about conflicts
- Propagate ENQ requests to other systems for some of these resources (as indicated by statements in the GDIEXMPT member)

To achieve these results, specify this statement in the MIMQNAME member:

```
ENDEVOR GDIF=YES ECMF=YES EXEMPT=YES SCOPE=SYSTEMS TRACE=CONF
```

(MII) SETOPTION ECMF Command-Set ECMF Operating Values

The SETOPTION ECMF command lets you set operating values for the ENQ Conflict Management Facility.

Scope: Local

This command has the following format:

```
SETOPTION ECMF [ACTIONMESSAGES={NO|YES}]
               [AUTOFREE={OFF|ON}]
               [JESCHAR=character]
               [MIM1098={ALWAYS|NEVER|NOREQUEUE}]
               [NOICOVRD={NO|YES}]
               [RELQUALL={NO|YES}]
               [REQAFTER=nnn]
               [REQCHKPT={ASK | DISCARD | RELEASE | USE}]
               [REQCYCLE=seconds]
               [REQUEUE={OFF|ON} ]
               [REQSECUR={OFF|ON} ]
               [RESETPRINT=(options)]
               [RESETTRACE=(options)]
               [SETPRINT=(options)]
               [SETTRACE=({ALL |
                          [CONFLICT]
                          [ENF51]
                          [ENQ]
                          [GDIPUSHPOP]
                          [GQB]
                          [GQSCAN]
                          [NQPREFRONTENDEXIT]
                          [NQFRONTENDEXIT]} )
               [STATCOLLECT={ALL| NONE | NOSUBTYPE=(list) | SUBTYPE=(list)}]
               [STATCYCLE=seconds]
               [STATINTERVAL=minutes]
```

ACTIONMESSAGES

(Optional) Indicates whether messages MIM1038 and MIM1039 are issued as action messages with message MIM1040 for SYSDSN ECB-type conflicts.

If SETOPTION ECMF ACTIONMESSAGES is set to YES, then these messages will display highlighted and will be non-scrollable to provide a more obvious reminder and give you a greater opportunity to respond.

These messages are highlighted only when they are issued with message MIM1040, which is for conflicts involving the SYSDSN ECB-type enqueues issued by the initiator during batch job allocation. This option does not apply to conflicts arising from dynamic allocation.

Default: ACTIONMESSAGES=NO

AUTOFREE

(Optional) Determines whether the ECMF AUTOFREE feature is activated.

If you want ECMF to release a data set when a conflict occurs for a data set that is marked “not in use,” then activate the AUTOFREE feature.

When you activate this feature, ECMF determines whether a data set is marked “not in use” during a conflict. If so, then ECMF automatically frees the data set and notifies the TSO user that it has freed the data set.

Note: For detailed information about this feature, see the chapter “Advanced Topics” in the *CA MII Programming Guide*.

Default: AUTOFREE=OFF

ECMF

Tells CA MIM that you are setting operating values for ECMF rather than for any other facility. Specify the ECMF operand if you want to truncate an operand in a way that may be ambiguous with operands for other facilities.

Because ECMF is a positional operand, you must specify it before any other operand.

JESCHAR

Indicates what command prefix character ECMF should use when issuing JES2 commands to requeue a batch job in the event that ECMF cannot dynamically determine the target JES2 subsystem command character. ECMF extracts the command prefix string registered with CONSOLE services by the primary JES2, or any poly-JES2, when it is necessary for ECMF to schedule a command to a given JES2 subsystem. Specify this command prefix character in place of the character variable.

You can specify the command prefix character in either character or hexadecimal format. For example, you can specify JESCHAR=! Or JESCHAR=X'5A'.

Default: JESCHAR=$

MIM1098

(Optional) Determines whether the CA MIM messages MIM1098 and MIM1099 are issued to TSO users holding data sets involved in ENQ conflicts.

You can customize usage of the CA MIM messages MIM1098 and MIM1099, which are issued for TSO users holding data sets involved in ENQ conflicts.

Valid values are:

ALWAYS

Allows the messages to be issued.

NEVER

Never issue messages.

NOREQUEUE

Do not issue messages when the ECMF requeue task issues 'test' enqueues to determine the availability of data sets needed by requeued jobs. However, the messages are issued at all other times.

Note: Any change to this option is recognized immediately. Therefore, a TSO user causing a conflict at the time of the change may be affected, depending on how the option is changed.

Default: MIM1098=ALWAYS

NOICOVRD

(Optional) Indicates whether to override the TSO user profile option NOINTERCOM when sending data set AUTOFREE or CONFLICT messages to the user who has use of the data set in question. To override the NOINTERCOM option and send the messages, issue the command SETOPTION ECMF NOICOVRD=YES.

Default: NOICOVRD=NO

RELQUALL

(Optional) Allows you to choose whether jobs held in the job queue are released all at once or one at a time for jobs whose data sets have become available.

YES --Releases jobs from the job queue all at once

NO --Releases jobs from the job queue one at a time according to the REQCYCLE timer setting

Default: RELQUALL=YES

REQAFTER

(Optional) Indicates how many cycles ECMF should wait before requeuing a batch job that is waiting for a resource. This operand takes effect only when the REQUEUE feature is active. Specify a value from 0 to 50 (integers only) in place of the *nnn* variable.

The length of a cycle is set through the REPORTCYCLE parameter on the SYSDSN QNAME statement.

You can specify 0 for REQAFTER; however, delays in processing the ENF51 signalling due to system slowdowns may prevent MIM1038I or MIM1039I messages from being issued when a job is requeued. We recommend a value of 1 or higher for this operand to reduce the likelihood of not receiving these messages.

Default: REQAFTER=3

REQCKPT

(Optional) Indicates how ECMF should handle checkpoint information and requeued jobs if ECMF stops or is restarted. Specify one of these values on the REQCKPT operand:

ASK

Specifies that ECMF should ask the operator what to do.

DISCARD

Specifies that ECMF should not keep a record of requeued jobs at shutdown. At startup, ECMF should discard checkpoint information without releasing the requeued jobs.

RELEASE

Specifies that ECMF should release all requeued jobs.

USE

Specifies that ECMF should store information about requeued jobs in the checkpoint file at shutdown. At startup, ECMF should use the checkpoint information to rebuild the queue of jobs.

Default: REQCKPT=RELEASE

REQCYCLE

(Optional) Tells ECMF how many seconds to wait before reevaluating a resource conflict. This operand takes effect only when the REQUEUE feature is active. Specify a value from 10 to 300 (integers only) in place of the *seconds* variable.

Default: REQCYCLE=30

REQUEUE

(Optional) Determines whether the ECMF REQUEUE feature is activated.

You can use this command to automatically requeue batch jobs that have requested data sets with the QNAME value of SYSDSN when TSO users are using the requested data sets or other batch jobs. You cannot use this feature to requeue jobs when they request data sets with any QNAME value other than SYSDSN.

Default: REQUEUE=OFF

Note: This operand is only valid if checkpoint files have been allocated.

Activate the REQUEUE option by specifying SETOPTION REQUEUE=ON. When you do this, ECMF requeues batch jobs that cannot obtain a data set. ECMF also places the job in a held state until the data set is available. ECMF automatically releases the job when the data set is available.

ECMF requeues jobs if a conflict occurs during job initiation before the first step of the job begins to execute. If a conflict occurs after that time (for example, due to a dynamic allocation), then ECMF will not requeue the job.

You deactivate the REQUEUE option by specifying SETOPTION REQUEUE=OFF.

Note: JES3 customers are unable to use the CA MII ECMF REQUEUE feature. JES3 determines resource availability prior to job initiation, so the ECMF REQUEUE feature becomes redundant. JES3 customers should specify SETOPTION ECMF REQUEUE=OFF.

For detailed information about this feature, see the chapter “Advanced Topics” in the *CA MII Programming Guide*.

REQSECUR

(Optional) Allows the ECMF requeue commands to always be issued with the UTOKEN of the CA MIM address space. Specify ON or OFF for this operand.

Default: REQSECUR=OFF

RESETPRINT

(Optional) Allows you to turn off trace event printing for the specified trace option or all options. For an explanation of options, see the SETTRACE operand.

RESETTRACE

(Optional) Turns off tracing for the specified option or for all options. For an explanation of the options, see the SETTRACE operand.

SETPRINT

(Optional) Turns on the print function for the specified trace event options. For an explanation of the options, see the SETTRACE operand.

SETTRACE

(Optional) Turns on the trace feature for the specified trace event options. You can specify one or more of the following options:

ALL

Traces all of the following events.

CONFLICT

Traces data set conflict processing.

ENF51

Traces ENQ resource conflict information provided by the GRS ENF 51 resource conflict signals.

ENQ

Traces enqueue processing.

GDIPUSHPOP

Traces calls to GDIF/ECMF subroutines.

GQB

Traces GQB processing.

GQSCAN

Traces GQSCAN interface processing and return codes.

NQPREFRONTENDEXIT

Traces entry to and from the ENQ pre-front-end exit installed at the ISGNQXITPREBATCH IBM installation exit point.

NQFRONTENDEXIT

Controls tracing of various internal control blocks at strategic points in the CA MII exit code planted on the ISGNQXITBATCH IBM GRS user exit point.

Default: No trace options are active.

STATCOLLECT

(Optional) Controls the creation of statistical records for the ECMF report. Specify one of the following values:

ALL

Turns on statistical record collection for all record subtypes.

NONE

Turns off all statistical record collection.

NOSUBTYPE

Specifies the record subtypes for which statistical recording is turned off.

SUBTYPE

Specifies the record subtypes for which statistical recording is turned on.

Default: STATCOLLECT=NONE

The record subtype for ECMF is CR, for the ECMF conflict job requeue record subtype.

STATCYCLE

(Optional) Specifies how often, in seconds, statistical data is sampled for the ECMF report.

Default: STATCYCLE=60

STATINTERVAL

(Optional) Specifies how often, in minutes, statistical data samples are recorded for use in the ECMF report.

Default: STATINTERVAL=15

Usage Notes: SETOPTION ECMF Command

- The SETOPTION command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION command. TSO users generally are not authorized to issue system control commands.
- You can specify multiple ECMF operands on the same SETOPTION command (for example, SETOPTION AUTOFREE=ON REQUEUE=ON). Do not specify ECMF operands with operands associated with other facilities.

Example: SETOPTION ECMF Command

To begin statistical record creation for the CR report, have the record data sampled every 90 seconds, and record the data every 30 minutes, issue the following command:

```
SETOPTION ECMF STATCOLLECT=CR STATCYCLE=90 STATINTERVAL=30
```

(MII) SETOPTION EDIF Command-Set EDIF Operating Values

The SETOPTION EDIF command lets you set operating values for the EDIF.

Scope: Local

This command has the following format:

```
SETOPTION EDIF [EDIFDUMP={NO|YES}]
               [MEMBER[=name]]
               [PLISTDUMP={NO|YES}]
               [PLISTMSG={NO|YES}]
               [RESETPRINT=(options)]
               [RESETTRACE=(options)]
               [REVERSEAUTH={NO|YES}]
               [SETPRINT=(options)]
               [SETTRACE[={ALL |
                          [CLOSE]
                          [ENQDEQ]
                          [OPEN]
                          [REGS={NO|YES}]
                          [SVC19]
                          [SVC20]
                          [SVC22]} ]]
               [STATCOLLECT={ALL| NONE | NOSUBTYPE=(list) | SUBTYPE=(list)}]
               [STATCYCLE=seconds]
               [STATINTERVAL=minutes]
               [STATUS={ACTIVE|INACTIVE}]
               [SVCDUMP={NO|YES}]
```

EDIF

Tells CA MIM that you are setting operating values for EDIF rather than for any other facility. Because SVCDUMP is the name of both a CA MIM operand and an EDIF operand, you must specify the EDIF operand before the SVCDUMP operand to distinguish it from the CA MIM version of this operand. Also specify the EDIF operand if you want to truncate an operand in a way that may be ambiguous with operands for other facilities.

Because EDIF is a positional operand, you must specify it before any other operand.

EDIFDUMP

(Optional) Provides additional restrictions for the SVCDUMP operand. When SETOPTION EDIF SVCDUMP=NO is specified and an abend occurs due to a violation of EDIF rules such as incorrect attribute specification, a user address space dump is still produced. To prevent that dump from being produced, issue the command SETOPTION EDIF EDIFDUMP=NO. If you specify EDIFDUMP=YES, then you will receive a user address space dump whenever EDIF rules are violated, even if you specified SVCDUMP=NO.

Default: NO

MEMBER

(Optional) Tells EDIF to reexamine its processing statements to obtain more up-to-date information.

You can dynamically modify the EDIF processing list in these ways:

- Refresh the processing list so that EDIF uses the current contents of that list, rather than the contents in place when you started CA MIM. This allows you to change information in the processing list and make those changes take effect immediately.
- Change the member that EDIF is using. This allows you to replace, for example, a test-processing list with a production-processing list while EDIF is running.

Note: You can use this command only if EDIF=ON was specified when you started CA MIM.

To refresh the current EDIF processing list so that any changes you have made to it take effect immediately, you could issue the SETOPTION MEMBER command.

To tell EDIF to use a different processing list, you need to specify the name of the new member on the MEMBER parameter.

PLISTDUMP

(Optional) Indicates whether to generate an SVC dump when an invalid address is encountered by EDIF during OPEN or CLOSE processing of the program parameter list. To generate the SVC dump, issue the command SETOPTION EDIF PLISTDUMP=YES. To prevent the SVC dump from being generated, issue the command SETOPTION EDIF PLISTDUMP=NO.

Default: NO

PLISTMSG

(Optional) Indicates whether the message MIM4012 is issued when EDIF encounters an invalid address in an OPEN or CLOSE parameter list provided by a user program. To suppress the message MIM4012, issue the command SETOPTION EDIF PLISTMSG=NO. To allow the message to be displayed, issue the command SETOPTION EDIF PLISTMSG=YES.

Default: YES

RESETPRINT

(Optional) Allows you to turn off trace event printing for the specified trace option or all options. For an explanation of options, see the SETTRACE operand.

RESETTRACT

(Optional) Allows you to turn off tracing for the specified option or for all options. For an explanation of options, see the SETTRACE operand.

REVERSEAUTH

(Optional) Reverses the manner in which two authorized lists are processed. The two lists are created with the ACCESSLIST and AUTHORIZED parameters. These parameters create the lists on DATASET, DSORG, PREFIX, and other EDIF statements. When you set this option to REVERSEAUTH=YES, the following processing occurs for the ACCESSLIST and AUTHORIZED parameters:

ACCESSLIST--Defines programs that are not authorized to read the data set. ACCESSLIST is available with:

- DATASET
- DSORG
- PATTERN
- PREFIX
- SUFFIX

AUTHORIZED--Defines programs that are not authorized to update the data set. AUTHORIZED is available with:

- DATASET
- DEFAULT
- DSORG
- PATTERN
- PREFIX
- SUFFIX

Note: Typically, the program or utility statement lists, created by the ACCESSLIST and AUTHORIZED parameters, define the programs that are authorized to read the data set or update the data set, respectively.

Available options for the REVERSEAUTH parameter are:

NO

Do *not* reverse processing for the ACCESSLIST and AUTHORIZED parameters. EDIF processes as it usually does.

YES

Reverse Processing for the ACCESSLIST and AUTHORIZED parameters. This processing will define programs that are *not* authorized to read the data set (in the case of ACCESSLIST) or update the data set (in the case of AUTHORIZED).

Default: REVERSEAUTH=NO

SETPRINT

(Optional) Turns on the print function for the specified trace event options. For an explanation of the available options, see the SETTRACE operand.

Note: The REGS option is only valid on the SETTRACE parameter.

SETTRACE

(Optional) Turns on the trace feature for the specified trace event options. You can specify one or more options:

ALL

Activates trace for *all* SETTRACE options.

CLOSE

Activates trace for all CLOSE processing.

ENQDEQ

Activates trace for enqueue/dequeue processing.

OPEN

Activates trace for all OPEN processing.

SVC19

Activates trace for SVC19 processing.

SVC20

Activates trace for SVC20 processing.

SVC22

Activates trace for SVC22 processing.

REGS

Specify YES to include the register contents. The default is NO.

Job name filtering is available through the command SET MIM TRACE=(JOBNAME=*jjjjjjjj*).

STATCOLLECT

(Optional) Controls the creation of statistical records for the EDIF reports. Specify one of the following values:

ALL

Turns on statistical record collection for all record subtypes.

NONE

Turns off all statistical record collection.

NOSUBTYPE

Specifies the record subtypes for which statistical recording is turned off.

SUBTYPE

Specifies the record subtypes for which statistical recording is turned on.

The record subtypes for EDIF reports are:

DC-EDIF statistical count data record subtype

DD-EDIF data set record subtype

Default: STATCOLLECT=NONE

STATCYCLE

(Optional) Specifies how often, in seconds, statistical data is sampled for the EDIF reports.

Default: STATCYCLE=60

STATINTERVAL

(Optional) Specifies how often, in minutes, statistical data samples are recorded for use in the EDIF reports.

Default: STATINTERVAL=15

STATUS

(Optional) This parameter changes the status of EDIF. Specify ACTIVE to activate EDIF or INACTIVE to deactivate EDIF. You can use this operand only if you specified EDIF=ON on a MIMINIT statement, on the PARM parameter of the startup procedure, or on the z/OS START command for CA MIM.

If you specify STATUS=INACTIVE, then you still can issue commands to change the operating values of EDIF. However, EDIF will not perform any type of update, attribute, or read verification for data sets, nor will it issue notification messages.

Default: STATUS=ACTIVE

SVCDUMP

(Optional) Indicates whether EDIF should request an SVC dump of a user address space if an error occurs with EDIF.

If the SVCDUMP parameter is set to YES, then you then can stop EDIF from generating SVC dumps by specifying SETOPTION EDIF SVCDUMP=NO. You must specify EDIF (or a shortened form) to distinguish this parameter from the SVCDUMP parameter that is used by the entire CA MIM product.

Important! Some EDIF rule violations such as read access errors can still produce a user address space dump when SVCDUMP=NO. To ensure that you do not receive any dumps due to EDIF rule violations, you must also issue the command SETOPTION EDIF EDIFDUMP=NO. The default is EDIFDUMP=YES, which allows user address space dumps.

Default: SVCDUMP=YES

Usage Notes: SETOPTION EDIF Command

- The SETOPTION command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION command. TSO users generally are not authorized to issue system control commands.
- You can specify multiple EDIF operands on the same SETOPTION command (for example, SETOPTION STATUS=ACTIVE SVCDUMP=YES). Do not specify EDIF operands with operands associated with other facilities.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements. See the chapter “Advanced Topics” in the *CA MII Programming Guide.*

Example: SETOPTION EDIF Command

To reactivate EDIF, issue the following command:

```
SETOPTION EDIF STATUS=ACTIV
```

(MII) SETOPTION GDIF Command-Set GDIF Operating Values

The SETOPTION GDIF command lets you set operating values for the GDIF.

Scope: Local

This command has the following format:

```
SETOPTION GDIF [COUNT= {ALL | RESERVES | SYSTEMS}]
               [DEQPOST={ ALWAYS| AUTO | CONTENTION |NEVER }]
               [EXEMPTRESERVES={NO|YES}]
               [RESETPRINT(options)]
               [RESETTRACE(options)]
               [SETPRINT(options)]
               [SETTRACE=([ { ALL |
                          [CONFLICT]
                          [DEQPOSTS]
                          [ENQ]
                          [GDIPUSHPOP]
                          [GQB]
                          [GQSCAN]
                          [GXQ]
                          [NQPREFRONTENDEXIT]
                          [NQFRONTENDEXIT]
                          [NQBACKENDEXIT]
                          [QCBDESTROY] } ])]
               [STATCOLLECT={ALL| NONE | NOSUBTYPE=(list) | SUBTYPE=(list)}]
               [STATCYCLE=seconds]
               [STATINTERVAL=minutes]
```

COUNT

(Optional) Determines what type of information GDIF should collect about requests for non-managed resources.

You can collect several types of information to display about requests for non-managed resources specifically, information about local-system requests, multiple-system requests, and requests that produce hardware reserves. The SETOPTION GDIF COUNT statement determines the type of information displayed on the DISPLAY COUNTS command.

For example, if you are considering which ENQ requests to propagate, then you may want to specify SETOPTION COUNT=SYSTEMS. Then, when you issue a DISPLAY COUNTS command to see what ENQ activity has occurred for non-managed resources, GDIF shows a count of ENQ and RESERVE requests for these resources.

You can set the maximum number of displayable non-managed resources by specifying that number on the GDIINIT NMCOUNT statement. If nothing is specified for the NMCOUNT parameter, then the default value is 255.

The SETOPTION command does not affect displays for managed resources. GDIF shows you all ENQ and RESERVE requests for all managed resources. Note that this command is not effective retroactively.

You can reset the counts by issuing the command DISPLAY COUNTS=RESET. Then, you can specify the DISPLAY COUNTS=SINCE=INITIALIZATION command to view the counts since CA MII initialized, or specify the command DISPLAY COUNTS=SINCE=LASTRESET to view the counts since the last RESET was issued.

Specify one of these values on the COUNT operand:

ALL

Collects information about ENQ requests that have a scope of SYSTEM or SYSTEMS. RESERVE requests are included in this information.

RESERVES

Collects information about RESERVE requests only.

SYSTEMS

Collects information about ENQ requests that have a scope of SYSTEMS. RESERVE requests are included in this information.

Default: SYSTEMS

DEQPOST

(Optional) Determines whether CA MII is immediately activated when DEQs occur. Valid values are:

ALWAYS

Posts the service address space (that is, request a control file cycle) each time the ISGENDOFLQCB exit is called for a GDIF managed resource. Using this option minimizes resource contention delays, but may increase CA MIM control file cycle rates and CPU consumption.

AUTO

Similar to the CONTENTION option, but the post is skipped if the average CA MIM control file cycle rate on that system exceeds 10 control file access per second. This option provides a balance between resource contention delays, CA MIM control file bandwidth, and CPU consumption.

CONTENTION

Posts the service address space each time the ISGENDOFLQCB exit is called for a GDIF managed resource for which recent cross-system contention has been observed. CA MII populates a data structure that keeps track of cross-system contention for GDIF-managed resources. The first occurrence of cross-system contention causes the contention for the resource to be tracked. From that point, until the data structure is cleared, all calls to the ISGENDOFLQCB exit for that resource result in a post to the service address space (i.e. the 2nd through nth occurrences). The data structure is cleared once every minute. Using this option minimizes resource contention delays (except for the first occurrence), but may increase CA MIM control file cycle rates and CPU consumption during periods of resource contention.

NEVER

Does *not* post the service address space when the ISGENDOFLQCB exit is called. The DEQ event is queued and processed upon the next naturally occurring CA MIM control file cycle (for example, another managed ENQ request or timer expiration). Use of this option minimizes MIM control file cycles and CPU consumption, but may increase resource contention delays.

Default: DEQPOST=AUTO

EXEMPTRESERVES

(Optional) Tells CA MIM whether to have LOCAL statements in the exempt list apply to RESERVE requests. If you specify YES, then LOCAL statements in the exempt list *do* apply to RESERVE requests. If you specify NO, then LOCAL statements *do not* apply to RESERVE requests. NO is the default value.

Important! You should be aware that an integrity exposure could exist if this option is not used consistently across all systems in your complex.

For example, assume that there is a matching LOCAL Statement in the exempt member on both systems, also assume that NO is specified on SYSA and JOBA issues the first RESERVE request for an exempted resource. This results in the RESERVE being converted to a global enqueue. Assume that YES is specified on SYSB and JOBB issues a subsequent request on SYSB for the same exempted resource. The request of JOBB is not propagated. As a result, both JOBA and JOBB could have concurrent ownership, possibly corrupting the resource.

Default: NO

GDIF

Tells CA MIM that you are setting operating values for GDIF rather than for any other facility. Specify the GDIF operand if you want to truncate an operand in a way that may be ambiguous with operands for other facilities.

Because GDIF is a positional operand, you must specify it before any other operand.

RESETPRINT

(Optional) Allows you to turn off trace event printing for the specified trace option or all options. For an explanation of the available options, see the SETTRACE operand.

RESETTRACE

(Optional) Allows you to turn off tracing for the specified option or for all options. For an explanation of the available options, see the SETTRACE operand.

SETPRINT

(Optional) Turns on the print function for the specified trace event options. For an explanation of the options, see the SETTRACE operand.

SETTRACE

(Optional) Turns on the trace feature for the specified trace event options. You can specify one or more of the following options:

ALL

Traces all of the following events.

CONFLICT

Traces data set conflict processing.

DEQPOSTS

Traces GDIF posting of internal control blocks during DEQ processing. GDIF will only trace DEQs for QNAMES with TRACE=ALL coded in the MIMQNAME member. If TRACE=NONE or TRACE=CONFLICT is specified for a QNAME, then no DEQ tracing will occur for that QNAME. You can use the ALTER command to change the TRACE operand on the QNAME statement.

ENQ

Traces enqueue processing.

GDIPUSHPOP

Traces calls to GDIF/ECMF subroutines.

GQB

Traces GQB processing.

GQSCAN

Traces GQSCAN interface processing and return codes.

GXQ

Traces GDIF transactions.

NQPREFRONTENDEXIT

Traces entry to and from the ENQ pre-front-end exit installed at the ISGNQXITPREBATCH IBM installation exit point.

NQFRONTENDEXIT

Controls tracing of various internal control blocks at strategic points in the CA MII exit code planted on the ISGNQXITBATCH IBM GRS user exit point.

NQBACKENDEXIT

Controls tracing of various internal control blocks at strategic points in the CA MII exit code planted on the ISGNQXITQUEUED IBM GRS user exit point.

QCBDESTROY

Controls tracing of various internal control blocks at strategic points in the CA MII exit code planted at the ISGENDOFLQCB IBM GRS user exit point.

STATCOLLECT

(Optional) Controls the creation of statistical records for the GDIF reports. Specify one of the following values:

ALL

Turns on statistical record collection for all record subtypes.

NONE

Turns off all statistical record collection.

NOSUBTYPE

Specifies the record subtypes for which statistical recording is turned off.

SUBTYPE

Specifies the record subtypes for which statistical recording is turned on.

The record subtypes for GDIF are:

EC - GDIF enqueue/reserve count data record subtype

Default: STATCOLLECT=NONE

STATCYCLE

(Optional) Specifies how often, in seconds, statistical data is sampled for the GDIF reports.

Default: STATCYCLE=60

STATINTERVAL

(Optional) Specifies how often, in minutes, statistical data samples are recorded for use in the GDIF reports.

Default: STATINTERVAL=15

Usage Notes: SETOPTION GDIF Command

- The SETOPTION GDIF command can be specified in the MIMCMNDS or MIMSYNCH member of the MIMPARMS data set. You also can issue this command from a console.
- You must be authorized to issue system control commands to issue the SETOPTION command. TSO users generally are not authorized to issue system control commands.
- You can specify multiple GDIF operands on the same SETOPTION command (for example, SETOPTION SETTRACE=ON COUNT=ALL). Do not specify GDIF operands with operands associated with other facilities.

Examples: SETOPTION GDIF Command

- To turn on tracing for data set conflict events, and print these events, issue this command:

  ```
  SETOPTION GDIF SETTRACE=CONFLICT SETPRINT=CONFLICT
  ```

- To turn on tracing for data set conflict events, and print these events, issue this command:

  ```
  SETOPTION GDIF SETTRACE(QCBD NQFR) SETPRINT(QCBD NQFR)
  ```

(MII) SUFFIX Statement-Apply EDIF Processing Options to Data Sets with Specific Suffix

The SUFFIX statement lets you apply a set of EDIF processing options to all data sets that have a specified suffix in their data set names. This statement is available when you are running the EDIF of the CA MII component.

This command has the following format:

```
SUFFIX NAME=suffix  [ACCESSLIST(options)]
                    [AUTHORIZED(options)]
                    [BLKSIZE=option]
                    [CHECKEXCLUSIVE(options)]
                    [DSORG=option]
                    [EXEMPT(options)]
                    [LRECL=option]
                    [OPTION(options)]
                    [RECFM=option]
```

ACCESSLIST

(Optional) Identifies programs that are authorized to read these data sets. You can specify the same values for the ACCESSLIST parameter on any EDIF processing statement on which this parameter is available.

AUTHORIZED

(Optional) Identifies programs that are authorized to update these data sets. You can specify the same values for the AUTHORIZED parameter on any EDIF processing statement.

BLKSIZE

(Optional) Indicates what block size value EDIF should use during attribute verification. You can specify the same values for the BLKSIZE parameter on any EDIF processing statement on which this parameter is available.

CHECKEXCLUSIVE

(Optional) Identifies programs that cannot update these data sets when these data sets are allocated with DISP=SHR. You can specify the same values for the CHECKEXCLUSIVE parameter on any EDIF processing statement.

DSORG

(Optional) Indicates what data set organization EDIF should use during attribute verification. You can specify the same values as those for the DSORG parameter on the DATASET statement.

EXEMPT

(Optional) Identifies programs that are exempted from attribute verification. You can specify the same values for the EXEMPT parameter on any EDIF processing statement.

LRECL

(Optional) Indicates what logical record length EDIF should use during attribute verification. You can specify the same values for the LRECL parameter on any EDIF processing statement on which this parameter is available.

NAME

Identifies the data sets to which you are applying these options. Specify a suffix that identifies these data sets in place of the *suffix* variable.

OPTION

(Optional) Indicates what processing options EDIF should apply to these data sets.

You can specify any combination of the following values:

- ABEND
- ACCESSCHECK
- ATTRIBUTES
- CONFLICTMESSAGES
- ENQUEUE
- IGNORECC
- SMF | RECORD
- SUPPRESSMESSAGES
- UTILITY
- WAIT

You also can specify values that negate these options (for example, NOABEND, NOACCESSCHECK, NONE, and so on). Values that you specify on the same statement cannot be mutually exclusive.

RECFM

(Optional) Indicates what record format EDIF should use during attribute verification. You can specify the same values for the RECFM parameter on any EDIF processing statement on which this parameter is available.

Usage Notes: SUFFIX Statement

- The SUFFIX statement can be specified only in the EDIPARMS member of the MIMPARMS data set.
- You can negate options on DEFAULT, DSORG, and PREFIX statements by specifying options that have the NO prefix. For example, you can negate the ABEND option on a PREFIX statement by specifying OPTION=NOABEND on a SUFFIX statement.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.

  Note: For more information, see the chapter "Advanced Topics" in the *CA MII Programming Guide*.
- Because processing options on SUFFIX statements apply to many data sets, you should choose options carefully. Until you have done some preliminary testing, we recommend that you *do not* specify these options on a SUFFIX statement:

  OPTION(ENQUEUE,WAIT)

  Places jobs in a *wait state* when a requested data set is unavailable.

  OPTION(UTILITY,ABEND)

  Abends tasks that are not authorized to update data sets.

  OPTION(ATTRIBUTES,ABEND)

  Abends tasks that are not allowed to change data set attributes.

  OPTION(ACCESSCHECK,ABEND)

  Checks read authority for each of these data sets.

Examples: SUFFIX Statement

- To negate all options enabled on DEFAULT, DSORG, and PREFIX statements for data sets that have the suffix .LIST, specify this statement in the EDIPARMS member:

  ```
  SUFFIX NAME=.LIST OPTION=NONE
  ```
- Suppose that you want EDIF to perform this processing for data sets that have the suffix .LOAD:
  - Allow only PDF and load library utilities to update these data sets.
  - Issue messages when other tasks try to update these data sets and then abend these tasks.
  - To achieve these effects, specify this statement in the EDIPARMS member:

    ```
    SUFFIX NAME=.LOAD OPTION(UTILITY,ABEND),
        AUTHORIZED(UTILITY(ISPF,LOADLIB))
    ```

(MII) UTILITY Statement-Identify Similarly EDIF-Processed Programs

The UTILITY statement lets you identify a group of programs that should be processed the same way by the EDIF of the CA MII component. You then can specify the name of this UTILITY statement on other EDIF processing statements (instead of listing the names of each program in the list) to indicate what types of EDIF processing options you want to apply to those programs.

This command has the following format:

```
UTILITY NAME=utility [PROGRAMS(programs)] [DSORG=type]
                                          [RECFM=format]
```

DSORG

(Optional) Indicates what data set organization EDIF should use during utility verification.

EDIF uses this value only if you do not specify the names of programs or UTILITY statements on an EDIF processing statement. In these cases, EDIF compares this DSORG value to the value on the DSORG parameter in the DCB of a data set. If these values match, then EDIF lets the programs listed on this UTILITY statement update the data sets named on that EDIF processing statement.

Specify one of these values in place of the *type* variable:

- DIRECT (or DA)
- ISAM
- PARTITIONED (or PO)
- SEQUENTIAL (or PS)
- UNMOVABLE-PARTITIONED (or POU)
- UNMOVABLE-SEQUENTIAL (or PSU)
- VSAM

NAME

Indicates what name you want to assign to this UTILITY statement. Specify a name in place of the *name* variable. You can specify this name on other EDIF processing statements if you want to use this UTILITY statement to identify a list of programs.

PROGRAMS

(Optional) Identifies programs that should receive the same type of processing when the name of this UTILITY statement is specified on an EDIF processing statement. Specify one or more program names in place of the *programs* variable.

RECFM

(Optional) Indicates what record format that EDIF should use during utility verification.

EDIF uses this value only if you do not specify the names of programs or UTILITY statements on an EDIF processing statement. In these cases, EDIF compares this value to the value on the RECFM parameter in the DCB of a data set. If these values match and the DSORG values match, then EDIF lets the programs listed on this UTILITY statement update the data sets named on that EDIF processing statement.

Specify one of these values in place of the *format* variable:

- ASA
- BLOCKED
- FIXED
- MACHINE
- SPANNED
- STANDARD
- VARIABLE
- UNDEFINED
- FB
- FBA
- FBM
- VB
- VBA
- VBM

Usage Notes: UTILITY Statement

- The UTILITY statement can be specified only in the EDIPARMS member of the MIMPARMS data set.
- If you enable the EDIF utility verification on another EDIF processing statement and you do not identify authorized programs, then EDIF scans UTILITY statements to identify authorized programs. EDIF compares the record format and data set organization values on the UTILITY statements with the values in the DCB of the data set. If these values match, then EDIF lets programs named on that UTILITY statement update that data set.
- Defaults for most EDIF statements, when not specified, depend on how they are used with other statements.

  Note: For more information, see the chapter “Advanced Topics” in the *CA MII Programming Guide*.

Example: UTILITY Statement

To group ISPF utilities in a UTILITY statement named ISPF, specify this statement in the EDIPARMS member:

```
UTILITY NAME=ISPF PROGRAM(ISREDIT,ISRUDA,ISRURS,ISPMAIN,ISRURS,IEBCOPY)
```

Appendix A: Valid Characters for CMDPREFIX

The valid characters in this appendix are defined under the sysplex command prefix service and are documented in the z/OS V2R9.0 MVS Auth Assembler Services Guide.

The Command Prefix String

The command prefix string can be one to eight characters. You should not choose a command character prefix string that will conflict with a command, an abbreviation of a command, or a command invocation. You should not define a command prefix string such that the prefix is either a subset or a superset of an existing prefix with the same first character.

For example, if !MIM is already defined as a command prefix, then !, !M, and !MI are subsets of and conflict with the original command prefix string. Likewise, !MIM1 and !MIMM also conflict with the original command prefix string because they are both supersets of the first command prefix string. The z/OS DISPLAY OPDATA command can be used to determine all previously registered command prefix strings in the running system.

Valid Characters for CMDPREFIX Character String

The following characters are valid for use as a subsystem command prefix string:

Alphabetic	Uppercase A through Z	A–I X'C1' through X'C9' J-R X'D1' through X'D9' S–Z X'E1' through X'E8'
Numeric	0 through 9	0-9 X'F0' through X'F9'
National	at sign	@ - X'7C'
	dollar sign	$ - X'5B'
	pound sign	# - X'7B'
Special	comma	, - X'6B'
	period	. – X'4B'
	slash	/ - X'61'
	apostrophe	' – X'7D'

	left parenthesis	(- X’4D’
	right parenthesis	) – X’5D’
	asterisk	* - X’5C’
	ampersand	& - X’50’
	plus sign	+ - X’4E’
	hyphen	- - X’60’
	equal sign	= - X’7E’
	cent sign	¢ - X’4A’
	less than sign	< - X’4C’
	vertical bar	| - X’4F’
	explanation point	! – X’5A’
	semicolon	; - X’5E’
	percent sign	% - X’6C’
	underscore	_ - X’6D’
	greater than sign	> - X’6E’
	question mark	? – X’6F’
	colon	: - X’7A’
	double quotation marks	“ – X’7F’

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