CICS® Transaction Server for OS/390®

CICSPlex® SM Administration

Release 3

IBM

CICS® Transaction Server for OS/390®

CICSPlex® SM Administration

Release 3

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Programming interface information

This book is intended to help you set up your IBM CICSPlex System Manager (CICSPlex SM) system.

This book also documents Product-sensitive Programming Interface and Associated Guidance Information provided by CICSPlex SM and CICS/ESA.

Product-sensitive programming interfaces allow the customer installation to perform tasks such as diagnosing, modifying, monitoring, repairing, tailoring, or tuning of CICSPlex SM and CICS/ESA. Use of such interfaces creates dependencies on the detailed design or implementation of the IBM software product. Product-sensitive programming interfaces should be used only for these specialized purposes. Because of their dependencies on detailed design and implementation, it is to be expected that programs written to such interfaces may need to be changed in order to run with new product releases or versions, or as a result of service.

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Preface

This book provides information you need to administer the CICSPlex® SM environment.

Who this book is for

This book is for the individual responsible for administering CICSPlex SM to meet the needs of your enterprise.

What you need to know

When customizing CICSPlex SM, it is assumed you have experience with the IBM MVS/ESA™ operating system and the System Modification Program/Extended (SMP/E) licensed program.

It is also assumed that you have read:

CICSPlex SM User Interface Guide
> For information about using the ISPF user interface to CICSPlex SM

CICSPlex SM Concepts and Planning
> For an introduction to CICSPlex SM and the CICSPlex SM Starter Set

Note: Many of the views in this book are based on the Starter Set. For useful examples of how to perform some of the tasks described in this book, explore the Starter Set itself.

CICSPlex SM management of CICS releases

This release of CICSPlex SM may be used to control CICS systems that are directly connected to it, and indirectly connected through a previous release of CICSPlex SM.

For this release of CICSPlex SM, the directly-connectable CICS systems are:

- CICS Transaction Server for OS/390 1.3
- CICS Transaction Server for OS/390 1.2
- CICS Transaction Server for OS/390 1.1
- CICS for MVS/ESA 4.1
- CICS Transaction Server for VSE/ESA Release 1
- CICS for VSE/ESA 2.3
- CICS for OS/2 3.1
- CICS for OS/2 3.0

CICS systems that are not directly connectable to this release of CICSPlex SM are:

- CICS for MVS/ESA 3.3
- CICS for MVS 2.1.2
- CICS for VSE/ESA 2.2
- CICS/OS2 2.0.1

Note: IBM Service no longer supports these CICS release levels.

You can use this release of CICSPlex SM to control CICS systems that are connected to, and managed by, your previous release of CICSPlex SM. However, if you have any directly-connectable release levels of CICS, as listed above, that are connected to a previous release of CICSPlex SM, you are strongly recommended to migrate them to the current release of CICSPlex SM, to take full advantage of the enhanced management services. See the *CICS Transaction Server for OS/390: Migration Guide* for information on how to do this.

Table 1 shows which CICS systems may be directly connected to which releases of CICSPlex SM.

Table 1. Directly-connectable CICS systems by CICSPlex SM release			
CICS system	**CICSPlex SM component of CICS TS 1.3**	**CICSPlex SM 1.3**	**CICSPlex SM 1.2**
CICS TS 1.3	Yes	No	No
CICS TS 1.2	Yes	Yes	No
CICS TS 1.1	Yes	Yes	Yes
CICS for MVS/ESA 4.1	Yes	Yes	Yes
CICS for MVS/ESA 3.3	No	Yes	Yes
CICS for MVS 2.1.2	No	Yes	Yes
CICS TS for VSE/ESA Rel 1	Yes	No	No
CICS for VSE/ESA 2.3	Yes	Yes	Yes
CICS for VSE/ESA 2.2	No	Yes	Yes
CICS for OS/2 3.1	Yes	No	No
CICS for OS/2 3.0	Yes	Yes	Yes
CICS/OS2 2.0.1	No	Yes	Yes

Notes on terminology

In the text of this book, the term **CICSPlex SM** (spelled with an uppercase letter *P*) means the IBM CICSPlex System Manager element of CICS Transaction Server for OS/390. The term **CICSplex** (spelled with a lowercase letter *p*) means the largest set of CICS systems to be managed by CICSPlex SM as a single entity.

Other terms used in this book are:

Term　　　　　**Meaning**

CICS® TS for OS/390®
　　　　The CICS element of the CICS TS for OS/390

KB　　　　1 024 bytes

MB　　　　1 048 576 bytes

MVS　　　　MVS/Enterprise Systems Architecture SP (MVS/ESA)

The phrase *issue the command* is used in this book to mean that a command may be either typed in the COMMAND field of an Information Display panel or invoked by pressing the PF key to which it is assigned. When the location of the cursor affects command processing, this phrase also means that you can do one of the following:

- Type the command in the COMMAND field, place the cursor on the appropriate field, and press Enter.
- Move the cursor to the appropriate field and press the PF key to which the command is assigned.

For an explanation of other CICSPlex SM terms used in this book, please refer to the Glossary on page 145.

Syntax notation and conventions used in this book

The syntax descriptions of the CICSPlex SM commands use the following symbols:

- Braces { } enclose two or more alternatives from which one must be chosen.
- Square brackets [ ] enclose one or more optional alternatives.
- The OR symbol | separates alternatives.

The following conventions also apply to CICSPlex SM syntax descriptions:

- Commands and keyword parameters are shown in uppercase characters. If a command or parameter may be abbreviated, the minimum permitted abbreviation is in uppercase characters; the remainder is shown in lowercase characters and may be omitted.

- Variable parameters are shown in lowercase characters. You must replace them with your own information.

- Parameters that are not enclosed by braces { } or brackets [ ] are required.

- A default parameter value is shown like this: KEYWORD. It is the value that is assumed if you do not select one of the optional values.

- Punctuation symbols, uppercase characters, and special characters must be coded exactly as shown.

- The ellipsis ... means that the immediately preceding parameter can be included one or more times.

Bibliography

CICS Transaction Server for OS/390

CICS Transaction Server for OS/390: Planning for Installation	GC33-1789
CICS Transaction Server for OS/390: Release Guide	GC34-5352
CICS Transaction Server for OS/390: Migration Guide	GC34-5353
CICS Transaction Server for OS/390: Installation Guide	GC33-1681
CICS Transaction Server for OS/390: Program Directory	GC33-1706
CICS Transaction Server for OS/390: Licensed Program Specification	GC33-1707

CICS books for CICS Transaction Server for OS/390

General

CICS Master Index	SC33-1704
CICS User's Handbook	SX33-6104
CICS Glossary (softcopy only)	GC33-1705

Administration

CICS System Definition Guide	SC33-1682
CICS Customization Guide	SC33-1683
CICS Resource Definition Guide	SC33-1684
CICS Operations and Utilities Guide	SC33-1685
CICS Supplied Transactions	SC33-1686

Programming

CICS Application Programming Guide	SC33-1687
CICS Application Programming Reference	SC33-1688
CICS System Programming Reference	SC33-1689
CICS Front End Programming Interface User's Guide	SC33-1692
CICS C++ OO Class Libraries	SC34-5455
CICS Distributed Transaction Programming Guide	SC33-1691
CICS Business Transaction Services	SC34-5268

Diagnosis

CICS Problem Determination Guide	GC33-1693
CICS Messages and Codes	GC33-1694
CICS Diagnosis Reference	LY33-6088
CICS Data Areas	LY33-6089
CICS Trace Entries	SC34-5446
CICS Supplementary Data Areas	LY33-6090

Communication

CICS Intercommunication Guide	SC33-1695
CICS Family: Interproduct Communication	SC33-0824
CICS Family: Communicating from CICS on System/390	SC33-1697
CICS External Interfaces Guide	SC33-1944
CICS Internet Guide	SC34-5445

Special topics

CICS Recovery and Restart Guide	SC33-1698
CICS Performance Guide	SC33-1699
CICS IMS Database Control Guide	SC33-1700
CICS RACF Security Guide	SC33-1701
CICS Shared Data Tables Guide	SC33-1702
CICS Transaction Affinities Utility Guide	SC33-1777
CICS DB2 Guide	SC33-1939

CICSPlex SM books for CICS Transaction Server for OS/390

General

CICSPlex SM Master Index	SC33-1812
CICSPlex SM Concepts and Planning	GC33-0786
CICSPlex SM User Interface Guide	SC33-0788
CICSPlex SM View Commands Reference Summary	SX33-6099

Administration and Management

CICSPlex SM Administration	SC34-5401
CICSPlex SM Operations Views Reference	SC33-0789
CICSPlex SM Monitor Views Reference	SC34-5402
CICSPlex SM Managing Workloads	SC33-1807
CICSPlex SM Managing Resource Usage	SC33-1808
CICSPlex SM Managing Business Applications	SC33-1809

Programming

CICSPlex SM Application Programming Guide	SC34-5457
CICSPlex SM Application Programming Reference	SC34-5458

Diagnosis

CICSPlex SM Resource Tables Reference	SC33-1220
CICSPlex SM Messages and Codes	GC33-0790
CICSPlex SM Problem Determination	GC33-0791

Other CICS books

CICS Application Programming Primer (VS COBOL II)	SC33-0674
CICS Application Migration Aid Guide	SC33-0768
CICS Family: API Structure	SC33-1007
CICS Family: Client/Server Programming	SC33-1435
CICS Family: General Information	GC33-0155
CICS 4.1 Sample Applications Guide	SC33-1173
CICS/ESA 3.3 XRF Guide	SC33-0661

If you have any questions about the CICS Transaction Server for OS/390 library, see *CICS Transaction Server for OS/390: Planning for Installation* which discusses both hardcopy and softcopy books and the ways that the books can be ordered.

Books from related libraries

Books in related IBM libraries include:

IBM CICS for MVS/ESA Version 4.1

Release Guide, GC33-1161
Migration Guide, GC33-1162
Installation Guide, SC33-1163
Customization Guide, SC33-1165
Operations and Utilities Guide, SC33-1167
CICS-RACF Security Guide, SC33-1185

IBM CICS TS for OS/390 Release 1

CICS Release Guide, GC33-1570
CICS Migration Guide, GC33-1571
CICS Installation Guide, GC33-1681
CICS System Definition Guide, SC33-1682
CICS Customization Guide, SC33-1683
CICS Resource Definition Guide, SC33-1684
CICS Operations and Utilities Guide, SC33-1685
CICS Supplied Transactions, SC33-1686

CICS RACF Security Guide, SC33-1701

IBM CICS TS for OS/390 Release 2

CICS TS for OS/390 Up and Running, SC33-1789
CICS TS for OS/390 Release Guide, GC33-1570
CICS TS for OS/390 Migration Guide, GC33-1571
CICS Installation Guide, GC33-1681
CICS System Definition Guide, SC33-1682
CICS Customization Guide, SC33-1683
CICS Resource Definition Guide, SC33-1684
CICS Operations and Utilities Guide, SC33-1685
CICS Supplied Transactions, SC33-1686
CICS RACF Security Guide, SC33-1701

CICS for OS/2 Version 3

Installation, GC33-1580
Operation, SC33-1582
Customization, SC33-1581
Intercommunication, SC33-1583

CICS for OS/2 Version 3 and the CICS Client for OS/2 are distributed as part of the IBM Transaction Server for OS/2 WARP, Version 4.

Please refer to the *CICS Library Guide* for your release of CICS for the titles and form numbers of additional books that support these releases.

MVS/Enterprise Systems Architecture SP Version 4

Initialization and Tuning Reference, GC28-1635
Interactive Problem Control System (IPCS): Customization, GC28-1630
Interactive Problem Control System (IPCS): User's Guide, GC28-1631

MVS/Enterprise Systems Architecture SP Version 5

Initialization and Tuning Reference, SC28-1452
Interactive Problem Control System (IPCS): Customization, GC28-1461
Interactive Problem Control System (IPCS): User's Guide, GC28-1490

VSE/Enterprise Systems Architecture

Installation and Service, SC33-6504
Interactive Computing Control Facility Primer, SC33-6581
System Control Statements, SC33-6512

OS/2 WARP
An order number is not given for the following book because the number can vary from country to country.

User's Guide to OS/2 WARP

Resource Access Control Facility Version 2.1

System Programmer's Guide, SC23-3725

System Modification Program/Extended

System Modification Program/Extended: General Information, GC28-1106
System Modification Program/Extended: User's Guide, SC28-1302
System Modification Program/Extended: Reference, SC28-1107

NetView Version 2.4

NetView General Information, GC31-7098
NetView Installation and Administration Guide, SC31-7084
NetView Administration Reference, SC31-7080
NetView Customization Guide, SC31-7091
NetView Customization: Writing Command Lists, SC31-7092
NetView Automation Planning, SC31-7083
NetView Automation Implementation, LY43-0016
NetView RODM Programming Guide, SC31-7095
NetView Operation, SC31-7066
NetView User's Guide, SC31-7067
NetView Messages, SC31-7096

NetView MultiSystem Manager Version 2.1

MultiSystem Manager: Open Topology Interface, SC31-8144
MultiSystem Manager: Novell NetWare Networks, SC31-8129
MultiSystem Manager: OS/2 LAN Network Manager Networks, SC31-8130
MultiSystem Manager: Internet Protocol Networks, SC31-8131

Additional books

NCP Resource Definition Reference, SC31-6210
VTAM Resource Definition Reference, SC31-6427

Summary of Changes

This book is based on Part 3 of the *CICSPlex SM Setup* book, GC33-0784-03, for CICSPlex SM Release 3.

The information in this book has been updated to incorporate changes made for CICSPlex SM for CICS Transaction Server for OS/390 Release 3.

New and changed function in CICSPlex SM for CICS Transaction Server for OS/390 Release 3

The following additions and changes have been made to the book as a result of changed and new function at CICSPlex SM for CICS Transaction Server for OS/390 Release 3:

- New and changed information regarding workload management and RTA, as a result of the extensions to the dynamic routing program.

- CICSSYS definition has been modified.

- Information added about data set re-input to the batched repository-update facility.

Changes made to this book for CICSPlex SM for CICS Transaction Server for OS/390 Release 3

In addition to the changes required by new and changed product function, the following changes have been made to this book:

- This book was Part 3 of the *CICSPlex SM Setup* book at the previous release.

- The configuration views that were part of the *Operations Reference* at the previous release have been moved to this book and form part of Chapter 5, "Configuring a CMAS" on page 51.

- The topology views that were part of the *Operations Reference* at the previous release have been moved to this book and form part of Chapter 6, "Establishing the topology of a CICSplex" on page 87.

Chapter 1. Using CICSPlex SM administration views

This chapter contains general information you need to know about using the ISPF interface to perform CICSPlex SM administration tasks.

Note: If the PlexManager extended security message option is turned on at your enterprise, message BBMSS201I is displayed each time you open a new window or change the context of a window. You can press Enter to clear the message. For more information about PlexManager diagnostic facilities, refer to the *CICSPlex SM Problem Determination* manual.

The remainder of this chapter describes:

- "Setting the context and scope"
- "Accessing administration views" on page 2
- "Using action commands and overtype fields" on page 4
- "Requesting online help" on page 12
- Chapter 2, "Summary of administration views" on page 13.

Setting the context and scope

The information you can display in a view is based on the context and scope that are currently in effect for the window in which the view is to be displayed, where:

Context   Identifies a CMAS or one of the CICSplexes managed by a CMAS.

To create a context element, use the CMAS configuration views. For information about these views, see "Managing a CMAS configuration" on page 76.

When you are working with configuration views, you must set the context to a CMAS. For the topology views, the context must be set to a CICSplex.

Scope   (Recognized only when the context is a CICSplex.) Identifies a CICS system, CICS system group, or BAS logical scope that is associated with the CICSplex, or identifies the CICSplex itself.

To create a scope element, use the CICSplex topology views.

To create a BAS logical scope, use the BAS resource definition views.

If the scope is set to an * (asterisk) (as occurs after you initiate a hyperlink from PlexManager), and if you attempt to display any view that requires a valid scope you will receive an error message. You can use the SCOPE, SET, or SETD display command to establish a scope.

The names of the context and scope that are currently in effect are reflected on the window information line.

To change the context or scope for:

- Any currently open window, use the CONTEXT, SCOPE, or SET display command
- All subsequently opened or cleared windows, use the SETD display command.

Additional information about using the CONTEXT, SET, SETD, and SCOPE commands is in the *CICSPlex SM User Interface Guide*.

Accessing administration views

You can access a CICSPlex SM administration view by:

- Issuing a view command
- Selecting the view from a menu
- Initiating a hyperlink from another view.

CICSPlex SM administration views display information about definitions that exist in the CMAS data repository. If you attempt to access a view for which no definitions currently exist:

- The view name appears on the window information line
- The following message is displayed in the window:

```
BBMXBD15I  There is no data which satisfies your request
```

At that point, you can issue an action command to create the appropriate definitions.

Issuing a view command

The command that displays a view has the same name as the view itself. Thus, to display the ADMCONFG view, which contains a selection list of CMAS administration configuration views, you would issue the command:

```
ADMCONFG
```

You can issue the command either by typing the command in the COMMAND field and pressing Enter, or by pressing the PF key to which the command is assigned.

Some view commands have optional or required parameters. For information on how to specify parameters, see "Specifying command parameters" on page 3.

Selecting a view from a menu

You can select an administration view from a menu by using the MENU command. The MENU command has parameters that can be used to qualify the list of views from which you can select. For the administration views described in this book, you can use the following parameters with the MENU command:

ADMCONFG   For a menu of the CMAS configuration views

ADMTOP   For a menu of the topology views

For example, Figure 1 on page 3, illustrates the selection list produced when you issue the MENU ADMCONFG command.

```
26MAR1999  16:50:40 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =MENU=============EYUPLX01=EYUPLX01=26MAR1999==16:50:40=CPSM=========6===
CMD Name            Description
--- -------------------------------
    ADMCONFG   CMAS Configuration Administration Views
     BATCHREP   Batched Repository Updates
     CPLEXDEF   CICSplex Definitions
     CPLXCMAS   CMAS in CICSplex Definitions
     CMTCMDEF   CMAS-to-CMAS Link Definitions
     CMTPMDEF   CMAS-to-RMAS Link Definitions
```

Figure 1. A sample menu of administration views

To select a view from a menu, you can:

- Type an S (for Select) next to the view name and press Enter.

- Place the cursor on the line containing the view name and description and press Enter to initiate a hyperlink to that view.

When you select a view from a menu, you can also specify any optional or required parameters to be used by the view command. For information on how to specify parameters, see "Specifying command parameters."

For a complete description of the MENU command, see the *CICSPlex SM User Interface Guide*.

Initiating a hyperlink to a view

You can hyperlink to an administration view from another view that contains a hyperlink field. To initiate a hyperlink, place the cursor on the appropriate field and press Enter.

If you want the results of a hyperlink to be displayed in an alternate window, type a window identifier in the ALT WIN field before you press Enter.

Hyperlink fields appear on the screen either in high intensity or in a different color from other fields in the view. A list of the hyperlink fields available on each view is included with the view descriptions in this book. The online help for a view and its fields also identifies the hyperlink fields.

Specifying command parameters

You can specify parameters for a view command in one of two ways:

- When you issue a view command, type the parameters along with the command in the COMMAND field.

- When you select a view from a menu, overtype the line containing the view name and description with parameters before pressing Enter.

    If the parameters do not completely overwrite the view name and description, you can (but are not required to) delete the remainder of the line.

The parameters for a view command can be keywords or variables. A variable parameter can be used to identify:

- A specific value, as in `CPLEXDEF EYUPLX01`, which causes detailed information about the CICSplex named EYUPLX01 to be displayed.
- A generic value, as in:
  - `CPLEXDEF EYUP*`, which causes information about CICSplexes whose names begin with EYUP to be displayed.
  - `CPLEXDEF EYUPLX+1`, which causes information about CICSplexes whose names begin with EYUPLX and have a 1 in the eighth position to be displayed.

Using action commands and overtype fields

Types of action commands

You can perform actions against the contents of an administration view by issuing a primary or line action command, where:

Primary action commands

Are issued in the COMMAND field of an Information Display panel. They affect the view shown in the current window.

Line action commands

Are issued in the line command field of a window. They affect the view in the window from which the command is issued. This window need not be the current window.

Line action commands can be repeated, as described in "Repeating a line action command" on page 6.

If you enter an invalid action command, or if a command cannot be processed for any reason, error messages are displayed in the window. When you press Enter, any additional messages that could not fit in the window are displayed. Once all the messages have been displayed, you can press Enter to clear the messages from the window. The view reappears with ERR in the field where the action command was entered. (When the action command is entered from a summary view and the command was successful for only some of the resources summarized, MIX appears in the field; this indicates the action command produced mixed results.) The next time you press Enter, ERR (or MIX) is removed.

There are several common types of action commands that you can use with the administration views:

CREate To create a definition and add it to the data repository you can:

- Issue the CREate primary action command. The fields in the resulting input panel contain blanks.
- Enter the CRE line action command next to the name of a definition you want to use as a model. The fields in the resulting input panel contain information about that definition.

An administration definition name can be 1 to 8 characters in length. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

ADD   To add an association between two definitions enter the ADD line action command next to the name of one of the definitions. The resulting panel prompts you to identify the other definition with which you want to create an association. Adding an association creates a relationship between the definitions in the data repository. Associations can be added between definitions and groups, between groups and specifications, and between specifications and CICS systems.

UPDate   To update a definition in the data repository enter the UPD line action command next to the name of the definition you want to change. The resulting panel is a modifiable version of the panel used to create the definition.

SET   To modify a definition directly from the view in which it appears:

1. Enter the SET line action command next to the name of the definition you want to change.

   The value you specified in the Require Set field on the CICSPlex SM entry panel determines whether or not you must use the SET command when you overtype a field.

2. Move the cursor to the appropriate overtype fields in the view and modify the contents of those fields.

The changes are applied to the data repository when you press Enter.

BROwse   To browse a definition in the data repository enter the BRO line action command next to the name of the definition you want to display. The resulting panel is a nonmodifiable version of the panel used to create the definition.

REMove   To remove a definition or an association between two definitions from the data repository enter the REM line action command next to the name of the definition you want to remove. When you press Enter, a confirmation panel is displayed. Press Enter again to remove the definition from the data repository. If the last resource is removed, subsequent REMove commands result in a "NO DATA" message being displayed.

TEMpmp   To specify a temporary maintenance point CMAS to be used when the identified maintenance point is unavailable enter the TEMPMP primary action command. The resulting panel prompts you to identify a CMAS to serve as the temporary maintenance point.

A temporary maintenance point keeps track of any changes you make to administration definitions while the maintenance point CMAS is unavailable. However, the information is not shared with other CMASs in the network. When the maintenance point CMAS becomes available again, the information is removed from the data repository of the temporary maintenance point.

For more information about working with maintenance point CMASs, refer to "Working with maintenance point CMASs" on page 55.

MAP   To display a visual map of the definitions in the data repository enter the MAP line action command next to the name of the definition you want to use as a starting point. The resulting panel prompts you to specify the type of definitions to be mapped: business application

services (BAS), resource monitoring (MON), real-time analysis (RTA), or workload management (WLM).

Alternatively, you can use a specific line action command (BAS, MON, RTA, or WLM) to map the desired definitions.

For a complete description of the MAP action command and the display it produces, see "Displaying a map of CICSPlex SM definitions."

All of these actions, except MAP and BROWSE, affect the contents of the data repository and the changes are applied immediately. Most of the changes to the data repository have no effect, however, on CICS systems that are currently active. These changes affect a CICS system the next time the CICS system is restarted.

Notes:

1. When you use the CICSSYS or PERIODEF views to update definitions, the changes affect both the data repository and currently active CICS systems.

2. Changes to a currently running MAS are not included in the data repository.

3. All of these actions can also be performed using the batched repository-update facility, which is described in Chapter 3, "Using the batched repository-update facility" on page 17.

A list of the specific action commands available for each view is included with the view descriptions in this book. The online help for a view also identifies the valid action commands.

For more information about using action commands and overtype fields, see the *CICSPlex SM User Interface Guide*.

Repeating a line action command

You can issue multiple line action commands in a window at one time when a general or summary view is displayed. To do this, you can either type each command individually, or repeat the same command on subsequent lines of the view.

To repeat a line action command within a view:

1. Type the command in the line command field next to the first line you want to act against.

2. Type the equals sign (=) in the command field next to any subsequent lines for which the same command should be issued.

When multiple line action commands are entered (either explicitly or by using the equals sign) they are processed from the top to the bottom of a view.

Displaying a map of CICSPlex SM definitions

You can use the MAP action command to display a visual map of the definitions in your data repository. The map can be of business application services, resource monitoring, real-time analysis, or workload management definitions.

Displaying a map from a view

You can display a map of definitions from any perspective by deciding what type of definition and, of that type, which definition you want to be the *starting point*. A map consists of a starting point definition and all the definitions that either refer to that definition or are referred to by it.

When you are looking at a view of CICSPlex SM definitions, the line where you issue the MAP action command determines which definition is the initial starting point for the map. For example, suppose you are looking at a list of your CICS system groups in the CICSGRP view. You can issue the MAP action command next to group EYUCSG01. On the resulting panel you are prompted for the type of definitions to be mapped: business application services (BAS), resource monitoring (MON), real-time analysis (RTA), workload management (WLM).

Figure 2 shows an example of the map that is displayed when you specify RTA.

```
------------------------- MAP of CSYSGRP EYUCSG01 -------------Row 1 - 5 of 5
COMMAND ===>                                                  Scroll ==> PAGE
CSYSGRP    RTASPEC    RTAGROUP   PERIODEF   (R)RTADEF    (E)EVALDEF
                                            (S)STATDEF   (A)ACTION
--------   --------   --------   --------   -----------  -----------
EYUCSG01---EYURTS01---EYURTG01---EYUPDF01-+-(R)EYURTD01-+-(A)EYURTA01
                                          |             +-(E)EYURTE09
                                          +-(R)EYURTD02-+-(A)EYURTA11
                                          |             +-(E)EYURTE16
                                          +-(S)EYURTP01
```

Figure 2. Sample map of definitions referred to by a CICSGRP

Note: Alternatively, you can issue the BAS, MON, RTA, or WLM action command directly to map definitions of the specified type.

Notice that a map fills the screen and temporarily overlays the information display panel. A message in the ISPF short message area indicates how many rows of data there are and how many are currently displayed. You can use the ISPF scroll commands (UP, DOWN, LEFT, and RIGHT) to scroll the contents of a map that is larger than one screen. When you issue the END command, the map disappears and the information display panel is redisplayed.

In the map shown in Figure 2, the CICS system group called EYUCSG01 is the starting point and it appears in the left-most position of the display. In most cases, the initial map display is built from left to right, with the starting point on the left.

An exception to this left-to-right perspective is a map built from a low-level definition that does not refer to other definitions; it is only referred to by higher level definitions. In that case, the map is built from right to left and the starting point is on the right.

For example, looking at Figure 2, you might have issued the MAP action command from the EVALDEF view for the evaluation definition called EYURTE16. Evaluation definitions are among the lowest level of real-time analysis definitions. They do not

refer to any definitions; they are only referred to by other definitions. So there are no definitions to be mapped to the right of an evaluation definition. In this example, then, EYURTE16 would appear on the right and all of the definitions that refer to it would be mapped to the left.

Note: The following definitions are low-level definitions. When they are the starting point for a map, they appear on the right and the map is built from right to left:

- ACTNDEF
- EVALDEF
- MONDEF
- TRANGRP
- Resource definitions (such as FILEDEF).

The definitions in a map are connected by one of the following symbols:

–   The definition is associated with a definition to the left or right.

+   The definition is associated with a definition to the left or right and there is another definition above or below it that has the same association.

| The definition is associated with the same definition as the one above or below it.

A definition that appears on the screen in either high intensity or a different color is considered an *orphan*; it is referred to by other definitions, but it does not exist in the data repository. For example, in Figure 2 on page 7, the evaluation definition EYURTE09 was referred to when analysis definition EYURTD01 was created; however, EYURTE09 itself has not yet been created.

In a business application services (BAS) map, additional fields of data related to one or more definitions appear on the screen in either low intensity or a different color. These fields contain descriptive data, rather than definition names; they are protected and you cannot tab to them.

Displaying related maps

Once a map is displayed, you can change the starting point for the map. This enables you to see additional, related definitions either to the right or to the left of a given definition. Also, as you move through a series of related maps, you can redisplay previous maps.

To change the starting point for a map, type one of the following commands in the COMMAND field, tab to the definition you want to be the starting point, and press Enter:

MAP LEFT   To display a map of definitions to the left of the selected starting point (that is, definitions that refer to the starting point).

MAP RIGHT   To display a map of definitions to the right of the selected starting point (that is, definitions that are referred to by the starting point).

Alternatively, if the MAP LEFT and MAP RIGHT commands have been assigned to PF keys, position the cursor to a starting point before pressing the appropriate PF key.

For example, you can start with Figure 2 on page 7, which is a map of definitions that are referred to by the CICS system group EYUCSG01. If you tab to EYURTG01 and issue the MAP LEFT command, you can see a map of the definitions that refer to that analysis group. Figure 3 on page 9 shows the map that is displayed when you issue MAP LEFT from EYURTG01.

```
------------------------- MAP of RTAGROUP EYURTG01 ------------Row 1 - 1 of 2
 COMMAND ===>                                                Scroll ==> PAGE
 (S)CSYSDEF    (R)RTASPEC     RTAGROUP
 (G)CSYSGRP    (A)APSPEC
 (C)CPLXCMAS
 -----------   -----------   -----------
 (S)EYUMAS1A-+-(R)EYURTS01---EYURTG01
 (S)EYUMAS1B-|
 (S)EYUMAS2A-|
 (G)EYUCSG01-+
```

Figure 3. Map of an RTAGROUP after MAP LEFT

In this map, EYURTG01 is now the starting point. It appears on the right of the display and the definitions that refer to it (an analysis specification called EYURTS01, CICS systems called EYUMAS1A, EYUMAS1B, and EYUMAS2A, and the CICS system group EYUCSG01) appear to the left.

From this map, you can tab to EYUCSG01 and issue the MAP RIGHT command to redisplay the original map shown in Figure 2 on page 7. Alternatively, you can tab to any definition in the map and issue a MAP LEFT or MAP RIGHT command to display a new map of related definitions.

For example, if you tab to a definition on the far left or far right of a map and issue the MAP LEFT or MAP RIGHT command, there may not be any more definitions to map in that direction. If that is the case, the definition you selected is displayed in a map by itself; you can then use that definition as the starting point for a map in the other direction.

As you use the MAP LEFT and MAP RIGHT commands to display various maps of related definitions, you may decide you want to redisplay one of those maps. To redisplay previous maps exactly as they appeared, issue the following command:

MAP PREV   Displays the map of definitions that appeared immediately before the current map. You can display up to 20 previously displayed maps.

Displaying another view from a map

While you are looking at a map, you can display a view of any one of the definitions in the map. To do this, place the cursor on a definition name and press Enter. The view that represents that type of definition is displayed with a single line of data for the definition you selected.

For example, in Figure 3, if you place the cursor on EYURTS01 and press Enter, the RTASPEC view appears with information about that analysis specification. From the RTASPEC view, you can determine what types of real-time analysis are defined

in that specification. You can also change the specification, which would affect the CICS systems that use EYURTS01.

Once you display a view, you cannot return directly to the map that preceded it. Displaying a view is equivalent to issuing the END command to exit from a map; you have to reissue the MAP action command to display another map.

Notes:

1. If the definition you select is an orphan, which means it does not yet exist, the view contains data for all definitions of that type that do exist. You can then create a definition using the name that appeared in the map.

2. You cannot display a view of CMAS or CICSplex definitions from a map. Because a map is made up of business application services, resource monitoring, real-time analysis, or workload management definitions, the context is necessarily a CICSplex. To display CMAS or CICSplex definitions, the context must be a CMAS. If you select a CMAS or CICSplex definition and press Enter, you receive an error message.

Using selection lists

When you enter a value for which specific input is required and your value does not meet the requirements for that value, a selection list is displayed. The selection list includes all values that meet the requirements for that type of input. Selection lists can be displayed when you enter any of the following:

- A generic value
- The name of an undefined CICSPlex SM resource
- An inappropriate command parameter
- An invalid value in an overtype field.

One example is the selection list of period definitions that is displayed when the generic value 'period*' is entered in an input panel.

```
COMMAND ===>                                                    Scroll ==> Page
Active Time requires a specific resource.
Select a single entry, change the key, or enter END or CANCEL to terminate.

                    Resources matching key: *

C Name     Description                    Type             Status
- -------- ------------------------------ ---------------- -----------------
_ EYUPDF01 SSet - Normal day              PERIODEF         N/A
_ EYUPDF02 SSet - Batch time              PERIODEF         N/A
***************************** BOTTOM OF DATA ********************************
```

Figure 4. Selection list displayed when a generic name is specified

You can select a value from a selection list in one of two ways:

- Type an S (for select) to the left of the value you want and press Enter.

- Enter the name of the selected resource in the Resource matching key field and press Enter. If you specify another generic name in this field, a second selection list is displayed.

Another way a selection list can be displayed is when, on an input panel, you specify a resource name for a CICSplex resource that does not exist. For example, when you create a CICS system definition, you might specify a name for a period definition that has not been created. When this happens, a selection list for that type of resource is displayed, with a message indicating that the resource is not found. Figure 5 shows an example of this type of selection list.

```
COMMAND ===>                                                   Scroll ==> Page
Active Time EYUPDF04 is not found on the repository.
Select an entry, press Enter to accept, or enter END or CANCEL to terminate.

                      Selected Active   EYUPDF04

C Name      Description                     Type            Status
- --------  ------------------------------  --------------  -----------------
_ EYUPDF01 SSet - Normal day                PERIODEF        N/A
_ EYUPDF02 SSet - Batch time                PERIODEF        N/A
***************************** BOTTOM OF DATA *********************************
```

Figure 5. Selection list displayed when a resource is not found

You can do one of the following:

- Select another resource by typing S to the left of the value you want or by entering the name in the Resource matching key field.

- Press Enter to accept the resource you specified. You return to the input panel. The name of the resource you selected appears on the input panel.

  When you do this, the action command for which the input panel was displayed is executed (for example, the CICS system definition is created). You must later define that resource, by that name, using the appropriate view.

- Issue END or CANCEL to return to the input panel.

Using overtype fields

An overtype field is a modifiable field in a view that contains data related to a specific CICS resource or CICSPlex SM definition. Overtype fields are shown either in high intensity or in a different color from other fields in the view.

To change the contents of one or more overtype fields in a view, type over the current contents with new values. For specific values known to CICSPlex SM, you need not type the entire value; you can type the smallest number of unique characters needed to distinguish your request from any other appropriate entry. When you press Enter, CICSPlex SM accepts the new values.

Notes:

1. If you specified YES in the Require Set field on the CICSPlex SM entry panel, you must use the SET line action command when you overtype a field to prevent inadvertent modification of information.

2. When the value you enter does not completely overwrite the old value, you can (but are not required to) delete the remainder of the old value.

For more information about overtyping fields, see the *CICSPlex SM User Interface Guide*.

Requesting online help

At any time during a CICSPlex SM session, you can request online help information about the product, the ISPF interface, or a specific view, field, or action. Table 2 shows the types of information available and how to request it.

Table 2. Summary of CICSPlex SM online help	
For information about ...	**Do this ...**
A view	• Place the cursor on the view or form name field on a window information line and issue the HELP command. • Issue the command HELP viewname where viewname is the name of the view.
Action commands	• Place the cursor in the line command field of a view and issue the HELP command. • Type a question mark (?) in the line command field of a view and press Enter. • Issue the command HELP ACTIONS.
A field of data	Place the cursor on a field or field heading in a view and issue the HELP command.
An input panel	Issue the HELP command while the panel is displayed.
A display command	Issue the command HELP cmdname, where cmdname is the name of a CICSPlex SM display command.
The help facility	Issue the command HELP HELP
CICSPlex SM	Place the cursor anywhere in the control area of the Information Display panel and issue the HELP command.

Note: Any HELp command that you issue frequently (for example, HEL ACTIONS), can be assigned to a PF key.

Chapter 2. Summary of administration views

This chapter identifies the administration views that you can use to create, maintain, and manage your CICSPlex SM environment.

Views for creating and maintaining administration definitions

Table 3 shows the administration views used to set up, maintain, and manage CMASs and CICS systems. It also indicates the information you can display and the actions you can perform using these views.

Table 3 (Page 1 of 2). Views to create and maintain administration definitions

Task	Display	Actions Supported	View	Page
Configuring a CMAS	Batched repository update tasks that are currently active	• Submit a task to add, update, or remove records in the data repository.	BATCHREP	60
	CICSplex definitions known to the *local CMAS*, that is, the maintenance point CMAS that is also identified as the current context	• Create, browse, or remove a CICSplex definition. • Update the description of a CICSplex. • Add a CMAS to a CICSplex definition.	CPLEXDEF	70
	CMASs associated with a CICSplex that is known to the local CMAS	• Browse, force, or remove a CMAS from a CICSplex definition.	CPLXCMAS	74
	Links between the local CMAS and other CMASs	• Create, browse, update, or remove a direct CMAS-to-CMAS link.	CMTCMDEF	62
	Links between the local CMAS and remote MASs	• Create, browse, update, or remove a CMAS-to-remote MAS links.	CMTPMDEF	66

Table 3 (Page 2 of 2). Views to create and maintain administration definitions

Task	Display	Actions Supported	View	Page
Defining the topology of a CICSplex	CICS systems defined to a CICSplex	• Create, browse, remove, or update a CICS system definition. • Add a CICS system to a CICS system group.	CICSSYS	100
	CICS system groups defined to a CICSplex	• Create or remove a CICS system group definition. • Update the description of a CICS system group. • Add a CICS system or CICS system group to a CICS system group.	CICSGRP	95
	CICS system groups and the members (CICS systems, CICS system groups, or both) they contain	• Remove a member from a CICS system group definition.	SYSGRPC	123
	Time period definitions	• Create, update, or remove a time period definition.	PERIODEF	119

Views for managing administration definitions

When a CMAS or CICS system is active, you can use the views identified in Table 4 on page 15 to obtain status information about the CMAS or CICS system.

Table 4. Views to manage administration definitions

Task	View (Command syntax and use)
Managing a CMAS configuration	`CICSPLEX plexid` • Display information about the CMASs associated with a CICSplex known to the local CMAS.
	`CMAS [cmasid]` • Display information about CMASs known to the local CMAS. • Shut down a CMAS. • Alter CMAS component trace settings. • The default is: All CMASs known to the local CMAS.
	`CMASD cmasid` • Display information about a specific CMAS known to the local CMAS. • Shut down a CMAS. • Alter CMAS component trace settings.
	`CMASPLEX` • Display information about the CICSplexes being managed by the local CMAS.
	`CMTCMLNK [cmasid]` • Display information about all or specific CMASs linked to the local CMAS. • Discard a CMAS-to-CMAS link.
	`CMTCMLND cmasid` • Display information about the link between a specific CMAS and the local CMAS. • Discard the CMAS-to-CMAS link.
	`CMTPMLNK [masid]` • Display information about all or specific MASs linked to the local CMAS. • Discard the CMAS-to-MAS link. • The default is: All MASs known to the local CMAS.
	`CMTPMLND masid` • Display information about a specific MAS linked to the local CMAS. • Discard the CMAS-to-MAS link.
Managing the CICS system in a CICSplex	`MAS [cmasid]` • Display information about CICS systems known to a CICSplex or connected to the designated CMAS involved in managing the CICSplex. • Browse or temporarily update the general, workload management, real-time analysis, resource monitoring, and MAS trace attributes of an active CICS system. • Stop MAS agent code in an active CICS system. • The default is: All CICS systems known to the CICSplex.

Note: When you discard or deactivate an administration definition, it is removed from the active CICS system. It is not removed from the data repository. Thus, the next time the CICS system starts or the appropriate time period is reached, the definition is available for use.

summary of administration views

Chapter 3. Using the batched repository-update facility

The data repository associated with each CMAS contains the definitions that establish your CICSPlex SM environment. These definitions are stored as individual records. In general, you can create and maintain these definitions by using either end-user interface views or the batched repository-update facility to do the following:

- Create, update, or remove CICSPlex SM definitions.

- Add an association to a definition, as in adding an association between a CICS system and a CICS system group.

When creating and maintaining CMAS and CICSplex definitions, you can use the views described in Chapter 5, "Configuring a CMAS" on page 51. For all other CICSPlex SM definitions, depending on the action to be performed, you can use either of the following:

- The views described in:

    - Chapter 6, "Establishing the topology of a CICSplex" on page 87.
    - *CICSPlex SM Managing Resource Usage*.
    - *CICSPlex SM Managing Workloads*.
    - *CICSPlex SM Managing Business Applications*.

- The batched repository-update facility.

Notes:

1. To perform an action that affects an active CICS system, such as installing definitions, you must use the ISPF end-user interface or the API.

2. The batched repository-update facility can be run only for the data repository of the local CMAS (that is, the CMAS that is the context when you submit the batched repository update job).

When you use views, input panels prompt you for the information you must supply to perform the action (such as creating, adding, updating, or removing a definition). Another advantage of using views is the fact that all instances of a given resource type (such as workload management definitions) are displayed together.

The batched repository-update facility offers advantages of its own. Instead of using multiple view screens repeatedly to create large numbers of definitions, you can create a standard input file to add the definitions to the data repository all at one time. This can reduce the effort of creating such definitions as the Transaction in Transaction Group (DTRINGRP) associations, which can involve identifying hundreds of transactions. Similarly, when you use Business Application Services (BAS) to create and maintain your CICS resource definitions, the batched repository-update facility can streamline the definition process.

Submitting a batched repository update job

To submit a batched repository update job, you must:

1. Create a sequential data set or partitioned data set member to contain your input to the batched repository-update facility. The data set must have a fixed blocked format, RECFM(FB), and a logical record length of 80, LRECL(80).

2. Create your input, as described in "Creating an input file" on page 18.

3. Set the end-user interface context to the CMAS whose data repository you want to update. This CMAS is considered the local CMAS.

4. Use the BATCHREP view, as described on page 60, to submit your batched repository update job.

Creating an input file

A batched repository-update facility input file consists of control statements that describe the updates you want to make to the data repository. The input file must adhere to the following requirements:

- Each control statement must be terminated with a semicolon (;).

- A control statement can span multiple lines.

- Comments must be delimited with /* at the beginning and */ at the end. (Any line with * in column 1 is also treated as a comment.)

- Comments can also span multiple lines.

When creating your input file, you must first identify the context (CMAS or CICSplex) to which the updates apply. To do this, use the control statement:

```
CONTEXT [plexid]
```

where $plexid$ is the name of a CICSplex associated with the local CMAS (that is, the CMAS that is the context when you submit the batched repository update job). If you specify a CICSplex as the context for the update, the local CMAS must be the maintenance point for that CICSplex. If you omit this parameter, the local CMAS is assumed to be the context.

Once you have established a context, it remains in effect for the batched repository update job until you explicitly change it with another CONTEXT statement.

The rest of the control statements in an input file vary according to the type of updates you are making. The following sections describe the control statements for each type of update in detail.

Creating and maintaining CICSPlex SM definitions

To create, update, remove, or review CICSPlex SM definitions in the data repository, use one or more control statements in the form:

```
command object keyword1(value) keyword2
```

where:

command   Is the name of a batched repository-update facility command, in uppercase letters. Specify one of the following:

CREATE
To create a record and add it to the data repository associated with the local CMAS.

UPDATE
To update an existing record in the data repository.

Note: You cannot update LNKSxSCG records using the batched

repository-update facility, although you can do so through the end-user interface.

REMOVE

To remove an existing record from the data repository.

When you remove a record, all associations between that record and other records in the data repository are lost. For example, if you remove a CICS system definition, associations between that CICS system and any CICS system groups or component specifications are also removed.

LIST

To list a record from the data repository.

DUMP

To list a record from the data repository and insert a CREATE control statement in front of it.

You can use the output resulting from a DUMP command as input to another batched repository update job that creates definitions. The output of a DUMP command is formatted as follows:

- Data lines are broken at column 72
- Continuation characters are placed in column 1.

By default, the output is written to a spool file and must be extracted from the spool, and edited, before it can be used as input to the batched repository-update facility. The extracted records contain ANS control characters in column 1, therefore you must shift the records one character to the left to align the data for processing by CICSPlex SM. You also have to remove all the page header information from the data set. For an example of a listing, see Figure 8 on page 31. However, you can use the OUTPUT command to write the output in the correct format, direct to a data set. For details, see "Creating a data set for re-input to the batched repository-update facility" on page 23.

CICSPlex SM requires certain definitions to exist before others can be created. Therefore, you should adhere to the following guidelines when dumping data repository records:

- Always dump CICS system (CSYSDEF) and CICS system group (CSYSGRP) records first.

- Dump basic CICSPlex SM definition records (such as, xxxDEF, xxxGROUP, and xxxSPEC). before association records (such as, LNKxxxxx, xxxINGRP, or xxxINSPC).

- For Business Application Services:

  – Dump RESGROUP records before RESDESC and RASGNDEF records.

  – Dump RESDESC and RASGNDEF records before RESINDSC and RASINDESC records.

  – Dump resource definition records (such as FILEDEF) before xxxINGRP records (such as FILINGRP).

  – Dump CONNDEF and SESSDEF records before SYSLINK records.

If you follow these guidelines, the output from a DUMP command will be in the correct order for the batched repository-update facility to create new definitions. For an example of using the DUMP command output to create new definitions, see "Examples of managing records in the data repository" on page 29.

Notes:

1. Output from the DUMP and LIST commands contains a visible record of any passwords associated with CICS resources (such as connections or files). To prevent possible security exposures, you should restrict access to such output.

2. The DUMP command output for specification-to-CICS system group link records (LNKSxSCG) and specification-to-CICS system link records (LNKSxSCS) cannot be used directly as input for a CREATE command. The output records must be modified before they can be used to create new records:

   • For LNKSxSCS, the LINK and GROUP operands must be removed. See `keyword1(value)`, on page 20.

   • For LNKSxSCG, an additional operand must be included. See `keyword2`, on page 20.

`object`   Is one of the resource table names shown in Table 5 on page 24.

For a detailed description of each of these resource tables, their fields, and valid values, see the *CICSPlex SM Resource Tables Reference*.

`keyword1(value)`

Is the name of a field in the specified resource table and the data that is appropriate for that field, in uppercase letters. The required input for the various commands is as follows:

CREATE and UPDATE
Provide the same type of information you would normally provide when using the input panel associated with the equivalent end-user interface view.

REMOVE
Identify the specific record to be removed.

LIST and DUMP
Provide a specific or generic record name, where generic names can contain the plus sign (+), asterisk (*), or both.

`keyword2`   Indicate how the creation or removal of a specification-to-CICS system group link record (LNKSxSCG) should affect the current members of the CICS system group. The keywords for the CREATE and REMOVE commands must be entered in uppercase letters and are as follows:

CREATE
Specify one of the following:

`FORCE`   All current members of the CICS system group should have implicit links established to the named specification. When a link already exists, it is replaced with the newly CREATEd link.

NULL   Current members of the CICS system group should have implicit links established to the named specification only if no link already exists.

NONE   No implicit links should be established.

There is no default value for `keyword1` when you use the CREATE command; you must specify a value.

REMOVE

Specify one of the following:

KEEP   All implicit links are to be converted to explicit links.

NONE   No implicit links are to be converted to explicit links.

The default `keyword1` value for the REMOVE command is NONE.

When you submit the batched repository update job, the syntax of each command is checked for validity. If multiple commands are being issued, syntax checking can have the following results:

- When a LIST or DUMP command is invalid, that command is not executed; processing of all subsequent commands continues.

- When a modification command (CREATE, UPDATE, or REMOVE) is invalid, that command is not executed. All subsequent modification commands are checked for validity; however, no subsequent modification commands are executed.

- When only modification commands are issued, and any of them is invalid, the job fails.

Creating CICS resource definitions

To create CICS resource definitions and optionally add them to a resource group in the data repository, use one or more control statements in the form:

```
CREATE object NAME(defname) [RESGROUP(resgroup)]
```

where:

object   Is one of the resource table names shown in Table 5 on page 24 that represent a CICS resource type (such as CONNDEF).

defname   Is the name of the resource definition you are creating.

resgroup   Is the name of an existing resource group in the data repository to which the resource definition should be added.

Producing a map of CICSPlex SM definitions

In addition to creating and maintaining CICSPlex SM definitions, you can produce a visual map of the definitions in the data repository. The map is similar to the one displayed when you issue the MAP action command from an end-user interface view.

To produce a map, use one or more control statements in the form:

```
command object NAME(defname)
```

where:

command   Is the name of a batched repository-update facility command, in
          uppercase letters. Specify one of the following:

> **MAPLEFT**
>> To produce a map of the definitions to the left of the starting point;
>> that is, those definitions that refer to the starting point.
>
> **MAPRIGHT**
>> To produce a map of the definitions to the right of the starting point;
>> that is, those definitions that are referred to by the starting point.

object   Is a resource table name that identifies the type of definition to be
          displayed in the map.

> You can produce a map of the following definitions:
>
> Topology
>
>> CSYSDEF
>> CSYSGRP
>> PERIODEF
>
> Workload management
>
>> TRANGRP
>> WLMDEF
>> WLMGROUP
>> WLMSPEC
>
> Real-time analysis
>
>> ACTION
>> APSPEC
>> EVALDEF
>> RTADEF
>> RTAGROUP
>> RTASPEC
>> STATDEF
>
> Resource monitoring
>
>> MONDEF
>> MONGROUP
>> MONSPEC
>
> Business application services
>
>> xxxxDEF (resource definitions such as FILEDEF)
>> RESGROUP
>> RESDESC
>> RASGNDEF

defname   Is the specific or generic name of a definition that is to be the starting
          point for a map. If you enter a generic name, a map is produced for
          each definition whose name matches the pattern.

For an example of a visual map of definitions, see "Displaying a map of
CICSPlex SM definitions" on page 6.

Creating a data set for re-input to the batched repository-update facility

You can create an output data set from the batched repository-update facility to hold the CREATE statements produced from DUMP commands. This data set is in the correct format for re-input to the batched repository-update facility without further editing; that is, it does not contain heading lines and the data is aligned in the correct columns. Note, however, that you may still need to edit this output data to modify the context, group names, version numbers, and so on.

When you use the DUMP command (see the information on page 19), you may use the OUTPUT command to request that any resulting CREATE commands are written to an output data set, in addition to the normal report. The OUTPUT command must be the first command in the BATCHREP input data stream, to ensure that the command precedes any DUMP commands. You cannot specify more than one OUTPUT command.

The format of the OUTPUT command is:

```
OUTPUT DATASET DSNAME(data.set.name(member))
INQUOTES(NO|YES
```

where:

DATASET
> This keyword must be specified.

DSNAME
> Specifies a data set name. You must specify a data set name and the data set must exist. The output data set cannot be the same as the input data set. The data set must consist of fixed-length, 80-byte records; the records may be blocked and any block size is acceptable.

> data.set.name   The data set name must not exceed 44 characters in length. Each component of the name cannot be more than 8 characters long, and the components must be separated by full stops. The data set name must be a fully-qualified data set name. The first component of the data set name does not default to the logged-on user id.

> member   If the output data set is partitioned, the member name. The member name cannot be more than 8 characters long. The member name must be omitted if the output data set is not partitioned.

INQUOTES(NO|YES)
> Indentifies whether or not you want field values enclosed in quotes on the output data set. You may need to use this control statement if you have any data on your CSD that contains unbalanced parentheses. If you omit this keyword, the default value of NO is assumed.

> **NO**   The values of parameters are not enclosed in quotes on the output data set. This setting is perfectly adequate for input to the batched repository-update facility, but you might encounter problems if the parameter values contain unbalanced parentheses.

Note that, if you specify INQUOTES(NO), the EYU9BCSD output can be used as input to any release of the CICSPlex SM batched repository-update facility.

YES   All values of parameters are enclosed in quotes on the output data set. The CICSPlex SM batched repository-update facility terminates the parameter value at the final quote, not at an embedded parenthesis.

Note that, if you specify INQUOTES(YES), the EYU9BCSD output can be used only with the CICSPlex SM batched repository-update facility at CICS Transaction Server for OS/390 Release 3 and later. The EYU9BCSD output is not compatible with, and cannot be used as input to, the batched repository-update facility supplied with earlier releases of CICSPlex SM.

For example, suppose a DESCRIPTION field contains the value:

```
 1) Describe Resource
```

If you specify INQUOTES(NO), which is the default, the EXTRACT routine will produce the following statement in the output data set:

```
 DESCRIPTION(1) Describe Resource)
```

The CICSPlex SM batched repository-update facility interprets this as a DESCRIPTION field containing the value 1, followed by two unrecognizable keywords.

If you specify INQUOTES(YES), the EXTRACT routine places quotes around the field value. The output data set would contain the statement:

```
 DESCRIPTION('1) Describe Resource')
```

This statement is interpreted correctly by the CICSPlex SM batched repository-update facility.

Supported resource tables

Table 5 lists the CICSPlex SM resource tables that you can process using the batched repository-update facility.

Table 5 (Page 1 of 6). Resource table names

Resource type	Table name	Definitions affected
Configuration	CMTCMDEF	CMAS-to-CMAS definitions
	CMTPMDEF	CMAS-to-remote MAS definitions

Table 5 (Page 2 of 6). Resource table names

Resource type	Table name	Definitions affected
Topology	CSGLCGCG	Association between a CICS system group and a CICS system group
	CSGLCGCS	Association between a CICS system and a CICS system group
	CSYSDEF	CICS systems
	CSYSGRP	CICS system groups
	LNKSWSCG	Association between a workload specification and a CICS system group
	LNKSWSCS	Association between a workload specification and a CICS system
	PERIODEF	Time periods
	SYSLINK	System links
Workload management	DTRINGRP	Association between a transaction and a transaction group
	TRANGRP	Transaction groups
	WLMDEF	Workload definitions
	WLMGROUP	Workload groups
	WLMINGRP	Association between a workload definition and a workload group
	WLMINSPC	Association between a workload group and a workload specification
	WLMSPEC	Workload specifications

Table 5 (Page 3 of 6). Resource table names

Resource type	Table name	Definitions affected
Real-time analysis	ACTION	Action definitions
	APSPEC	Analysis point specifications
	CMDMPAPS	Primary CMAS association
	CMDMSAPS	Secondary CMAS association
	EVALDEF	Evaluation definitions
	LNKSRSCG	Association between an analysis specification and a CICS system group
	LNKSRSCS	Association between an analysis specification and a CICS system
	RTADEF	Analysis definitions
	RTAGROUP	Analysis groups
	RTAINAPS	Association between an analysis group and an analysis point specification
	RTAINGRP	Association between an analysis definition and an analysis group
	RTAINSPC	Association between an analysis group and an analysis specification
	RTASPEC	Analysis specifications
	STAINGRP	Association between a status definition and an analysis group
	STATDEF	Status definitions
Monitor	LNKSMSCG	Association between a monitor specification and a CICS system group
	LNKSMSCS	Association between a monitor specification and a CICS system
	MONDEF	Monitor definitions
	MONGROUP	Monitor groups
	MONINGRP	Association between a monitor definition and a monitor group
	MONINSPC	Association between a monitor group and a monitor specification
	MONSPEC	Monitor specifications

Table 5 (Page 4 of 6). Resource table names

Resource type	Table name	Definitions affected
Business application services	RASGNDEF	Resource assignments
	RASINDSC	Association between a resource assignment and a resource description
	RESDESC	Resource descriptions
	RESGROUP	Resource groups
	RESINDSC	Association between a resource group and a resource description
	CONINGRP	Association between a connection definition and a resource group
	DOCINGRP	Association between a document template definition and a resource group
	D2CINGRP	Association between a DB2® connection definition and a resource group
	D2EINGRP	Association between a DB2 entry definition and a resource group
	D2TINGRP	Association between a DB2 transaction definition and a resource group
	ENQINGRP	Association between an ENQ/DEQ model definition and a resource group
	FILINGRP	Association between a file definition and a resource group
	FNOINGRP	Association between a FEPI node definition and a resource group
	FPOINGRP	Association between a FEPI pool definition and a resource group
	FPRINGRP	Association between a FEPI property set definition and a resource group
	FSGINGRP	Association between an OS/2® file segment definition and a resource group
	FTRINGRP	Association between a FEPI target definition and a resource group
	JRMINGRP	Association between a journal model definition and a resource group
	JRNINGRP	Association between a journal definition and a resource group
	LSRINGRP	Association between an LSR pool definition and a resource group

Table 5 (Page 5 of 6). Resource table names

Resource type	Table name	Definitions affected
Business application services (continued)	MAPINGRP	Association between a map set definition and a resource group
	PARINGRP	Association between a partner definition and a resource group
	PGMINGRP	Association between a program definition and a resource group
	PRCINGRP	Association between a process type definition and a resource group
	PRNINGRP	Association between a partition set definition and a resource group
	PROINGRP	Association between a profile definition and a resource group
	RQMINGRP	Association between a request model definition and a resource group
	SESINGRP	Association between a session definition and a resource group
	TCLINGRP	Association between a transaction class definition and a resource group
	TCPINGRP	Association between a TCP/IP service definiton and a resource group
	TDQINGRP	Association between a transient data queue definition and a resource group
	TRMINGRP	Association between a terminal definition and a resource group
	TRNINGRP	Association between a transaction definition and a resource group
	TSMINGRP	Association between a temporary storage model definiton and a resource group
TYPINGRP	Association between a typeterm definition and a resource group	

Note: The information displayed in the RESINGRP end-user interface view can be found separately in the xxxINGRP resource table for each resource type.

Table 5 (Page 6 of 6). Resource table names

Resource type	Table name	Definitions affected
CICS resources	CONNDEF	Connection definitions
	DB2CDEF	DB2 connection definitions
	DB2EDEF	DB2 entry definitions
	DB2TDEF	DB2 transaction definitions
	DOCDEF	Document template definitions
	ENQMDEF	ENQ/DEQ model definitions
	FENODDEF	FEPI node definitions
	FEPOODEF	FEPI pool definitions
	FEPRODEF	FEPI property set definitions
	FETRGDEF	FEPI target definitions
	FILEDEF	File definitions
	FSEGDEF	OS/2 file segment definitions
	JRNLDEF	Journal definitions
	JRNMDEF	Journal model definitions
	LSRDEF	LSR pool definitions
	MAPDEF	Mapset definitions
	PARTDEF	Partner definitions
	PROCDEF	Process type definitions
	PROFDEF	Profile definitions
	PROGDEF	Program definitions
	PRTNDEF	Partition set definitions
	RQMDEF	Request model definitions
	SESSDEF	Session definitions
	TCPDEF	TCP/IP service definitions
	TDQDEF	Transient data queue definitions
	TERMDEF	Terminal definitions
	TRANDEF	Transaction definitions
	TRNCLDEF	Transaction class definitions
	TSMDEF	Temporary storage model definitions
	TYPTMDEF	Typeterm definitions

Examples of managing records in the data repository

The following examples illustrate how you might create, remove, list, and dump definition records in the data repository, and add a CICS system to a CICS system group.

Example 1 - Creating a record

To create a workload specification, you can use either the input panel, shown in Figure 6, which is produced when you issue the CREATE action command from the WLMSPEC view, or the batched repository-update facility.

```
 ------------------- Create WLM Specification for EYUPLX01 -------------------
 COMMAND  ===>

  WLM Spec Name        ===>
  Description          ===> SSet - Basic Workload

  Affinity Relation    ===>               Default Affinity Relation
                                (USERID, LUNAME, GLOBAL, BAPPL)
  Affinity Lifetime    ===>               Default Affinity Lifetime
                                (SIGNON, LOGON, SYSTEM, PERMANENT,PCONV, DELIMIT
                                 ACTIVITY, PROCESS)
  Match Key            ===> USERID     Default Primary search criterion
                                (USERID,LUNAME)
  Create Affinity      ===>               Create Auto Affinity (YES, NO, N/A)
  Target Scope         ===> EYUCSG03    Default CICS System,Group or Generic
  Event Name           ===>               RTADEF, STATDEF, or Generic

  Abend Health         ===> 0           Target ABEND Health Factor (0 - 99)
  Abend Load           ===> 0           Target ABEND Load Factor (0 - 99)   - 99)
  Algorithm Type       ===> Queue       Algorithm Type (GOAL, QUEUE)


 Press Enter to create WLM Specification.
 Type END or CANCEL to cancel without creating.
```

Figure 6. Example of using a view to create a definition

Figure 7 illustrates how to specify the same information when preparing a batched repository update job:

```
/* after setting context, create workload specification */
CONTEXT EYUPLX01;
CREATE WLMSPEC NAME(EYUWMS01) DESC(Sample description)
               AFFINITY(USERID)
               AFFLIFE(SIGNON)
               MATCH(USERID)
               AORSCOPE(EYUCSG01)
               EVENTNAME(PAGERATE)
               ABENDCRIT(2)
               ABENDTHRESH(1)
               ALGTYPE(GOAL);
```

Figure 7. Using the batched repository-update facility to create a definition

Example 2 - Removing a record

To remove the workload specification named EYUWMS01, you might specify:

```
CONTEXT EYUPLX01;
REMOVE WLMSPEC NAME(EYUWMS01);
```

Example 3 - Creating a link record

To create a link called WLMSPC01 between a workload specification and a CICS system group, you might specify:

```
CREATE LNKSWSCG SPEC(WLMSPC01)
                GROUP(EYUCSG01)
                FORCE;
```

Example 4 - Listing records

To list all workload specification records that have names beginning with EYU, you would specify:

```
CONTEXT EYUPLX01;
LIST WLMSPEC NAME(EYU*);
```

Figure 8 illustrates the output format of records that you list from the data repository. Note that the output produced by the DUMP control statement is very similar; the major difference being that the word CREATE precedes the resource table name. If you use the OUTPUT command, the DUMP command will produce both a report, as illustrated in Figure 8, and a data set, which contains the CREATE commands in a form suitable for re-input to the CICSPlex SM batched repository-update facility; see "Example 6 - Dumping records as input to create new records" on page 32.

```
      CICSPlex SM - Batch Repository Process Report


 Input DSN:   CPSM.BATCH.SAMPLE                          Input Member: TEST


 CONTEXT EYUPLX01 ;
 EYUXU0218I  CVMBBC Batch LIST request complete - Status(OK)
 Last Change:   9/06/93 21:18:25.85895
       WLMSPEC NAME(EYUWMS02)
               DESC(Sample definition 1)
               AFFINITY(USERID)
               AFFLIFE(SIGNON)
               MATCH(USERID)
               AORSCOPE(EYUCSG01)
               EVENTNAME(PAGERATE)
               ABENDCRIT(2)
               ABENDTHRESH(1)
               ALGTYPE(GOAL)
               ;

 Last Change:   8/14/93 15:27:05.34023
       WLMSPEC NAME(EYUWMS03)
               DESC(Sample definition 2)
               AFFINITY(GLOBAL)
               AFFLIFE(PERMANENT)
               MATCH(N/A)
               AORSCOPE(EYUCSG01)
               EVENTNAME( )
               ABENDCRIT(0)
               ABENDTHRESH(0)
               ALGTYPE(N/A)
               ;
```

Figure 8. Sample output produced when listing data repository definitions

| **Note:** In the EYUWMS03 record in Figure 8, EVENTNAME is an example of a
| keyword that has no value; MATCH and ALGTYPE are examples of
| keywords with a value of N/A.

Example 5 - Dumping records as a backup

To back up all of the workload management records in the data repository, you
would specify:

```
CONTEXT EYUPLX01;
DUMP WLMSPEC  NAME(*);
DUMP WLMGROUP NAME(*);
DUMP WLMDEF   NAME(*);
DUMP TRANGRP  NAME(*);
DUMP DTRINGRP TRANGRP(*);
DUMP WLMINGRP GROUP(*);
DUMP WLMINSPC NAME(*);
```

Example 6 - Dumping records as input to create new records

| To dump all versions of the CICS resource definitions in the correct order, directly
| to a data set that is to be resubmitted as input for creating new records, you would
| specify the following. The OUTPUT command causes all CREATE records to the
| written to data set EYUIR01.MYOUT1.

```
| OUTPUT DATASET DSNAME(EYUIR01.MYOUT1) INQUOTES(NO)
CONTEXT EYUPLX01;
DUMP CSYSDEF  NAME(*);
DUMP CSYSGRP  GROUP(*);
DUMP RESGROUP RESGROUP(*);
DUMP RESDESC  RESDESC(*);
DUMP RASGNDEF RESASSGN(*);
DUMP RASINDSC RESDESC(*)
              RESASSGN(*);
DUMP RESINDSC RESDESC(*)
              RESGROUP(*);
DUMP CONNDEF  NAME(*);
DUMP SESSDEF  NAME(*);
DUMP xxxxDEF  NAME(*);
      .
      .
      .
DUMP CONINGRP CONNGROUP(*)
              CONNNAME(*);
DUMP SESINGRP SESSGROUP(*)
              SESSNAME(*);
DUMP xxxINGRP xxxxGROUP(*)
              xxxxNAME(*);
      .
      .
      .
DUMP SYSLINK  FROMCSYS(*)
              TOCSYS(*);
```

| where:

| • xxxxDEF is the CICS resource definition type. Examples are CONNDEF,
| FILEDEF, and MAPDEF, the xxxx string representing either a 3- or 4- character
| string and is the same for xxxxDEF, xxxxNAME, and xxxxGROUP.

| • xxxxNAME is the name of the CICS resource definition, given as an attribute in the xxxINGRP resource table.

| • xxxxGROUP is the name of the resource group to which the resource definition belongs, given as an attribute in the xxxINGRP resource table.

| • xxxINGRP is the CICSPlex SM Business Application Servicesdefinition describing the membership of the CICS resource definition in a resource group. Examples are CONINGRP, FILINGRP, and MAPINGRP.

| See the *CICSPlex SM Resource Tables Reference* for all possible variants of
| xxxxDEF and xxxINGRP definitions.

Note: The xxxxDEF and xxxINGRP resource tables also include version attributes, which enable you to process a specific version of the record. You can specify:

   • DEFVER(n) for an xxxxDEF record

   • xxxxVER(n) for an xxxINGRP record

Example 7 - Adding a CICS system to a CICS system group

To add a CICS system to a CICS system group associated with a monitor specification, and to create the link between the CICS system and the monitor specification, you might specify:

```
CONTEXT EYUPLX01;
CREATE CSGLCGCS GROUP(EYUCSG01) CICSNAME(EYUMAS1A);
CREATE LNKSMSCS SPEC(MONSPC01) SYSTEM(EYUMAS1A);
```

When used to create a CICS system to CICS system group link record (CSGLCGCS) with the system group already associated with a specification, the batched repository-update facility does not create a specification-to-CICS system link record (LNKSxSCS). To associate the CICS system with the specification, the LNKSxSCS record must be created explicitly.

using the batched repository-update facility

Chapter 4. Using PlexManager to manage CAS connections

This chapter describes PlexManager. PlexManager is a service utility that you can use to determine the status of the connections between a CAS and its associated CICSPlex SM address spaces (CMASs) and CICSplexes. You can also use PlexManager to manage the connections between multiple CASs.

Sections in this chapter describe:

- "Accessing PlexManager and its views"
- "Defining and controlling CAS cross-system communication" on page 37
- "Monitoring CAS activity" on page 46
- "Maintaining screen configurations" on page 49.

Accessing PlexManager and its views

One way you can access PlexManager is by selecting option 1 from the CICSPlex SM entry panel. (For a detailed description of the CICSPlex SM entry panel and its options, see the *CICSPlex SM User Interface Guide*). After you press Enter, the PLEXOVER view is displayed.

You can also access PlexManager from any CICSPlex SM window and display a specific PlexManager view. To do this, you would perform one of the following:

- Issue the CONTEXT display command with a view name, as in:

  `CONTEXT * PLEXMGR;view_name`

  where:

  `* (asterisk)`   Accesses the MVS image (or system) you are logged on to, rather than the system you are currently viewing.

  `view_name`   Is the name of a PlexManager view.

- Issue the SET display command to display the input panel illustrated in Figure 9 on page 36.

  Note: If the PlexManager extended security message option is turned on at your enterprise, message BBMSS201I is displayed each time you open a new window or change the context of a window. To remove the message, press Enter. For more information about PlexManager diagnostic facilities, refer to the *CICSPlex SM Problem Determination* manual.

```
----------- SET WINDOW CONTEXT, PRODUCT, SERVER, SCOPE AND VIEW ----------------
COMMAND ===>

  Window Parameters:

  Context     ===> EYUPLX01
  Product     ===> CPSM
  Server      ===> *
  Scope       ===> EYUPLX01
  View        ===> MENU


  Type End to Set Window Parameters
       Cancel to quit without setting
```

Figure 9. The SET input panel as displayed from a CICSPlex SM window

Change the information in the input panel to provide the following information, as
appropriate:

Context
Specify either asterisk (*), meaning the system you are currently using, or the
name of any system in which PlexManager is available.

Product
Specify PLEXMGR.

Server
Specify asterisk (*).

Scope
Specify asterisk (*).

View
Specify the name of a PlexManager view.

For example, you might complete the input panel as shown in Figure 10.

```
------------SET WINDOW CONTEXT, PRODUCT, SERVER, SCOPE AND VIEW ----------------
COMMAND ===>                                                           ==> PAGE

  Window Parameters:

  Context     ===> *
  Product     ===> PLEXMGR
  Server      ===> *
  Scope       ===> *
  View        ===> CASACT


  Type End to Set Window Parameters
       Cancel to quit without setting
```

Figure 10. Using SET to display a PlexManager view

To display any PlexManager view from within PlexManager, you can:

- Select a PlexManager view from the selection list produced by the VIEWS
  command.

- Issue a PlexManager view command directly.

You can use the following PlexManager views to manage your CAS environment:

CASACT   Manage the activity of your VTAM® cross-system communication links.

CASDEF   Create and maintain CAS cross-system communication definitions.

CASDEFD   Display information about a specific CAS definition.

PLEX   Display a list of the available combinations of product and context (or *service points*) in one or more systems known to the CAS to which you are currently connected.

PLEXOVER   Display a list, by context, of the available service points known to the CAS to which you are currently connected.

SCREENS   Display a list of user-created screen configurations.

These views are described in the remainder of this section.

In addition, you can use these PlexManager views to obtain diagnostic information:

DIAGMSG   For information about the PlexManager message options. (This command should be used only at the request of customer support personnel.)

DIAGSESS   For information about the communication sessions that are currently active between systems.

DIAGSYS   For information about the VTAM connections between the CASs defined to CICSPlex SM.

For complete descriptions of these commands, see the *CICSPlex SM Problem Determination* manual.

Defining and controlling CAS cross-system communication

This section describes how you can use the CASACT, CASDEF, and CASDEFD views to define and control the VTAM cross-system communication between CASs. The CAS in the MVS/ESA system to which you are connected is considered the local CAS. A CAS in another MVS/ESA system with which the local CAS communicates is a remote CAS.

CASACT (CAS cross-system activity)

The CASACT view can help you manage the activity of your VTAM cross-system communication links. The action commands you can use from the CASACT view affect only the running CAS; they do not affect the CAS definition in the parameter repository.

To display information about current CAS cross-system communication activity, you can:

- From any PlexManager view, issue the command:

  CASACT

- From a CICSPlex SM window, issue the CASACT command with the CONTEXT or SET display command, as described on page on page 35.

Figure 11 on page 38 is an example of the CASACT view.

```
26MAR1999  14:49:59 ----------- INFORMATION DISPLAY -------------------------
COMMAND  ===>                                               SCROLL ==> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CASACT============SYSB=====*========26MAR1999==14:49:59=PLEXMGR======2===
CMD CAS       Cur Description                            VTAMAppl  BBC   SPCF
--- Name---- Sys ----------                             --------  Act   Act
    SYSB     Yes System B CAS                           BBCASB    YES   YES
    SYSC     No  System C CAS                           BBCASC    YES   YES
```

Figure 11. The CASACT view

Action commands

Table 6 summarizes the action commands you can use with the CASACT view.

Table 6. CASACT view action commands

Primary command	Line command	Description
HALt system	HAL	Halts VTAM communication between the local CAS and a remote CAS.
		All communication sessions between the local CAS and the specified CAS are terminated immediately, regardless of any outstanding requests for information. Once communication is halted, you cannot access the remote CAS again until you restart communication using the START action command.
QUIEsce system	QUI	Quiesces communication between the local CAS and a remote CAS.
		Communication sessions between the local CAS and the specified CAS are terminated only after all information requests between the sessions are complete. Once communication is quiesced, you cannot access the remote CAS again until you restart communication using the START action command.
STart system	S	Starts communication between the local CAS and a remote CAS that is newly defined or one that was previously quiesced or halted.
		The START command is not valid for a remote CAS with which communication is currently active.

Note: These action commands are not valid for the local CAS, which is identified by a value of YES in the Cur Sys field.

Hyperlink fields

There are no hyperlink fields in the CASACT view.

CASDEF (Multiple CAS definitions)

Each CAS must be defined to the MVS/ESA system on which it resides. In addition, for a CAS to communicate with other CASs through VTAM or join an XCF group, the CAS must be defined to other MVS/ESA systems. The CASDEF view allows you to create and maintain these local and cross-system CAS definitions.

A CAS definition includes:

- Information that uniquely identifies the CAS
- A VTAM major node name
- An XCF group name for XCF communication.

To display information about your CAS definitions, you can:

- From any PlexManager view, issue the command:

    CASDEF

- From a CICSPlex SM window, issue the CASDEF command with the CONTEXT or SET display command, as described on page on page 35.

Figure 12 is an example of the CASDEF view.

```
26MAR1999  14:49:59 ----------- INFORMATION DISPLAY -------------------------
COMMAND  ===>                                              SCROLL ==> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =CASDEF============EYUA=====*========(00 BROWSE      )=PLEXMGR======2===
CMD CAS      Cur Description                           Status        VTAM
--- Name---- Sys ----------                            -------------- ApplName
    EYUA     Yes System A CAS                          Installed      EYUCAS1A
    EYUB     No  System B CAS                          Installed      EYUCAS1B
```

Figure 12. The CASDEF view

Notes:

1. Scroll to the right to see the Del field, which indicates whether a CAS definition has been marked for deletion.

2. The CASDEF view in Figure 12 is shown in browse mode, which means no editing actions can be performed. For a description of the CASDEF edit and browse modes, see "Editing CAS definitions" on page 41.

The first time you display the CASDEF view (that is, before you have added any CAS definitions), information for a default definition is displayed. The VTAM ApplName field contains a value of *NONE*, and the Description field contains the words Use CASDEF to update.

Action commands

Table 7 on page 40 summarizes the action commands you can use with the CASDEF view.

Note that the CASDEF view can be displayed in two modes, browse and edit. By default, CASDEF appears in browse mode, which allows you to review CAS definitions, but not modify them. Most of the CASDEF action commands require

you to be in edit mode, as noted in Table 7 on page 40. For a description of the CASDEF browse and edit modes, see "Editing CAS definitions" on page 41.

Table 7. CASDEF view action commands

Primary command	Line command	Description
ADD system	A	Displays the ADD CAS SYSTEM DEFINITION input panel, which lets you create a CAS definition, as described on page 42.
		Before you can add a CAS definition, you must issue the EDIT action command to obtain access to the parameter repository.
CANCEL	n/a	Cancels CAS definition changes you are currently making or returns from edit mode to browse mode.
CHANGE system	C	Displays the CHANGE CAS SYSTEM DEFINITION input panel, which lets you change an existing CAS definition.
		The format of this panel is similar to that shown in Figure 13 on page 42. You can modify any field in the panel except CAS System Name.
		Before you can change a CAS definition, you must issue the EDIT action command to obtain access to the parameter repository.
DELete system	DEL	Marks a CAS definition for deletion from the parameter repository, as described on page 44.
		Before you can mark a CAS definition for deletion, you must issue the EDIT action command to obtain access to the parameter repository.
EDIT	n/a	Provides editing access to CAS definitions in the parameter repository, as described on page 41.
INStall system	INS	Immediately updates a running CAS with new or changed CAS definitions, as described on page 45.
SAVE	n/a	Saves in the parameter repository any CAS definition changes you have made while in edit mode.
UNDelete system	UND	Reinstates a CAS definition that was marked for deletion but not saved, as described on page 44.
		Before you can mark a CAS definition for deletion, you must issue the EDIT action command to obtain access to the parameter repository.

Hyperlink fields

Table 8 shows the hyperlink field on the CASDEF view.

Table 8. CASDEF view hyperlink field

Hyperlink field	View displayed	Description
CAS Name	CASDEFD	Displays detailed information about a specific CAS definition.

Editing CAS definitions

Before you can add, change, or delete CAS definitions, you must obtain editing access to the parameter repository. You cannot issue any action command that affects a CAS definition in the parameter repository until you have issued the EDIT command.

To edit a CAS definition in the parameter repository, do the following:

1. Display the CASDEF view.

2. Issue the EDIT primary action command to obtain editing access to the CAS parameter repository.

   The edit mode status field on the window information line changes from (00 BROWSE) to (00 EDIT) to indicate that edit mode is active.

3. Issue any of these action commands:

   - ADD, to add a definition
   - CHANGE, to change a definition
   - DELETE, to delete a definition
   - UNDELETE, to reinstate a definition.

   As you modify CAS definitions, the edit mode status field on the window information line changes from (00 EDIT) to (00 EDIT MOD). This means you have made changes that have not yet been saved in the CAS parameter repository.

4. When you are ready to save your changes, issue the SAVE primary action command.

   The edit mode status field on the window information line changes from (00 EDIT MOD) to (00 EDIT) to indicate that edit mode is still active, but all outstanding modifications have been saved.

At any time while you are editing CAS definitions, you can issue the CANCEL primary action command to cancel your changes or exit edit mode and return to browse mode:

- If you issue the CANCEL command when either the ADD or CHANGE CAS SYSTEM DEFINITION panel is displayed, you return to the CASDEF view. Edit mode is still active, but the changes you were making when you issued CANCEL do not take effect.

- If you issue the CANCEL command when the CASDEF view is displayed and edit mode is active, you are returned to browse mode. The edit mode status field on the window information line changes from (00 EDIT) to (00 BROWSE) to indicate that edit mode is no longer active.

  The CAS parameter repository returns to its previous state. If you saved any changes during the edit session, the contents of the repository are as they were the last time you issued the SAVE command. Otherwise, the repository is as it was when you first entered edit mode.

Adding a CAS definition

To add a CAS definition to the parameter repository, do the following:

1. Display the CASDEF view.

2. Issue the EDIT primary action command to obtain editing access to the CAS parameter repository.

3. Issue the add primary (ADD) or line (A) action command from the CASDEF view.

   The ADD CAS SYSTEM DEFINITION input panel appears, as shown in Figure 13.

```
--------------------- ADD CAS SYSTEM DEFINITION ------------------------------
COMMAND ===>

CAS System Name    ===> EYUA      (Recommended same as MVS System Name)
  Description      ===>

System Identification Information:
  MVS System Name  ===> EYUA         SMF ID         ===> *
  SysPlex Name     ===> *            Subsystem ID   ===> *

System Communication Information:
  VTAM Appl Name   ===> EYUCAS0A
  XCF Group Name   ===> BBGROUP



Enter END to add the CAS System Definition.
Enter CANCEL to leave without adding.
```

Figure 13. Adding a CAS definition

4. Provide the following information, as appropriate:

   CAS System Name
   Specify a unique 1- to 8-character name for the CAS.

   Since there is generally only one CAS per MVS/ESA image, you should make this name the same as the MVS system name. The only exception would be if you are defining a test CAS on a system where a production CAS already exists.

   Description
   Specify a 1- to 40-character description of the CAS definition.

   System Identification Information
   Use the fields in this section of the panel to uniquely identify the CAS.

   MVS System Name
   Specify the name of the MVS/ESA system in which the CAS resides.

   Sysplex Name
   Specify the name of the sysplex to which the MVS/ESA system belongs. (Every MVS/ESA system has a sysplex name, even if it is not part of a formal sysplex configuration.) You can code * (asterisk) if the MVS System Name uniquely identifies the system.

SMF ID
Specify the name of the MVS/ESA system as it appears in the active SMFPRMxx member of SYS1.PARMLIB. You can code * (asterisk) if the MVS System Name uniquely identifies the system.

Subsystem ID
Specify the SSID= value used in the CAS startup procedure. You can code * (asterisk) if the MVS System Name uniquely identifies the system.

System Communication Information
Use the fields in this section of the panel to specify the CAS cross-system communication parameters.

VTAM Application Name
Specify the name you used in the APPL statement when defining a VTAM major node for this CAS (see the *CICS Transaction Server for OS/390: Installation Guide* manual). This name is unique for each CAS across multiple MVS/ESA systems; it is the name that VTAM uses to identify a CAS.

XCF Group Name
Use the default value of BBGROUP, even if you do not use XCF communication links at your enterprise.

5. Issue the END command to return to the CASDEF view.

6. Issue the SAVE action command to save the CAS definition in the parameter repository.

   Note: If you decide not to add this CAS definition to the parameter repository, you can use the CANCEL action command at any time before you issue SAVE.

7. Repeat this procedure for each CAS with which you want the local CAS to communicate.

The definitions on the local CAS are now complete. However, the remote CASs that were defined to this CAS still need information about themselves and the other CASs with which they will communicate.

For example, suppose your environment consists of three CASs, named EYUCAS01, EYUCAS02, and EYUCAS03 respectively, and you are currently connected to the system in which EYUCAS01 resides.

If each CAS has a separate parameter repository that it does not share with any other CAS, then you must establish a connection to each CAS in turn and define them to each other, as follows:

1. After adding definitions for EYUCAS01, EYUCAS02, and EYUCAS03 to the parameter repository for EYUCAS01, exit PlexManager.

2. Change the CAS identified in your CICSPlex SM profile to EYUCAS02.

3. Return to PlexManager and display the CASDEF view.

4. Add definitions of EYUCAS01, EYUCAS02, and EYUCAS03 to the parameter repository for EYUCAS02.

5. Repeat steps 1 through 4 to add definitions of EYUCAS01, EYUCAS02, and EYUCAS03 to the parameter repository for EYUCAS03.

If the CASs operate in a shared DASD, shared parameter repository environment, then you can do the following:

1. After adding definitions for EYUCAS01, EYUCAS02, and EYUCAS03 to the parameter repository for EYUCAS01, exit PlexManager.

2. Change the CAS identified in your CICSPlex SM profile to EYUCAS02.

3. Return to PlexManager and display the CASDEF view.

4. Issue the INSTALL * action command to dynamically update the cross-system communication parameters for the local CAS.

5. Repeat steps 1 through 4 to update the definitions for EYUCAS03.

Note: For a complete description of the CICSPlex SM profile where you specify a CAS name, see the *CICSPlex SM User Interface Guide*.

Deleting a CAS definition
To delete a CAS definition from the parameter repository, do the following:

1. Display the CASDEF view.

2. Issue the EDIT primary action command to obtain editing access to the CAS parameter repository.

3. Issue the delete primary (DELete) or line (DEL) action command from the CASDEF view.

   The CAS definition is marked for deletion and is removed from the CASDEF view. However, the definition is not yet removed from the parameter repository.

4. To complete the deletion process, issue the SAVE action command. The definition is removed from the repository.

If you change your mind, you can use the UNDELETE action command to reinstate a deleted CAS definition. Note, however, that you must issue UNDELETE before using the SAVE action command. Once a delete request is saved, the definition cannot be reinstated.

If you know the name of the CAS definition you want to reinstate, you can issue the primary action command as follows:

```
UNDelete casname
```

where `casname` is the name of the deleted CAS definition that you want to reinstate.

If you do not remember the name of the deleted CAS definition, first issue this command:

```
PARMS DELETED(*)
```

CAS definitions that have been marked for deletion since the last time you issued the SAVE command are redisplayed in the CASDEF view. The deleted definitions have a value of YES in the Del field.

Once you have identified the CAS definition you want to reinstate, you can:

• Issue the `UNDelete casname` primary action command.

• Place the cursor next to the definition in the CASDEF view and issue the UND line action command.

Installing CAS definition changes

To update a running CAS with new or changed CAS definitions, you can install the changes using the INStall action command. This allows the changes to take effect immediately, without waiting until the CAS is restarted or the MVS/ESA system is IPLed.

After you have added or changed CAS definitions, issue the install primary (INStall) or line (INS) action command from the CASDEF view. You can issues the INSTALL action command while the CASDEF view is in either edit or browse mode.

Note: The INSTALL action command does not save the CAS definition changes in the parameter repository. If you have not already saved the changes, use the SAVE action command, as described in "Editing CAS definitions" on page 41. Otherwise, the changes that you installed in the running CAS are lost the next time the CAS is restarted.

CASDEFD (A specific CAS definition)

The CASDEFD view provides detailed information about a specific CAS definition in the parameter repository. You can use the same action commands to maintain CAS definitions from the CASDEFD view as you can from the CASDEF view.

To display information about a specific CAS definition:

- From any PlexManager view, issue the command:

  CASDEFD system

  where system is the name of a specific CAS system.

- From the CASDEF view, place the cursor on a definition name in the CAS Name field and press Enter to initiate a hyperlink.

Figure 14 is an example of the CASDEFD view.

```
  26MAR1999  14:53:48 ----------- INFORMATION DISPLAY -------------------------
  COMMAND  ===>                                                SCROLL ==> PAGE
  CURR WIN ===> 1        ALT WIN ===>
 >W1 =CASDEF===CASDEFD==EYUA=====*========(00 BROWSE         )=PLEXMGR======1===
    Cas Name........ EYUA      Description... System A CAS
     Current System. Yes       Status........ Installed
    Identification--
     MVS Sysname.... EYUA      SMF ID........ *
     Sysplex........ *         Subsys Name... *
    Communication---
     VTAM Appl...... EYUCAS1A  XCF Group..... BBGROUP
     VTAM Mode...... *NONE*



    Update Info-----
     UpdSystem...... EYUA      UpdTime....... 09:05:00
     UpdUser........ LGS181    UpdDate....... 23FEB1995
     Deleted?....... No


```

Figure 14. The CASDEFD view

Action commands

The action commands you can use with the CASDEFD view are the same as those for the CASDEF view, as shown in Table 7 on page 40.

Hyperlink fields

There are no hyperlink fields in the CASDEFD view.

Monitoring CAS activity

This section describes how you can use the PLEX and PLEXOVER views to obtain information about available service points.

PLEX (Available service points by system)

To determine the status of the available service points in one or more systems known to the CAS to which you are currently connected, you can:

- From any PlexManager view, issue the command:

      PLEX [product [context]]

    where:

    product   Is the specific or generic name of a product or * (asterisk) for all products. (Specific product names are CPSM and PLEXMGR.)

    context   Is the specific or generic name of a context. When the product is CPSM, set the context to a CMAS or CICSplex; when the product is PLEXMGR, set the context to a system. If this parameter is omitted, the view includes information about all contexts associated with the designated product.

    If no parameters are specified, the view, illustrated in Figure 15, includes information about all products and their associated contexts.

- From a CICSPlex SM window, include the PLEX command with the CONTEXT or SET display command, as described on page on page 35.

```
26MAR1999 11:19:52 ----------- INFORMATION DISPLAY ----------------------------
COMMAND  ===>                                                  SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =PLEX=============SYSC=====*===========26MAR1999==11:19:52=PLEXMGR=====6===
C Product  Context  System   Description                      Status   Server
- -------- -------- -------- -------------------------------- -------- --------
  CPSM     EYUCMS1A SYSB     CMAS Service Point               Inactive EYUCMS1A
  CPSM     EYUCMS1B *        CMAS Service Point               Active   EYUCMS1B
  CPSM     EYUPLX01 SYSB     CICSplex Service Point           Inactive EYUCMS1A
  CPSM     EYUPLX02 *        CICSplex Service Point           Active   EYUCMS1B
  PLEXMGR  SYSB     SYSB     Service Point Manager            Active   PLEXMGR
  PLEXMGR  SYSC     *        Service Point Manager            Active   PLEXMGR
```

Figure 15. The PLEX view

The information reflected in the PLEX view is automatically updated every 30 seconds. To update the displayed information you must press Enter for each update, or you must ensure that the view is in ASU mode.

To display the Server field, which contains the names of the CMASs to which the service point (identified in the Product and Context fields) is connected, shift the display to the right.

Action commands

Table 9 summarizes the action command you can use with the PLEX view.

Table 9. PLEX view action command

Primary command	Line command	Description
n/a	S	Set the context and display a selection list. For the CICSPlex SM primary selection list, set the context to a CMAS or CICSplex; for the PlexManager VIEWS selection list, set the context to a system.

Note: Changing the context causes the scope to be changed to * (asterisk). When the context is a CICSplex, you must establish a scope before attempting to perform any action. The scope can be set to a CICS system or CICS system group associated with the CICSplex or to the CICSplex itself. (The scope is ignored when the context is a CMAS or system.)

Hyperlink fields

Table 10 shows the hyperlink field on the PLEX view.

Table 10. PLEX view hyperlink field

Hyperlink field	View displayed	Description
Product	MENU	When the product is CPSM, displays the CICSPlex SM main menu (MENU) and sets the context to the designated CMAS or CICSplex. The scope is set to * (asterisk).
	PLEXOVER	When the product is PLEXMGR, displays the PlexManager PLEXOVER view.

PLEXOVER (Available service points)

To determine the status, by context, of the available service points known to the CAS to which you are currently connected, you can:

- From any PlexManager view, issue the command:

      PLEXOVER [context [product]]

  where:

  context   Is the specific or generic name of a CMAS, CICSplex, system, or * (asterisk) for all contexts.

  product   Is the specific or generic name of a product. (Specific product names are CPSM and PLEXMGR.) If this parameter is omitted, the view includes information about all products associated with the designated context.

  If no parameters are specified, the PLEX view, illustrated in Figure 15 on page 46, includes information about all products and their associated contexts.

• From a CICSPlex SM window, include the PLEXOVER command with the CONTEXT or SET display command, as described on page on page 35.

Figure 16 is an example of a PLEXOVER view.

```
26MAR1999 11:19:52 ----------- INFORMATION DISPLAY ---------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
>W1 =PLEXOVER=========SYSC=====*==========26MAR1999==11:19:52=PLEXMGR====6===
C Context  Product  Description                       Status   Server   System
- -------- -------- -------------------------------- -------- -------- --------
  EYUCMS1A CPSM     CMAS Service Point                Inactive EYUCMS1A SYSB
  EYUCMS1B CPSM     CMAS Service Point                Active   EYUCMS1B *
  EYUPLX01 CPSM     CICSplex Service Point            Inactive EYUCMS1A SYSB
  EYUPLX02 CPSM     CICSplex Service Point            Active   EYUCMS1B *
  SYSB     PLEXMGR  Service Point Manager             Active   PLEXMGR  SYSB
  SYSC     PLEXMGR  Service Point Manager             Active   PLEXMGR  *
```

Figure 16. The PLEXOVER view

Action commands

Table 11 summarizes the action command you can use with the PLEXOVER view.

Table 11. PLEXOVER view action commands

Primary command	Line command	Description
n/a	S	Set the context and display a selection list. For the CICSPlex SM primary selection list, set the context to a CMAS or CICSplex; for the PlexManager VIEWS selection list, set the context to a system.

Note: Changing the context causes the scope to be changed to * (asterisk). When the context is a CICSplex, you must establish a scope before attempting to perform any action. The scope can be set to a CICS system or CICS system group associated with the CICSplex or to the CICSplex itself. (The scope is ignored when the context is a CMAS or system.)

Hyperlink fields

Table 12 on page 49 shows the hyperlink fields on the PLEXOVER view.

Table 12. PLEXOVER view hyperlink fields

Hyperlink field	View displayed	Description
Context	PLEX	For multiple occurrences of the designated context, displays detailed information about each occurrence.
	MENU	For a single occurrence of a CMAS or CICSplex, displays the CICSPlex SM main menu (MENU) and sets the context to the designated CMAS or CICSplex. The scope is set to * (asterisk).
	VIEWS	For a single occurrence of a system, displays the PlexManager VIEWS selection list and sets the context to the designated system. The scope setting is ignored.
Product	MENU	When the product is CPSM, displays the CICSPlex SM main menu (MENU) and sets the context to the designated CMAS or CICSplex.
		Note: When the product is PLEXMGR, this hyperlink is not active; the PLEXOVER view is redisplayed.
Status	PLEX	Displays detailed information about the designated CMAS, CICSplex, or system.

Maintaining screen configurations

This section describes how you can use the SCREENS view to obtain information about, and manage user-created screen configurations.

For information about saving and reusing screen configurations, see the *CICSPlex SM User Interface Guide*.

SCREENS (Screen configurations)

To display information about existing user-created screen configurations, you can:

- From any PlexManager view, issue the command:

      SCREENS [screen–config]

   where `screen–config` is the specific or generic name of a screen configuration. If this parameter is not specified, information about all screen configurations is displayed.

- From a CICSPlex SM window, issue the SCREENS command with the CONTEXT or SET display command, as described on page on page 35.

Figure 17 on page 50 is an example of the SCREENS view.

```
 26MAR1999  16:19:45 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
  W1 =SCREENS===========EYUPLX01=EYUCSG01=26MAR1999==16:19:45=CPSM=========3===
 C Name      Description                      Userid
 - --------  -----------------------------    ----------
   SCR02     Two windows - PROGRAM and FILE   USER01
   SCR03     Three windows                    USER01
   W3H1V2    Three windows - one over two     USER02
```

Figure 17. The SCREENS view

Action commands

Table 13 summarizes the action commands you can use with the SCREENS view.

Table 13. SCREENS view action commands

Primary command	Line command	Description
n/a	D	Delete a screen configuration from the CAS screen repository.
n/a	S	Select a screen configuration from the CAS screen repository.
		Note: When you select a new screen configuration, the stack of previously displayed views associated with each window is cleared. The windows in the new screen configuration do not have any previous views associated with them.

Hyperlink fields

Table 14 shows the hyperlink field on the SCREENS view.

Table 14. SCREENS view hyperlink field

Hyperlink field	View displayed	Description
Name	n/a	Causes the current screen configuration to be replaced by the designated screen configuration.
		Note: When you replace the current screen configuration with a new one, the stack of previously displayed views associated with each window is cleared. The windows in the new screen configuration do not have any previous views associated with them.

Chapter 5. Configuring a CMAS

This chapter describes the CICSPlex SM configuration definitions. These definitions establish the relationships that can exist between a CICSPlex SM address space (CMAS) and a CICSplex, another CMAS, and a remote managed application system (MAS).

Sections in this chapter describe:

- "Preparing to configure a CMAS"
- "Working with maintenance point CMASs" on page 55
- "CMAS configuration definitions and their related views" on page 58
- "Managing a CMAS configuration" on page 76.

Preparing to configure a CMAS

Configuration views allow you to establish and maintain definitions that:

- Define one or more CICSplexes to a CMAS and, optionally, identify other CMASs that are involved in managing those CICSplexes.

- Link a CMAS to another CMAS to permit direct communication.

- Link a CMAS to a MAS (known as an remote MAS) that uses LU 6.2 or MRO to communicate with the CMAS.

Associating one or more CICSplexes with a CMAS

When you define a CICSplex to a CMAS, as described on page 70, the definition is stored in the data repository for that CMAS. There is no limit to the number of CICSplexes that you can associate with a CMAS as long as the name of each CICSplex is unique within your CICSPlex SM environment.

Figure 18 on page 52 illustrates a CMAS named EYUCMS1A and its data repository. In this example, the data repository contains a single CICSplex definition. The definition identifies the CICSplex as EYUPLX01 and associates it with the CMAS named EYUCMS1A.
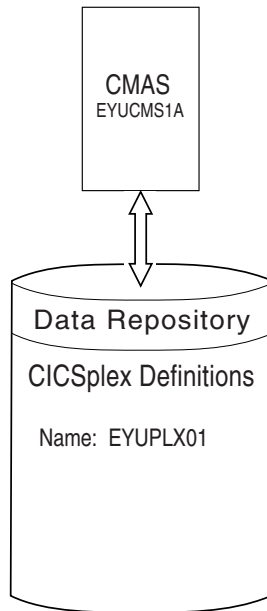
Figure 18. A CICSplex defined to a CMAS

Associating a CICSplex with one or more CMASs

When multiple CMASs are involved in the management of a CICSplex, the CMAS identified as the current context when the CICSplex was defined becomes the maintenance point CMAS for the CICSplex. As described on page 73, the names of the other CMASs are then added to the CICSplex definition. In Figure 19, for example, the data repository for the CMAS named EYUCMS1A shows that the CICSplex named EYUPLX01 is to be managed by three CMASs. In this example, EYUCMS1A is the maintenance point CMAS.
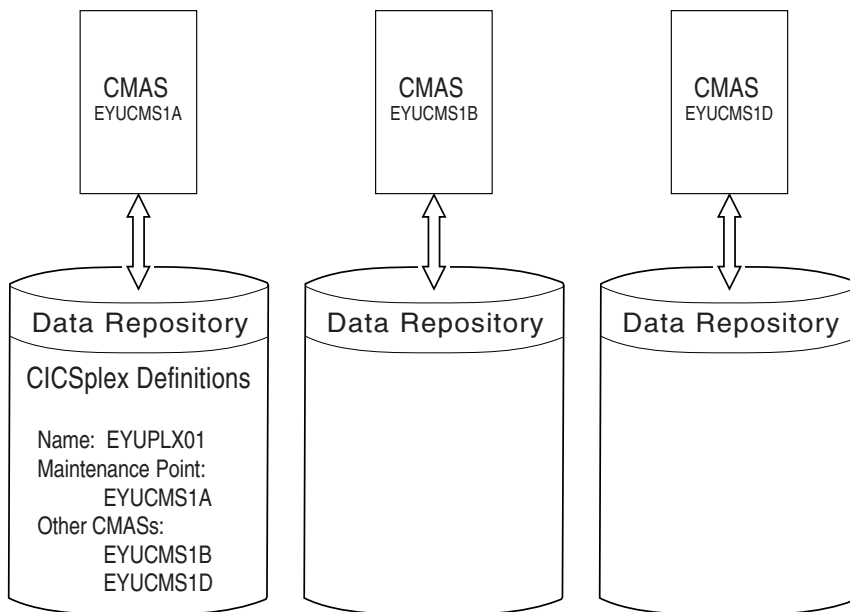
Figure 19. A CICSplex definition identifying multiple CMASs

Note that because no communication links exist between the CMASs shown in
Figure 19, the data repositories for the CMASs named EYUCMS1B and
EYUCMS1A do not contain any CICSplex definitions. Once communication is
established, the maintenance point CMAS informs the other CMASs that they are
involved in managing the CICSplex. The maintenance point CMAS also informs the
other CMASs, via repository resynchronization, when any administration definitions
relating to the CICSplex are added, updated, or removed. This ensures that the
data repository for each CMAS contains the same information.

For additional information about working with multiple CMASs, see "Working with
maintenance point CMASs" on page 55.

Using direct and indirect CMAS communication

When multiple CMASs are involved in an action, such as managing a CICSplex,
they can communicate with each other either directly or indirectly, where:

- Direct communication is established when you define a CMAS-to-CMAS link, as
  described on page 62. This allows one CMAS to communicate with an
  adjacent CMAS.

- Indirect communication occurs when a CMAS uses one or more intermediary
  CMASs to communicate with another CMAS.

Figure 20 on page 54 illustrates direct communication links that exist between
EYUCMS1A and EYUCMS1B and between EYUCMS1B and EYUCMS1D. In this
example, there is no direct link between EYUCMS1A and EYUCMS1D. This means
that for EYUCMS1A to communicate with EYUCMS1D, it must pass information to
EYUCMS1B, the adjacent CMAS to which it does have a direct link. (Indirect links,
such as the connection between EYUCMS1A and EYUCMS1D, can be seen in the
Access Type column of the CMAS view. For more information about the CMAS
view, see the *CICSPlex SM Operations Views Reference* manual). Because
EYUCMS1B has a direct link to EYUCMS1D, the information is passed on to that
CMAS.
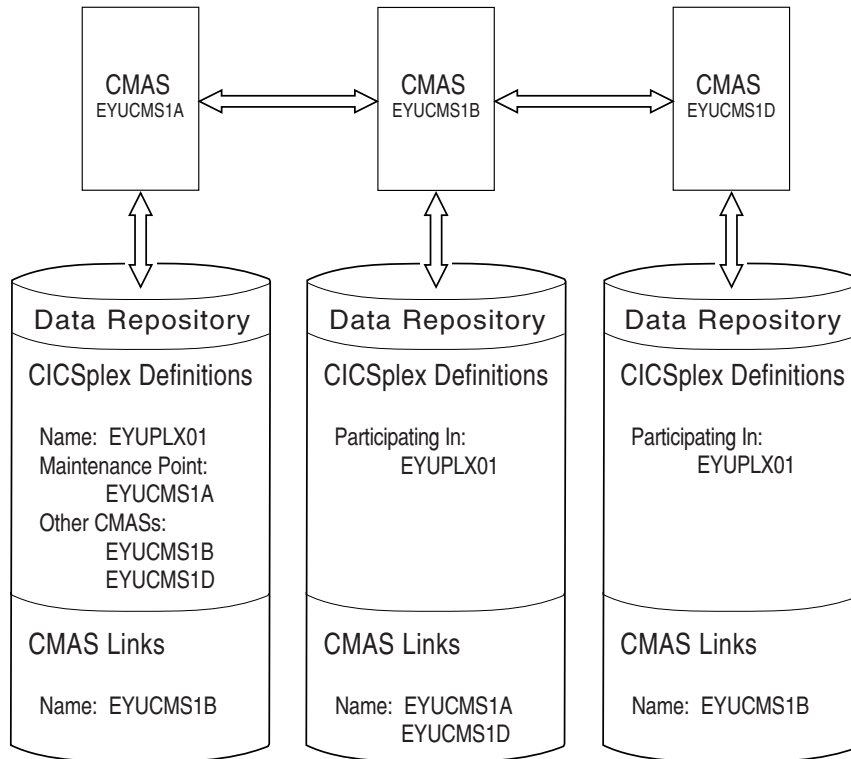
Figure 20. Direct communication links between CMASs

The only requirement on your use of direct and indirect communication links between CMASs is that there must be at least one path from each CMAS to every other CMAS.

Establishing communication links between a CMAS and a MAS

A MAS is a CICS system that is defined to CICSPlex SM and contains MAS agent code. As illustrated in Figure 21 on page 55, a MAS can be either local to or remote from the CMAS to which it is associated.

- A *local MAS* resides in the same MVS image as the CMAS and uses CICSPlex SM facilities provided by Environment Services System Services (ESSS) to communicate with the CMAS. (The ESSS is the component that owns all of the data spaces used by CICSPlex SM in an MVS image.)

- A *remote MAS* uses LU 6.2 or MRO to communicate with the CMAS. In most instances, a remote MAS also resides in a different MVS image than the CMAS.

   Note: You must manually create the links from a MAS to a CMAS.

As described on page 66, you must identify the type of communication link that is to exist between a CMAS and a remote MAS.
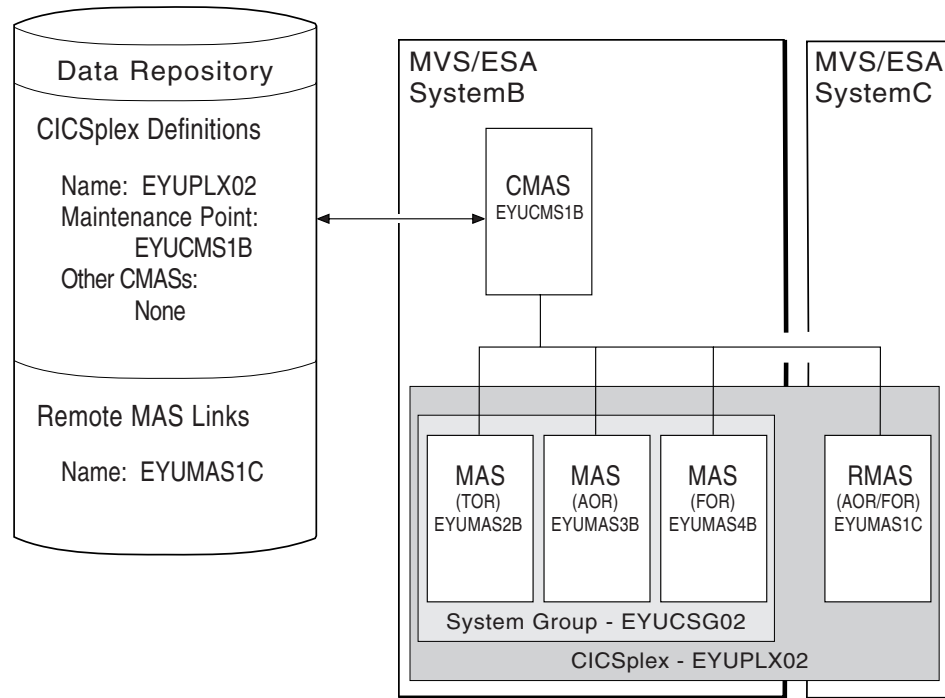
Figure 21. CMAS-to-remote MAS communication link

Working with maintenance point CMASs

A CMAS provides the single-system image of the CICS systems comprising each CICSplex it manages. To do this, the CMAS uses the CICSPlex SM definitions stored in the *data repository*. There is one data repository for each CMAS that you establish.

When a CICSplex consists of a large number of CICS systems or when the systems are spread across multiple MVS images, you may want multiple CMASs to be involved in managing the CICSplex. In cases like this, one of the CMASs is identified as the *maintenance point* for the CICSplex. The maintenance point CMAS is responsible for informing the other CMASs when any administration definitions relating to the CICSplex are added, updated, or changed. This ensures that the data repository for each CMAS involved in managing a CICSplex contains the same information.

If the maintenance point CMAS is unavailable when you attempt to perform an administration task, you are prompted to name another CMAS, as illustrated in Figure 22 on page 56.

```
------------------------- Maintenance Point Required -------------------------
COMMAND ===>

   Context: EYUPLX01

   Maintenance Point CMAS: EYUCMS1A

   Temporary CMAS: eyucms*       Specify CMAS or generic to select

   The view you have requested must run in the Maintenance Point CMAS for
   the CICSplex specified, but communications to that CMAS is unavailable.

   You may now direct the view to another CMAS that is part of this CICSplex.

                               WARNING

   Any maintenance that is performed to this CMAS will be backed out
   when communications with the Maintenance Point CMAS is again established.



Specify Temporary CMAS name and press Enter.
Enter END or CANCEL to terminate.
```

Figure 22. Prompt for temporary maintenance point CMAS name

Note: The maintenance point CMAS must be available when you are creating or
maintaining Business Application Services (BAS) definitions. The Business
Application Services component does not support temporary maintenance
points.

Provide the following information if you want to identify a CMAS as the temporary
maintenance point:

Temporary CMAS
Specify a specific or generic name of a CMAS involved in managing the
designated CICSplex. Identifying a specific CMAS causes it to become the
temporary maintenance point CMAS. Identifying a generic name causes a
selection list of available CMASs to be displayed, as illustrated in Figure 23.
(For more information about displaying and using selection lists, see "Using
selection lists" on page 10.)

```
COMMAND ===>                                              Scroll ==> Page
Temporary Maintenance Point requires a specific resource.
Select a single entry, change the key, or enter END or CANCEL to terminate.

                  Resource matching key: EYUCMS*

C Name     Description                    Type            Status
- -------- ------------------------------ --------------- -----------------
_ EYUCMS1A                                CMASDEF         INACTIVE
_ EYUCMS1B                                CMASDEF         LOCAL
***************************** BOTTOM OF DATA ********************************
```

Figure 23. Prompt for temporary maintenance point CMAS name

After establishing a temporary maintenance point CMAS, you can change it to any other CMAS involved in managing the CICSplex. To do this, issue the following primary action command from any view:

```
TEMPMP cmasid
```

where `cmasid` is the specific or generic name of a CMAS. When you identify a specific CMAS, that CMAS becomes the new temporary maintenance point. When you specify a generic name, you can choose the appropriate CMAS from the resulting selection list of available CMASs.

The CMAS that you designate as the temporary maintenance point CMAS is informed of any definitions that you add, update, or remove. It temporarily stores this information in its data repository. The information is removed when the maintenance point CMAS becomes available.

Notes:

1. The temporarily stored information is not at any time passed to other CMASs involved in managing the CICSplex. It exists only in the data repository for the CMAS designated to serve as the temporary maintenance point.

2. You can retrieve the names of definitions, *but not the actual definitions*, that were added to or deleted from the data repository of the temporarily designated maintenance point by setting the CICSPlex SM system parameter JRNLDEFCH to YES. (For more information about JRNLDEFCH, see the *CICS Transaction Server for OS/390: Installation Guide*.)

When the maintenance point becomes available, you are reminded, as illustrated in Figure 24, that any changes made while the maintenance point CMAS was unavailable will be ignored.

```
-------------------------- Maintenance Point Available ----------------------
COMMAND ===>

   Context: EYUPLX01

   Maintenance Point CMAS: EYUCMS1A

   Temporary CMAS: EYUCMS1B


 You requested that views requiring the Maintenance Point for this CICSplex
 should be directed to the temporary CMAS specified until
 communications with the Maintenance Point was again established.

 The Maintenance Point is now available.  All views requiring the Maintenance
 Point will now run in the proper CMAS.

 Any maintenance that was performed to the temporary CMAS will now be
 backed out.  You may want to review your actions and reissue them against
 the Maintenance Point CMAS.


 Press ENTER to continue.
```

Figure 24. Maintenance point availability notice

You can remove the association between a CMAS and a CICSplex (as described in "CPLXCMAS (CMASs associated with a CICSplex)" on page 74), as long as the

CMAS is not the maintenance point for the CICSplex. If you want a different CMAS to be the maintenance point for a CICSplex, you need to remove the CICSplex and all of its associated definitions from the data repository and redefine them to the new CMAS, like this:

1. Use the batched repository-update facility DUMP command to extract all the CICSPlex SM definitions associated with the CICSplex from the data repository, as described in "Creating and maintaining CICSPlex SM definitions" on page 18.

2. With the context set to the maintenance point CMAS, use the CPLEXDEF view to remove the CICSplex definition from the data repository, as described in "CPLEXDEF (CICSplex definitions)" on page 70.

   All of the topology, workload management, real-time analysis, resource monitoring, and business application services definitions associated with that CICSplex are also removed from the data repository.

3. Change the context to the CMAS that is to be the new maintenance point for the CICSplex.

4. Redefine the CICSplex to the new maintenance point CMAS, as described in "Creating a CICSplex definition" on page 72.

5. Using the output from the DUMP command, submit a batched repository-update facility job to recreate all the CICSPlex SM definitions for the CICSplex on the new CMAS data repository. For an example of using DUMP output from the batched repository-update facility to create new definitions, see "Examples of managing records in the data repository" on page 29.

CMAS configuration definitions and their related views

Figure 25 on page 59 illustrates the relationship between a CMAS configuration and the views used to create and maintain that configuration. It also shows that CMAS configuration definitions are stored in the data repository associated with the CMAS identified as the maintenance point for the CICSplex. This CMAS ensures that any other CMASs involved in managing the CICSplex also know about the configuration definitions.
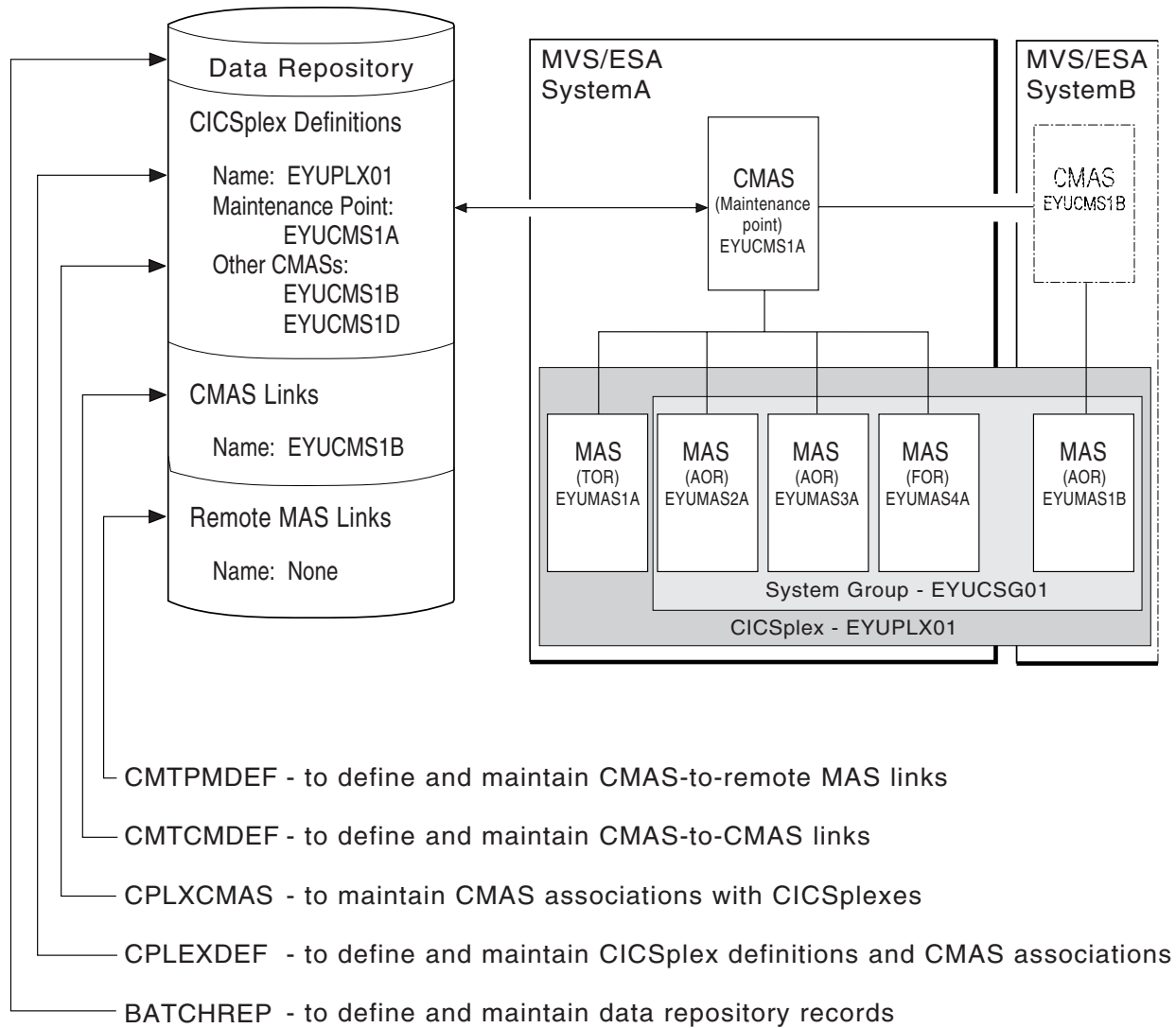
Figure 25. Defining a CMAS configuration

Additional views that you can use to manage configuration definitions once their associated CMASs or CICS systems are active are identified in Table 4 on page 15, and are described in "Managing a CMAS configuration" on page 76.

Online help is available for each view and for the fields in each view. CMAS configuration views

You can access a configuration view by:

- Issuing the MENU ADMCONFG command and selecting the view from the menu that is displayed. (The menu is shown in Figure 26 on page 60.)

- Issuing the appropriate configuration view command.

- Initiating a hyperlink from one view to another by placing the cursor on a hyperlink field and pressing Enter.

```
  26MAR1999  16:50:40 ----------- INFORMATION DISPLAY -------------------------
  COMMAND  ===>                                               SCROLL ===> PAGE
  CURR WIN ===> 1         ALT WIN ===>
   W1 =MENU=============EYUPLX01=EYUPLX01=26MAR1999==16:50:40=CPSM=========6===
  CMD Name             Description
  --- -------------------------------
      ADMCONFG   CMAS Configuration Administration Views
        BATCHREP   Batched Repository Updates
        CPLEXDEF   CICSplex Definitions
        CPLXCMAS   CMAS in CICSplex Definitions
        CMTCMDEF   CMAS-to-CMAS Link Definitions
        CMTPMDEF   CMAS-to-RMAS Link Definitions
```

Figure 26. The ADMCONFG menu

For additional information about accessing these views, see "Accessing administration views" on page 2.

Reminders:

- Unless noted otherwise, only the context setting is recognized when you are creating and maintaining configuration definitions. For additional information about setting the context to a CMAS, see "Setting the context and scope" on page 1.

- To verify that the CMAS you want to use as the context is successfully connected to a CAS, use the PLEX or PLEXOVER view, as described in Chapter 4, "Using PlexManager to manage CAS connections" on page 35.

The remainder of this chapter contains detailed descriptions of the CMAS configuration views.

BATCHREP (Batched repository update facility)

The batched repository update facility, as described on page 17, allows you to create, update, remove, list, or dump one or more definitions from the data repository associated with the local CMAS.

Notes:

1. When definitions are listed or dumped, they can be modified and used as input to the data repository. For more information about creating and maintaining the data repository, see Chapter 3, "Using the batched repository-update facility" on page 17.

2. CMAS-related definitions can be updated on any local CMAS. However, definitions related to the CICSplex must be processed on the maintenance point CMAS.

To display information about currently running batched repository-update facility tasks, issue the command:

```
BATCHREP
```

If no tasks are currently running, the resulting view is blank. Figure 27 on page 61 illustrates the information provided when a job is running.

```
  26MAR1999  14:45:02 ----------- INFORMATION DISPLAY --------------------------
  COMMAND  ===>                                                SCROLL ===> PAGE
  CURR WIN ===> 1           ALT WIN ===>
   W1 =BATCHREP==========EYUCMS01=EYUCMS01=26MAR1999==14:45:02=CPSM=============
  CMD Input    Run     Prt Print   Output   Input DSN
  --- Member-- Type--- Cls Node---- User---- ---------------------------------
      DREPLOAD CHECK    F       *        * CPSM110.EYUCMS01.UTIL
```

Figure 27. The BATCHREP view

Action commands

Table 15 summarizes the action commands you can use with the BATCHREP
view.

Table 15. BATCHREP view action commands

Primary command	Line command	Description
SUBmit	SUB	Start a task to modify the records comprising the data repository, as described on page 61.
		Note: When you issue the SUBmit command from the BATCHREP view, the context must be a CMAS.

Hyperlink fields

There are no hyperlink fields for the BATCHREP view.

Submitting a batched repository update file

Figure 28 shows the format of the panel produced when you use the submit
primary (SUBmit) or line (SUB) action command from the BATCHREP view.

The batched repository-update facility uses standard CICS spooling facilities for
output.

```
   ------------------- Start Batch Run for EYUCMS1 ----------------------------
  COMMAND  ===>

   Data Set Name    ===>

   Data Set Member  ===>

   Print Class      ===>

   Print Node       ===>

   Output Userid    ===>

   Run Type         ===>                             (CHECK or EXECUTE)

  Press Enter to Run the Job.
  Type END or CANCEL to cancel without Running.
```

Figure 28. Submitting a batched repository update job

Provide the following information, when appropriate:

Data Set Name
Specify the name of the sequential or partitioned data set (PDS) containing the input to the batched repository update job.

Data Set Member
When using a PDS, specify the name of the member that contains the input to the batched repository update job.

Print Class
(Optional.) Specify a 1-character class designation. If you omit a value, class A is assumed.

Print Node
Specify the 8-character identifier of a designation node that the system spooler is to use to route the file.

Output Userid
Specify the 8-character identifier of the eventual writer program or of the user who will process the report for spooled records intended for the printer. The report will carry this identifier, which will be used to select the report at its destination.

Run Type
Indicate whether you want to syntax check (CHECK) or submit (EXECUTE) the input to the batched repository update job.

When you specify CHECK, the following things occur:

* Command format of all input statements is checked.

* You get the syntax check messages. You may get some run-time messages, as well.

For more information about the commands and their values, see the discussions of the appropriate views.

CMTCMDEF (CMAS-to-CMAS links)

To display information about the direct LU 6.2 and MRO communication links between the local CMAS and any other CMASs, issue the command:

```
CMTCMDEF [cmas]
```

where cmas is the specific or generic name of a CMAS defined to the local CMAS. If this parameter is omitted, the view, illustrated in Figure 29, includes information about all CMASs defined to that CMAS.

```
 26MAR1999  17:26:32 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                  SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =CMTCMDEF=CMTCMDEF=EYUCMS1A=EYUCMS1A=26MAR1999==17:26:30=CPSM=========1===
 CMD Target   Sys              Sess
 --- CMAS---- Id-- Applid   Type Prfx- Modename Description------------------
     EYUCMS1B CM1B EYUCMS1B LU62                 Starter Set CMAS on System B
```

Figure 29. The CMTCMDEF view

Action commands

Table 16 summarizes the action commands you can use with the CMTCMDEF view.

Table 16. CMTCMDEF view action commands

Primary command	Line command	Description
n/a	BRO	Browse a link definition in the data repository.
		The format of the resulting, nonmodifiable panel is identical to that shown in Figure 30 on page 64.
CREate	CRE	Create a link definition to another CMAS and add it to the data repository of the local CMAS, as described on page 63.
		When you use the primary command CREate, some fields in the new view may contain values supplied by CICSPlex SM; you may change these values. When you enter the line command CRE next to the name of a link definition, fields in the new view contain values to be modelled (from the existing link definition).
n/a	REM	Remove a CMAS link definition from the data repository of the local CMAS. (When you do this, the appropriate CICS resource definitions are automatically removed from the CICS system definition (CSD) file for that CMAS.)
n/a	UPD	Update a link definition in the data repository.
		The format of the resulting panel is identical to the panel shown in Figure 30 on page 64. You can modify the contents of only the Description field.

You can use the CMTCMLNK or CMTCMLND view, as indicated in Table 4 on page 15, to discard a link definition without removing it from the data repository.

Hyperlink fields

There are no hyperlink fields for the CMTCMDEF view.

Creating a CMAS-to-CMAS link definition

Figure 30 on page 64 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the CMTCMDEF view.

```
------------------------ Define CMAS Link for EYUCMS01 ----------------------
 COMMAND  ===>

 Target CMAS Name ===>

 Description       ===> Starter Set CMAS on System B

 Target Applid     ===> EYUCMS1B      Target CMAS VTAM Applid
 Target Sysid      ===> CM1B          Sysid of Target CMAS

 Protocol          ===> LU62          Connection Type (LU62/MRO)
 Send Buffer       ===> 8192          Size of send buffer (256 - 30720)
 Receive Buffer    ===> 8192          Size of receive buffer (256 - 30720)

 Modename          ===>               Modename for LU62 Link
 Receive Prefix    ===>               Unique 2 character prefix for MRO
 Send Prefix       ===>               Unique 2 character prefix for MRO

 Attach Security   ===> LOCAL         Attach User Security (LOCAL/IDENTIFY)
 Security Name     ===>               Userid associated with link


 Press Enter to define CMAS Link with the options specified.
 Type END or CANCEL to cancel without defining.
```

Figure 30. Creating a CMAS-to-CMAS link

Provide the following information, when appropriate.

Target CMAS Name
Specify the 1- to 8-character name of the CMAS to which you want to establish a link.

Description
Specify a 1- to 30-character description of the link.

Target Applid
Specify the VTAM APPLID for the target CMAS.

Target Sysid
Specify the 1- to 4-character system ID of the CMAS to which you want to establish a link. The valid characters for a system ID are A – Z and 0 – 9.

This name must match the name specified via the SYSIDNT parameter in the CICS/ESA system initialization table (SIT). In addition, the CMAS SYSID should not be the same as the SYSID for any remote MAS defined to CICSPlex SM.

Protocol
Specify the protocol to be used as either LU62 or MRO.

Note: MRO is available only for a CICS/ESA 4.1 or later CMAS connected to either another CICS/ESA 4.1 or later CMAS or a CICS/ESA 4.1 or later remote MAS.

Send Buffer
Specify the size of the send buffer for the link, in the range 256 - 30720. The size specified should be 36 bytes less than the smallest MAXDATA value in any NCP through which the link may pass. The 36 bytes provides allowance for VTAM required headers.

Receive Buffer

Specify the size of the receive buffer for the link, in the range 256 - 30720. The size specified should be 36 bytes less than the smallest MAXDATA value in any NCP through which the link may pass. The 36 bytes provides allowance for VTAM required headers.

Note: If the values specified for the Send and Receive buffers are too large for VTAM, VTAM errors cause attempted connections to fail. In fact, soon after the 2 CMASs connect, the connection is timed out. Connections can be reestablished, but they will continue to time out. When this occurs, verify that the specified buffer sizes are within the guidelines listed here.

When the buffer sizes are not as recommended, recreate the definition on both sides, using the CMTCMDEF view, specifying appropriate buffer sizes.

Modename

(Required for LU 6.2 connections.) Specify the 1- to 8-character VTAM LOGMODE name that identifies the group of related sessions. If you do not specify a name, the field will contain blanks, which is a valid name.

Receive Prefix

(Required for MRO connections.) Specify the 2-character prefix that is used as the first two characters of the Terminal Control Table Terminal Entry (TCTTE) names. Be careful that the prefix does not cause a TCTTE name to be generated that matches an existing connection or terminal name.

Send Prefix

(Required for MRO connections.) Specify the 2-character prefix that is used as the first two characters of the TCTTE names. Be careful that the prefix does not cause a TCTTE name to be generated that matches an existing connection or terminal name.

Attach Security

Specify the type of security to be used for the link, as one of the following:

LOCAL

The authority of the user is the same as that of the link.

IDENTIFY

Incoming requests must include a user ID and password. Use IDENTIFY when the remote system has an external security manager.

Security Name

(Optional.) Specify the security user ID of the remote system.

Press Enter to add the link definition to the data repository of the local CMAS.

Repeat this procedure for each CMAS with which the local CMAS is to have direct communication. Then, change the context to another CMAS and repeat this procedure for that CMAS. For example, to establish two-way communication between EYUCMS1A and EYUCMS1B, first set the context to EYUCMS1A and define a link to EYUCMS1B. Then, change the context to EYUCMS1B and define a link to EYUCMS1A.

The CICS system definition (CSD) file for the local CMAS is automatically updated and installed with the CICS resource definitions needed to establish communication with the designated CMAS.

Make sure the CSD files for each CMAS are not in use while you create these definitions.

CMTPMDEF (CMAS-to-remote MAS links)

A CMAS can communicate with both local and remote MASs.

- A local MAS resides in the same MVS image as the CMAS and uses CICSPlex SM facilities to communicate with that CMAS. All of the information CICSPlex SM needs to know about a local MAS is automatically provided by CICSPlex SM itself.

- A remote MAS, which may reside in a different MVS image than its CMAS, uses MRO or LU 6.2 to communicate with its CMAS. In order for this communication to occur, you must:

  - Define a CMAS-to-remote MAS link.

  - Update the CSD file for the remote MAS to include the necessary CICS CONNECTION and SESSIONS resource definitions.

Note: A remote MAS should not have the same CICS system ID as any CMAS defined to CICSPlex SM.

To display information about the remote MASs that are currently linked to the local CMAS, issue the command:

```
CMTPMDEF [mas]
```

where mas is the specific or generic name of a remote MAS defined to the local CMAS. If this parameter is omitted, the view, illustrated in Figure 31, includes information about all remote MASs defined to that CMAS.

```
 26MAR1999  18:08:34 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =CMTPMDEF==========EYUCMS1B=EYUCMS1B=26MAR1999==18:08:32=CPSM==========1===
 CMD Target   Sys              Sess          LINK
 --- MAS----  Id-- Applid   Type Prfx- Modename Description------------------
     EYUMAS1C MS1C EYUMAS1C LU62               SSet - RMAS on System C
```

Figure 31. The CMTPMDEF view

Action commands and overtype fields

Table 17 summarizes the action commands you can use with the CMTPMDEF view.

Table 17 (Page 1 of 2). CMTPMDEF view action commands

Primary command	Line command	Description
n/a	BRO	Browse a remote MAS link definition in the data repository.
		The format of the resulting, nonmodifiable panel is identical to that shown in Figure 32 on page 68.

Table 17 (Page 2 of 2). CMTPMDEF view action commands

Primary command	Line command	Description
CREate	CRE	Create a remote MAS link definition and add it to the data repository for the local CMAS, as described on page 67.
n/a	REM	Remove a remote MAS link definition from the data repository of the local CMAS. (When you do this, the appropriate CICS resource definitions are automatically removed from the CSD file for the local CMAS. You must remove the appropriate CONNECTION and SESSIONS resource definitions from the CSD for the remote MAS.)
n/a	UPD	Update a remote MAS link definition in the data repository. The format of the resulting panel is identical to the panel shown in Figure 32. You can modify the contents of only the Description field.

Note: You can use the CMTPMLNK or CMTPMLND view, as indicated in Table 4 on page 15, to discard a link definition without removing it from the data repository.

Hyperlink fields

There are no hyperlink fields for the CMTPMDEF view.

Creating a CMAS-to-remote MAS link definition

Figure 32 on page 68 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the CMTPMDEF view.

Note: When you create a CMAS-to-remote MAS link definition, CICSPlex SM automatically updates the CICS system definition (CSD), so you should make sure the CSD for the CMAS is not in use.

```
------------------------ Define MAS Link for EYUCMS1B ------------------------
COMMAND  ===>

 Target MAS Name  ===>

 Description      ===> S Set - RMAS on System C

 Target Applid    ===> EYUMAS1C    Target MAS VTAM Applid
 Target Sysid     ===> MS1C        Sysid of Target MAS

 Protocol         ===> LU62        Connection Type (LU62/MRO)
 Send Buffer      ===> 8192        Size of send buffer (256 - 30720)
 Receive Buffer   ===> 8192        Size of receive buffer (256 - 30720)

 Modename         ===>             Modename for LU62 Link
 Receive Prefix   ===>             Unique 2 character prefix for MRO
 Send Prefix      ===>             Unique 2 character prefix for MRO

 Attach Security  ===> LOCAL       Attach User Security (LOCAL/IDENTIFY)
 Security Name    ===>             Userid associated with link


 Press Enter to define MAS Link with the options specified.
 Type END or CANCEL to cancel without defining.
```

Figure 32. Creating a CMAS-to-remote MAS link

Provide the following information, when appropriate.

Target MAS Name
Specify the 1- to 8-character name of the MAS to which you want to establish a link.

Description
Specify a 1- to 30-character description of the link.

Target Applid
Specify the VTAM APPLID for the target remote MAS.

Target Sysid
Specify the 1- to 4-character system ID of the remote MAS to which you want to establish a link. The valid characters for a system ID are A – Z and 0 – 9.

This name must match the name specified via the SYSIDNT parameter in the CICS/ESA system initialization table (SIT). In addition, the remote MAS SYSID should not be the same as the SYSID for any CMAS defined to CICSPlex SM.

Protocol
Specify the protocol to be used as either LU62 or MRO.

Send Buffer
Specify the size of the send buffer for the link, in the range 256 - 30720. The size specified should be 36 bytes less than the smallest MAXDATA value in any NCP through which the link may pass. The 36 bytes provides allowance for VTAM required headers.

Receive Buffer
Specify the size of the receive buffer for the link, in the range 256 - 30720. The size specified should be 36 bytes less than the smallest MAXDATA value in any NCP through which the link may pass. The 36 bytes provides allowance for VTAM required headers.

> **Note:**
>
> > If the values specified for the Send and Receive buffers are too large for VTAM, VTAM errors cause attempted connections to fail. In fact, soon after the CMAS and remote MAS connect, the connection is timed out. Connections can be reestablished, but they will continue to time out. When this occurs, verify that the specified buffer sizes are within the guidelines listed here.
> >
> > When the buffer sizes are not as recommended, recreate the definition on the CMAS side, using the CMTPMDEF view, specifying new buffer sizes. On the remote MAS side, use CEDA to ALTER the current SESSION definition, and specify the new buffer sizes.

Modename
Specify the 1- to 8-character VTAM LOGMODE name that identifies the group of related sessions. If you do not specify a name, the field will contain blanks, which is a valid name.

Receive Prefix
(Required for MRO connections.) Specify the 2-character prefix that is to be used as the first two characters of the TCTTE names. Be careful that the prefix does not cause a TCTTE name to be generated that matches an existing connection or terminal name.

Send Prefix
(Required for MRO connections.) Specify the 2-character prefix that is to be used as the first two characters of the TCTTE names. Be careful that the prefix does not cause a TCTTE name to be generated that matches an existing connection or terminal name.

Attach Security
Specify the type of security to be used for the link, as one of the following:

LOCAL
The authority of the user is the same as that of the link.

IDENTIFY
Incoming requests must include a user ID and password. Use IDENTIFY when the remote system has an external security manager.

Security Name
(Optional.) Specify the security user ID of the remote system.

Press Enter to add the remote MAS link definition to the data repository of the local CMAS.

The CSD file for:

* Each CMAS involved in managing the remote MAS is automatically updated to reflect the definition.

* The remote MAS to be managed must be updated to include appropriate CONNECTION and SESSIONS definitions.

Table 18 on page 70 defines the information you must provide for the required CONNECTION attributes.

Table 18. Required CONNECTION attributes

Attribute	MRO	LU62
Connection	Connection name	Connection name
Netname	APPLID of the CMAS to which the remote MAS is to connect	APPLID of the CMAS to which the remote MAS is to connect
ACcessmethod	Xm	Vtam
Protocol	(blank)	Appc
AUtoconnect	Yes	Yes
INService	Yes	Yes

Table 19 defines the information you must provide for the required SESSIONS attributes.

Table 19. Required SESSIONS attributes

Attribute	MRO	LU62
Sessions	Sessions name	Sessions name
Connection	Connection name*	Connection name*
Protocol	Lu61	Appc
MAximum	000 , 000	004 , 002
RECEIVEPfx	(required)	(blank)
RECEIVECount	002	(blank)
SENDPfx	(required)	(blank)
SENDCount	002	(blank)
SENDSize	08192*	04060*
RECEIVESize	08192*	04060*
Autoconnect	Yes	Yes
INservice	Yes	(blank)

*Notes:

1. The value you enter for the SESSIONS attribute, Connection, must be the same as the value you enter for the CONNECTION attribute, Connection.

2. The values, 08192 and 04060, are the supplied values for the SENDSize and RECEIVESize attributes. You may change these values.

CPLEXDEF (CICSplex definitions)

A CICSplex consists of one or more CICS systems or CICS system groups and is managed by one or more CMASs. Establishing a CICSplex requires that you:

* Define the CICSplex to the local CMAS, as described in this section.

* Associate CICS systems and CICS system groups with the CICSplex, as described on page 87.

To display information about the CICSplexes associated with the local CMAS, issue the command:

```
CPLEXDEF [cicsplex]
```

where cicsplex is the specific or generic name of a CICSplex known to the local CMAS. If this parameter is omitted, the view, illustrated in Figure 33 on page 71, includes information about all CICSplexes that are associated with that CMAS.

```
26MAR1999  18:22:02 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                   SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CPLEXDEF==========EYUCMS1A=EYUCMS1A=26MAR1999==18:22:00=CPSM==========1===
CMD Name     Mon  Time Zone Day  Cmd Res  Xmp ROD Description
--- -------- Intv Zone Adj  Save Chk Chk  Chk --- ----------------------------
    EYUPLX01 480 Z        0 NO   NO  NO   YES YES Starter Set Plex 1 on System
```

Figure 33. The CPLEXDEF view

Action commands

Table 20 summarizes the action commands you can use with the CPLEXDEF view.

Table 20. CPLEXDEF view action commands

Primary command	Line command	Description
n/a	ADD	Add a CMAS to a CICSplex definition in the data repository, as described on page 73.
n/a	BRO	Browse a CICSplex definition in the data repository.
		The format of the resulting, nonmodifiable panel is identical to that shown in Figure 34 on page 72.
CREate	CRE	Create a CICSplex definition and add it to the data repository, as described on page 72. The CMAS that is the current context becomes the maintenance point CMAS.
n/a	REM	Remove a CICSplex definition from the data repository.
		Note: When you remove a CICSplex definition, all of its topology, workload management, real-time analysis, resource monitoring, and business application services definitions are also removed. When multiple CMASs are involved in managing the CICSplex, these definitions are removed from the data repository associated with each CMAS.
n/a	UPD	Update a CICSplex definition in the data repository.
		The format of the resulting panel is identical to the panel shown in Figure 34 on page 72. You can modify the contents of any field in the panel except the CICSplex definition name.

Hyperlink fields

Table 21 shows the hyperlink field on the CPLEXDEF view.

Table 21. CPLEXDEF view hyperlink field

Hyperlink field	View displayed	Description
Name	CPLXCMAS	Information about the CMASs linked to the specified CICSplex

Creating a CICSplex definition

Figure 34 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the CPLEXDEF view.

```
------------------------ Create CICSPlex for EYUCMS1A ------------------------
COMMAND  ===>

CICSPlex name         ===>
Description           ===>

Monitor Interval      ===> 480      Performance interval duration (15-1440 min)
Daylight Savings Time ===> NO       YES or NO
Time Zone             ===> B        Time zone for interval (B-Z)
Time Zone Adjustment  ===> 0        Offset from time zone (0-59)
Populate in RODM      ===> NO       Build a RODM object
CICS Command Checking ===> NO       Simulated CICS Command Checks
CICS Resource Checking ===> NO      Simulated CICS Resource Checks
Exemption Checking    ===> YES      Check for Exempt Users


Press ENTER to create CICSplex.
Type END or CANCEL to cancel without creating.
```

Figure 34. Creating a CICSplex definition

Provide the following information, as appropriate:

CICSplex name
Specify a 1- to 8-character name for the the CICSplex that is unique within your CICSPlex SM environment. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

Notes:

1. The name of a CICSplex should not be the same as the name of a CMAS, a CICS system, a CICS system group, or another CICSplex at your enterprise.

2. If a CICSplex with the same name is defined to any other CMAS and that CMAS attempts to communicate with the local CMAS, all direct and indirect communication links between the two CMASs are automatically removed.

Description
Specify a 1- to 30-character description of the CICSplex.

Monitor Interval
Specify the number of minutes during which monitoring data is to be collected and accumulated before the statistics counters are reset. The value must be:

> • Between 15 and 1440 and evenly divisible into 1440. If you specify a value that is not evenly divisible into 1440, you are prompted for one that is.
>
> • Omitted, when you want to use the default interval value of 480 minutes (8 hours).

> **Note:** The Monitor Interval can be updated using the UPDate command. However, when you do so, the new value does not take effect in a MAS until that MAS is shut down and restarted.

Daylight Savings Time
Specify YES or NO to indicate whether you currently recognize daylight saving time.

Time Zone
Specify one of the codes shown in Table 43 on page 123 to identify the time zone that is associated with this CICSplex.

Time Zone Adjustment
Specify a value between 0 and 59 to identify the number of minutes to be added to the time for that time zone (for areas that do not use a standard time zone).

For more information about the time zone attributes and how to use them, see "CICSPlex SM time zone attributes" on page 89.

Populate in RODM
Specify YES or NO to indicate whether the CICSplex is to be reported to the NetView®Resource Object Data Manager (RODM) facility.

CICS Command Check
Specify YES or NO to indicate whether CICSPlex SM security checking is to simulate CICS command checking for the CICS systems associated with this CICSplex. (If you do not specify a value, the default is NO.)

CICS Resource Check
Specify YES or NO to indicate whether CICSPlex SM security checking is to simulate CICS resource checking for the CICS systems associated with this CICSplex. (If you do not specify a value, the default is NO.)

Exemption Checking
Specify YES or NO to indicate whether simulated CICS security checking is to be bypassed for specific users or resources in this CICSplex. (If you do not specify a value, the default is NO.)

Press Enter to add this definition to the data repository.

There is no restriction on the number of CICSplexes that you can associate with a single CMAS.

The CICSplex becomes available as soon as its definition is added to the data repository for the local CMAS.

Adding a CMAS to a CICSplex

When a CICSplex is to be managed by multiple CMASs, the CMAS in effect when you create the CICSplex becomes the maintenance point CMAS for that CICSplex. There is no restriction on the number of CMASs that can be involved in the management of a single CICSplex.

Figure 35 on page 74 illustrates the panel produced when you use the add (ADD) line action command from the CPLEXDEF view.

```
  ---------------------- Add CMAS to CICSPlex for EYUCMS1A --------------------
 COMMAND  ===>

 CICSPlex name          EYUPLX01
 Description            Starter Set Plex 1 on System A

 CMAS Name       ===>              Name of CMAS or Generic

Press Enter to add CMAS to CICSplex.
Type END or CANCEL to cancel without adding.
```

Figure 35. Adding a CMAS to a CICSplex

Provide the following information:

CMAS Name
> Specify the 1- to 8-character name of the CMAS that is to be associated with the designated CICSplex.

Press Enter to add this information to the data repository.

CPLXCMAS (CMASs associated with a CICSplex)

To display information about CMASs associated with a CICSplex, where the local CMAS must be the maintenance point for that CICSplex, issue the command:

    CPLXCMAS [cicsplex]

where cicsplex is specific or generic name of a CICSplex known to the local CMAS. If this parameter is omitted, the view, illustrated in Figure 36, includes information about all CICSplexes that are associated with that CMAS.

```
 26MAR1999  18:22:17 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                 SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =CPLXCMAS=========EYUCMS1A=EYUCMS1A=26MAR1999==18:22:17=CPSM=========2===
CMD CICSPlex CMAS
--- Name---- Name---- MP  State---
    EYUPLX01 EYUCMS1A YES NORMAL
    EYUPLX01 EYUCMS1B NO  NORMAL
```

Figure 36. The CPLXCMAS view

You can use the CICSPLEX view, as indicated in Table 4 on page 15, to display status information about CMASs associated with a CICSplex, where the local CMAS need not be the maintenance point for the CICSplex.

Action commands
Table 22 on page 75 summarizes the action commands you can use with the CPLXCMAS view.

Table 22. CPLXCMAS view action commands

Primary command	Line command	Description
n/a	BRO	Browse the definition of the association between a CICSplex and the maintenance point CMAS in the data repository.
		Figure 37 on page 75 illustrates the panel produced when you issue the BROwse command from the CPLXCMAS view.
n/a	FOR	Force an inaccessible CMAS associated with a CICSplex to be removed.
n/a	REM	Remove a CMAS associated with a CICSplex.

```
   ----------------------- Browse CPLXCMAS for CMAS EYUCMS1B --------------------
  COMMAND  ===>

  CICSplex name        EYUPLX01

  CMAS Name            EYUCMS1B

  Maintenance Point    YES

  State                NORMAL

 Type END or CANCEL to cancel browse.

```

Figure 37. The BROwse panel for CPLXCMAS

When you remove a CMAS from a CICSplex definition, the action command you use depends on whether the CMAS to be removed is currently accessible to the local CMAS.

- Use REM when the CMAS is currently accessible, or will be accessible, to the local CMAS.

  This command causes the name of the designated CMAS to be immediately removed from the CICSplex definition in the data repository for the local CMAS. Then, if the designated CMAS is currently accessible, its data repository is updated to reflect this change; otherwise, the action is placed in a pending status until the CMAS becomes accessible.

- Use FOR when the CMAS is not currently accessible and will never be accessible to the local CMAS.

  This command causes the name of the designated CMAS to be removed from the CICSplex definition in the data repository for the local CMAS. Because the two CMASs are not accessible, the data repository for the designated CMAS is not altered to reflect this change.

In most cases, you should use the REM action command because the CMAS normally is or will become accessible to the local CMAS.

Note: You cannot remove the association between a CICSplex and its maintenance point CMAS. If you determine that a different CMAS should be the maintenance point for a CICSplex, you need to perform the following steps:

1. With the context set to the maintenance point CMAS, use the CPLXCMAS view to remove any nonmaintenance point CMASs from the CICSplex, as described on page 74.

2. With the context still set to the maintenance point CMAS, use the CPLEXDEF view to remove the CICSplex, as described on page 71.

3. Change the context to the appropriate CMAS.

4. Redefine the CICSplex to the new maintenance point CMAS, as described on page 72.

5. Add other CMASs to the CICSplex, as described on page 73.

Hyperlink fields
Table 23 shows the hyperlink field on the CPLXCMAS view.

Table 23. CPLXCMAS view hyperlink field

Hyperlink field	View displayed	Description
CICSplex Name	CPLEXDEF	Information about the specified CICSplex.

Managing a CMAS configuration

This section describes how you can obtain information about:

- CICSplexes associated with a CICSPlex SM address space (CMAS)
- CMASs known to the local CMAS
- Local and remote MASs known to the local CMAS

To do this, you can use the following views:

CICSPLEX   Displays information about the CMASs associated with a CICSplex known to the local CMAS.

CMAS   Displays information about the CMASs known to the local CMAS. This view can also be used to shut down a CMAS or display and alter CMAS component trace settings.

CMASD   Displays information about a CMAS known to the local CMAS. This view can also be used to shut down that CMAS or display and alter its component trace settings.

CMASPLEX   Displays information about the CICSplexes being managed by the local CMAS.

CMTCMLND   Displays information about the link between the local CMAS and a CMAS. This view can also be used to discard the installed link to the specified CMAS.

CMTCMLNK   Displays information about the links between the local CMAS and one or more other CMASs. This view can also be used to discard an installed CMAS link.

CMTPMLND   Displays information about the physical connection between the local CMAS and a MAS to which it is linked. This view can also be used to discard the installed link to the specified remote MAS.

| **CMTPMLNK** Displays information about the physical connections between the local CMAS and the MASs to which it is linked. This view can also be used to discard an installed remote MAS link.

| # CICSPLEX

| The CICSPLEX view shows information about all CMASs associated with a CICSplex, whether or not the local CMAS is the maintenance point for the CICSplex.

| **Issue command:** CICSPLEX cicsplex

| cicsplex
| Is the name of a CICSplex that is known to the local CMAS.
| **Select:** CICSPLEX from a menu of CONFIG views, being sure to specify the required parameters.
| **Hyperlink from:** the CICSplex field on the CMASPLEX view.

| Figure 38 is an example of the CICSPLEX view.

```
  26MAR1999  17:06:00 ----------- INFORMATION DISPLAY ---------------------------
  COMMAND  ===>                                                  SCROLL ===> PAGE
  CURR WIN ===> 1        ALT WIN ===>
   W1 =CICSPLEX==========EYUCMS1A=EYUCMS1A=26MAR1999==17:06:00=CPSM==========2===
  CMD CICSplex CMAS     Status   MP  Access   Transit  Transit
  --- -------- -------- -------- --- Type---- --CMAS-- -Count-
      EYUPLX01 EYUCMS1A ACTIVE   YES LOCAL                   0
      EYUPLX01 EYUCMS1B INACTIVE NO  N/A                     0
```

| *Figure 38. The CICSPLEX view*

| ## Action commands
| None.

| ## Hyperlinks
| None.

| # CMAS

| The CMAS view shows information about the CMASs known to the local CMAS.

| **Issue command:** CMAS [cmas]

| cmas
| Is the specific or generic name of a CMAS known to the local
| CMAS. If you omit this parameter, the view includes information
| about all CMASs known to the local CMAS.

| **Select:** CMAS from a menu of CONFIG views.

| Figure 39 on page 78 is an example of the CMAS view.

```
 26MAR1999  14:46:30 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                               SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 =CMAS=============EYUCMS1A=EYUCMS1A=26MAR1999==14:46:30=CPSM=========2===
 CMD Name     Status   Sysid Access   Transit Transit
 --- -------- -------- ----- Type---- CMAS---- Count--
     EYUCMS1A ACTIVE   CM1A  LOCAL                    0
     EYUCMS1B ACTIVE   CM1B  ADJACENT                 0
```

Figure 39. The CMAS view

The local CMAS knows about other CMASs that are:

Adjacent   There is a CMAS-to-CMAS link between the local CMAS and the other CMAS.

Indirect   The local CMAS knows about a CMAS through direct links with intermediary, or transit, CMASs.

The information in the view identifies all CMASs known to the local CMAS since it started.

Action commands

Table 24 shows the action commands you can issue from the CMAS view.

Table 24. CMAS view action commands

Primary command	Line command	Description
PURge cmas	PUR	Purges any in-storage copies of security profiles that have been inherited from other CMASs.
SECurity cmas	SEC	Rebuilds the in-storage external security manager (ESM) profiles for a CMAS, provided they reside in local storage.
		Note: The SEC command cannot rebuild ESM profiles that reside in global storage. You must use the facilities provided by your ESM to refresh those profiles.
SHUtdown cmas	SHU	Shut down a CMAS normally.
TRAce cmas	TRA	Alter the level of CMAS component tracing that is to occur, as described in Tracing CMAS components.

Where:

    cmas   Is the name of a CMAS.

Hyperlinks

Table 25 shows the hyperlink field on the CMAS view.

Table 25. CMAS view hyperlink field

Hyperlink field	View displayed	Description
Name	CMASD	Detailed information about the specified CMAS.

Tracing CMAS components

CMAS component tracing is provided for the use of IBM service personnel. CMAS trace settings are normally not active. Activating tracing may have an adverse effect on performance.

Figure 40 illustrates the panel produced when you want to change trace settings. It identifies the current trace settings for each component comprising the specified CMAS. Tracing is active when the setting is Y; it is not active when the setting is N.

```
-------------------- Component Trace Levels for EYUCMS01 --------------------
  COMMAND  ===>

     Overstrike the level number with a Y or N to alter the trace level

     Level                   1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 3 3 3
                   1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2
Component        ----------------------------------------------------------------
  KNL            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  TRC            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  MSG            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  SRV            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  CHE            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  QUE            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  DAT            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  COM            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  TOP            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  MON            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  RTA            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  WLM            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
  BAS            N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
Press Enter to change Trace Flags.
Type END to cancel without changing.
```

Figure 40. Tracing a CMAS

To change a trace setting for a component, first move the cursor to the code for the appropriate component and then move the cursor to the right until you reach the appropriate level. Upon reaching the appropriate level, overtype the current setting with either a Y (to activate tracing) or N (to deactivate tracing).

To apply the changes to the active CMAS, press Enter. The changes take effect immediately and remain in effect until you change them or the CMAS stops.

CMASD

The CMASD view shows information about a CMAS known to the local CMAS.

Issue command: CMASD cmas

  cmas
   Is the name of a CMAS known to the local CMAS.

Select: CMASD from a menu of CONFIG views, being sure to specify the required parameters.

Hyperlink from: the Name field on the CMAS view.

Figure 41 on page 80 is an example of a CMASD view.

```
   26MAR1999  14:46:44 ----------- INFORMATION DISPLAY --------------------------
   COMMAND  ===>                                              SCROLL ===> PAGE
   CURR WIN ===> 1        ALT WIN ===>
    W1 =CMASD============EYUCMS1A=EYUCMS1A=26MAR1999==14:46:44=CPSM=============
       CMAS Name..... EYUCMS1A Start Date....  26MAR1999 EYUDREP State     OPEN
       JOB Name...... EYUJCM1A Start Time....   13:22:04 IRC Status...   CLOSED
       Applid........ EYUCMS1A Time Zone.....          Z VTAM ACB.....     OPEN
       Location......     EC2L Time Offset...          0 CAS Connect..   ACTIVE
       Sysid.........     CM1A Daylight Time.         NO CAS Id.......     EYUA
       Act Maxtasks..      100 Total CPU.....       24.2 System Trace. SYSTEMOFF
       Maxtasks......      120 Total Page In.        158 User Trace...   USERON
       Current Tasks.       29 Total Page Out          0 GTF Trace....  GTFSTOP
       Peak Amaxtask.       12 Total Real Stg       4388 AUX Trace....  AUXSTART
       Total Tasks...       63 CPSM Version..        110 AUX Switch...  NOSWITCH
       Times at MAXT.        0 Free OSSB Cnt.         16 Max STCB.....         1
       SDUMP always         NO Used Free OSSB         0 NetView PPI..        NO
                               Getmain OSSB..         0 NMVTS Sent...         0
                                                         RODM Name....   EYURODM
       Pending Queues
       Connections...        0 Programs......         0 Trans. Data..         0
       Files.........        0 Terminals.....         0 System.......         0
       Journals......        0 Transactions..         0
```

Figure 41. The CMASD view

Action commands: Table 26 shows the action commands you can issue from the CMASD view. The overtype fields are shown in Table 27 on page 81.

Table 26. CMASD view action commands

Primary command	Line command	Description
PURge	PUR	Purges any in-storage copies of security profiles that have been inherited from other CMASs.
SECurity	SEC	Rebuilds the in-storage external security manager (ESM) profiles for a CMAS, provided they reside in local storage.
		Note: The SEC command cannot rebuild ESM profiles that reside in global storage. You must use the facilities provided by your ESM to refresh those profiles.
SHUtdown	SHU	Shuts down a CMAS normally.
n/a	SET	Changes a CMAS attribute according to the new value you specify in an overtype field (see Table 27).
		Note: The value you specified in the Require Set field on the CICSPlex System Manager entry panel determines whether or not you must use the SET command when you overtype a field.
TRAce	TRA	Alters the level of CMAS component tracing that is to occur, as described on page 79.

Table 27. CMASD view overtype fields	
Field name	**Values**
Act Maxtasks	60–999
Maxtasks	60–999
SDUMP Always	YES | NO
Time Zone	B–Z
Time Offset	0–59
Daylight Time	YES | NO
IRC Status	OPEN | CLOSED | IMMCLOSE
VTAM ACB	OPEN | CLOSED | IMMCLOSE | FORCECLOSE
System Trace	SYSTEMON | SYSTEMOFF
User Trace	USERON | USEROFF
GTF Trace	GTFSTART | GTFSTOP
AUX Trace	AUXSTART | AUXSTOP | AUXPAUSE | AUXSWITCH
AUX Switch	SWITCHNEXT | SWITCHALL | NOSWITCH
NetView PPI	YES | NO
RODM Name	The name of the RODM subsystem to which a connection is to be established.

For more information about the Time Zone, Time Zone Offset, and Daylight Time fields and their use, see the description of CICSPlex SM time zone attributes in "CICSPlex SM time zone attributes" on page 89.

Hyperlinks: None.

CMASPLEX

The CMASPLEX view shows information about the CICSplexes being managed by the local CMAS.

Issue command: CMASPLEX

Select: CMASPLEX from a menu of CONFIG views.

Figure 42 is an example of a CMASPLEX view.

```
 26MAR1999  17:20:19 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                  SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =CMASPLEX==========EYUCMS1A=EYUCMS1A=26MAR1999==17:20:19=CPSM==========1===
 CMD CICSplex MP
 --- -------- ---
     EYUPLX01 YES
```

Figure 42. The CMASPLEX view

You can also use the CMASPLEX view to determine whether the local CMAS is the
maintenance point (MP), for a CICSplex.

Action commands: None.

Hyperlinks: Table 28 shows the hyperlink field on the CMASPLEX view.

Table 28. CMASPLEX view hyperlink field

Hyperlink field	View displayed	Description
CICSPlex	CICSPLEX	Detailed information about all CMASs associated with the specified CICSplex.

CMTCMLND

The CMTCMLND view shows information about the link between a CMAS and the
local CMAS.

The information provided by CMTCMLND view is primarily for the use of IBM
service personnel; it includes diagnostic data that can be used to resolve
communications-related problems.

Note: Detailed information can be displayed about any CMAS linked to the local
CMAS. However, the information is current only when the connection
between the CMASs is active and available for use. (When the Status field
on either this view or the CMTCMLNK view contains the value CONACT,
the connection state is active.)

Issue command: CMTCMLND cmas

cmas
 Is the name of a CMAS linked to the local CMAS.

Select: CMTCMLND from a menu of CONFIG views, being sure to
specify the required parameters.

Hyperlink from: the Target CMAS field of the CMTCMLNK view.

Figure 43 is an example of the CMTCMLND view.

```
  26MAR1999  18:07:28 ----------- INFORMATION DISPLAY --------------------------
  COMMAND  ===>                                                SCROLL ===> PAGE
  CURR WIN ===> 1        ALT WIN ===>
   W1 =CMTCMLNK=CMTCMLND=EYUCMS1A=EYUCMS1A=26MAR1999==18:07:13=CPSM==========1===
     Target CMAS.  EYUCMS1B
     Sysid.......      CM1B Msgs Sent......        0 Msgs Recv....        0
     Type........      LU62 Packets Sent...        0 Packets Recv.        0
     Applid......  EYUCMS1B Transit Sent...        0 Transit Recv.        0
     Status......     RESET Bytes Xmit.....        0 Bytes Recv...        0
     Conn Status.  ACQUIRED Bytes Output...        0 Bytes Input..        0
     Serv Status. INSERVICE Schedule Time..  0:00:00 Execute Time.  0:00:00
                            Transmit Time..  0:00:00 Receive Time.  0:00:00
```

Figure 43. The CMTCMLND view

Action commands: Table 29 on page 83 shows the action command you can issue from the CMTCMLND view.

Table 29. CMTCMLND view action commands

Primary command	Line command	Description
DiSCard	DSC	Discard a CMAS link.

When you discard a link between the local CMAS and another CMAS, the local CMAS is prevented from communicating with the other CMAS for as long as the local CMAS is running. (The link definition is not removed from the data repository.) You can reactivate a link by restarting the CMAS.

Hyperlinks: None.

CMTCMLNK

The CMTCMLNK view shows information about the links that exist between the local CMAS and one or more other CMASs.

Issue command: CMTCMLNK [cmas]

cmas
Is the specific or generic name of a CMAS linked to the local CMAS. If you omit this parameter, the view includes information about all CMASs defined to the local CMAS.

Select: CMTCMLNK from a menu of CONFIG views.

Figure 44 is an example of the CMTCMLNK view.

```
26MAR1999  18:07:15 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                                SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CMTCMLNK==========EYUCMS1A=EYUCMS1A=26MAR1999==18:07:13=CPSM==========1===
CMD Target   Sys  Type Applid   Status   Messages   Messages
--- CMAS--- ID-- ---- -------- -------- Sent------ Received--
    EYUCMS1B CM1B LU62 EYUCMS1B RESET            0          0
```

Figure 44. The CMTCMLNK view

Action commands: Table 30 on page 84 shows the action command you can issue from the CMTCMLNK view.

Table 30. CMTCMLNK view action commands

Primary command	Line command	Description
DiSCard cmas	DSC	Discard a CMAS link.

Where:

cmas   Is the name of a CMAS linked to the local CMAS.

When you discard a link between the local CMAS and another CMAS, the local CMAS is prevented from communicating with the other CMAS for as long as the local CMAS is running. (The link definition is not removed from the data repository.) You can reactivate a link by restarting the CMAS.

Hyperlinks: Table 31 shows the hyperlink field on the CMTCMLNK view.

Table 31. CMTCMLNK view hyperlink field

Hyperlink field	View displayed	Description
Target CMAS	CMTCMLND	Detailed information about the link that exists between the specified CMAS and the local CMAS.

CMTPMLND

The CMTPMLND view shows information about the physical connection that exists between the local CMAS and a specific local or remote MAS.

The information provided by the CMTPMLND view is primarily for the use of IBM service personnel; it includes diagnostic data that can be used to resolve communications-related problems.

Note: Detailed information can be displayed about any MAS linked to the local CMAS. However, the information is current only when the connection between a MAS and its local CMAS is active and available for use. (When the Status field on either this view or the CMTPMLNK view contains the value CONACT, the connection state is active.)

Issue command: CMTPMLND mas

mas
 Is the name of a MAS linked to the local CMAS.

Select: CMTPMLND from a menu of CONFIG views, being sure to specify the required parameters.

Hyperlink from: the MAS field of the CMTPMLNK view.

Figure 45 on page 85 is an example of a CMTPMLND view.

```
26MAR1999  09:11:24 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CMTPMLNK=CMTPMLND=EYUCMS1B=EYUCMS1B=26MAR1999==09:11:12=CPSM==========1===
    Target MAS.. EYUMAS1C                         0
    CICSplex....           Msgs Sent......      0 Msgs Recv....         0
    Sysid.......      MS1C Packets Sent...      0 Packets Recv.         0
    Type........      LU62 Transit Sent...      0 Transit Recv.         0
    Applid...... EYUMAS1C Bytes Xmit.....      0 Bytes Recv...         0
    Status......     RESET Bytes Output...      0 Bytes Input..         0
    Conn Status.       N/A Schedule Time..  0:00:00 Execute Time.   0:00:00
    Serv Status.       N/A Transmit Time..  0:00:00 Receive Time.   0:00:00
```

Figure 45. The CMTPMLND view

Action commands: Table 32 shows the action command you can issue from the CMTPMLND view.

Table 32. CMTPMLND view action commands

Primary command	Line command	Description
DiSCard	DSC	Discard a remote MAS link.

When you discard a link between a remote MAS and the local CMAS, the link definition is not removed from the data repository. You can reactivate the link by restarting the remote MAS.

Hyperlinks: None.

CMTPMLNK

The CMTPMLNK view shows information about the physical connections that exist between the local CMAS and the local and remote MASs to which it is linked.

Issue command: CMTPMLNK [mas]

                    mas
                    Is the specific or generic name of a MAS linked to the local CMAS. If you omit this parameter, the view includes information about all MASs defined to the local CMAS.

Select: CMTPMLNK from a menu of CONFIG views.

Figure 46 on page 86 is an example of the CMTPMLNK view.

```
   26MAR1999  18:08:43 ----------- INFORMATION DISPLAY --------------------------
   COMMAND  ===>                                              SCROLL ===> PAGE
   CURR WIN ===> 1        ALT WIN ===>
    W1 =CMTPMLNK=========EYUCMS1B=EYUCMS1B=26MAR1999==18:08:43=CPSM=========2===
   CMD Target   Sys  Type Applid   Status   CICSplex Messages    Messages
   --- MAS---   ID-- ---- -------- -------- -------- Sent------  Received--
       EYUMAS1B MS1B ESSS EYUMAS1B CONACT   EYUPLX01     6567          11
       EYUMAS1C MS1C LU62 EYUMAS1C CONACT   EYUPLX02       55         517
```

Figure 46. The CMTPMLNK view

Action commands: Table 33 shows the action command you can issue from the CMTPMLNK view.

Table 33. CMTPMLNK view action commands

Primary command	Line command	Description
DiSCard mas	DSC	Discard a remote MAS link.

Where:

   mas   Is the name of a MAS linked to the local CMAS.

When you discard a link between a remote MAS and the local CMAS, the link definition is not removed from the data repository. You can reactivate the link by restarting the remote MAS.

Hyperlinks: Table 34 shows the hyperlink field on the CMTPMLNK view.

Table 34. CMTPMLNK view hyperlink field

Hyperlink field	View displayed	Description
MAS	CMTPMLND	Detailed information about the link that exists between the specified MAS and its CMAS.

Chapter 6. Establishing the topology of a CICSplex

This chapter describes the topology definitions that CICSPlex SM uses when constructing a single-system image of the CICS systems comprising a CICSplex. These definitions associate CICS systems with a CICSplex and, optionally, identify subsets of those systems as CICS system groups within the CICSplex.

Sections in this chapter describe:

- "Preparing to define the topology of a CICSplex"
- "CICSPlex SM time zone attributes" on page 89
- "Topology definitions and their related views" on page 93
- "Topology definitions" on page 126.

Preparing to define the topology of a CICSplex

Topology definitions allow you to establish logical associations of CICS systems within an enterprise.

This means that you can combine one or more related CICS systems to form a CICSplex and, within each CICSplex, you can combine one or more subsets of the CICS systems to form CICS system groups.

Establishing a CICSplex

A CICSplex is identified to CICSPlex SM via the CPLEXDEF view, as described on page 70. Once a CICSplex exists, you can assign an unlimited number CICS systems and CICS system groups to it.

The names of the CICS systems and CICS system groups associated with each CICSplex must be unique and must not exceed eight characters in length. The names can match any name that is not assigned by CICSPlex SM, such as VTAM APPLIDs.

The JCL used to start the CICS systems within a CICSplex must include the EYUPARM parameters NAME() and CICSPLEX(), as described in the *CICS Transaction Server for OS/390: Installation Guide* manual.

Combining CICS systems and CICS system groups

Although you can define a CICS system to only one CICSplex, you can assign a CICS system to multiple CICS system groups within the CICSplex. You can also assign the CICS system group to any number of other CICS system groups.

If you do not plan on using workload management facilities, there are no restrictions on how you combine CICS systems and CICS system groups to form a CICSplex. For example, you might associate CICS systems by:

- Geographic area within the CICSplex.

- Function, such as all CICS systems that are application-owning regions (AORs), file-owning regions (FORs), or terminal-owning regions (TORs).

- Application, such as the CICS systems serving as AORs, FORs, and TORs that are used by a specific application or group of applications.

- Time period, such as all CICS systems that are normally active during specific hours of the day or night.

If you do plan to use workload management facilities, you need to be aware that each CICS region may act as one or more of the following:

requesting region The CICS region in which the work request originates.

routing region The CICS region in which the decision is taken on where the work will run.

target region The CICS region where the request is actioned.

For *dynamic transaction routing*, the requesting region and the routing region are typically TORs, and the target region is typically an AOR.

For *inbound DPL client requests*, the requesting region and the routing region are typically TORs, and the target region is typically an AOR.

For *EXEC CICS START commands associated with a terminal*, the requesting region is typically an AOR, the routing region is typically a TOR, and the target region is typically an AOR.

For *peer-to-peer DPL requests*, the requesting region, routing region, and target region are typically AORs.

You must ensure that:

- Each CICS system that is to act as a target region for specific workload processing must be in the same CICSplex as the CICS systems acting as routing regions. (The routing regions and target regions associated with a CICSplex can be in the same or different MVS images.)

- CICS systems acting as the routing regions must be at CICS/ESA Version 3 Release 3 or above and must be locally attached to a CMAS.

A CICS region may act as one of these, or as all three.

Components of a CICS system definition

When you define a CICS system to a CICSplex, you will be asked to provide the following types of information:

- General

  Identifying a CICS system includes such information as whether security checking is to occur and the time zone in which CICS system is located, as described on page 103.

- Workload management

  For workload management to occur, you must ensure that:

  - Workload management is turned on and the CICS system is identified as a routing region or target region, or both, as described on page 106.

  - The CICS system or its CICS system group is associated with a workload specification, as described in the discussion of the WLMSPEC view in *CICSPlex SM Managing Workloads*.

- Real-time analysis

For real-time analysis to occur, you must ensure that:

– Real-time analysis is turned on. You can also indicate whether you want to override certain values specified with the analysis specification to which this CICS system is associated.

– The CICS system or its CICS system group is associated with an analysis specification, as described in the discussion of the RTASPEC view in *CICSPlex SM Managing Resource Usage*.

The CICS system or its CICS system group can also, or instead, be associated with an analysis point specification, also described in the discussion of the APSPEC view in *CICSPlex SM Managing Resource Usage*.

- Resource monitoring

For resource monitoring to occur, you must ensure that:

– Resource monitoring is turned on, as described on page 110. You can also indicate whether you want to override certain values specified with the monitor specification to which this CICS system is associated.

– The CICS system or its CICS system group is associated with a monitor specification, as described the discussion of the MONSPEC view in *CICSPlex SM Managing Resource Usage*.

- Business application services

Identifying a CICS system to business application services includes such information as whether resource definitions should be automatically installed when the MAS connects to the CMAS, and what action should be taken if automatic installation errors occur, as described on page 111.

CICSPlex SM time zone attributes

CICSPlex SM uses three attributes to facilitate timing services. These attributes and their available values are:

Time Zone	B through Z
Time Zone Adjustment	0 through 59 minutes
Daylight Savings	YES or NO

These attributes are used to help CICSPlex SM:

- Standardize relative time values within a CICSplex

- Control CICSPlex SM monitor intervals

- Schedule time-started monitor definitions, analysis definitions, and status definitions

- Schedule the time during which System Availability Monitoring (SAM) is active.

These attributes are specified for the following CICSPlex SM definitions:

CMAS	Using the CICSPlex SM EYU9XDUT utility (as described in the *CICS Transaction Server for OS/390: Installation Guide* manual) or the CMASD view
CICSplex	Using the CPLEXDEF view (as described in "CPLEXDEF (CICSplex definitions)" on page 70)

CICS system	Using the CICSSYS (as described in "CICSSYS (CICS system definitions)" on page 100) or MAS views
Time period	Using the PERIODEF view (as described in "PERIODEF (Time period definitions)" on page 119)

Attribute definitions

The three attributes that facilitate timing services are defined as follows:

Time Zone

CICSPlex SM uses the international standard for time zones. This consists of 24 zones around the world, separated in time by 60 minutes each. The standard for these zones is the prime meridian, and time at the prime meridian is referred to as Greenwich Mean Time (GMT).

The area having Greenwich Mean Time is referred to as time zone Z. The next time zone to the east, where time is 60 minutes (one hour) *ahead of* GMT, is time zone B. When GMT is 12:00 noon, the time in time-zone B is 13:00. The next time zone to the east, 120 minutes (two hours) ahead of GMT, is time zone C. For each time zone to the east, time advances one hour, until time zone M, where local time is 12 hours ahead of GMT. Time zone M is at the international date line.

The next time zone east, time zone N, is (like time zone M) separated from GMT by 12 hours. However, because it is considered to be on the opposite side of the international date line from time zone M, it is 12 hours *behind* GMT. Similarly, the next time zone east, time zone O, is 11 hours behind GMT. When GMT is 12:00 noon, the time in time zone O is 01:00. For each time zone to the east, one hour is subtracted, until time zone Y, which is one hour behind GMT.

Note that there is no time zone A.

Time Zone Adjustment

Some locations around the world have implemented times that are different from GMT by times that are not 60 minute multiples. For situations such as these, CICSPlex SM uses a time zone adjustment. To define the time zone of such a location to CICSPlex SM, the time zone of the next lowest 60 minute multiple is used, and the difference, in minutes, between the 60 minute multiple and the location's time is entered as the Time Zone Adjustment. For example, when the time is 13:00 in London, England (this is GMT, or time zone Z), it is 22:00 in Tokyo, Japan (time zone J), and 22:30 in Adelaide, Australia. To define Adelaide's location to CICSPlex SM, the time zone is specified as time zone J, and the time zone adjustment is specified as 30 (to indicate that the time in Adelaide has 30 minutes *added to* the time in the adjacent time zone to the west).

Daylight Savings

Some locations around the world modify their time offset from GMT twice a year. Usually, the first change occurs in March or April, when local standard time (LST) is moved *ahead* by one hour, creating local daylight savings time (LDST). For locations in time zones Z through M, LDST is one hour farther ahead of GMT. For locations in time zones N through Y, LDST is one hour closer to GMT. In October or November, locations that use LDST usually change back to LST. Time in these locations then reverts to the standard difference from GMT.

For operation of CICSPlex SM, sites in locations that make use of LDST *must* modify the appropriate CICSPlex SM definition twice a year. This means indicating YES to daylight savings when LDST is in effect, and NO when LST is in effect. When the daylight savings indicator is NO, CICSPlex SM considers an entity in that time zone to be the normal number of hours from GMT. When the daylight savings indicator is YES, CICSPlex SM considers that entity to be one hour further ahead of GMT (than during standard time) for time zones Z through M, and one hour closer to GMT for time zones N through Y.

Attribute usage

You make use of the three attributes that facilitate timing services when you specify the following definitions:

CMAS

In order to ensure consistent timing services, CICSPlex SM requires that the attribute settings within a CMAS accurately reflect the time in effect for the location in which that CMAS executes.

There are three uses for these attributes in a CMAS:

- To coordinate time services throughout a CICSplex, CICSPlex SM bases all of its timing on GMT. When a CMAS is started, CICSPlex SM calculates how a standard hardware clock must be modified to achieve GMT. This is done in one of two ways, depending upon the setting of the SYS1.PARMLIB(CLOCKxx) member in effect:

  - **When the CLOCKxx TIMEZONE operand indicates an offset from GMT, then CICSPlex SM assumes that the hardware clock value is GMT, and does not modify it.**

  - **When the CLOCKxx TIMEZONE operand does not indicate an offset from GMT, then CICSPlex SM uses the time zone, time zone adjustment, and daylight savings indicator in the CMAS to calculate the value needed to modify the hardware clock.**

- When an analysis definition or status definition is installed within an analysis point specification that is controlled by the CMAS, and the definition is scheduled for a timed install (because the definition is associated with a period definition), then the time zone, time zone adjustment and daylight savings indicator of the CMAS determine when the definition is installed, provided that the period definition indicates that the install time should be local time.

- When a CICS system is defined to CICSPlex SM, the time zone, time zone adjustment and daylight savings indicator can be explicitly set, or they can be inherited from the CMAS to which the CICS system connects.

CICSplex

Because a CICSplex may encompass many different time zones, and in order to ensure consistency within the CICSplex, it is required that a single set of attributes be chosen to represent the CICSplex. It is not necessary that the attributes chosen match the attributes of the maintenance point CMAS of the CICSplex, or any other CMAS.

There is one use for the time zone attributes in a CICSplex:

- When a CICSplex becomes active, and monitoring will be active, a monitor interval is determined based upon the setting in the CICSplex

definition. This monitor interval is used to reset monitor data collected from CICS system. Because each CMAS in the CICSplex stores the monitor data for the CICS systems connected to it, in order for all monitor data within the CICSplex to be consistent the reset takes place at all CMASs at exactly the same real time, regardless of the locations of the CMASs. To compute the time for the reset, the time zone attributes of the CICSplex are used.

CICS system

Unlike the attribute requirements for a CMAS, the time zone attributes for a CICS system can be set to reflect a location different from that where the CICS system actually executes. For example, if the system executes in one time zone, but is primarily used by operators in another time zone, you may prefer to set the attributes to match the time zone of the operators, instead of matching the time zone where the system executes. CICSPlex SM supports either actual or logical attributes for CICS systems.

There are three uses for these attributes in a CICS system:

- When a monitor definition is installed within a monitor specification within the CICS system, and the monitor definition is scheduled for a timed install (because the monitor definition is associated with a period definition), the time zone, time zone adjustment and daylight savings indicator of the CICS system are used to determine when to install the definition, provided that the period definition indicates that the install time should be local time.

- When an analysis definition or status definition is installed within an analysis specification within the CICS system, and the analysis definition is scheduled for a timed install (because the definition is associated with a period definition), the time zone, time zone adjustment, and daylight savings indicator of the CICS system are used to determine when to install the definition, provided that the period definition indicates that the install time should be local time.

- When a CICS system has System Availability Monitoring (SAM) active (the CICS system definition contains both a primary CMAS and an active period), the time zone, time zone adjustment, and daylight savings indicator of the CICS system are used to determine when the system should be active, provided that the period definition indicates that the time period should be local time.

Period definition

Period definitions are used by CICSPlex SM to schedule timed events. A period definition is defined as a starting time, an ending time, and time zone attributes. Period definitions use only two of the time zone attributes: the time zone and the time zone adjustment.

There are three uses of period definitions:

- For System Availability Monitoring (SAM). This occurs when both a primary CMAS and a period definition are associated with a CICS system definition.

  Note: If no PERIODEF is specified in the Active Time field on the CICSSYS view, then SAM is not activated for that CICS system.

- For timed install of monitor definitions. This occurs when a period definition is associated with a monitor definition when the monitor

definition is added to a monitor group, and the monitor group is installed into a CICS system.

- For timed install of analysis definitions and status definitions. This occurs when a period definition is associated with an analysis definition or a status definition when the definition is added to an analysis group, and the analysis group is installed into a CICS system or an analysis point specification.

For a period definition, there are two differences from other uses of the time zone attributes:

- Time zone A is accepted by a period definition. Use of time zone A indicates that the time associated with the period definition reflects the local time of the entity (CMAS or CICS system).

- When a period definition is defined with a time zone of A, the time zone adjustment specified in the period definition is ignored.

When a period definition is for time zone A, all events controlled by that period definition become active at the same *clock* time, based upon the start time specified in the period definition, and the time zone, time zone adjustment, and daylight saving indicator within the entity (CMAS or CICS system). Similarly, events become inactive at the same *clock* time, based upon the end time specified in the period definition, and the time zone, time zone adjustment, and daylight saving indicator within the entity (CMAS or CICS system).

When a period definition is for a time zone other than time zone A, all events controlled by that period definition become active at exactly the same *real* time, regardless of the time zone in which the events are occurring. The activation time is based upon the period definition's start time, time zone, and time zone adjustment. Similarly, events controlled by that period definition become inactive at the same *real* time, based upon the period definition's ending time, time zone, and time zone adjustment. For both activation and deactivation, the time zone specified refers to the standard time for that time zone (LST), regardless of whether daylight saving time is in effect.

Topology definitions and their related views

Figure 47 on page 94 illustrates the relationship between the topology definitions establishing a CICSplex and the views used to create and maintain those definitions. Notice that the definitions are stored in the data repositories of all CMASs participating in the management of the CICSplex. (For additional information about the data repository, see the description on page 55.)
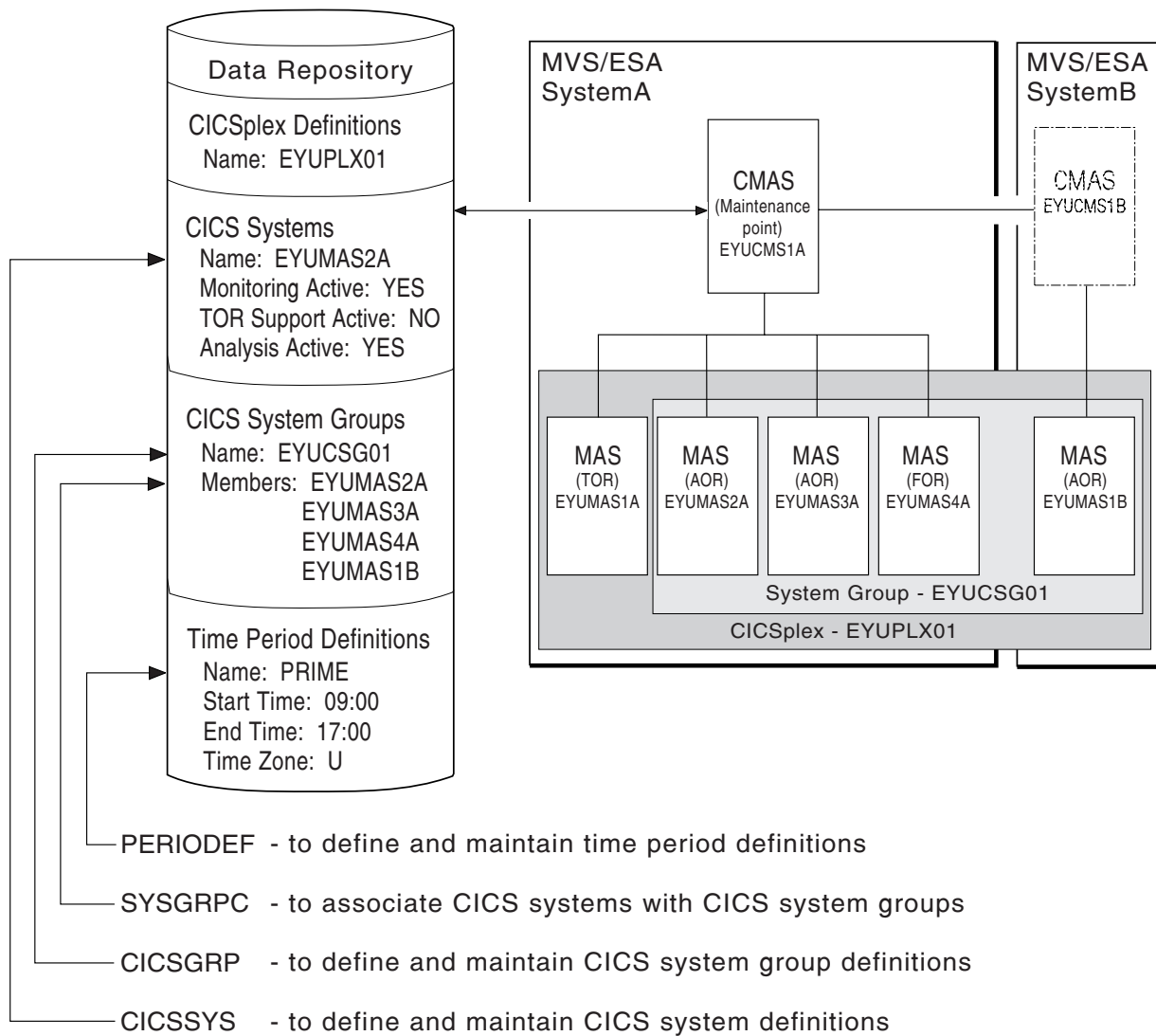
Figure 47. The relationship between CICSplex components and the topology views

In addition, you can use the MAS view to manage an active CICS system. as indicated in Table 4 on page 15, and described in "Topology definitions" on page 126.

Note: Using the CICSSYS and PERIODEF views to update definitions affects both a currently running system and the definitions in the data repository. Updates made using the MAS view, however, are not included in the data repository.

Online help is available for each view and for the fields in each view.

You can access a topology view by doing any of the following:

| • For all topology views, issuing the MENU ADMTOPOL command and selecting the view from the menu that is displayed. (The menu is shown in Figure 48 on page 95.)

• Issuing the appropriate topology view command.

• Initiating a hyperlink from one view to another by placing the cursor on a hyperlink field and pressing Enter.

```
 26MAR1999  19:34:08 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                  SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 =MENU=============EYUPLX01=EYUPLX01=26MAR1999==19:34:08=CPSM==========6===
 CMD Name             Description
 --- ------------------------------
     ADMTOPOL     Topology Administration Views
       CICSSYS       CICS System Definitions
       CICSGRP       CICS System Group Definitions
       SYSGRPC       Members of CICS System Groups
       PERIODEF      Time Period Definitions
```

Figure 48. The ADMTOPOL menu

For additional information about accessing views, see page 2.

Reminder: Unless noted otherwise, only the context setting is recognized when you are creating and maintaining topology definitions. For additional information about setting the context to a CICSplex, see *CICSPlex SM User Interface Guide*.

The remainder of this chapter contains detailed descriptions of the topology views.

CICSGRP (CICS system group definitions)

A CICS system group identifies a subset of the CICS systems comprising a CICSplex. Each subset can consist of one or more CICS systems, CICS system groups, or both. They are referred to as the *members* of a CICS system group.

To display information about existing CICS system groups, issue the command:

```
CICSGRP [sysgroup]
```

where sysgroup is the specific or generic name of a CICS system group known to the CICSplex identified as the context. If this parameter is omitted, the view, illustrated in Figure 49, includes information about all existing CICS system groups associated with the CICSplex identified as the context.

```
 26MAR1999  17:05:25 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                  SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 =CICSGRP===========EYUPLX01=EYUPLX01=26MAR1999==17:05:25=CPSM==========4===
 CMD System   Description
 --- Group    ----------------------------
     EYUCSG01 SSet - AORs/FORs on EYUPLX01
     EYUCSG03 SSet - All AORs in EYUPLX01
     EYUCSG04 SSet - EYUA AORs in EYUPLX01
     EYUCSG05 SSet - EYUB AORs in EYUPLX01
```

Figure 49. The CICSGRP view

Action commands and overtype fields

Table 35 summarizes the action commands you can use with the CICSGRP view.
Table 36 on page 97 identifies the overtype field you can modify when you use the
SET action command.

Table 35 (Page 1 of 2). CICSGRP view action commands

Primary command	Line command	Description
n/a	ADD	Add a CICS system or CICS system group to a CICS system group definition, as described on page 98.
n/a	BAS	Display a visual map of business application services definitions using the specified group as a starting point.
n/a	BRO	Browse a CICS system group definition in the data repository. The format of the resulting panels is identical to that shown in Figure 50 on page 97. All of the fields are nonmodifiable.
CREate	CRE	Create a CICS system group definition and add it to the data repository, as described on page 97.
n/a	MAP	Display a visual map of CICSPlex SM definitions, using the specified group as a starting point. You are prompted to specify the type of definitions you want to map: business application services (BAS), resource monitoring (MON), real-time analysis (RTA), or workload management (WLM).
n/a	MON	Display a visual map of resource monitoring definitions using the specified group as a starting point.
n/a	REM	Remove a CICS system group definition from the data repository, as described on page 99.
n/a	RTA	Display a visual map of real-time analysis definitions using the specified group as a starting point.
n/a	SET	Change a CICS system group definition description using an overtype field. **Note:** The value you specified in the Require Set field on the CICSPlex SM entry panel determines whether or not you must use the SET command when you overtype a field.
TEMPMP cmas	n/a	Change the temporary maintenance point CMAS to a specific CMAS or display a selection list based on a generic CMAS ID.
n/a	UPD	Update a CICS system group definition in the data repository. The format of the resulting panels is similar to that shown in Figure 50 on page 97. Most of the fields in the panel are modifiable.

Table 35 (Page 2 of 2). CICSGRP view action commands

Primary command	Line command	Description
n/a	WLM	Display a visual map of workload management definitions using the specified group as a starting point.

Table 36. CICSGRP view overtype field

Field name	Value
Description	1- to 30-character description of the CICS system group.

Hyperlink fields

Table 37 shows the hyperlink field on the CICSGRP view.

Table 37. CICSGRP view hyperlink fields

Hyperlink field	View displayed	Description
System Group	SYSGRPC	Identifies the members of the specified CICS system group.

Creating a CICS system group definition

Figure 50 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the CICSGRP view.

```
---------------------- Create System Group for EYUPLX01 ----------------------
 COMMAND  ===>

  System Group name  ===> EYUCSG01
  Description        ===> Starter Set System Group 1


Press Enter to Create the System Group.
Type END or CANCEL to cancel without creating.
```

Figure 50. Creating a CICS system group definition.

Provide the following information, as appropriate:

System Group
Specify a 1- to 8-character name for the CICS system group. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

Note: The name of a CICS system group must be unique within the CICSplex identified as the context; it should not be the same as the name of another CICS system group, a CICS system, or the CICSplex itself.

Description
(Optional.) Specify a 1- to 30-character description of the CICS system group.

Press Enter to add the CICS system group definition to the data repository.

There is no limit to the number of CICS system groups you can associate with a CICSplex.

Adding a member to a CICS system group

Figure 51 illustrates the panel produced when you use the add (ADD) line action command from the CICSGRP view.

```
-------------------- Add Member to System Group for EYUPLX01 -----------------
COMMAND  ===>

System Group Name  EYUCSG02
Description         Starter Set System Group 2

Member       ===>                      CICS System, Group or Generic

 Component Spec     Inherit

 MON       EYUMOS01 NULL
 WLM       EYUWMS01 NULL
 RTA       EYURTS01 NULL

Press Enter to add Member to System Group.
Type END or CANCEL to cancel without adding.
```

Figure 51. Adding a member to a CICS system group

Provide the following information, as appropriate:

Member
Specify the name of an existing CICS system or CICS system group that is to be associated with the CICSplex identified as the context.

Inherit
(Required when adding a CICS system to a CICS system group.) Indicate whether the CICS system is to inherit the resource monitor (MON), real-time analysis (RTA), or workload management (WLM) specification from the CICS system group to which you are associating it. Specify:

KEEP   The CICS system is to keep the specification currently associated with it. No action is taken if the CICS system is not currently associated with a specification.

FORCE   The CICS system is to inherit the specification associated with the CICS system group. When a CICS system is currently associated with a specification, but the CICS system group is not associated with any specification, the CICS system retains the current specification.

NULL   The CICS system is to inherit the specification associated with the CICS system group only if the CICS system is not currently associated with a specification. If the CICS system is already associated with a specification, it is to retain that specification.

The Spec field contains the name of the specification, if any, for a CICSPlex SM component that is currently associated with the CICS system group.

A CICS system in a CICS system group cannot inherit a specification from another CICS system group.

Press Enter to add this association to the data repository.

There is no limit to the number of members you can associate with a CICS system group.

Note: If you are using the Business Application Services component, adding a CICS system to a CICS system group could result in inconsistent resource set or inconsistent scope errors. For information about this type of problem and how to resolve it, see the *CICSPlex SM Managing Business Applications* manual.

Removing a CICS system group

Figure 52 illustrates the panel produced when you use the remove (REM) line action command from the CICSGRP view.

The line containing MON, RTA, or WLM component information is included in the panel only if the CICS system group has a specification associated with it.

```
----------------------- Remove System Group for EYUPLX01 --------------------
COMMAND  ===>

System Group Name   EYUCSG01
Description

Component Spec     Action
MON       SPEC1    KEEP
WLM       SPEC2



Press ENTER to remove the System Group.
Type END or CANCEL to cancel without removing.
```

Figure 52. Removing a CICS system group

Provide the following information:

Action
Indicate how the CICS systems comprising the CICS system group are to use any specifications associated with the CICS system group. Specify:

KEEP   Those CICS systems that inherited a specification from the CICS system group are explicitly assigned the specification.

DROP   Those CICS systems that inherited a specification from the CICS system group are not to use that specification.

If a specification is associated with a CICS system group, DROP is the default value that appears in the Action field when this panel is displayed.

Press Enter to remove the CICS system group definition from the data repository.

Associations between the CICS system group and its members are removed when the CICS system group is removed.

CICSSYS (CICS system definitions)

In order to be managed by CICSPlex SM, a CICS system must be associated with a CICSplex that is defined to CICSPlex SM. The definition establishing this association also contains information about how the CICS system is to use the workload management, real-time analysis, resource monitoring, and business application services components of CICSPlex SM.

To display information about CICS systems defined to a CICSplex, issue the command:

```
CICSSYS [sysname]
```

where sysname is the specific or generic name of a CICS system known to the CICSplex identified as the context. If this parameter is omitted, the view, illustrated in Figure 53, includes information about all CICS systems associated with the CICSplex identified as the context.

```
 26MAR1999 11:30:30 ---------- INFORMATION DISPLAY ----------------------------
 COMMAND  ===>                                               SCROLL ===> PAGE
 CURR WIN ===> 1           ALT WIN ===>
  W1 =CICSSYS==========EYUPLX01=EYUCSG01=26MAR1999==11:30:30=CPSM=========4===
 CMD  CICS         Description                     Model
 ---  System---    ------------------------------  --------
      EYUMAS1A     Starter Set TOR 1 on System A
      EYUMAS1B     Starter Set AOR 3 on System B
      EYUMAS3A     Starter Set AOR 2 on System A
      EYUMAS4A     Starter Set FOR 1 on System A
```

Figure 53. The CICSSYS view

Action commands

Table 38 summarizes the action commands you can use with the CICSSYS view. Table 39 on page 102 identifies the overtype field you can use with the CON action command.

Table 38 (Page 1 of 3). CICSSYS view action commands

Primary command	Line command	Description
n/a	BAS	Display a visual map of business application services definitions using the specified system as a starting point.
n/a	BRO	Browse a CICS system definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 54 on page 103 through Figure 58 on page 112. All of the fields in the panels are nonmodifiable.
n/a	CON	Create system link (SYSLINK) definitions using the existing system links of a specified CICS system as a model, as described in *CICSPlex SM Managing Business Applications* .
		When you issue the CON command, you must enter a CICS system name in the Model field.

Table 38 (Page 2 of 3). CICSSYS view action commands

Primary command	Line command	Description
CREate	CRE	Create a CICS system definition and add it to the data repository, as described on page 103.
		When you use the primary command CREate, some fields in the new view may contain values supplied by CICSPlex SM; you may change these values. When you enter the line command CRE next to the name of a CICS system definition, fields in the new view contain values to be modeled (from the existing CICS system definition).
n/a	GEN	Create system link (SYSLINK) definitions based upon the existing connections of the active CICS system, as described in *CICSPlex SM Managing Business Applications*.
n/a	GRP	Add a CICS system to a CICS system group definition, as described on page 113.
n/a	MAP	Display a visual map of CICSPlex SM definitions, using the specified definition as a starting point. You are prompted to specify the type of definitions you want to map: business application services (BAS), resource monitoring (MON), real-time analysis (RTA), or workload management (WLM).
n/a	MON	Display a visual map of resource monitoring definitions using the specified system as a starting point.
n/a	REM	Remove a CICS system definition from the data repository. (When you remove a CICS system definition, associations between the CICS system and any CICS system groups or component specifications are also removed.)
n/a	RTA	Display a visual map of real-time analysis definitions using the specified system as a starting point.
TEMPMP cmas	n/a	Change the temporary maintenance point CMAS to a specific CMAS or display a selection list based on a generic CMAS ID. For more information about temporary maintenance point CMASs, see "Working with maintenance point CMASs" on page 55.

Table 38 (Page 3 of 3). CICSSYS view action commands

Primary command	Line command	Description
n/a	UPD	Update a CICS system definition in the data repository.
		The format of the resulting panels is similar to that shown in Figure 54 on page 103 through Figure 58 on page 112. Most of the fields in the panels are modifiable. (A difference is that when resource monitoring, real-time analysis, and workload management are active, the appropriate specification names and types of links to those specifications are shown.)
		For an active system, any changes you make via this view take effect immediately and are permanent. You can use the MAS view, as indicated in Table 4 on page 15, to temporarily change the definitions of an active CICS system.
		In order to activate a component, an appropriate specification (workload, real-time analysis, or monitor) must be associated with the CICS system.
		Note: Using the CICSSYS view to update definitions affects both a currently running system and the definitions in the data repository.
n/a	WLM	Display a visual map of workload management definitions using the specified system as a starting point.

Table 39. CICSSYS view overtype field

Field name	Value
Model	Name of a CICS system whose system links are to be used as a model.

Note: To use the system links of another CICS system as a model, type the CON action command in the line command field next to the name of the CICS system and enter a CICS system name in the Model field.

Hyperlink fields

Table 40 shows the hyperlink field on the CICSSYS view.

Table 40. CICSSYS view hyperlink field

Hyperlink field	View displayed	Description
CICS System	SYSGRPC	Identifies the CICS system group to which the CICS system belongs.

Creating a CICS system definition

When you use the create primary (CREate) or line (CRE) action command from the CICSSYS view, a series of input panels is produced.

In the descriptions of the panels, you are informed about fields for which input for an active system takes immediate effect when you press Enter to issue the UPDate action command. For all other fields, UPDate input does not take effect until the CICS system is restarted.

1. Figure 54 shows the format of the first panel produced when you want to create a CICS system definition.

```
--------------- Create System - General Attributes - for EUPLX01 ---------------
COMMAND ===>

 System Name ===>
 Description ===>

 Primary CMAS            ===> EYUCMS01   RTA System Availability Monitoring CMAS
 Active Period           ===> PRIME      Hours of Operation
 APPLID                  ===>            VTAM application ID
 SYSIDNT                 ===>            System communication ID

                                    SECURITY
 CICS Command Checking   ===> *         Simulated CICS Cmd Checks
 CICS Resource Checking  ===> *         Simulated CICS Res Checks
 Exemption Checking      ===> *         Check for Exempt Users

                                    TIME
 Time Zone               ===> *         Time Zone for System
 Time Zone Offset        ===> *         Time Zone Offset for System
 Daylight Savings Time   ===> *         Daylight Savings for System

 Enter DOWN or UP to view other System screens.
 Press Enter to create the System.
 Type END or CANCEL to cancel without creating.
```

Figure 54. Creating a CICS system definition - general attributes

Provide the following information, as appropriate:

System Name
Specify a 1- to 8-character name for the CICS system to be associated with the CICSplex identified as the context. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

Note: The name of a CICS system must be unique within the CICSplex; it should not be the same as the name of another CICS system, a CICS system group, or the CICSplex itself.

Make sure that the name you specify here matches the name you specify with the EYUPARM parameter NAME in the start up JCL for the CICS system. (See the *CICS Transaction Server for OS/390: Installation Guide* manual for additional information.)

Description
(Optional.) Specify a 1- to 30-character description of the CICS system.

Primary CMAS

(Required only for system availability monitoring, as described in *CICSPlex SM Managing Resource Usage*) Specify the name of the CMAS that should be assigned the task of monitoring the availability of this CICS system.

When the CICS system is part of a CICSplex that is managed by a single CMAS, specify the name of that CMAS.

When multiple CMASs are involved in managing the CICSplex, identify the CMAS to which the CICS system normally connects. Naming a CMAS does not prevent the CICS system from connecting to another CMAS when, for example, the primary CMAS is not available.

If the designated CMAS is not available and:

- It is the only CMAS managing the CICSplex with which the CICS system is associated, the CICS system is not known to CICSPlex SM.

- There are multiple CMASs involved in managing the CICSplex, the secondary CMAS, as specified in the APCMAS view, takes over availability monitoring.

For an active system, data entered in this field takes effect when you press Enter.

Active Period

(Required only for system availability monitoring, as described in *CICSPlex SM Managing Resource Usage*) Specify the name of the period definition that identifies the hours during which this CICS system is to be running. (You can use the PERIODEF view, as described in Table 4 on page 15, to display a list of existing time period definitions.) You can specify any appropriate name. If the name you specify does not belong to an existing period definition, you can create that period definition later.

This name plus the Primary CMAS name are used by system availability monitoring (SAM) to generate external notifications when the CICS system is not active during its defined hours of operation.

For an active system, data entered in this field takes effect when you press Enter.

APPLID

Specify the VTAM application ID of the CICS system.

SYSIDNT

Specify the 4-character system ID of the CICS system.

CICS Command Checking

Indicate whether CICSPlex SM security checking is to simulate CICS command checking for this CICS system. Specify:

YES   Simulate CICS security checking for this CICS system.
NO   Do not simulate CICS security checking for this CICS system.
*   Use the value assigned to the CICSplex with which this CICS system is associated.

For an active system, data entered in this field takes effect when you press Enter.

CICS Resource Checking

Indicate whether CICSPlex SM security checking is to simulate CICS resource checking for this CICS system. Specify:

YES   Simulate CICS resource checking for this CICS system.

NO   Do not simulate CICS resource checking for this CICS system.

*   Use the value assigned to the CICSplex with which this CICS system is associated.

For an active system, data entered in this field takes effect when you press Enter.

Exemption Checking

Indicate whether all simulated CICS security checking is to be bypassed for this CICS system. Specify:

YES   Bypass all simulated CICS security checking for this CICS system.

NO   Do not bypass simulated CICS security checking for this CICS system.

*   Use the value assigned to the CICSplex with which this CICS system is associated.

For an active system, data entered in this field takes effect when you press Enter.

Time Zone

Identify the time zone in which this CICS system is located by specifying:

- A code in the range B through Z. (See Table 43 on page 123 for a description of these codes.)

- * (asterisk), to inherit the time zone offset assigned to the CMAS to which this CICS system is connected, or the primary CMAS, if the CICS system is inactive.

Note: If you specify * (asterisk) for any one of the time fields, you must specify asterisk for all three time fields.

For an active system, data entered in this field takes effect when you press Enter.

Time Zone Offset

Indicate the adjustment value that is to be applied to the computed time. This value is used to resolve time references in areas that do not use a standard zone. Specify:

- A value between 0 and 59 to identify the number of minutes to be added to the time for that time zone (for areas that do not use a standard time zone).

- * (asterisk), to inherit the time zone offset assigned to the CMAS to which this CICS system is connected, or the primary CMAS, if the CICS system is inactive.

For an active system, data entered in this field takes effect when you press Enter.

Daylight Savings Time

Indicate whether you are currently recognizing daylight saving time. Specify:

YES   Recognize daylight saving time.

NO   Do not recognize daylight saving time.

> * Use the value assigned to the daylight time indicator assigned to the CMAS to which this CICS system is connected, or the primary CMAS, if the CICS system is inactive.

> For an active system, data entered in this field takes effect when you press Enter.

> For more information about the time zone attributes and their use, see "CICSPlex SM time zone attributes" on page 89.

> If the CICS system definition is complete, press Enter. If other attributes must be specified, issue the DOWN command.

2. Figure 55 shows the format of the panel produced the first time you issue the DOWN command.

```
-------------- Create System - Workload Attributes - for EUPLX01 -------------
COMMAND ===>

 System Name        EYUMAS1A
 Description        Starter Set TOR 1 on System A

 Routing Support active     ===> NO     Routing support to be activated

 Target routing at startup  ===> YES


Enter DOWN or UP to view other System screens.
Press Enter to create the System.
Type END or CANCEL to cancel without creating.
```

Figure 55. Creating a CICS system definition - workload attributes

Provide the following information about workload management. Note that the CICS system can act as one or more of the following:

- A requesting region, that is a CICS region is which a work request is made

- A routing region, that is a CICS region in which a routing decision is made

- A target region, that is, a CICS region in which a work request is executed

See "Combining CICS systems and CICS system groups" on page 87 for more information about the roles of CICS regions in dynamic routing. For more information about workload management, see *CICSPlex SM Managing Workloads* .

Routing support active
 Indicate whether this region can act as a routing region when CICS is started. Specify:

 YES Workload management is to be active.

 The CICS system is assumed to be a routing region that is associated with an appropriate workload specification.

 NO Workload management is not to be active.

Workload specification
 BROwse and UPDate operations only. For workload management to occur, the CICS system must be associated with workload specification. If it is, the specification name is shown.

Specification source

BROwse and UPDate operations only. The type of link between the CICS system and the workload specification is displayed.

System group name

BROwse and UPDate operations only. If the specification is inherited from a CICS system group, the group name is displayed.

If the CICS system is not a routing region, or is not associated with a specification, no workload management occurs.

Target routing at startup

Indicate whether the CICS system is a potential target for workload routing at startup. Specify:

YES   The CICS system is to be included in dynamic routing when the CICS system becomes active.

NO   The CICS system is to be excluded from dynamic routing when the CICS system becomes active.

Note: To have a CICS system included in dynamic routing after it becomes active, use the WLMAWAOR view, as described in Table 4 on page 15.

If the CICS system definition is complete, press Enter. If other attributes must be specified, issue the DOWN command.

3. Figure 56 shows the format of the panel produced the second time you issue the DOWN command.

```
--------------- Create System - Analysis Attributes - for EUPLX01 -------------
COMMAND ===>

 System Name        EYUMAS1A
 Description        Starter Set TOR 1 on System A

 Analysis active           ===> YES          Activate at RTA at startup

 System availability management:
                       Action or   Action      Severity        Severity
                        Generic    Inherit                      Inherit
  SAM        ===>                  ===> NO    ===>            ===> NO
  SOS        ===>                  ===> NO    ===>            ===> NO
  SYSDUMP    ===>                  ===> NO    ===>            ===> NO
  TRANDUMP   ===>                  ===> NO    ===>            ===> NO
  MAXTASK    ===>                  ===> NO    ===>            ===> NO
  STALL      ===>                  ===> NO    ===>            ===> NO


Type DOWN or UP to view other System Screens.
Press ENTER to Create the System.
Type END or CANCEL to cancel without creating.
```

Figure 56. Creating a CICS system definition - real-time analysis attributes

Provide the following information about real-time analysis. Any value you specify in an action or severity field will override the corresponding value in the analysis specification to which this CICS system will be associated. (For additional information about real-time analysis, see the eyuab00l. manual.).

Analysis active

Indicate whether the system availability monitoring (SAM) and MAS resource monitoring (MRM) components of real-time analysis are to be active when this CICS system is started. Specify:

YES System availability monitoring and MAS resource monitoring are to be active.

NO System availability monitoring and MAS resource monitoring are not to be active.

SAM Only system availability monitoring is to be active.

MRM Only MAS resource monitoring is to be active.

Analysis specification

BROwse and UPDate operations only. For RTA to occur, the CICS system must be associated with a real-time analysis specification. If it is, the specification name is shown.

Specification source

BROwse and UPDate operations only. The type of link between the CICS system and the real-time analysis specification is displayed.

System group name

BROwse and UPDate operations only. If the specification is inherited from a CICS system group, the group name is displayed.

If the CICS system is not a routing region, or is not associated with a specification, no workload management occurs.

Notes:

a. For MAS resource monitoring to occur, the CICS system must be associated with an analysis specification; if it is not, no MAS resource monitoring occurs.

b. If a new analysis specification is associated with the CICS system while it is active, you must stop and restart MAS resource monitoring for the specification to take effect. First use the UPD action command to specify NO in this field and press Enter to turn MAS resource monitoring off. Then use the UPD action command again and specify either YES or MRM. MAS resource monitoring will become active using the new analysis specification.

For an active system, data entered in this field takes effect when you press Enter.

Action

Identify the action definition to be used when generating notification about the designated predefined condition. Specify:

name The specific or generic name of an existing action definition.

If you leave this field blank and specify NO in the Action Inherit field, the default action definition is used.

For an active system, data entered in this field takes effect when you press Enter.

Action Inherit

Indicate whether or not the action definition is to be inherited from the analysis specification. Specify:

YES The action definition is to be inherited from the specification. When you specify YES, you cannot specify the name of an action definition in the Action field. If you specify YES and enter the name of an action definition in the Action field, the following message is displayed:

```
Data not allowed with Inherit.
```

and the cursor is moved to the Action or Generic column.

NO The action definition is not to be inherited from the analysis specification.

If you specify NO and leave the Action field blank, the default action definition is used.

The default Action Inherit value is NO.

For an active system, data entered in this field takes effect when you press Enter.

Severity
Indicate how the predefined condition is to be handled. Specify:

* List of severities.

level The severity level that is to be associated with the designated condition. The severity levels are:

VHS	Very high severe
HS	High severe
HW	High warning
LW	Low warning
LS	Low severe
VLS	Very low severe

NO Exclude this condition from monitoring.

If you leave this field blank and specify NO in the Severity Inherit field, the default severity level is used.

For an active system, data entered in this field takes effect when you press Enter.

Severity Inherit
Indicate whether or not the severity level is to be inherited from the analysis specification. Specify:

YES The severity level is to be inherited from the specification. When you specify YES, you cannot specify a severity level in the Severity field. If you specify YES and enter a severity level in the Severity field, the following message is displayed:

```
Data not allowed with Inherit.
```

and the cursor is moved to the Severity column.

NO The severity level is not to be inherited from the analysis specification.

If you specify NO and leave the Severity field blank, the default severity level is used.

The default Severity Inherit value is NO.

For an active system, data entered in this field takes effect when you press Enter.

If the CICS system definition is complete, press Enter. If other attributes must be specified, issue the DOWN command.

4. Figure 57 shows the format of the panel produced the third time you issue the DOWN command.

```
-------------- Create System - Monitor Attributes - for EYUPLX01 --------------
COMMAND ===>

 System name        EYUMAS4A
 Description        Starter Set FOR 1 on System A

 Monitoring active      ===> *          Activate at monitoring at startup
 Data retention period  ===>            Data retained after termination n

 Resource Sample Rates:
  CICS Region           ===>            Connections          ===>
  Global                ===>            Files                ===>
  DB2                   ===>            Journals             ===>
                                        Programs             ===>
                                        Terminals            ===>
                                        Transactions         ===>
                                        TD Queues            ===>

Type DOWN or UP to view other System screens.
Press ENTER to create the System.
Type END or CANCEL to cancel without creating.
```

Figure 57. Creating a CICS system definition - resource monitoring attributes

Provide the following information about resource monitoring. Any data retention period or sample interval values you specify here will override the corresponding values in the monitor specification to which this CICS system will be associated. (For additional information about resource monitoring, see *CICSPlex SM Managing Resource Usage.*)

Monitoring active
Indicate whether resource monitoring is to be active when this CICS system is started. Specify:

YES   Resource monitoring is to be active.

For this to occur, the CICS system must be associated with a monitor specification.

NO   Resource monitoring is not to be active.

*   Resource monitoring activity depends on the value specified with the monitor specification to which this CICS system is associated.

Specify YES or NO to override the value in the comparable field of the monitor specification associated with this CICS system. Specify * (asterisk) when the value specified with the monitor specification is to be used.

Monitor specification
BROwse and UPDate operations only. For resource monitoring to occur, the CICS system must be associated with a monitor specification. If it is, the specification name are shown.

Specification source

BROwse and UPDate operations only. The type of link between the CICS system and the monitor specification is displayed.

System group name

BROwse and UPDate operations only. If the specification is inherited from a CICS system group, the group name is displayed.

Data retention period

Specify the number of minutes collected data is to be kept after resource monitoring stops. (Resource monitoring stops when the CICS system stops or when the MAS view command is used to stop resource monitoring for the CICS system.)

The retention period can be:

1 - 1440   Collected data is to be kept the specified number of minutes.

0   Collected data is not to be kept.

blank   The CICS system is to use the value specified with its associated monitor specification.

For an active system, data entered in this field takes effect when you press Enter.

Resource sample intervals

For each type of resource you want to monitor, specify how long, in seconds, CICSPlex SM is to wait between the collection of sample data. You can specify a sample interval for:

- Resource types for which you created a monitor definition (such as connections or files)

- CICS Region, Global, or DB2 resources, which do not require a monitor definition. These types provide monitoring of the following resources:

CICS Region   CICS regions and dynamic storage areas
Global   Transient data queue usage, temporary storage queue usage, LSR pools, transaction classes, and FEPI connections
DB2   DB2 threads

The sample interval can be:

1 - 86400   A value evenly divisible into the monitor interval value, when converted to seconds. If you specify a value that is not evenly divisible, you are prompted for one that is.

            Note: The lower you set the sampling interval, the greater the impact on processing overhead.

0   No resource monitoring is to occur.

blank   The CICS system is to use the value specified with its associated monitor specification.

If the CICS system definition is complete, press Enter. If other attributes must be specified, issue the DOWN command.

5. Figure 58 on page 112 shows the format of the panel produced the fourth time you issue the DOWN command.

```
COMMAND ===>

System Name      EYUMAS1A
Description      Starter Set TOR 1 on System A

Install Resources  ===> NEVER     (NEVER, ALWAYS, COLDONLY, WARMONLY)

Recovery Action    ===> CONTINUE  (CONTINUE,PROMPT,TERMINATE,IMMEDIATE,NORMAL)


Enter DOWN or UP to view other System screens.
Press Enter to create the System.
Type END or CANCEL to cancel without creating.
```

Figure 58. Creating a CICS system definition - business application services attributes

Provide the following information, as appropriate:

Install Resources
For CICS systems running CICS/ESA 4.1 or later, indicate whether resources associated with the system through a resource description should be automatically installed when the MAS connects to the CMAS. Specify:

ALWAYS   Install resources every time the MAS connects after a CICS startup.

COLDONLY   Install resources only when the MAS connects after a CICS INITIAL or COLD start.

NEVER   Resources should never be automatically installed in this CICS system.

WARMONLY Install resources only when the MAS connects after a CICS warm start or emergency restart (AUTO).

Notes:

a. You can also control the automatic installation of specific resources using the Auto Install field on a resource description.

b. System links (SYSLINKs)are not controlled by resource descriptions. Therefore, either all SYSLINKs for a given CICS system are automatically installed or none are, depending on the Install Resources value for that system.

c. Automatic installation of resources is not supported for systems running any version of CICS other than CICS/ESA 4.1 or later. In those systems, this field is checked for syntax, but its value has no meaning.

Recovery Action
Indicate what action should be taken when automatic resource installation errors occur. Specify:

CONTINUE   Continue installing other resource definitions. A CICSPlex SM message is issued to the console and CMAS EYULOG.

IMMEDIATE Shut down the CICS system immediately. A CICSPlex SM message is issued to the console and CMAS EYULOG.

NORMAL   Shut down the CICS system normally. A CICSPlex SM message is issued to the console and CMAS EYULOG.

PROMPT   Prompt the operator console for an action. The resource installation process is suspended, but all other MAS processing continues. A CICSPlex SM message is issued to the console and CMAS EYULOG.

TERMINATE Terminate the resource installation process. A CICSPlex SM message is issued to the console and CMAS EYULOG. No more resource definitions are processed. Any resource definitions that were successfully installed are not removed.

| To add the CICS system definition to the data repository, press Enter.

Adding a CICS system to a CICS system group

Figure 59 illustrates the panel produced when you use the group (GRP) line action command from the CICSSYS view.

```
------------------ Add System to System Group for EYUPLX01 ------------------
 COMMAND  ===>

 System Name        EYUMAS1A

 Scope        ===>  PRODGRP          System Group Name or Generic

          Current
 Component Spec    Source   Group    Inherit Spec
 MON       SPEC1   INHERIT  OTHERGRP NO
 RTA                                 YES
 WLM       SPEC2   EXPLICIT          NO


Press Enter to Add System to System Group.
Type END or CANCEL to cancel without adding.
```

Figure 59. Adding a CICS system to a CICS system group

Provide the following information, as appropriate:

Scope
Specify the name of an existing CICS system group to which the CICS system is to be associated.

If the appropriate CICS system group does not currently exist, create it, as described on page 97, and then add the CICS system to the group, using either this view or the view described on page "Adding a member to a CICS system group" on page 98.

Inherit Spec
Indicate whether the CICS system is to inherit the specification for a CICSPlex SM component from the CICS system group to which you are associating it. Specify:

YES   The CICS system is to inherit the specification associated with the CICS system group. (If there is no association between a CICS system group and a specification, the CICS system inherits no specification.)

NO   The CICS system is not to inherit the specification associated with the CICS system group.

             When you specify NO and you want one or more of the components

to be active, you must associate the CICS system with the
appropriate specification.

To add this association to the data repository, press Enter.

Note: If you are using the Business Application Services component, adding a
CICS system to a CICS system group could result in inconsistent resource
set or inconsistent scope errors. For information about this type of problem
and how to resolve it, see the *CICSPlex SM Managing Business
Applications* manual.

When a specification for a CICSPlex SM component is associated with a CICS
system:

* The Current Spec field contains the specification name.

* The Source field indicates the type of association, where:

    – EXPLICIT means that the CICS system is directly associated with the
    specification.

    – INHERIT means that the CICS system acquired the specification through a
    CICS system group with which it is associated.

* The Group field contains the name of a CICS system group when INHERIT
appears in the Source field.

When this panel is initially displayed, the Inherit Spec field is set to:

* YES when the Current Spec field is blank. This means that the CICS system is
to inherit the specification from the CICS system group with which you are
currently associating it.

* NO when the Current Spec field contains a name. This means that the CICS
system is not to inherit the specification from the CICS system group with which
you are currently associating it.

To remove a CICS system from a CICS system group, use the SYSGRPC view, as
described on page 125.

Creating system link definitions

You can use either the CON action command or the GEN action command to
create system link definitions from the CICSSYS view:

CON   Is useful when you have created a new CICS system and you want to
model its system links on the links defined for another system. Neither the
CICS system nor the model system have to be active when you issue the
CON action command.

> **Note:**   Using the CON action command has the same effect as specifying
> a Model System when the CICS system is created or updated.

GEN   Is useful when you are migrating existing system link definitions for a CICS
system from RDO to the CICSPlex SM data repository. The CICS system
and all the systems for which you want to create system link definitions
must be active when you issue the GEN action command.

The CON and GEN action commands both create balanced, bidirectional system
link definitions for the CICS systems you select. The new system links maintain the
same relationships that exist either for the model system or in the CSD (as far as
which system is considered the primary and which is the secondary). The system

IDs of the primary and secondary CICS systems form the name of the new system link.

The system link definitions that are created by CON and GEN are added to the data repository. The actual system links become active when they are installed. System links can be installed:

- Automatically when the CICS systems are started, provided both systems allow CICSPlex SM to install resources at initialization (as specified in the Install Resources field of Figure 58 on page 112).

  Note: Particularly in the case of the GEN command, if the existing RDO definitions are still being called at CICS initialization, errors may occur when CICSPlex SM attempts to install its system link definitions.

- Dynamically by using the INStall action command from the SYSLINK view, as described in

  Note: You can also use the SYSLINK view to create individual system link definitions and remove existing system link definitions. See *CICSPlex SM Managing Business Applications*.

Using the CON action command: With the CON action command, you can model the system links for a new CICS system after an existing CICS system whose links are already defined to CICSPlex SM.

Figure 60 illustrates the panel produced when you use the connect (CON) line action command from the CICSSYS view.

```
  COMMAND  ===>

    Primary CICS System       EYUMAS1A

    ConnDef Name         ===>            Version  ===>
    SessDef Name         ===>            Version  ===>

  Sel System   Id   Applid   Dir       Description                Result
   -  -------- ---- -------- --- ------------------------------ ----------------
      EYUMAS1B A003 EYUMAS1B TO
      EYUMAS3A A002 EYUMAS3A TO
      EYUMAS4A F001 EYUMAS4A FRO




```

Figure 60. Creating system link definitions from a model

Provide the following information, as appropriate:

ConnDef Name
  Specify the 1- to 4-character name of a connection definition that is known to CICSPlex SM. The connection definition is used, together with the sessions definition, to construct the system link definitions.

SessDef Name
Specify the 1- to 8-character name of a sessions definition that is known to
CICSPlex SM. The sessions definition is used, together with the connection
definition, to construct the system link definitions.

Version
Indicate what version of the specified connection and sessions definitions should
be used in constructing the system link definitions.

Following these fields is a list of CICS systems that have a system link to the
model CICS system, but do not currently have a link to the primary system (that is,
the CICS system for which the CON action was issued). For each CICS system,
the following information is provided:

System
The name of the CICS system.

Id
The system ID of the CICS system.

Applid
The application ID of the CICS system.

Dir
The direction of the link that exists for the CICS system, as:

TO The link originated with the primary system. That is, a link was defined to
the specified system.

FRO The link originated with the specified system. That is, a link was defined
from the specified system.

Description
| A 1- to 30- character description of the CICS system, if one was supplied when
it was created.

Result
Indicates the result of CICSPlex SM's attempt to define each system link. For a
description of the Result values, see "How system link requests are processed"
on page 118.

To define a system link to one or more of the specified CICS systems, type an S
(for select) to the left of the CICS system name. You can use the UP and DOWN
commands to scroll the list of CICS system names.

When you finish making your selections, press Enter to define the system links. To
cancel the request without defining any system links, issue the END command.

Using the GEN action command: With the GEN action command, you can use
the active connections of a CICS system to define corresponding system links to
CICSPlex SM.

Figure 61 on page 117 illustrates the panel produced when you use the generate
(GEN) line action command from the CICSSYS view.

```
  COMMAND  ===>

    Primary CICS System        EYUMAS1A

    ConnDef Name LU61     ===>         Version   ===>
    SessDef Name LU61     ===>         Version   ===>
    ConnDef Name LU62     ===>         Version   ===>
    SessDef Name LU62     ===>         Version   ===>
    ConnDef Name MRO      ===>         Version   ===>
    SessDef Name MRO      ===>         Version   ===>
    ConnDef Name INDIRECT ===>         Version   ===>
    SessDef Name INDIRECT ===>         Version   ===>

  Sel System   Id   Applid   Type   Description                   Result
   - -------- ---- -------- ---- ----------------------------- ---------------
     EYUMAS1B A003 EYUMAS1B LU62
     EYUMAS3A A002 EYUMAS3A MRO
     EYUMAS4A F001 EYUMAS4A MRO
```

Figure 61. Creating system link definitions from existing connections

Note: Both CICS systems must be active for a system link definition to be created by the GEN action command.

Provide the following information, as appropriate:

ConnDef Name LU61
Specify the 1- to 4-character name of a connection definition to be used for LU 6.1 links.

SessDef Name LU61
Specify the 1- to 8-character name of a sessions definition to be used for LU 6.1 links.

ConnDef Name LU62
Specify the 1- to 4-character name of a connection definition to be used for LU 6.2 links.

SessDef Name LU62
Specify the 1- to 8-character name of a sessions definition to be used for LU 6.2 links.

ConnDef Name MRO
Specify the 1- to 4-character name of a connection definition to be used for MRO links.

SessDef Name MRO
Specify the 1- to 8-character name of a sessions definition to be used for MRO links.

ConnDef Name INDIRECT
Specify the 1- to 4-character name of a connection definition to be used for indirect links.

SessDef Name INDIRECT
Specify the 1- to 8-character name of a sessions definition to be used for indirect links.

Version
Indicate what version of the specified connection and sessions definitions should be used in constructing the system link definitions.

Following these fields is a list of active CICS systems that have connections to the source system (that is, the CICS system for which the GEN action was issued). However, these connections are not currently defined as system links in the CICSPlex SM data repository. For each CICS system, the following information is provided:

System
The name of the CICS system.

Id
The system ID of the CICS system.

Applid
The application ID of the CICS system.

Type
The type of link that exists between the specified CICS system and the source system.

Description
A 1- to 30- character description of the CICS system, if one was supplied when it was created.

Result
Indicates the result of CICSPlex SM's attempt to define each system link. For a description of the Result values, see "How system link requests are processed."

To define a system link to one or more of the specified CICS systems, type an S (for select) to the left of the CICS system name. You can use the UP and DOWN commands to scroll the list of CICS system names.

When you finish making your selections, press Enter to define the system links. To cancel the request without defining any system links, issue the END command.

How system link requests are processed: The CON or GEN input panel remains displayed while CICSPlex SM attempts to create the system link definitions. If links to all of the selected systems are successfully defined, the CICSSYS view is redisplayed.

If CICSPlex SM detects any errors while creating the system link definitions, the input panel is redisplayed. The Result field indicates the status of the definition for each selected system:

Logical Duplicate
A CICS system link has already been defined between the two systems. The selected system was previously identified as the primary system in a system link definition. Because CICSPlex SM creates bidirectional system links, another definition is not required.

No Primary Sysid
The definition of the primary system in the CICSPlex SM data repository does not include a CICS system ID. Make sure the SYSIDNT field in the CICSSYS definition contains a system ID.

No Secondary Sysid

The definition of the selected (or secondary) system in the CICSPlex SM data repository does not include a CICS system ID. Make sure the SYSIDNT field in the CICSSYS definition contains a system ID.

Processed

A system link was successfully defined between this CICS system and the selected system.

Record Exists

A CICS system link has already been defined between the primary system and the selected system.

Same Sysids

A system link definition could not be created because the primary system and the selected system have the same CICS system ID. Make sure the CICS system IDs for both systems have been correctly defined to CICSPlex SM using the SYSIDNT field in the CICSSYS definition.

Severe Error

A system link definition could not be created between the primary system and the selected system because of an unexpected error condition. When you issue the END command to exit from the input panel, EYUEInnnn messages are displayed that describe the error condition.

PERIODEF (Time period definitions)

A time *period definition* identifies a specific range of hours and minutes. These definitions are used with resource monitoring and real-time analysis to designate when specific actions are to start and stop.

To display information about existing time period definitions, issue the command:

```
PERIODEF [periodef]
```

where `periodef` is the specific or generic name of an existing time period definition. If this parameter is omitted, the view, illustrated in Figure 62, includes information about all time period definitions known to the CICSplex identified as the context.

```
 26MAR1999  19:48:16 ----------- INFORMATION DISPLAY ---------------------------
 COMMAND  ===>                                                   SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =PERIODEF==========EYUPLX01=EYUPLX01=26MAR1999==19:48:16=CPSM==========4===
 CMD Period   Start End   Time Zone Time
 --- Name---- Time- Time- Zone Adj- Description------------------
     EYUPDF01 08:00 21:00 Z       0 SSet - Normal day
     EYUPDF02 17:01 21:00 Z       0 SSet - Batch time
     EYUPDF03 11:45 13:15 Z       0 SSet - Peak usage
     EYUPDF04 07:59 08:00 Z       0 SSet - Files required
```

Figure 62. The PERIODEF view

Action commands

Table 41 summarizes the action commands you can use with the PERIODEF view. Table 42 on page 121 identifies the overtype fields that you can modify when you use the SET action command.

Table 41 (Page 1 of 2). PERIODEF view action commands

Primary command	Line command	Description
n/a	BRO	Browse a period definition in the data repository.
		The format of the resulting panels is identical to that shown in Figure 63 on page 122. All of the fields are nonmodifiable.
CREate	CRE	Create a period definition, as described in "Creating a period definition" on page 122.
n/a	MAP	Display a visual map of CICSPlex SM definitions, using the specified definition as a starting point. You are prompted to specify the type of definitions you want to map: resource monitoring (MON) or real-time analysis (RTA).
n/a	MON	Display a visual map of resource monitoring definitions using the specified definition as a starting point.
n/a	REM	Remove a period definition.
		Note: Removing a period definition may adversely affect any CICSPlex SM function that is currently active and using the designated definition. Period definitions are needed for the following views: • CICSSYS • MONDEF • MONINGRP • RTADEF • RTAINGRP • STATDEF.
n/a	RTA	Display a visual map of real-time analysis definitions using the specified definition as a starting point.
n/a	SET	Change an existing period definition using overtype fields.
		Changes take effect immediately. Users are notified of any changes that alter the current status of a CICSPlex SM component using the definition. That is, users are informed when a change causes a currently active component to become inactive, or an inactive component to become active.
		Note: The value you specified in the Require Set field on the CICSPlex SM entry panel determines whether you must use the SET command when you overtype a field.
TEMPMP cmas	n/a	Change the temporary maintenance point CMAS to a specific CMAS or display a selection list based on a generic CMAS ID.

Table 41 (Page 2 of 2). PERIODEF view action commands

Primary command	Line command	Description
n/a	UPDate	Update a period definition in the data repository.
		The format of the resulting panels is identical to that shown in Figure 63 on page 122. Most of the fields in the panel are modifiable.
		Note: Using the PERIODEF view to update definitions affects both a currently running system and the definitions in the data repository.

Table 42. PERIODEF view overtype fields

Field name	Value
Start Time	The time at which the period is to start, specified in hours and minutes. You can use any of the following values: MMM'
	HH:MM Specify two numeric characters each, separated by a colon., for both hours and minutes.
	HH: Specify only the two numeric characters for hours, followed by the colon.
	H:MM Specify only one numeric character for hours, followed by a colon then two numeric characters for minutes.
	:MM Specify the colon, followed by two numeric characters for minutes.
	H: Specify only one numeric character for hours, followed by the colon.
	: Specify only the colon, to indicate two zeros each for both hours and minutes.
End Time	The time at which the period is to stop, specified in hours and minutes. The values can be the same as for Start Time.
Time Zone	A single–character code, shown in Table 43 on page 123, identifying the time zone to which the start and end times apply.
Zone Adjustment	Adjustment factor to be applied to the computed time.
Description	1- to 30-character description of the period.

Note: To change a period definition, type the SET action command in the line command field next to the name of the period to be affected and overtype the current contents of the appropriate fields.

The value you specified in the Require Set field on the CICSPlex SM entry panel determines whether or not you must use the SET command when you overtype a field.

Hyperlink fields

There are no hyperlink fields in the PERIODEF view.

Creating a period definition

Figure 63 shows the format of the panel produced when you use the create primary (CREate) or line (CRE) action command from the PERIODEF view.

```
---------------------- Create Time Period Def for EYUPLX01 -------------------
 COMMAND  ===>

 Definition Name ===> prime
 Description     ===>

 Time Period Definition:
  Start Time      ===>           (HH:MM)
  End Time        ===>           (HH:MM)
  Time Zone       ===>
  Zone Adjustment ===> 0


Press Enter to Create Time Period Definition.
Type END or CANCEL to cancel without creating.
```

Figure 63. Creating a time period definition

Provide the following information, as appropriate:

Definition Name
Specify a 1- to 8-character name for the time period definition. The name can contain alphabetic, numeric, or national characters. However, the first character must be alphabetic.

Description
Specify a 1- to 30-character description of the time period.

Start Time
Specify the hour and minute at which the time period is to start.

End Time
Specify the hour and minute at which the time period is to end.

Time Zone
Specify one of the codes shown in Table 43 on page 123 to identify the time zone to which the period definition is to apply.

Zone Adjustment
Specify a value between 0 and 59 to identify the number of minutes to be added to the time for that time zone (for areas that do not use a standard time zone).

Press Enter to save this definition.

Time zone codes: Table 43 on page 123 identifies the time zone codes that you can use in a time period definition. The codes represent the single-character Greenwich time zone codes and are based on the 24 standard international time zones. Each code indicates the time zone's relationship to Greenwich Mean Time (GMT).

Time zone setting in a period definition: When a period definition is for time zone A, all events controlled by that period definition become active at the same *clock* time, based upon the start time specified in the period definition, and the time zone, time zone adjustment, and daylight saving indicator within the entity (CMAS or CICS system). Similarly, events become inactive at the same *clock* time, based

upon the end time specified in the period definition, and the time zone, time zone adjustment, and daylight saving indicator within the entity (CMAS, or CICS system).

When a period definition is for a time zone other than time zone A, all events controlled by that period definition become active at exactly the same *real time*, regardless of the time zone in which the events are occurring. The activation time is based upon the period definition's start time, time zone, and time zone adjustment. Similarly, events controlled by that period definition become inactive at the same *real time*, based upon the period definition's ending time, time zone, and time zone adjustment. For both activation and deactivation, the time zone specified refers to the standard time for that time zone, regardless of whether daylight saving time is in effect.

For more information about the time zone attributes and their use, see "CICSPlex SM time zone attributes" on page 89.

Table 43. Timezone codes

Code	GMT offset	Description	Code	GMT offset	Description
A	n/a	Current local time*	N	–12	(West of date line)
B	+1	Central European time	O	–11	Bering standard time
C	+2	Eastern Europe	P	–10	Hawaii and Alaska standard time
D	+3	Arabia	Q	–9	Yukon standard time
E	+4	Pakistan	R	–8	Pacific standard time
F	+5	Bay of Bengal	S	–7	Mountain standard time
G	+6	Thailand	T	–6	Central standard time
H	+7	Philippines	U	–5	Eastern standard time
J	+8	Japan	V	–4	Atlantic standard time
I	+9	Australia	W	–3	Greenland
K	+10	New Caledonia	X	–2	Azores
L	+11	New Zealand	Y	–1	Iceland
M	+12	(East of date line)	Z	0	Greenwich mean time (GMT)

*Note: Time zone A can be specified only in a period definition

SYSGRPC (Members in CICS system groups)

To display information about the CICS system groups, and the CICS systems associated with them, that are known to the CICSplex identified as the context, issue the command:

```
SYSGRPC [sysgroup [sysname [CICSSYS|SYSGROUP]]]
```

where:

sysgroup   Is the specific or generic name of a CICS system group, or * (asterisk) for all CICS system groups.

sysname   Is the specific or generic name of a CICS system or * (asterisk) for all
          CICS systems.

CICSSYS│SYSGROUP

          Limits the view to those members that are defined as a CICS system or
          CICS system group. If this parameter is omitted, the view includes
          information about all members comprising the designated CICS system
          groups known to the CICSplex identified as the context.

If no parameter is specified, the view, illustrated in Figure 64, includes information
about all members comprising the CICS system groups associated with the
CICSplex identified as the context.

```
  26MAR1999  21:16:27 ----------- INFORMATION DISPLAY --------------------------
  COMMAND  ===>                                                SCROLL ===> PAGE
  CURR WIN ===> 1        ALT WIN ===>
   W1 =SYSGRPC===========EYUPLX01=EYUPLX01=26MAR1999==21:16:27=CPSM=========10===
  CMD Group    Member    Member
  --- Name---- Name---- Type----
      EYUCSG01 EYUMAS1B CICSSYS
      EYUCSG01 EYUMAS2A CICSSYS
      EYUCSG01 EYUMAS3A CICSSYS
      EYUCSG01 EYUMAS4A CICSSYS
      EYUCSG02 EYUMAS2A CICSSYS
      EYUCSG03 EYUCSG04 SYSGROUP
      EYUCSG03 EYUCSG05 SYSGROUP
      EYUCSG04 EYUMAS2A CICSSYS
      EYUCSG04 EYUMAS3A CICSSYS
      EYUCSG05 EYUMAS1B CICSSYS
```

Figure 64. The SYSGRPC view

Action commands

Table 44 summarizes the action commands you can use with the SYSGRPC view.

Table 44 (Page 1 of 2). SYSGRPC view action commands

Primary command	Line command	Description
n/a	BAS	Display a visual map of business application services definitions using the specified group as a starting point.
n/a	MAP	Display a visual map of CICSPlex SM definitions, using the specified group as a starting point. You are prompted to specify the type of definitions you want to map: business application services (BAS), resource monitoring (MON), real-time analysis (RTA), or workload management (WLM).
n/a	MON	Display a visual map of resource monitoring definitions using the specified group as a starting point.
n/a	REM	Remove a member from a CICS system group, as described in Removing a member from a CICS system group.

Table 44 (Page 2 of 2). SYSGRPC view action commands

Primary command	Line command	Description
n/a	RTA	Display a visual map of real-time analysis definitions using the specified group as a starting point.
TEMPMP cmas	n/a	Change the temporary maintenance point CMAS to a specific CMAS or display a selection list based on a generic CMAS ID.
n/a	WLM	Display a visual map of workload management definitions using the specified group as a starting point.

Hyperlink fields

There are no hyperlink fields in the SYSGRPC view.

Removing a member from a CICS system group

Figure 65 illustrates the panel produced when you use the remove (REM) line action command from the SYSGRPC view to remove a CICS system or a CICS system group from a CICS system group.

The line containing MON, RTA, or WLM component information is included in the panel only when you are removing a CICS system and that CICS system inherited the specification from the CICS system group.

```
------------------- Remove System from System Group for EYUPLX01 --------------
COMMAND  ===>

System Name    CICSPROD

Scope          GROUP1                  System Group Name

Component Spec  Source   Action
MON       SPEC1 INHERIT  DROP


Press Enter to remove the System from the System Group.
Type END or CANCEL to cancel without removing.
```

Figure 65. Removing a member from a CICS system group

Provide the following information, as appropriate:

Action
  (Required when removing a CICS system group.) Indicate how the CICS systems comprising the CICS system group are to use any specifications associated with the CICS system group. Specify:

  KEEP   Those CICS systems that inherited a specification from the CICS system group are explicitly assigned that specification.

  DROP   Those CICS systems that inherited a specification from the CICS system group are not to use that specification.

           If a specification is associated with a CICS system group, DROP is

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the default value that appears in the Action field when this panel is displayed.

To remove the member from the CICS system group definition in the data repository, press Enter.

Topology definitions

This section describes how you can obtain information about your active CICS systems using the MAS view.

MAS

The MAS view shows information about CICS systems that are known to the CICSplex identified as the context.

Issue command: MAS [cmas]

cmas
 Is the specific or generic name of a CMAS involved in managing the CICSplex. If you omit this parameter, the view includes information about all CICS systems known to the CICSplex.

Select: MAS from a menu of TOPOLOGY views.

Figure 66 is an example of the MAS view.

```
 26MAR1999  18:49:09 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                                SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
 >W1 =MAS==============EYUPLX01=EYUPLX01=26MAR1999==18:49:09=CPSM=========5===
 CMD Name     Type   CMAS     Status   MON RTA WLM Description
 --- -------- ------ -------- -------- Act Act Act ----------------------------
     EYUMAS1A LOCAL  EYUCMS1A ACTIVE   YES YES YES Starter Set TOR 1 on System A
     EYUMAS1B N/A             INACTIVE N/A N/A N/A Starter Set AOR 3 on System B
     EYUMAS2A LOCAL  EYUCMS1A INACTIVE YES YES NO  Starter Set AOR 1 on System A
     EYUMAS3A LOCAL  EYUCMS1A ACTIVE   YES YES NO  Starter Set AOR 2 on System A
     EYUMAS4A LOCAL  EYUCMS1A ACTIVE   YES YES NO  Starter Set FOR 1 on System A
```

Figure 66. The MAS view

Action commands

Table 45 shows the action commands you can issue from the MAS view when a CICS system is active.

Table 45 (Page 1 of 2). MAS view action commands

Primary command	Line command	Description
n/a	BRO	Browse the attributes of an active CICS system.
		The format of the resulting panels is similar to that shown in the panels beginning on page 127. None of the fields in these panels are modifiable.

Table 45 (Page 2 of 2). MAS view action commands

Primary command	Line command	Description
n/a	STO	Stop MAS agent code within an active CICS system.
		To restart the MAS agent code in a currently running CICS system, issue the CICS transaction:
		• COLM - for a local MAS • CORM - for a remote MAS
		Note: When the WLM Act field for a CICS system contains YES, you may not be able to stop the MAS agent code. If the CICS system is acting as a requesting region with a dynamic routing program of EYU9XLOP, you cannot stop the MAS agent code. (You can use the WLMAWTOR view to determine which CICS systems are acting as requesting regions.)
		If you want to stop the MAS agent code in a CICS system of this type, you must first change the dynamic routing program to something other than EYU9XLOP. (You can use the CICSRGND view to change the dynamic routing program.)
n/a	UPD	Temporarily change the attributes of an active CICS system, as described in Updating an active MAS.

Note: These action commands are not valid when a CICS system is inactive, as indicated by the Status field.

Hyperlinks

None.

Updating an active MAS

Any changes that you make to a CICS system definition take effect immediately. They remain in effect as long as the CICS system is active or until you change them again.

Note: If you turn on workload management, real-time analysis, or resource monitoring from these panels, their status will not be shown as active until the component is fully initialized.

After entering the update action command, the first of four panels is displayed.

1. Figure 67 on page 128 illustrates the first panel produced when you use the update action command. You can use this panel to change general MAS attributes.

```
-------------------------- Control MAS for EYUPLX01 --------------------------
COMMAND  ===>

MAS      EYUMAS1A  Description  Starter Set TOR 1 on System A

       Attributes                    Time
Type            LOCAL      Time Zone        ===> R
CMAS            EYUCMS1A   Time Zone Offset ===> 00
Status          ACTIVE     Daylight Savings ===> NO


        Activity                    Security
MON Active ===> YES        Command Check    ===> NO
RTA Active ===> NO         Resource Check   ===> NO
WLM Active ===> NO         Exemption Check  ===> NO


Enter DOWN or UP to view other MAS screens.
Press Enter to change the MAS.
Type END or CANCEL to cancel without changing.
```

Figure 67. Updating an active CICS system - general MAS attributes

Change the following information, as appropriate:

Time Zone

Identify the time zone in which this CICS system is located by specifying one of the following codes:

Table 46. Timezone codes

Code	GMT offset	Description	Code	GMT offset	Description
B	+1	Central European time	O	−11	Bering standard time
C	+2	Eastern Europe	P	−10	Hawaii and Alaska standard time
D	+3	Arabia	Q	−9	Yukon standard time
E	+4	Pakistan	R	−8	Pacific standard time
F	+5	Bay of Bengal	S	−7	Mountain standard time
G	+6	Thailand	T	−6	Central standard time
H	+7	Philippines	U	−5	Eastern standard time
J	+8	Japan	V	−4	Atlantic standard time
I	+9	Australia	W	−3	Greenland
K	+10	New Caledonia	X	−2	Azores
L	+11	New Zealand	Y	−1	Iceland
M	+12	(East of date line)	Z	0	Greenwich mean time (GMT)
N	−12	(West of date line)			

Time Zone Offset

Specify a number of minutes, between 0 and 59, that are to be added to the specified time zone. This adjustment is used to resolve time references in areas that do not use a standard zone.

Daylight Savings

Specify YES or NO to indicate whether the specified time zone is currently recognizing daylight saving time.

This value must be changed twice a year; once when daylight saving time begins and again when it ends.

For more information about the Time Zone, Time Zone Offset, and Daylight Time attributes, see the description of CICSPlex SM time zone attributes in "CICSPlex SM time zone attributes" on page 89.

MON Active

Indicate whether resource monitoring is to be active. Specify:

YES   To start resource monitoring.

For this to occur, the CICS system must be associated with a monitor specification. If it is not, no resource monitoring occurs.

NO   To stop resource monitoring. If real-time analysis requires resource monitoring to remain active, use the FORCE option.

FORCE   To stop resource monitoring even if it is being used by real-time analysis. All resource monitoring will stop. If an evaluation definition names a monitor table resource, that evaluation definition becomes inactive.

RTA Active

Indicate whether the system availability monitoring (SAM) and MAS resource monitoring (MRM) components of real-time analysis are to be active. Specify one of the following:

YES   To start system availability monitoring and MAS resource monitoring.

NO   To stop system availability monitoring and MAS resource monitoring.

SAM   To start system availability monitoring.

MRM   To start MAS resource monitoring.

Notes:

a. For MAS resource monitoring to occur, the CICS system must be associated with an analysis specification; if it is not, no MAS resource monitoring occurs.

b. If a new analysis specification is associated with the CICS system while it is active, you must stop and restart MAS resource monitoring for the specification to take effect. First specify NO in this field and press Enter to turn MAS resource monitoring off. Then use the UPD action command again and specify either YES or MRM. MAS resource monitoring becomes active using the new analysis specification.

WLM Active

Specify YES to start managing workloads for this CICS system. (You cannot stop workload management once it is started, so the only valid value is YES.)

The CICS system is assumed to be a requesting region that is associated with the appropriate workload specification. If the CICS system is not a requesting region or is not associated with a workload specification, no workload management occurs.

If workload management cannot be activated, messages are written to:

- The window, when the CICS system is not associated with a workload specification or when the contents of the input panel cannot be successfully processed.

- The console log, when any other condition occurs.

Note: If you update the MON Active, RTA Active, or WLM Active fields to YES, the change will not be reflected on the MAS view until the component is fully initialized.

Command Check

Specify YES or NO to indicate whether you want CICSPlex SM to simulate CICS command checking for this CICS system.

Resource Check

Specify YES or NO to indicate whether you want CICSPlex SM to simulate CICS resource checking for this CICS system.

Exemption Check

Specify YES or NO to indicate whether you want to bypass all simulated CICS security checking for this CICS system.

To apply the changes to the active CICS system, press Enter. The changes take effect immediately and remain in effect until you change them or the CICS system stops.

2. Figure 68 on page 131 illustrates the panel produced the first time you issue the DOWN command. You can use this panel to change real-time analysis attributes.

```
---------------------- Control Analysis for EYUPLX01 ------------------------
COMMAND ===>


MAS       EYUMAS1A  RTA Active ===> NO   (YES, NO, SAM, MRM)

Primary CMAS            CMAS1C2   CMAS Name or Generic
Active Period           PRIME     Period Def or Generic

 System availability management:

                 Action or Generic    Severity
  SAM
  SOS         ===>                 ===>
  SYSDUMP     ===>                 ===>
  TRANDUMP    ===>                 ===>
  MAXTASK     ===>                 ===>
  STALL       ===>                 ===>

Type DOWN or UP to view other MAS screens.
Press ENTER to change Analysis.
Type END to cancel without changing.
```

Figure 68. Updating an active CICS system - MAS real-time analysis attributes

Change the following information about real-time analysis, as appropriate:

RTA Active
Indicate whether the system availability monitoring (SAM) and MAS resource monitoring (MRM) components of real-time analysis are to be active. Specify one of the following:

YES   To start system availability monitoring and MAS resource monitoring.

NO   To stop system availability monitoring and MAS resource monitoring.

SAM   To start system availability monitoring.

MRM   To start MAS resource monitoring.

Action
Supply a specific or generic name of an action definition to be used when generating notification about the designated condition.

Severity
Specify the severity level to be associated with the designated condition, or NO to exclude the condition from monitoring. The severity levels are:

VHS   Very high severe

HS   High severe

HW   High warn

LW   Low warn

LS   Low severe

VLS   Very low severe

Note: The default action and severity level for system availability monitoring (SAM) cannot be updated while the CICS system is active. The values shown in the SAM field are for reference only. To apply the changes to the active CICS system, press Enter. The changes take effect

immediately and remain in effect until you change them or the CICS system stops.

3. Figure 69 illustrates the panel produced the second time you issue the DOWN command. You can use this panel to change resource monitoring attributes.

```
------------------------ Control Monitor for EYUPLX01 ------------------------
COMMAND  ===>

MAS      EYUMAS1A  MON Active ===> YES

Retention period ===> 0

 Resource Sample Intervals:
  CICS Region      ===> 900          Connections      ===> 900
  Global           ===> 900          Files            ===> 900
  DB2              ===> 0            Journals         ===> 900
                                      Programs         ===> 900
                                      Terminals        ===> 900
                                      Transactions     ===> 900
                                      TD Queues        ===> 900


Enter DOWN or UP to view other MAS screens.
Press Enter to change Monitor.
Type END or CANCEL to cancel without changing.
```

Figure 69. Updating an active CICS system - MAS resource monitoring attributes

Change the following information about resource monitoring, as appropriate:

MON Active
Indicate whether resource monitoring is to be active. Specify:

YES　　　To start resource monitoring.

For this to occur, the CICS system must be associated with a monitor specification. If it is not, no resource monitoring occurs.

NO　　　To stop resource monitoring. If real-time analysis requires resource monitoring to remain active, use the FORCE option.

FORCE　To stop resource monitoring even if it is being used by real-time analysis. All resource monitoring will stop. If an evaluation definition names a monitor table resource, that evaluation definition becomes inactive.

Retention period
Specify the number of minutes collected data is to be kept after resource monitoring stops. (Resource monitoring stops when the CICS system stops or when you use the UPD action command and this panel to stop it.) The value may be:

- Between 1 and 1440, when collected data is to be retained
- 0, when collected data is not to be retained

Resource Sample Intervals
Specify the duration, in seconds, between the collection of monitor data for each resource type. The value may be:

- Between 1 and 86400 and evenly divisible into the monitor interval
  value, when converted to seconds. If you specify a value that is not
  evenly divisible, you are prompted for one that is.

  CAUTION:
  The lower you set the sample interval, the greater the impact on
  both CPU and teleprocessing overhead.

- 0, when no monitoring is to occur for a resource type.

- Omitted, when the CICS system is to use the value set with its
  associated monitor specification.

  Notes:

  a. If you change a sample interval from 0 to a value, use the MONACTV
     view command to find out whether the appropriate monitor definitions
     are active. If they are not, those monitor definitions must be installed for
     the change to take effect.

  b. The sample interval for a resource may be locked by RTA.

To apply the changes to the active CICS system, press Enter. The changes
take effect immediately and remain in effect until you change them or the CICS
system stops.

4. Figure 70 illustrates the panel produced the third time you issue the DOWN
   command. You can use this panel to change MAS trace table settings. (If you
   issue DOWN again, the first panel in this series is redisplayed.)

```
----------------------- Control MAS trace for EUPLX01 -----------------------
COMMAND  ===>

MAS      EYUMAS1A  Description  Starter Set TOR 1 on System A

    Number                      1 1 1 1 1 1 1 1 1 1 2 2 2 2 2 2 2 2 2 2 3 3 3
             1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2
Component    -----------------------------------------------------------------
KNL          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
TRC          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
MSG          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
SRV          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
CHE          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
QUE          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
COM          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
MAS          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
WLM          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
TOP          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N
RTA          N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N N

Enter DOWN or UP to view other MAS screens.
Press Enter to change the MAS.
Type END or CANCEL to cancel without changing.
```

Figure 70. Updating an active CICS system - MAS trace attributes

You can control the trace settings for each component comprising the specified MAS. To do this:

- Move the cursor to a component code (such as KNL) and then move the cursor to the right until you reach the appropriate level.

- When you reach the appropriate level, overtype the current setting with either Y (to activate tracing) or N (to deactivate tracing).

Note: Component tracing is provided primarily for the use of IBM service personnel. MAS component trace settings are normally not active. Activating tracing may have an adverse effect on performance.

To apply the changes to the active CICS system, press Enter. The changes take effect immediately and remain in effect until you change them or the CICS system stops.

Chapter 7. Example tasks: configuration and topology

This chapter includes examples of some typical setup-related tasks.

- "Establishing CMAS-to-CMAS connections" shows how to create links between CMASs on different MVS images but involved in managing the same CICSplexes.

- "Establishing a link between a CMAS and a remote MAS" on page 137 shows how to create a CICSPlex SM link from a CMAS to a MAS that is explicitly connected to that CMAS via an IRC or ISC connection.

- "Creating time period definitions" on page 139 shows how to create and maintain some standard time period definitions that can be used any number of times within the CICSplex.

- "Organizing CICS systems into groups" on page 140 shows how to create a CICS system group and how to add CICS systems to, and remove them from, that group.

- "Enabling a CMAS to send generic alerts to NetView" on page 142 shows how to update the CICSPlex SM definition of a CMAS in support of some of the real-time analysis functions.

Establishing CMAS-to-CMAS connections

If more than one CMAS is to be involved in the management of a CICSplex, you're recommended to create links between those CMASs. In this example, you'll see how to define links between two CMASs, CMSSYS1 and CMSSYS2, which will both be involved in managing the CICSplex PLXPROD1.

Note that you must define the CMAS-to-CMAS links *before* defining CICSplex PLXPROD1 to the CMASs. If you define PLXPROD1 to the CMASs before creating the CMAS-to-CMAS links, a duplicate maintenance point condition is raised and the CMAS-to-CMAS connection is terminated.

The CMASs are running on separate MVS images, and their CASs (CASSYS1 and CASSYS2) are already connected. You have to create two links, one from CMSSYS1 to CMSSYS2, and one from CMSSYS2 back to CMSSYS1. Both CMASs should be running while you define these links.

1. Check that you are working with the correct context.

   The context, which is shown in the window information line, must be the CMAS for any configuration task. Start with CMSSYS1: if the context isn't CMSSYS1, issue the command CON CMSSYS1 from the current view. (Notice that the window information line reflects the change of context.)

2. Display any existing CMAS-to-CMAS links.

   Issue the command CMTCMDEF from the current view. The CMTCMDEF view, showing any CMAS-to-CMAS links already defined from CMSSYS1, is displayed. For example:

```
 26MAR1999  17:26:32 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                              SCROLL ===> PAGE
 CURR WIN ===> 1          ALT WIN ===>
  W1 =CMTCMDEF==========CMSSYS1==CMSSYS1==26MAR1999==17:26:30=CPSM==========1===
 CMD Target    Sys                  Sess
 --- CMAS---- Id-- Applid    Type Prfx- Modename Description------------------
     CMSSYS3  CM3B CMSSYS3   LU62                Link from CMSSYS1 to CMSSYS3
```

(If there aren't any such links, you'll see a message telling you there's no data
to satisfy your request.)

3. Create a new CMAS-to-CMAS link.

   You can either:

   • Issue the command CRE from the CMTCMDEF view. The Define CMAS
     Link panel is displayed. All fields are blank, except the Attach Security field.

   or

   • If the CMTCMDEF view lists some existing CMAS-to-CMAS links, you can
     use one of them as a template for the new link definition. To do this, move
     the cursor to the entry for the "template" link, and issue CRE from the line
     command field. The Define CMAS Link panel is displayed, but the input
     fields contain values from the "template" link definition.

   Here's an example of a completed Define CMAS Link panel:

```
 ------------------------ Define CMAS Link for CMSSYS1 -----------------------
 COMMAND  ===>

  Target CMAS Name ===> CMSSYS2

  Description      ===> Link to CMSSYS2 on System 2

  Target Applid    ===> CMSSYS2     Target CMAS VTAM Applid
  Target Sysid     ===> CM2B        Sysid of Target CMAS

  Protocol         ===> LU62        Connection Type (LU62/MRO)
  Send Buffer      ===> 4060        Size of send buffer (256 - 30720)
  Receive Buffer   ===> 4060        Size of receive buffer (256 - 30720)

  Modename         ===>             Modename for LU62 Link
  Receive Prefix   ===>             Unique 2 character prefix for MRO
  Send Prefix      ===>             Unique 2 character prefix for MRO

  Attach Security  ===> LOCAL       Attach User Security (LOCAL/IDENTIFY)
  Security Name    ===>             Userid associated with link


 Press Enter to define CMAS Link with the options specified.
 Type END or CANCEL to cancel without defining.
```

   When you press Enter, the CMTCMDEF view is redisplayed, and includes an
   entry for the link you've just created. This confirms that the link from CMSSYS1
   to CMSSYS2 has been defined in the data repository of CMSSYS1. Now you
   have to create the corresponding link from CMSSYS2 to CMSSYS1.

4. Change the context.[1]

---

[1] You can change the context only if the CASs CASSYS1 and CASSYS2 are connected. If they are not, you must start a second
   CICSPlex SM session via CASSYS2.

From the current view, issue the command CON CMSSYS2. (Remember that you need to store this definition in CMSSYS2's data repository, and so CMSSYS2 must be the context.) When you change the context, the CMTCMDEF view is refreshed automatically to show any CMAS-to-CMAS links that have already been defined to CMSSYS2.

5. Repeat step 3, using appropriate data for a link from CMASSYS2 to CMASSYS1.

A two-way link has now been created between CMSSYS1 and CMSSYS2. The link is available immediately: you don't have to restart the CMASs first.

Establishing a link between a CMAS and a remote MAS

A remote MAS (RMAS) is explicitly connected to the CMAS by which it is managed via CICS IRC or ISC. A remote MAS is usually (though not necessarily) on a different MVS image from its CMAS. This example shows you how to create a link between CMAS CMSSYS1 on System A and remote MAS CICSPR02 on System B.

1. Start by checking that the context is CMSSYS1. If it isn't, issue the command CON CMSSYS1 from the current view.

2. Display any existing links from the CMAS to remote MASs.

   Issue the command CMTPMDEF from the current view. The CMTPMDEF view, showing any existing links from CMSSYS1 to remote MASs, is displayed:

```
  26MAR1999  18:08:34 ----------- INFORMATION DISPLAY --------------------------
  COMMAND  ===>                                               SCROLL ===> PAGE
  CURR WIN ===> 1        ALT WIN ===>
   W1 =CMTPMDEF==========CMSSYS1==CMSSYS1==26MAR1999==18:08:32=CPSM==========1===
  CMD Target  Sys             Sess           LINK
  --- MAS---- Id-- Applid   Type Prfx- Modename Description------------------
      CICSPR01 MS1C CICSPR01 LU62                  Remote MAS on System B
```

   (If there aren't any CMAS-to-RMAS links, you'll see a message to that effect.)

3. Create a new CMAS-to-remote MAS link.

   To create a new CMAS-to-remote MAS link, you can either:

   - Issue the command CRE from the CMTPMDEF view. The Define MAS Link panel is displayed. All input fields are blank, except the Attach Security field.

   or
   - If the CMTPMDEF view shows existing CMAS-to-remote MAS links, you can use one of these as a template for the new link definition. To do this, move the cursor to the entry for the "template" link, and issue CRE from the line command field. The Define MAS Link panel is displayed, but the input fields contain values from the "template" link definition.

   Here's an example of the Define MAS Link panel:

```
------------------------ Define MAS Link for CMSSYS1 ----------------------
COMMAND  ===>

 Target MAS Name  ===> CICSPR02

 Description      ===> Remote MAS on System B

 Target Applid    ===> CICSPR02    Target MAS VTAM Applid
 Target Sysid     ===> MS2C        Sysid of Target MAS

 Protocol         ===> LU62        Connection Type (LU62/MRO)
 Send Buffer      ===> 4060        Size of send buffer (256 - 30720)
 Receive Buffer   ===> 4060        Size of receive buffer (256 - 30720)

 Modename         ===>             Modename for LU62 Link
 Receive Prefix   ===>             Unique 2 character prefix for MRO
 Send Prefix      ===>             Unique 2 character prefix for MRO

 Attach Security  ===> LOCAL       Attach User Security (LOCAL/IDENTIFY)
 Security Name    ===>             Userid associated with link


Press Enter to define MAS Link with the options specified.
Type END or CANCEL to cancel without defining.
```

When you press Enter, the CMTPMDEF view is redisplayed, showing an entry for the new link in the list of CMAS-to-remote MAS links.

This completes the first half of the task: you've created a link from CICSSYS1 to CICSPR02, and the link definition has been stored in CMSSYS1's data repository. Now you have to define the corresponding link from the remote MAS to the CMAS.

4. Define a link from the remote MAS to the CMAS.

   Defining the link from the remote MAS to the CMAS is not a CICSPlex SM task. You have to create CONNECTION and SESSIONS definitions in CICSPR02's CSD using either the CICS CEDA transaction or the CICS DFHCSDUP utility. The information you need for this task is supplied in Table 18 on page 70 and Table 19 on page 70. The CONNECTION and SESSIONS must be defined in a group that is in CICSPR02's group list, so that the definitions are installed when CICSPR02 is started.

   Here are some example DFHCSDUP control statements that show how to define the CONNECTION and SESSIONS for an LU 6.2 link between CICSPR02 and CMSSYS1, and how to add the group in which they are defined to a group list.

   ```
   DEFINE CONNECTION(CMA1) GROUP(CPSMCONN) NETNAME(CMSSYS1)
          DESCRIPTION(RMAS-TO-CMAS CONNECTION)
          ACCESSMETHOD(VTAM) PROTOCOL(APPC)
          AUTOCONNECT(YES) INSERVICE(YES)

   DEFINE SESSIONS(CMA1SESS) GROUP(CPSMCONN) CONNECTION(CMA1)
          DESCRIPTION(SESSIONS FOR RMAS TO CMAS CONNECTION)
          MAXIMUM(4,2) SENDSIZE(4060) RECEIVESIZE(4060)
          AUTOCONNECT(YES)

   ADD GROUP(CPSMCONN) LIST(RMASLIST)
   ```

   When the CSD has been updated, you can install these new resources in CICSPR02 using the CICS CEDA transaction or by restarting CICSPR02.

Creating time period definitions

Some CICSPlex SM functions can be activated and deactivated automatically at specific times. For example, you can tell CICSPlex SM to install a particular monitor definition at 10:45 and remove it at 15.00. You define these from-and-to times to CICSPlex SM via time period definitions. It's a good idea to create some standard time period definitions when you first define your CICSplex configuration to CICSPlex SM.

In this example, you'll see how to create typical time period definitions for the prime shift, for the lunch period, and for the evening hours.

1. First, check that the context is the CICSplex you're interested in (PLXPROD1 in this example). If it isn't, issue the command CON PLXPROD1 from the current view.

2. Display any time period definitions already defined for PLXPROD1.

   Issue the command PERIODEF from the current view. The PERIODEF view is displayed, showing any time period definitions that have already been created for CICSplex PLXPROD1.

```
 26MAR1999  19:48:16 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                              SCROLL ===> PAGE
 CURR WIN ===> 1        ALT WIN ===>
  W1 =PERIODEF==========PLXPROD1=PLXPROD1=26MAR1999==19:48:16=CPSM==========2===
CMD Period   Start End   Time Zone Time
--- Name---- Time- Time- Zone Adj- Description------------------
    PDFEARLY 04:00 06:00 U       0 Early shift, Eastern Time
    PDFBATCH 17:01 21:00 U       0 Batch runs, Eastern Time
```

   (If there aren't any time period definitions for this CICSplex, you'll see a message to that effect.)

3. Create a new time period definition.

   There are two ways of creating a new time period definition. You can either:

   - Issue the command CRE from the PERIODEF view. The Create Time Period Def panel is displayed with all fields blank.

   or

   - If there are already time period definitions in PLXPROD1, you can use one of them as a template. (However, it isn't worth using an existing definition as a template unless you're going to keep at least one of the values from that definition in the new definition.) To do this, issue CRE from the line command field of the "template" definition. The Create Time Period Def panel is displayed, showing the values from the "template" definition.

   Complete the panel as shown here:

```
   ---------------------- Create Time Period Def for PLXPROD2 -------------------
 COMMAND  ===>

  Definition Name ===> PDFPRIME
  Description     ===> Prime shift

  Time Period Definition:
   Start Time      ===> 08:30   (HH:MM)
   End Time        ===> 18:00   (HH:MM)
   Time Zone       ===> R
   Zone Adjustment ===> 0


 Press Enter to Create Time Period Definition.
 Type END or CANCEL to cancel without creating.
```

Online help is available for all of the fields in this panel. Note that, as you're creating this definition for a standard time zone, you don't need to specify a zone adjustment. When you press Enter, the PERIODEF view is redisplayed showing an entry for PDFPRIME.

4. Create a second time period definition.

To create a time period definition for the lunch period, move the cursor to the entry for PDFPRIME in the PERIODEF view, and issue CRE from the line command field. The Create Time Period Def panel is displayed, showing values from the PDFPRIME time period definition.

Type PDFLUNCH in the Definition Name field, 12:00 in the Start Time field, 14:30 in the End Time field, and "Lunch time" in the Description field. The Time Zone fields are as they were for PDFPRIME. Press Enter, and the PERIODEF view is redisplayed.

5. Repeat step 4 to create a time period definition called PDFEVENG, with a Start Time of 17:30 and an End Time of 23:59.

6. Update a time period definition.

Suppose that now you want to alter the PDFPRIME definition to change the End Time To 17:30. On the PERIODEF view, tab to the entry for PDFPRIME and overtype the End Time value with 17:30 before pressing Enter. (If simple overtyping of values is not supported in your environment, you might have to type SET in the line command field of PDFPRIME before pressing Enter.) The change takes effect immediately, and the PERIODEF view is redisplayed showing the updated definition.

Organizing CICS systems into groups

CICS system groups are a basic building block of the CICSPlex SM configuration. You are recommended to create some standard groups, such as all AORs in a CICSplex and all CICS systems in a CICSplex, when you first configure your CICSPlex SM environment. In this example, you'll create a CICS system group, CSGAORS1, in CICSplex PLXPROD1, and add CICS systems CICSPA01, CICSPA02, and CICSPA03 to that group.

1. Check that the current context is the CICSplex to which this CICS system group is to belong. If it isn't, issue the command CON PLXPROD1 from the current view.

2. Display any CICS system groups already defined in the CICSplex.

Issue the command CICSGRP from the current view. The CICSGRP view, showing any CICS system groups that have already been defined for CICSplex PLXPROD1, is displayed:

```
26MAR1999  17:05:25 ----------- INFORMATION DISPLAY --------------------------
COMMAND  ===>                                              SCROLL ===> PAGE
CURR WIN ===> 1        ALT WIN ===>
 W1 =CICSGRP===========PLXPROD1=PLXPROD1=26MAR1999==17:05:25=CPSM==========2===
CMD System   Description
--- Group    ----------------------------
    CSGFORS1 FORS PF01, PF02
    CSGAORS2 AORS PAO4, PA05
```

3. Create a new CICS system group.

Issue the command CRE from the CICSGRP view. The Create System Group panel is displayed. Complete the panel as shown here:

```
---------------------- Create System Group for PLXPROD1 ----------------------
 COMMAND  ===>

  System Group name  ===> CSGAORS1
  Description        ===> AORs PA01, PA02, PA03


 Press Enter to Create System Group.
 Type END or CANCEL to cancel without creating.
```

When you press Enter, the CICSGRP view is redisplayed, and contains an entry for the new group. The CICS system group has been created.

4. Add CICS systems to the new CICS system group.

In the CICSGRP view, tab to the entry for group CSGAORS1 and issue ADD from the line command field. The Add Member to System Group panel is displayed. Complete the panel as shown here:

```
-------------------- Add Member to System Group for PLXPROD1 -----------------
 COMMAND  ===>

 System Group Name  CSGAORS1
 Description        AORs PA01, PA02, PA03

 Member       ===> CICSPA01       CICS System, Group or Generic

  Component Spec    Inherit


 Press Enter to add Member to System Group.
 Type END or CANCEL to cancel without adding.
```

When you press Enter, the CICSGRP view is redisplayed.

You have two more systems (CICSPA02 and CICSPA03) to add to the group, so need to repeat this step (step 4) twice more.

5. If you want to check when you have finished that CICSGRP contains the correct systems, simply tab to the entry for group CSGAORS1 on the CICSGRP view, and press Enter. The SYSGRPC view is displayed, showing the CICS systems that have been added to the group.

6. Update the CICS system group.

Assume that you want to remove CICS system CICSPA02 from the group. Move the cursor to the entry for CICSPA02 in the SYSGRPC view, and issue REM from the line command field. The Remove System from System Group panel is displayed.

Press Enter to confirm that you want CICSPA02 removed from the group. The SYSGRPC view is redisplayed, showing CICS systems that are still defined as members of CSGAORS1. The list does not include CICSPA02.

Enabling a CMAS to send generic alerts to NetView

This example task is part of a larger, real-time analysis task that requires you to update a CMAS definition. This example illustrates only the CMAS-related part of the task.

If you want CICSPlex SM to send SNA generic alerts to NetView, the NetView program-to-program interface (PPI) must be activated in the relevant CMAS. (This is the CMAS on the same MVS image as the NetView instance.) This example shows how to activate the NetView PPI in a given CMAS, CMSSYS1.

1. First, check that the current context is CMSSYS1. If it isn't, issue the command CON CMSSYS1 from the current view.

2. Display the CMAS definition.

   Issue the command CMASD CMSSYS1 from the current view. The CMASD view is displayed, showing detailed information about CMSSYS1:

```
 26MAR1999  14:46:44 ----------- INFORMATION DISPLAY --------------------------
 COMMAND  ===>                                             SCROLL ===> PAGE
 CURR WIN ===> 1         ALT WIN ===>
  W1 =CMASD=============CMSSYS1==CMSSYS1==26MAR1999==14:46:44=CPSM=========1===
      CMAS Name..... CMSSYS1  Start Date.... 26MAR1999 EYUDREP State     OPEN
      JOB Name...... EYUJCM1A Start Time....  13:22:04 IRC Status...   CLOSED
      Applid........ CMSSYS1  Time Zone.....         U VTAM ACB.....     OPEN
      Location......    EC2L  Time Offset...         0 CAS Connect..   ACTIVE
      Sysid.........    CM1A  Daylight Time.       NO CAS Id.......      EYUA
      Act Maxtasks..     100  Total CPU.....      24.2 System Trace. SYSTEMOFF
      Maxtasks......     120  Total Page In.      158 User Trace...   USERON
      Current Tasks.      29  Total Page Out        0 GTF Trace....  GTFSTOP
      Peak Amaxtask.      12  Total Real Stg     4388 AUX Trace....  AUXSTART
      Total Tasks...      63  CPSM Version..      110 AUX Switch... NOSWITCH
      Times at MAXT.       0  Free OSSB Cnt.       16 Max STCB.....        1
      SDUMP always        NO Used Free OSSB        0 NetView PPI..       NO
                              Getmain OSSB..        0 NMVTS Sent...        0
                                                       RODM Name....  EYURODM
      Pending Queues
      Connections...       0 Programs......        0 Trans. Data..        0
      Files.........       0 Terminals.....        0 System.......        0
      Journals......       0 Transactions..        0
```

   (The CMASD view is described in the *CICSPlex SM Operations Views Reference* manual.).

3. Update the CMAS definition.

   Move the cursor to the Netview PPI field (in the third detail column) and overtype NO with YES. Press Enter. (If simple overtyping of values is not supported in your environment, you must also type SET in a line command field before pressing Enter.) The CMASD view is redisplayed, showing the updated Netview PPI value. The NetView PPI interface is now activated.

Chapter 8. Starting to use CICSPlex SM

When you have performed all of the appropriate installation and customization tasks, your CICSPlex SM environment is complete and ready to be used.

Before you begin the operations tasks, be sure you have:

- Set up your CICSPlex SM environment, including the appropriate:

    coordinating address space (CAS)
    CICSPlex SM address space (CMAS)
    managed application system (MAS)

- Established security in accordance with your external security manager (ESM)

- Defined CICS systems and CICSplexes to the CMAS

- Established cross-system communications

- Defined links between CMASs and MASs

- Established associations between CICS systems.

As soon as these tasks are done, you can begin to use CICSPlex SM to manage the CICS resources of your enterprise. Use the operations views described in the *CICSPlex SM Operations Views Reference* manual to:

- Enable and disable resources
- Open and close resources
- Acquire and release resources
- Place resources in or out of service
- Purge tasks or transactions associated with a resource
- Change various resource attributes
- Shut down a CICS system
- Obtain CICS COLLECT STATISTICS data for resources being monitored
- Obtain CICSPlex SM derived values for resources being monitored.

The *CICSPlex SM Operations Views Reference* manual also contains views that enable you to display the effects of CICSPlex SM definitions on active CICS systems.

For information on creating and maintaining CICSPlex SM definitions, refer to the following books:

- *CICSPlex SM Managing Business Applications*.
- *CICSPlex SM Managing Resource Usage*.
- *CICSPlex SM Managing Workloads*.

starting to use CICSPlex SM

Glossary

This glossary defines CICSPlex SM terms and abbreviations used in this book with other than their everyday meaning. Terms that are defined in the *IBM Dictionary of Computing*, New York: McGraw-Hill, 1994, are not defined here unless CICSPlex SM usage is different from the meaning given there.

If you cannot find the definition you need, refer to the *Dictionary of Computing* or the *CICSPlex SM Master Index*, SC33-1812.

A

action command. A CICSPlex SM command that affects one or more of the resources represented in a view. Action commands can be issued from either the COMMAND field in the control area of the information display panel or the line command field in a displayed view. Valid action commands are listed with the description of each view. See also *overtype field*.

action definition (ACTNDEF). In real-time analysis, a definition of the type of external notification that is to be issued when the conditions identified in an analysis definition are true.

activity. See *BTS activity*.

adjacent CMAS. A CICSPlex SM address space (CMAS) that is connected to the local CMAS via a direct CMAS-to-CMAS link. Contrast with *indirect CMAS*. See also *local CMAS*.

alter expression. A character string that defines the changes to be made to a resource attribute. An alter expression is made up of one or more attribute expressions.

alternate window. A window to which the results of a hyperlink can be directed. By default, the results of a hyperlink are displayed in the same window from which the hyperlink is initiated. Contrast with *current window*.

alternate window (ALT WIN) field. In the control area of an information display panel, the field in which you can specify an alternate window to receive the results of a hyperlink.

analysis definition. In real-time analysis, a definition of the evaluations to be performed on specified CICS resources, the intervals at which those evaluations are to be performed, and the actions to be taken when a notifiable condition occurs.

analysis group. In real-time analysis, a group of one or more analysis definitions, status definitions, or both.

Analysis definitions and status definitions must belong to an analysis group if they are to be installed automatically in a CICS system when that system starts.

analysis point monitoring (APM). In real-time analysis, resource monitoring across multiple CICS systems within a CICSplex that results in a single notification of a condition, rather than one notification for each system. Contrast with *MAS resource monitoring*.

analysis point specification. In real-time analysis, a specification that identifies the CMASs that are to be responsible for analysis point monitoring.

analysis specification. In real-time analysis, a specification that establishes system availability monitoring or MAS resource monitoring within a group of CICS systems.

AOR. Application-owning region.

API. Application programming interface

APM. Analysis point monitoring.

application-owning region (AOR). In a CICSplex configuration, a CICS region devoted to running applications. For dynamic routing, the terms *requesting region*, *routing region*, and *target region* are used instead of AOR to signify the role of the region in the dynamic routing request.

ARM. Automatic restart manager.

ASU. Automatic screen update.

attribute. See *resource attribute, resource table attribute*.

attribute expression. A reference to a resource table attribute and, in some cases, its value. Attribute expressions are used to build filter expressions, modification expressions, and order expressions.

attribute value. The data currently associated with a resource table attribute. For example, the file attribute OPENSTATUS might have a value of CLOSED.

automatic restart manager (ARM). A recovery function of MVS/ESA 5.2 that provides improved availability for batch jobs and started tasks by restarting them automatically if they end unexpectedly. The affected batch job or started task can be restarted on the same system or on a different one, if the system itself has failed.

automatic screen update (ASU). A CICSPlex SM facility that automatically updates the data in all unlocked windows at user-defined intervals. See also *automatic screen update interval*.

automatic screen update interval. The time interval between one automatic screen update and the next. This interval can be set in the CICSPlex SM user profile or when the ASU facility is turned on. See also *automatic screen update (ASU)*.

B

BAS. Business Application Services

batched repository-update facility. A CICSPlex SM facility, invoked from the CICSPlex SM end user interface, for the bulk application of CICSPlex SM definitions to a CMAS data repository.

BTS. CICS business transaction services

BTS activity. One part of a process managed by CICS BTS. Typically, an activity is part of a *business transaction*.

BTS process. A collection of more than one CICS BTS *activities*. Typically, a process is an instance of a *business transaction*.

BTS set. See CICS system group

business application. Any set of CICS resources that represent a meaningful entity to an enterprise or a user (such as, Payroll).

Business Application Services (BAS). The component of CICSPlex SM that provides the ability to define and manage business applications in terms of their CICS resources and associated CICS systems. BAS provides a central definition repository for CICS systems, complete with installation facilities and the ability to restrict a CICSPlex SM request to those resources defined as being part of the business application. See also *business application, scope*.

business transaction. A self-contained business function, for example, the booking of an airline ticket.

C

CAS. Coordinating address space.

CBIPO. Custom-built installation process offering.

CBPDO. Custom-built product delivery offering.

CEDA. A CICS transaction that defines resources online. Using CEDA, you can update both the CICS

system definition data set (CSD) and the running CICS system.

CICS Business Transaction Services (BTS). A CICS domain that supports an application programming interface (API) and services that simplify the development of *business transactions*.

CICS system. The entire collection of hardware and software required by CICS. In CICSPlex SM topology, a definition referring to a CICS system that is to be managed by CICSPlex SM. See also *CICSplex, CICS system group*.

CICS system group. A set of CICS systems within a CICSplex that can be managed as a single entity. In CICSPlex SM topology, the user-defined name, description, and content information for a CICS system group. A CICS system group can be made up of CICS systems or other CICS system groups. In CICS CICS business transaction services (BTS), a CBTS set, that is the set of CICS regions across which BTS processes and activities may execute. See also *CICSplex, CICS system*.

CICSplex. A CICS complex. A CICSplex consists of two or more CICS regions that are linked using CICS intercommunication facilities. The links can be either intersystem communication (ISC) or interregion communication (IRC) links, but within a CICSplex are more commonly IRC. Typically, a CICSplex has at least one terminal-owning region (TOR), more than one application-owning region (AOR), and may have one or more regions that own the resources being accessed by the AORs. In CICSPlex SM, a management domain. The largest set of CICS regions, or CICS systems, to be manipulated by CICSPlex SM as a single entity. CICS systems in a CICSplex being managed by CICSPlex SM do not need to be connected to each other. See also *CICS system, CICS system group*.

CICSPlex SM. IBM CICSPlex System Manager.

CICSPlex SM address space (CMAS). A CICSPlex SM component that is responsible for managing CICSplexes. A CMAS provides the single-system image for a CICSplex by serving as the interface to other CICSplexes and external programs. There must be at least one CMAS in each MVS image on which you are running CICSPlex SM. A single CMAS can manage CICS systems within one or more CICSplexes. See also *coordinating address space (CAS), managed application system (MAS)*.

CICSPlex SM token. Unique, 4-byte values that CICSPlex SM assigns to various elements in the API environment. Token values are used by CICSPlex SM to correlate the results of certain API operations with subsequent requests.

client program. In dynamic routing, the application program, running in the *requesting region*, that issues a remote link request.

CMAS. CICSPlex SM address space.

CMAS link. A communications link between one CICSPlex SM address space (CMAS) and another CMAS or a remote managed application system (remote MAS). CMAS links are defined when CICSPlex SM is configured.

CODB. A CICSPlex SM transaction for interactive, system-level debugging of CMASs and of CICS/ESA, CICS/MVS, and CICS/VSE MASs. CODB must be used only at the request of customer support personnel.

COD0. A CICSPlex SM transaction for interactive, method-level debugging of CMASs and of CICS/ESA, CICS/MVS, CICS/VSE, and CICS for OS/2 MASs. COD0 must be used only at the request of customer support personnel.

COLU. A CICSPlex SM transaction for generating reports about CMAS and local MAS components. COLU must be used only at the request of customer support personnel.

COMMAND field. In the control area of an information display panel, the field that accepts CICSPlex SM, ISPF, and TSO commands. Contrast with *option field*.

command-level interface. A CICSPlex SM API interface that uses the CICS translator to translate EXEC CPSM statements into an appropriate sequence of instructions in the source language.

Common Services. A component of CICSPlex SM that provides commonly requested services (such as GETMAIN, FREEMAIN, POST, and WAIT processing) to other CICSPlex SM components.

communication area (COMMAREA). A CICS area that is used to pass data between tasks that communicate with a given terminal. The area can also be used to pass data between programs within a task.

Communications. A component of CICSPlex SM that provides all services for implementing CMAS-to-CMAS and CMAS-to-MAS communication.

context. A named part of the CICSPlex SM environment that is currently being acted upon by CICSPlex SM. For configuration tasks, the context is a CICSPlex SM address space (CMAS); for all other tasks, it is a CICSplex. See also *scope*.

control area. The top three lines of an information display panel, containing the panel title, the screen update time, the short message area, the COMMAND

and SCROLL fields, and the current window (CUR WIN) and alternate window (ALT WIN) fields.

coordinating address space (CAS). An MVS subsystem that provides ISPF end-user access to the CICSplex to be accessed. See also *CICSPlex SM address space, managed application system (MAS)*.

coordinating address space subsystem ID. Identifies the coordinating address space (CAS) which can be up to 4 characters, to be connected to when issuing CICSPlex SM requests. The name of the CAS is installation-dependent, and is defined in the CICSPlex SM user profile.

cross-system coupling facility (XCF). XCF is a component of MVS that provides functions to support cooperation between authorized programs running within a sysplex.

current window. The window to which the results of all commands issued in the COMMAND field are directed, unless otherwise requested. Contrast with *alternate window*.

current window (CUR WIN) field. In the control area of an information display panel, the field that contains the window number of the current window. You can change the number in this field to establish a new current window.

custom-built installation process offering (CBIPO). A product that simplifies the ordering, installation, and service of MVS system control programs and licensed programs by providing them with current updates and corrections to the software that is already integrated.

custom-built product delivery offering (CBPDO). A customized package of both products and service, or of service only, for MVS system control programs and licensed programs.

D

Data Cache Manager. A component of CICSPlex SM that manages logical cache storage for use by other CICSPlex SM components.

data repository. In CICSPlex SM, the VSAM data set that stores administrative data, such as topology and monitor definitions, for a CICSPlex SM address space (CMAS).

Data Repository. A component of CICSPlex SM that provides methods for creating, accessing, updating, and deleting data in the CICSPlex SM data repository. See also *Managed Object Services*.

Database Control (DBCTL). An IMS/ESA facility providing an interface between CICS/ESA and IMS/ESA

that allows access to IMS DL/I full-function databases and to data-entry databases (DEDBs) from one or more CICS/ESA systems.

Database 2 (DB2).   An IBM licensed program. DB2 is a full-function relational database management system that presents a data structure as a table consisting of a number of rows (or records) and a number of columns.

DBCTL.   Database Control.

DB2.   Database 2.

derived field.   On a monitor view, a field whose value does not come directly from CICS or CICSPlex SM data, but is calculated based on the values in other fields.   See also *derived value*.

derived value.   A rate, average, or percentage that results from CICSPlex SM processing of CICS statistics.

display area.   On an information display panel, the area where windows can be opened to display data. The display area appears below the control area. The bottom two lines of the display area can be used to display the PF key assignments in effect for a CICSPlex SM session.

display attributes.   A CICSPlex SM user profile option that controls the appearance of the window information line, field headings, and threshold values in a view.

display command.   A CICSPlex SM command that extends the ISPF interface to create and control a multiwindow environment.

distributed program link (DPL).   Function of CICS intersystem communication that enables CICS to ship LINK requests between CICS regions.

distributed routing program (DSRTPGM).   A CICS-supplied user-replaceable program that can be used to dynamically route:

* CICS BTS processes and activities

DPL.   Distributed program link.

DTR.   Dynamic transaction routing.

dynamic routing.   The automatic routing of a transaction or program, at the time it is initiated, from a requesting region to a suitable target region. Routing terminal data to an alternative transaction at the time the transaction is invoked. To do this, CICS allows the dynamic routing program to intercept the terminal data and redirect it to any system and transaction it chooses. See also dynamic routing program (EYU9XLOP)

dynamic routing program (EYU9XLOP).   A user-replaceable CICS program that selects dynamically both the system to which a routing request is to be sent and the transaction's remote name. The alternative to using this program is to make these selections when a remote transaction is defined to CICS (static routing). See also *static routing*

dynamic transaction routing (DTR).   The automatic routing of a transaction, at the time it is initiated, from a transaction-owning region (TOR) to a suitable application-owning region (AOR).

E

Environment Services System Services (ESSS).   A component of CICSPlex SM that implements the formal MVS/ESA subsystem functions required by the product. ESSS provides cross-memory services, data space management, connection services, and lock management. An ESSS system address space is created at CICSPlex SM initialization and remains in the MVS image for the life of the IPL.

ESSS.   Environment Services System Services.

evaluation definition.   In real-time analysis, a definition of the resources that are to be sampled. When the result of an evaluation is true, an associated analysis definition is used to determine whether a notifiable condition has occurred.

event.   A significant occurrence within the CICSplex or system for which the user has requested notification. For example, the end of processing, a subsystem failure, or any unusual condition in the system could be defined by a user as an event.

event notification.   A CICSPlex SM notification of a significant occurrence within a CICSplex or CICS system.

extended diagnostic mode (XDM).   A CICSPlex SM online internal diagnostic facility. XDM provides no information about resources managed by CICSPlex SM, and should be turned on only at the request of IBM customer support personnel. XDM can be turned on and off in the CICSPlex SM user profile.

external notification.   In RTA, an event notification, generic alert, or operator message issued when a notifiable condition occurs.

F

file-owning region.   In a CICSplex configuration, a CICS system devoted to managing CICS file access.

filter expression.   A character string that consists of logical expressions to be used in filtering resource table records. A filter expression is made up of one or more attribute expressions.

FOR.   File-owning region.

form.   The way in which data obtained from a query is presented in a view. See also *query, view*.

G

generic alert.   A Systems Network Architecture (SNA) Network Management Vector that enables a product to signal a problem to the network. CICSPlex SM uses generic alerts as part of its interface to NetView.

GMFHS.   Graphic Monitor Facility host subsystem.

goal algorithm.   In CICSPlex SM's workload balancing, an algorithm used to select an AOR to process a dynamic transaction. Using the goal algorithm, CICSPlex SM selects the AOR that is the least affected by conditions such as short-on-storage, SYSDUMP, and TRANDUMP; is the least likely to cause the transaction to abend; and is most likely to enable the transaction to meet response-time goals set for it using the Workload Manager component of MVS/ESA SP 5.1. Contrast with *queue algorithm*.

Graphic Monitor Facility host subsystem.   A NetView feature that manages configuration and status updates for non-SNA resources.

H

hyperlink.   A direct connection between the data in one CICSPlex SM view and a view containing related information. For example, from a view that lists multiple CICS resources, there may be a hyperlink to a detailed view for one of the resources. To use a hyperlink, place the cursor in the data portion of a hyperlink field and press Enter.

hyperlink field.   On a CICSPlex SM view, a field for which a hyperlink is defined. The headings of hyperlink

fields are shown in high intensity or color, depending on the terminal type.

I

IBM CICSPlex System Manager for MVS/ESA (CICSPlex SM).   An IBM CICS system-management product that provides a single-system image and a single point of control for one or more CICSplexes that can be installed on heterogeneous operating systems.

indirect CMAS.   A CICSPlex SM address space (CMAS) that the local CMAS can communicate with via an adjacent CMAS. There is no direct CMAS-to-CMAS link between the local CMAS and an indirect CMAS. Contrast with *adjacent CMAS*. See also *local CMAS*.

information display panel.   The panel that supports the CICSPlex SM window environment. It consists of a control area and a display area. CICSPlex SM views are displayed in windows within the display area of this panel.

information display parameters.   A CICSPlex SM user profile option that defines the initial screen configuration, how frequently the screen will be updated by ASU, and how long a window will wait for command processing to complete before timing out.

installation verification procedure (IVP).   A procedure distributed with a system that tests the newly generated system to verify that the basic facilities of the system are functioning correctly.

interregion communication.   Synonym for *multiregion operation*.

intersystem communication (ISC).   Communication between separate systems by means of SNA networking facilities or by means of the application-to-application facilities of an SNA access method.

intertransaction affinity.   A relationship between CICS transactions, usually the result of the ways in which information is passed between those transactions, that requires them to execute in the same CICS region. Intertransaction affinity imposes restrictions on the dynamic routing of transactions.

IRC.   Interregion communication.

ISC.   Intersystem communication.

IVP.   Installation verification procedure.

K

Kernel Linkage.   A component of CICSPlex SM that is responsible for building data structures and managing the interfaces between the other CICSPlex SM components. The environment built by Kernel Linkage is known as the method call environment.

L

line command field.   In a CICSPlex SM view, the 3 character field, to the left of the data, that accepts action commands.

local CMAS.   The CICSPlex SM address space (CMAS) that a user identifies as the current context when performing CMAS configuration tasks.

local MAS.   A managed application system (MAS) that resides in the same MVS image as the CICSPlex SM address space (CMAS) that controls it and that uses the Environment Services System Services (ESSS) to communicate with the CMAS.

logical scope.   A set of logically related CICS resources that are identified in a CICSPlex SM resource description. A logical scope can be used to qualify the context of a CICSPlex SM request.

M

maintenance point.   A CICSPlex SM address space (CMAS) that is responsible for maintaining CICSPlex SM definitions in its data repository and distributing them to other CMASs involved in the management of a CICSplex. See also *data repository*.

Major object descriptor block (MODB).   In CICSPlex SM, a control structure built by Kernel Linkage during initialization of a CICSPlex SM component that contains a directory of all methods that make up that component. The structure of the MODB is the same for all components.

Major object environment block (MOEB).   In CICSPlex SM, a control structure built by Kernel Linkage during initialization of a CICSPlex SM component and pointed to by the MODB. The MOEB stores information critical to a CICSPlex SM component and anchors data used by the component. The structure of the MOEB is unique to the component it supports.

MAL.   Message argument list.

managed application system (MAS).   A CICS system that is being managed by CICSPlex SM. See *local MAS, remote MAS*.

managed object.   A CICSPlex SM-managed CICS resource or a CICSPlex SM definition represented by a resource table. A view is based on a single managed object.

Managed Object Services.   A subcomponent of the Data Repository component of CICSPlex SM that translates a request for data (from real-time analysis, for example) into the method calls required to obtain the data.

MAS.   Managed application system.

MAS agent.   A CICSPlex SM component that acts within a CICS system to provide monitoring and data collection for the CICSPlex SM address space (CMAS). The level of service provided by a MAS agent depends on the level of CICS the system is running under and whether it is a local or remote MAS. See also *CICSPlex SM address space (CMAS), local MAS, remote MAS*.

MAS resource monitoring (MRM).   In real-time analysis, resource monitoring at the CICS system level; it results in one notification of a condition for each system in which it occurs. If the same condition occurs in three CICS systems where MAS resource monitoring is active, three notifications are issued. Contrast with *analysis point monitoring*.

Message argument list (MAL).   In CICSPlex SM, a data structure passed between methods using Kernel Linkage method call services.

message line.   On an information display panel, the line in the control area where a long message appears when the HELP command is issued in response to a short message. The message line temporarily overlays the CURR WIN and ALT WIN fields.

Message Services.   A component of CICSPlex SM that provides services for building and issuing MVS/ESA console messages to other CICSPlex SM components.

meta-data.   Internal data that describes the structure and characteristics of CICSPlex SM managed objects.

method.   (Action.) An application programming interface (API) instruction that resolves into an EXEC CICS command, issued against one or more resources in one or more CICS systems, within the current context and scope.

method.   In CICSPlex SM, one of the programs that make up a CICSPlex SM component. See also *message argument list (MAL)*.

mirror transaction.   CICS transaction that recreates a request that is function shipped from one system to another, issues the request on the second system, and passes the acquired data back to the first system.

MODB.   Major object descriptor block.

modification expression.   A character string that defines the changes to be made to a resource attribute. A modification expression is made up of one or more attribute expressions.

MOEB.   Major object environment block.

monitor definition.   A user-defined statement of the specific resource occurrences (such as the program named PAYROLL) to be monitored by CICSPlex SM. A monitor definition can either be linked to a monitor specification as part of a monitor group or be installed directly into an active CICS system. See also *monitor group, monitor specification*.

monitor group.   A user-defined set of CICSPlex SM monitor definitions that can either be linked to a monitor specification for automatic installation or be installed directly into an active CICS system. See also *monitor definition, monitor specification*.

monitor interval.   The number of minutes that are to elapse before the statistics counters containing accumulated resource monitoring data are automatically reset. This value is part of a CICSplex definition and affects all of the CICS systems and CICS system groups associated with that CICSplex. See also *period definition, sample interval*.

monitor specification.   A user-defined statement of the types of resources (such as programs) to be monitored by CICSPlex SM and how often data should be collected. A monitor specification is associated with a CICS system and is automatically installed each time the CICS system starts up. See also *monitor definition, monitor group*.

Monitoring Services.   A component of CICSPlex SM that is responsible for monitoring resources within a CICS system and making the collected data available to other CICSPlex SM components.

MRM.   MAS resource monitoring.

MRO.   Multiregion operation.

MSM.   MultiSystem Manager.

multiregion operation (MRO).   Communication between CICS systems without the use of SNA network facilities. Synonymous with *interregion communication*.

MultiSystem Manager.   An object-oriented, graphical systems management application that runs under NetView for MVS.

MVS image.   A single instance of the MVS operating system.

MVS system.   An MVS image together with its associated hardware.

N

NetView.   An IBM network management product that can provide rapid notification of events and automated operations. CICSPlex SM can be set up to send generic alerts to NetView as part of its event processing capabilities.

NetView Graphic Monitor Facility (NGMF).   A function of the NetView program that provides the network operator with a graphic topological presentation of a network controlled by the NetView program and that allows the operator to manage the network interactively.

NetView program.   An IBM licensed program used to monitor and manage a network and to diagnose network problems.

NGMF.   NetView Graphic Monitor Facility.

notification.   A message that is generated asynchronously by a CICSPlex SM managed object to describe an event related to the object.

O

option field.   On a CICSPlex SM menu, the field in which you can specify an option number or letter. Contrast with *command field*.

order expression.   A character string that defines either the attributes to be used in sorting resource table records, or the attributes to be included in a resource table view. An order expression is made up of one or more attribute expressions.

override expression.   A character string that defines the changes to be made to a resource attribute. An override expression is made up of one or more attribute expressions.

overtype field.   On a CICSPlex SM view, a field containing a value that can be changed by typing a new value directly into the field. Values that can be overtyped are shown in high intensity or color, depending on the terminal type. Acceptable values for overtype fields are listed with the description of each view. See also *action command*.

P

parameter expression.   A character string that defines the parameters required for an action to complete or a definition to be processed.

parameter repository.   In CICSPlex SM, a data set that stores cross-system communication definitions that allow one coordinating address space (CAS) to communicate with other CASs.

period definition.   A user-defined range of hours and minutes and the time zone to which that range applies. A period definition is used to indicate when an action, such as resource monitoring, is to occur. See also *monitor interval, sample interval*.

PlexManager.   A service utility that can be used to manage the communication connections between multiple coordinating address spaces (CASs) and between a CAS and its associated CICSPlex SM address spaces (CMASs) and CICSplexes.

process.   See *CICS BTS process*

processing thread.   A connection between an application program and the CICSPlex SM API. A program can establish multiple processing threads, but each one is considered a unique API user; no resources can be shared across the boundary of a thread.

pseudoconversation.   A CICS application designed to appear to the user as a continuous conversation, but that consists internally of multiple separate tasks.

Q

query.   A request for specific data that is generated by a view command. See also *form, view*.

queue algorithm.   In CICSPlex SM's workload balancing, an algorithm used to select an AOR to process a dynamic transaction. Using the queue algorithm, CICSPlex SM selects the AOR that has the shortest queue of transactions (normalized to MAXTASKs) waiting to be processed; is the least affected by conditions such as short-on-storage, SYSDUMP, and TRANDUMP; and is the least likely to cause the transaction to abend. Contrast with *goal algorithm*.

Queue Manager.   A component of CICSPlex SM that creates and manages queues of data in a cache that is shared by a CMAS and its local MASs.

R

RACF.   Resource Access Control Facility.

real-time analysis (RTA).   A component of CICSPlex SM that is responsible for monitoring the status of a CICS system or resource against its desired status, and issuing one or more external notifications when deviations occur.

record pointer.   An internal indicator of the next resource table record to be processed in a result set.

related scope.   A CICS system where resources defined to CICSPlex SM as remote should be assigned and, optionally, installed as local resources. See also *target scope*.

remote MAS.   A managed application system (MAS) that uses MRO or LU 6.2 to communicate with the CICSPlex SM address space (CMAS) that controls it. A remote MAS may or may not reside in the same MVS image as the CMAS that controls it.

requesting region.   The region in which a dynamic routing request originates. For dynamic transaction routing and inbound client dynamic program link requests, this is typically a TOR; for dynamic START requests and peer-to-peer dynamic program link requests, this is typically an AOR.

resource.   Any physical or logical item in a CICS system, such as a transient data queue, a buffer pool, a file, a program, or a transaction.

Resource Access Control Facility (RACF).   An IBM licensed program that provides for access control by identifying and verifying the users to the system, authorizing access to protected resources, logging any detected unauthorized attempts to enter the system, and logging the detected accesses to protected resources.

resource assignment.   A user-defined statement that selects resource definitions to be assigned to CICS systems and, optionally, specifies resource attributes to override those definitions. A resource assignment applies to a single resource type and must be associated with a resource description. See also *resource definition, resource description*.

resource attribute.   A characteristic of a CICS resource, such as the size of a buffer pool.

resource definition.   In CICSPlex SM, a user-defined statement of the physical and operational characteristics of a CICS resource. Resource definitions can be associated with resource descriptions as part of a resource group. See also *resource description, resource group*.

resource description. A user-defined set of CICSPlex SM resource definitions that can be automatically installed in CICS systems and named as a logical scope for CICSPlex SM requests. Resource descriptions represent the largest set of CICS resources that can be managed by CICSPlex SM as a single entity. A resource description can be associated with one or more resource assignments. See also *logical scope, resource assignment, resource definition*.

resource group. A user-defined set of CICSPlex SM resource definitions. A resource group can be associated with resource descriptions either directly or by means of resource assignments. See also *resource assignment, resource definition, resource description*.

Resource Object Data Manager (RODM). A component of the NetView program that operates as a cache manager and that supports automation applications. RODM provides an in-memory cache for maintaining real-time data in an address space that is accessible by multiple applications.

resource table. The external representation of a CICSPlex SM managed object. A resource table defines all the attributes, or characteristics, of a managed object.

resource table attribute. A characteristic of a CICSPlex SM managed object, as represented by a field in a resource table.

resource type. A group of related resources, such as files.

result set. A logical group of resource table records that can be accessed, reviewed, and manipulated by an API program.

retention period. For a monitored CICS system, the period of time for which monitor data is retained after the system becomes inactive. If a system is being monitored, becomes inactive, and remains inactive beyond the specified retention period, the monitor data is discarded. If the system becomes active before the retention period expires, the monitor data gathered before the system became inactive is retained, and monitoring continues.

RODM. Resource Object Data Manager.

routing region. The region in which the decision is made as to which is the most suitable target region for a dynamic routing request. For dynamic transaction routing, dynamic START requests, and inbound client dynamic program link requests, this is typcially a TOR; for dynamic peer-to-peer program link requests, this is typically an AOR.

RTA. real-time analysis.

run-time Interface. A CICSPlex SM API interface that accepts commands in the form of text strings and generates the appropriate API calls. The run-time interface supports programs written as REXX EXECs.

S

SAM. System availability monitoring.

sample interval. The duration, in seconds, between occurrences of data collection for a specific resource type. See also *monitor interval, period definition, resource type*.

scope. A named part of the CICSPlex SM environment that qualifies the context of a CICSPlex SM request. The scope can be the CICSplex itself, a CICS system, a CICS system group, or any set of CICS resources that are defined as a logical scope in a CICSPlex SM resource description. For configuration tasks, where the context is a CICSPlex SM address space (CMAS), the scope is ignored. When you are applying security, scope must be a single CICS system or CICSplex. It cannot be a CICS system group or any combination of individual CICSplexes or CICS systems. See also *context, logical scope*.

screen configuration. A user-defined, named layout of windows and the context, scope, view, and sort order associated with each. The initial configuration to be displayed when CICSPlex SM is accessed can be identified on the user profile.

screen repository. In CICSPlex SM, a data set that stores screen configuration definitions created by the SAVESCR display command. See also *screen configuration*.

selection list. In CICSPlex SM, a data set that stores cross-system communication definitions that allow one coordinating address space (CAS) to communicate with other CASs.

selection list. A list of named items, such as views or screen configurations, from which one can be selected.

server program. In dynamic routing, the application program specified on the link request, and which is executed in the *target region*.

service point. One of the combinations of products and contexts that is known to the coordinating address space (CAS) to which you are connected. See also *context*.

session control parameters. A CICSPlex SM user profile option that sets the coordinating address space (CAS) subsystem ID used for accessing CICSPlex SM views and controls the extended diagnostic mode (XDM).

short message area. In the control area of an information display panel, that part of the title line that displays short messages.

single point of control. The ability to access and manage all CICS systems and their resources in a CICSplex from a single terminal or user session.

single system image. The collection and presentation of data about multiple CICS systems as though they were a single CICS system. In CICSPlex SM, the single-system image is provided by the CICSPlex SM address space (CMAS).

specification. See *analysis specification, monitor specification, workload specification*.

Starter Set. A part of CICSPlex SM comprising sample CICSPlex SM definitions and sample JCL. The Starter Set samples may be used as supplied for educational purposes. They may also be copied and adapted for the customer environment.

static routing. Non-dynamic routing. The routing request is routed to a predetermined system. Static transaction routing occurs when NO is specified is the Dynamic field in either the transaction definition or the progam definition. In both cases, the request is routed to the system named in the Remote Sysid field.

status definition. In real-time analysis, a definition of a user-written program to be invoked at specified intervals to evaluate the status of a non-CICS resource.

summarized result set. A special type of result set that is produced by grouping, or summarizing, the resource table records in a result set. See also *result set*.

summary expression. A character string that consists of one or more summary options and the resource table attributes to which they apply. See also *summary option*.

summary option. A value that indicates how the attribute values in a resource table are to be summarized.

sysplex. A set of MVS systems communicating and cooperating with each other through specific multisystem hardware components and software services to process customer workloads.

system availability monitoring (SAM). In real-time analysis, the monitoring of CICS systems to determine whether: they are active during their defined hours of operation; they are experiencing a short-on-storage, SYSDUMP, TRANDUMP, MAXTASK, or STALL condition. If a CICS system becomes inactive or one of the specified conditions occurs, an external notification is issued.

system image. The representation of a program and its related data as it exists in main storage.

T

target region. The region selected from a set of target regions as the most suitable region in which to execute the work request. For all dynamic routing requests, this is typically an AOR.

target scope. A CICS system or CICS system group where resources defined to CICSPlex SM should be assigned and, optionally, installed. See also *related scope*.

temporary maintenance point. A CICSPlex SM address space (CMAS) that serves as the maintenance point when the identified maintenance point is unavailable. See also *maintenance point*.

terminal-owning region. In a CICSplex configuration, a CICS region devoted to managing the terminal network. For dynamic routing, the terms *requesting region* and *routing region* are used instead of TOR to signify the role of the region in the dynamic routing request.

thread. See *processing thread*.

time-period definition. A user-defined range of hours and minutes, and the time zone to which that range applies. A time-period definition is used to indicate when an action, such as resource monitoring, is to occur.

token. See *CICSPlex SM token, user token*.

topology. An inventory of CICS and CICSPlex SM resources, and a map of their relationships. CICSPlex SM supports the definition of resource and system topology.

topology definition. A named subset of CICS and CICSPlex SM resources. Topology definitions are user-created and can include CICSplexes, CICS systems, and CICS system groups.

Topology Services. A component of CICSPlex SM that is responsible for maintaining topology information about CICSplexes and resources, and making it available to other CICSPlex SM components.

TOR. Terminal-owning region.

Trace Services. A component of CICSPlex SM that provides other CICSPlex SM components with the ability to write trace records to the CICS trace table and trace data sets. Trace Services also writes trace

records created by a MAS to the trace table and data set of the managing CMAS.

transaction group.   A user-defined, named set of transactions that determines the scope of workload balancing and the affinity relationships between transactions.

U

user token.   Unique, 1- to 4-byte values that an API user can assign to asynchronous requests. User token values are not used by CICSPlex SM; they are simply held until the request is complete and then returned to the user.

V

view.   In the CICSPlex SM API, a temporary, customized form of a resource table. A view can consist of some or all of the resource table attributes in any order. In the CICSPlex SM ISPF end-user interface, a formatted display of selected data about CICS resources or CICSPlex SM definitions. The data in a view is obtained from a query and can be presented in one or more forms. The data can be limited to a subset of CICSplex resources or definitions by establishing a context and scope.

view command.   A CICSPlex SM command that displays a view in a window of the display area. The name of the view displayed matches the name of the view command. See also *view*.

W

window.   In CICSPlex SM, a subdivision of the display area. The results of any CICSPlex SM view or display command are directed to a single window, which is the current window by default. Contrast with *view*. See also *current window*, *alternate window*.

window identifier.   On a window information line, the field that identifies the window. A window identifier consists of a one-character status code and a number in the range 1 through 20.

window information line.   The top line of each window in the display area. It includes the window identifier, the name of the view displayed in the window, the context and scope in effect, the date and time when the view was last refreshed, and the product name.

window number.   A number assigned by CICSPlex SM to a window when it is opened. The window number is the second part of the window identifier on the window information line.

window status code.   A one-character code that indicates whether a window is ready to receive commands, is busy processing commands, is not to be updated, or contains no data. It also indicates when an error has occurred in a window. The window status code is the first character of the window identifier on the window information line.

WLM.   Workload Manager.

workload.   The total number of transactions that a given CICSplex is intended to process in a specific period. For example, a workload could be expressed as a number of transactions per hour, or per day. In CICSPlex SM, a named set of transactions and CICS systems, acting as requesting regions, routing regions, and target regions that form a single, dynamic entity.

workload balancing.   The technique of balancing a workload across multiple target regions that are capable of processing the work.

workload definition.   A user-defined statement of the transaction groups associated with a CICS system that is an AOR. A workload definition can either be linked to a workload specification as part of a workload group or be installed directly into an active workload. See also *workload group, workload specification*.

workload group.   A user-defined set of CICSPlex SM workload definitions that can either be linked to a workload specification for automatic installation or be installed directly into an active workload. See also *workload definition, workload specification*.

Workload Manager (WLM).   A component of CICSPlex SM that is responsible for managing the transaction workload in a CICSplex through the use of dynamic transaction routing.

workload separation.   The technique of separating a workload into discrete parts, and allocating specific transactions to specific AORs.

workload specification.   A user-defined statement that identifies a workload and a set of CICS systems acting as AORs. A workload specification also provides default management criteria for transactions that are not defined to CICSPlex SM. It is associated with a CICS system that is a TOR and is automatically installed each time the CICS system starts up. See also *workload definition, workload group*.

X

XCF.   Cross-system coupling facility of MVS/ESA.

XDM.   Extended diagnostic mode

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