

CICS® Transaction Server for OS/390®



CICSplex® SM User Interface Guide

Release 3

CICS® Transaction Server for OS/390®



CICSplex® SM User Interface Guide

Release 3

Note!

Before using this information and the product it supports, be sure to read the general information under "Notices" on page v.

Third Edition, March 1999

This edition applies to Release 3 of CICS Transaction Server for OS/390, program number 5655-147, and to all subsequent versions, releases, and modifications until otherwise indicated in new editions. Information in this edition was previously contained in SC33-0788-01, which is now obsolete. Make sure you are using the correct edition for the level of the product. The technical changes for this edition are summarized under "Summary of Changes," and are indicated by a vertical bar to the left of a change.

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Preface

This book documents the general principles of the Interactive System Productivity Facility (ISPF) user interface to the CICSplex® System Manager (CICSplex SM) element of CICS® Transaction Server for OS/390®. It describes:

- How to start and end a CICSplex SM session
- How to use CICSplex SM panels, windows, and views
- The CICSplex SM display commands
- The CICSplex SM help facility
- How to tailor your CICSplex SM profile

Who this book is for

This book is for anyone who uses the CICSplex SM user interface, whether to establish the CICSplex SM operating environment or to use CICSplex SM as a system-management tool.

What you need to know

This book assumes that you are already an ISPF user and have an ISPF profile. It also assumes a general understanding of the purpose and functions of CICSplex SM. If you need more introductory information, see the *CICSplex System Manager Concepts and Planning* book. The glossary of this book (*CICSplex SM User Interface Guide*) includes definitions of key terms.

Notes on terminology

In the text of this book, the term **CICSplex SM** (spelled with an uppercase letter *P*) means the CICSplex SM element of CICS TS 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.

CICS system connectivity

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

Bibliography

CICS Transaction Server for OS/390

<i>CICS Transaction Server for OS/390: Planning for Installation</i>	GC33-1789
<i>CICS Transaction Server for OS/390 Release Guide</i>	GC34-5352
<i>CICS Transaction Server for OS/390 Migration Guide</i>	GC34-5353
<i>CICS Transaction Server for OS/390 Installation Guide</i>	GC33-1681
<i>CICS Transaction Server for OS/390 Program Directory</i>	GI10-2506
<i>CICS Transaction Server for OS/390 Licensed Program Specification</i>	GC33-1707

CICS books for CICS Transaction Server for OS/390

General	
<i>CICS Master Index</i>	SC33-1704
<i>CICS User's Handbook</i>	SX33-6104
<i>CICS Transaction Server for OS/390 Glossary (softcopy only)</i>	GC33-1705
Administration	
<i>CICS System Definition Guide</i>	SC33-1682
<i>CICS Customization Guide</i>	SC33-1683
<i>CICS Resource Definition Guide</i>	SC33-1684
<i>CICS Operations and Utilities Guide</i>	SC33-1685
<i>CICS Supplied Transactions</i>	SC33-1686
Programming	
<i>CICS Application Programming Guide</i>	SC33-1687
<i>CICS Application Programming Reference</i>	SC33-1688
<i>CICS System Programming Reference</i>	SC33-1689
<i>CICS Front End Programming Interface User's Guide</i>	SC33-1692
<i>CICS C++ OO Class Libraries</i>	SC34-5455
<i>CICS Distributed Transaction Programming Guide</i>	SC33-1691
<i>CICS Business Transaction Services</i>	SC34-5268
Diagnosis	
<i>CICS Problem Determination Guide</i>	GC33-1693
<i>CICS Messages and Codes</i>	GC33-1694
<i>CICS Diagnosis Reference</i>	LY33-6088
<i>CICS Data Areas</i>	LY33-6089
<i>CICS Trace Entries</i>	SC34-5446
<i>CICS Supplementary Data Areas</i>	LY33-6090
Communication	
<i>CICS Intercommunication Guide</i>	SC33-1695
<i>CICS Family: Interproduct Communication</i>	SC33-0824
<i>CICS Family: Communicating from CICS on System/390</i>	SC33-1697
<i>CICS External Interfaces Guide</i>	SC33-1944
<i>CICS Internet Guide</i>	SC34-5445
Special topics	
<i>CICS Recovery and Restart Guide</i>	SC33-1698
<i>CICS Performance Guide</i>	SC33-1699
<i>CICS IMS Database Control Guide</i>	SC33-1700
<i>CICS RACF Security Guide</i>	SC33-1701
<i>CICS Shared Data Tables Guide</i>	SC33-1702
<i>CICS Transaction Affinities Utility Guide</i>	SC33-1777
<i>CICS DB2 Guide</i>	SC33-1939

CICSplex SM books for CICS Transaction Server for OS/390

General

<i>CICSplex SM Master Index</i>	SC33-1812
<i>CICSplex SM Concepts and Planning</i>	GC33-0786
<i>CICSplex SM User Interface Guide</i>	SC33-0788
<i>CICSplex SM View Commands Reference Summary</i>	SX33-6099

Administration and Management

<i>CICSplex SM Administration</i>	SC34-5401
<i>CICSplex SM Operations Views Reference</i>	SC33-0789
<i>CICSplex SM Monitor Views Reference</i>	SC34-5402
<i>CICSplex SM Managing Workloads</i>	SC33-1807
<i>CICSplex SM Managing Resource Usage</i>	SC33-1808
<i>CICSplex SM Managing Business Applications</i>	SC33-1809

Programming

<i>CICSplex SM Application Programming Guide</i>	SC34-5457
<i>CICSplex SM Application Programming Reference</i>	SC34-5458

Diagnosis

<i>CICSplex SM Resource Tables Reference</i>	SC33-1220
<i>CICSplex SM Messages and Codes</i>	GC33-0790
<i>CICSplex SM Problem Determination</i>	GC33-0791

Other CICS books

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

Summary of Changes

This book is based on the CICSplex SM Release 3 edition of the *CICSplex SM User Interface Guide*, SC33-0788-01.

The information in this book has been updated to incorporate changes made for CICSplex SM for CICS Transaction Server for OS/390 Release 3. Changes made since the last edition are indicated by vertical bars to the left of the change.

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

The following additions and changes have been made to this book to incorporate product changes for CICSplex SM for CICS Transaction Server for OS/390 Release 3.

Throughout the book, screen diagrams have been changed to reflect the latest version of CICSplex SM.

summary of changes

Chapter 1. The CICSplex SM session

This chapter describes how to start and end a CICSplex SM session, and introduces the three types of function you can access from the CICSplex System Manager entry panel. This chapter (and indeed, this book) assumes that you have some knowledge of CICSplex SM. However, for reference purposes, this chapter begins with a brief reminder of CICSplex SM's purpose and major components. For a more detailed introduction, see *CICSplex System Manager Concepts and Planning*.

A brief introduction to CICSplex SM

CICSplex SM is a CICS system-management tool. That is, it provides CICS operators and CICS system administrators with:

- A *single-system image* of the enterprise CICS systems
- A *single point of control* from which CICS systems and their resources can be managed

The major functions of CICSplex SM are:

- The operations functions, which can provide CICS master-terminal (CEMT) and other, related functions to all CICS systems
- The monitoring functions, which collect data about the performance of selected CICS resources at user-defined intervals
- Business Application Services (BAS), which enables CICSplex SM to manage CICS resources in terms of the business application to which they belong, rather than their physical location in the CICSplex
- The workload management functions, which balance the CICS workload dynamically across specified CICS systems
- The real-time analysis functions, which compare the status of selected resources with user-specified norms for those resources, and report exceptions

The components of CICSplex SM

Terms that occur in every discussion of CICSplex SM include:

- CAS** The CAS (coordinating address space), of which there is usually one in each MVS image on which CICSplex SM is installed, is an MVS subsystem that supports the user interface to CICSplex SM. When there are multiple CASs in an enterprise, they are usually connected to each other, either directly or indirectly. When you sign on to CICSplex SM, you are automatically connected to a CAS, which in turn connects to a CMAS.
- CMAS** The CMAS (CICSplex SM address space) is the main component of any CICSplex SM environment. It supports all of the functions of CICSplex SM, and maintains a data repository of CICSplex SM data. There is usually one CMAS on each MVS image on which CICSplex SM is installed. When there are multiple CMASs in an enterprise, they are usually connected to each other, either directly or indirectly. A CMAS manages one or more MASs.
- MAS** The MAS (managed application system) is a CICS system on the same MVS image as the CMAS by which it is managed.

Remote MAS (remote MAS)

The remote MAS (remote managed application system) is a CICS system that is connected to the CMAS by which it is managed via CICS MRO (multiregion operation) or ISC (intersystem communication). A remote MAS is typically on a different MVS image or a different CICS platform from its CMAS.

CICSplex

A CICSplex is a collection of CICS systems that is managed as a single entity by CICSplex SM. A CICSplex can include every CICS system in the enterprise. Alternatively, an enterprise can define multiple, mutually exclusive CICSplexes.

CICS system group

A CICS system group is a subset of the CICS systems in a CICSplex. A CICSplex can include any number of CICS system groups, and a CICS system can belong to multiple CICS system groups in a single CICSplex.

Context and scope

The context and scope together identify the resources to be affected by commands you issue while using CICSplex SM. For example, the context of a session could be a particular CICSplex, and the scope, which is a subset of the context, could be three CICS systems belonging to the CICSplex. Context and scope are described in more detail in “Starting and ending a CICSplex SM session” on page 3.

The CICSplex SM Starter Set

CICSplex SM includes a *Starter Set* of CICSplex SM definitions and other resources. One of the purposes of the Starter Set is to provide new CICSplex SM users with an opportunity to use the CICSplex SM user interface. If the Starter Set has been installed in your enterprise, you might want to use it to test some of the functions and commands described in this book, and in other books in the CICSplex SM library.

Figure 1 on page 3 shows the main components of a CICSplex SM environment and illustrates how they relate to each other. (As an aside, the structure shown in Figure 1 on page 3 is that of the Starter Set.)

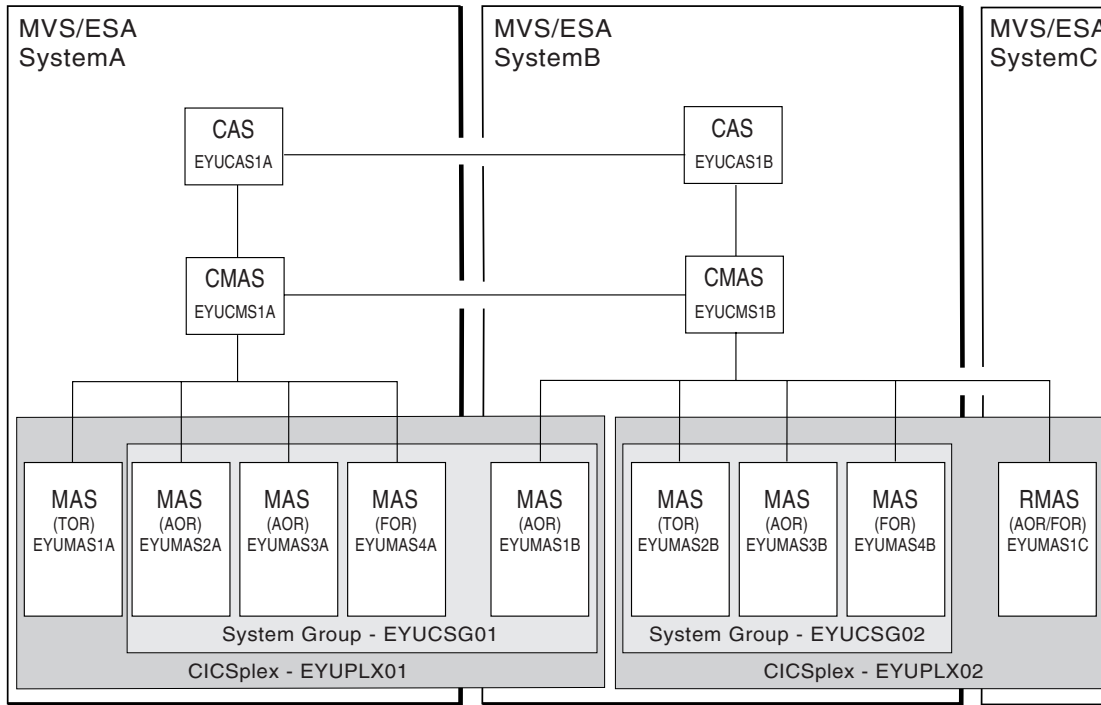


Figure 1. The components of a CICSplex SM environment

Starting and ending a CICSplex SM session

The way in which you start a CICSplex SM session is locally defined. Typically, when CICSplex SM is first installed, the ISPF primary option menu is updated to include a CICSplex SM option. In this case, you begin the session by selecting the CICSplex SM option. If CICSplex SM is not included on this menu, ask your system administrator how to invoke CICSplex SM. When you start the session, the CICSplex System Manager entry panel is displayed. The CICSplex System Manager entry panel is shown in Figure 2 on page 4.

```
----- CICSPlex System Manager -----
OPTION ==>

0 PROFILE      - User Session Parameters
1 PLEXMGR      - List of Service Points
2 CPSM         - CICSPlex SM

      Default Criteria for CPSM:

Context          ==> EYUCMS1A
Scope           ==> EYUCMS1A
Warning Record Count ==> 0           0 for no checking
Require Set      ==> YES           YES, NO

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```

Figure 2. The CICSPlex System Manager entry panel

The CICSPlex System Manager entry panel presents you with three top-level options:

- PROFILE (User Session Parameters); see page 5
- PLEXMGR (List of Service Points); see page 5
- CPSM (CICSPlex SM); see page 6

These three options represent the three main categories of function provided by CICSPlex SM.

To end a CICSPlex SM session, you must first return to the CICSPlex System Manager entry panel. You can do this by issuing the command:

Quit

(Alternatively, you can use the ISPF command RETURN.)

From the CICSPlex System Manager entry panel, you can return to the the ISPF primary option menu to perform other tasks. Note, however, that if you selected option 1 (PLEXMGR) or option 2 (CPSM) during the CICSPlex SM session, a connection was established between the session and a CAS. As long as you remain in ISPF, the CICSPlex SM session is still connected to the CAS. You can return to the CICSPlex System Manager entry panel at any time without waiting to reconnect.

To disconnect the CICSPlex SM session from the CAS it is communicating with, you must exit from ISPF to the TSO READY prompt. Then, the next time you start a CICSPlex SM session, a new CAS connection is established.

The Profile option

You select the PROFILE option if you want to tailor the supplied CICSplex SM user profile. The first time you access CICSplex SM, a default user profile is created for you automatically. The user profile controls many aspects of a CICSplex SM session, such as the format of the date, the appearance of particular types of data, and the commands assigned to PF keys. It also identifies the CAS to which you connect when you start a CICSplex SM session: as the default user profile contains a default CAS identifier, you *must* tailor the default user profile in order to supply the correct CAS identifier. For more information, see “Appendix A. Tailoring your CICSplex SM profile” on page 65.

The PlexManager option

The PlexManager functions of CICSplex SM allow you to manage CASs and their connections to other CICSplex SM entities. In particular, PlexManager is used to determine the status of:

- Connections between the CAS to which you are connected and other, adjacent CASs
- Connections from the CAS to the CMASs and the CICSplexes it manages

This is not a function that will be required frequently or by most users, and so a brief description only is included in this book. For a detailed description of the PlexManager functions, see *CICSplex System Manager Administration*.

The PLEXOVER view, which is displayed when you select option 1 from the CICSplex System Manager entry panel is shown in Figure 3. This view identifies the CASs, CMASs, and CICSplexes known to the CAS that is the context of this PlexManager session.

```
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 3. The PLEXOVER view

You can use the PLEXOVER view to change the context that is to be in effect during your CICSplex SM session. The new context must be listed in the context column of the PLEXOVER view, and its status value must be Active. To change the context:

- Type an S (for Select) at the beginning of the row containing the appropriate context and product name, or
- Position the cursor in the product field of the row identifying the appropriate context and press Enter

If you select a CMAS or CICSplex as the new context, the CICSplex SM MENU menu (which is shown in Figure 4 on page 8) is displayed and the context is set to the designated CMAS or CICSplex. If you select a different CAS as the new context, the list of PlexManager views (the VIEWS view) is displayed.

The CICSplex SM option

Before you select option 2 (CPSM), from the CICSplex System Manager entry panel, ensure that you have correctly specified values for the Default Criteria for CPSM fields.

Default criteria for option 2 (CPSM)

The values shown for the Default Criteria (for CPSM) displayed on the CICSplex System Manager entry panel are the default values for the session. You can change these values by overtyping them on the menu. You can also change the context and scope once the session is in progress; ways of making these changes are described in “Chapter 3. The CICSplex SM display commands” on page 37.

Context and scope

When you select option 0 (PROFILE) or option 1 (PLEXMGR), you can ignore any context and scope values because they have no effect.

Note: To specify the context for option 1, you must first select option 0 and identify the CAS. (For more information about option 0, see “Appendix A. Tailoring your CICSplex SM profile” on page 65.)

When you select option 2 (CPSM) specify in the context and scope fields the CICS and CICSplex SM resources that are to be affected by any commands you issue during the CICSplex SM session. Context may be either a CICSplex or a CMAS. If you intend to update the CICSplex SM configuration (using the ADMCONFIG or CONFIG view commands, which are introduced in “The CICSplex SM option”), the context must be a CMAS and any scope value is ignored. For all other CICSplex SM functions, the context is the name of a CICSplex and the scope field contains the name of a single CICS system, a CICS system group, or the CICSplex itself.

Warning Record Count

The value in the Warning Record Count field indicates, for instances when you request general or summary views, the maximum number of requested records that can be displayed without a warning message. For example, if you enter **12** in this field, you are warned when more than 12 records may result from a request. When a larger number of records is available, a message informs you of the number of records that can be displayed.

Note: The number shown in the message is the largest number of requested records known to CICSplex SM at the time you issue your request. However, if the CICSplex SM environment changes (for example, if another CMAS connects to the CICSplex) after your request is received, but before the records are displayed, the number of records displayed may be either greater or fewer than the number shown in the message.

When the warning is displayed, you can continue processing your request and display the records or you can choose not to have any records displayed. This allows you to cancel a request that may involve a larger number of records than you anticipated, thus saving the time required to gather and display the information.

If you do not wish to set a threshold, enter **0** (the default) in the Warning Record Count field; all requested records are displayed for each request.

Note: For MONITOR views, the number of records in the warning message is the number of resources being monitored by CICSplex SM. However, if resource monitoring recently has become active and one full sample interval has not yet elapsed, there will be no data to display for those resources.

Views for which no warning is issued: The record count warning is issued only for resources for which CICSplex SM keeps topology records. Thus, you will *not* receive a warning when you issue a command to display any of the following views:

CICS regions dynamic storage areas

CICSDSA, CICSDSAS, CICSRGN, CICSRGNS, MCICSDSA, MCICSDSS, MCICSRGN, MCICSRGS

Transaction classes

TRNCLS, TRNCLSS, MTRNCLS, MTRNCLSS

Coupling facility data tables

CFDTPOOL, CFDTPOOS

DB2 and DBCTL

DBCTLSS, DBCTLSSS, DB2CONN, DB2SS, DB2SSS, DB2THRD, DB2THRDS, DB2TRAN, DB2TRANS, MDB2THRD, MDB2THRS

FEPI property sets

FEPROP, FEPROPS

Local shared resource (LSR) pools

LSRPBUF, LSRPBUS, LSRPOOL, LSRPOOS, MLSRPBUF, MLSRPBUS, MLSRPOOL, MLSRPOOS

Timed requests

REQID, REQIDS

Intrapartition transient data queue usage

TDQGBL, TDQGBLS, MTGQGBL, MTDQGBLS

Temporary storage queues

TSQ, TSQGBL, TSQGBLS, TSQNAME, TSQNAMEs, TSQS, TSQSHR, TSQSHRS, MTSQGBL, MTSQGBLS

DFHRPL data sets

RPLLIST, RPLLISTS

Tasks TASK, TASKS

Analysis definitions

APACTV, EVENT, EVENTDTL, RTAACTV

Configuration definitions

CICSplex, CMAS, CMASplex, CMTcmlnk, CMTpmlnk

Monitor definitions

MONACTV

Topology definitions

MAS

Workload definitions

WLMATAFF, WLMATGRP, WLMATRAN, WLMAWAOR, WLMAWDEF,
WLMAWORD, WLMAWORK, WLMAWTOR

Require Set

The value in the Require Set field indicates whether or not you must type the SET line action command when you enter new data in an oertype field. If you specify YES (the default) in the Require Set field, then when you oertype the contents of a field on a view you must type SET in the line command field, then press Enter to effect the change. If you specify NO in the Require Set field, you do not need to type SET in the line command field after you oertype a value and before you press Enter to effect the change.

At any point during your CICSPlex SM session, you can return to the CICSPlex System Manager entry panel, whether to end the session or to select a different menu option, by issuing either the CICSPlex SM command Quit or the ISPF command RETURN.

The CICSPlex SM MENU menu

When you select option 2 (CPSM) from the CICSPlex System Manager entry panel the MENU menu, which is shown in Figure 4, is displayed.

```
26MAR1999 18:49:03 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==18:49:03=CPSM=====14===
CMD Name          Description
-----
ANALYSIS   Real Time Analysis Operations Views
CONFIG     CMAS Configuration Operations Views
MONITOR    Monitoring Views
OPERATE    Operations Views
TOPOLOGY   Topology Operations Views
WORKLOAD   Workload Operations Views
=====
ADMSAM     RTA System Availability Monitoring Administration Views
ADMRRM     RTA MAS Resource Monitoring Administration Views
ADMAMP     RTA Analysis Point Monitoring Administration Views
ADMCONFG   CMAS Configuration Administration Views
ADMMON     Monitor Administration Views
ADMTOPOL   Topology Administration Views
ADMWLM     Workload Manager Administration Views
ADMBAS     Business Application Services Administration Views
ADMRES     Business Application Services Resource Views
```

Figure 4. The CICSPlex SM MENU menu

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 and display the CICSPlex SM MENU menu.

The items on the MENU menu identify the major functional areas of CICSPlex SM, which are:

Real-time analysis

The real-time analysis functions provide external notification of “interesting” conditions in CICS regions: you define what you consider to be of interest using the ADMAPM, ADMMRM, and ADMSAM views, and use the ANALYSIS views to view some of the external notifications arising from real-time analysis activity. All real-time analysis views are described in *CICSplex System Manager Managing Resource Usage*.

Configuration

The ADMCONFIG views support the configuration of CMASs. In particular, you use the ADMCONFIG views to both define and maintain links between adjacent CMASs, links from CMASs to remote MASs, and CICSplex definitions. You use the CONFIG views to view information about the current configuration. All configuration views are described in *CICSplex System Manager Administration*.

Monitoring

The monitoring functions support the collection of performance-related data, at user-defined intervals, for named resource instances within a CICSplex. You use the ADMMON views to define and maintain your monitoring requirements. You use the MONITOR views to display the resultant data. All monitoring views are described in *CICSplex System Manager Monitor Views Reference*.

Operations

The OPERATE views enable you to display and update information about the status of all CICS regions and CICS resources in a CICSplex. There are no administration tasks (and therefore no administration views) associated with the operations functions of CICSplex SM. All operations views are described in *CICSplex System Manager Operations Views Reference*.

Topology

You use the ADMTOPOL views to create and maintain CICS system definitions, CICS system group definitions, and time period definitions. You use the TOPOLOGY views to obtain information about those definitions, and to make temporary changes to them. All topology views are described in *CICSplex System Manager Administration*.

Workload management

The workload management functions of CICSplex SM support dynamic routing. You use the ADMWLM views to define your workload management requirements to CICSplex SM, and the WORKLOAD views to obtain information about active workloads. All workload management views are described in *CICSplex System Manager Managing Workloads*.

To make a selection from the MENU menu, do one of the following:

- Type an S (for Select) to the left of a view name and press Enter.
- Position the cursor on the name of the view or its description and press Enter. (This is known as a *hyperlink*. Hyperlinks are described in “Initiating a hyperlink to another view” on page 28.)
- Type its name in the COMMAND field and press Enter.

The resulting menu lists all views or classes of views belonging to the selected functional area. For example, when you select the OPERATE view, a list of all OPERATE menus is displayed, as shown in Figure 5 on page 10.

```

26MAR1999 19:34:08 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==19:34:08=CPSM=====15===
CMD Name          Description
-----
OPERATE           Operations Views
CICSBTS           CICS BTS Views
CONNECT           Connection Views
DOCTEMP           Document Template Views
DB2               DB2 and DBCTL Views
ENQUEUE           Global Enqueue Views
EXIT              Exit Views
FEPI              FEPI Views
FILE              File Views
JOURNAL           Journal Views
PROGRAM           Program Views
REGION            CICS Region Views
TASK              Task Views
TCPIPS            TCP/IP Service Views
TDQ               Transient Data Queue Views
TEMPSTOR          Temporary Storage Queue Views
TERMINAL          Terminal Views
TRANS             Transaction Views
UOW               Unit of Work Views

```

Figure 5. The OPERATE menu

You can return to the MENU menu at any time during the CICSplex SM session by issuing the MENU command.

Chapter 2. Panels, windows, and views

This chapter describes how to use CICSPlex SM under ISPF. It includes information about:

- The types of CICSPlex SM panels that you see during a CICSPlex SM session
- How to use CICSPlex SM windows
- How to display a CICSPlex SM view and how to initiate an action against the information in that view

CICSPlex SM display handling is very similar to that of ISPF. Indeed, you will find references throughout this book to individual ISPF commands that are most useful in a CICSPlex SM session.

Panels

During a CICSPlex SM session, you will see up to four different types of panel. These are:

- Menu panels
- Input panels
- Help pop-up panels
- Information display panel

Menu panels

A menu panel contains a list of options, from which you select one by entering the appropriate number or letter in the OPTION field and pressing Enter. A menu panel, of which the CICSPlex System Manager entry panel (shown in Figure 6) is an example, occupies the entire screen.

```
----- CICSPlex System Manager -----
OPTION ==>

0 PROFILE      - User Session Parameters
1 PLEXMGR      - List of Service Points
2 CPSM         - CICSPlex SM

      Default Criteria for CPSM:

Context          ==> EYUCMS1A
Scope            ==> EYUCMS1A
Warning Record Count ==> 0          0 for no checking
Require Set      ==> YES          YES, NO

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      Restricted Rights - Use, Duplication or Disclosure
      restricted by GSA ADP Schedule Contract with IBM Corp.
```

Figure 6. Menu panel example

Input panels

Some of the CICSplex SM commands require you to supply additional information before they can be processed. CICSplex SM requests this information by presenting you with an input panel, of which an example is shown in Figure 7.

```
----- CICS TRANSACTION DUMP CREATE -----
COMMAND ===>

Specify the transaction dump code and options desired:

Scope          ===> EYUCSG01      CICS System or Group for Dump
Trans dump code ===>              4-character Transaction Dump Code
Maximum dumps  ===> 0             0 - 999
Shut option    ===>              SHUTDOWN or NOSHUTDOWN
Trans dumping  ===>              TRANDUMP or NOTRANDUMP
System dumping ===>              SYSDUMP or NOSYSDUMP

Press Enter to add transaction dump code.
Type END or CANCEL to terminate without adding.
```

Figure 7. A CICSplex SM input panel

An input panel fills the screen. When you provide the requested information and press Enter, command processing resumes and the screen contents are restored.

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 a selection list that is displayed when a generic name is entered in an input panel. Generic names can contain:

- An asterisk (*), which must be the last or the only character in the string. It represents any number of characters, including zero. For example:

ABC* All names beginning with the characters ABC

***** All names

- A plus sign (+), in any position, to represent a single character. For example:

TERM0+ All 6-character names starting with TERM0

A+BC+DE

All 7-character names with any character in the second and fifth positions, A in the first position, B in the third, C in the fourth, D in the sixth, and E in the seventh position.

An example of an input panel from which you can request a selection list of values is shown in Figure 8.

```

----- Create System - General Attributes - for EUPLX01 -----
COMMAND ==>

System Name ==>
Description ==>
Primary CMAS or Generic ==> EYUCMS01    CMAS to which CICS normally connects
Active Time or Generic ==> *           Hours of operation
APPLID ==>                             VTAM application ID
SYSIDNT ==>                             System communication ID

                                SECURITY
CICS Command Checking ==> NO          Simulated CICS Cmd Checks (YES, NO, or *)
CICS Resource Checking ==> NO         Simulated CICS Res Checks (YES, NO, or *)
Exemption Checking ==> NO            Check for Exempt Users (YES, NO, or *)

                                TIME
Time Zone ==> U                       Time Zone for System (B-Z or *)
Time Zone Offset ==> 00              Time Zone Offset for System (0-59 or *)
Daylight Savings Time ==> YES        Daylight Savings for System (YES, NO, or *)

Enter DOWN or UP to view other System screens.
Press Enter to create the System.
Type END or CANCEL to cancel without creating.

```

Figure 8. Requesting selection lists of values from input panels

As shown in Figure 9, a selection list of period definitions is displayed when the generic value '*' is entered in the Active Time field of the input panel shown in Figure 8

```

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 9. Selection list displayed when a generic name is specified

You select a value from the selection list shown in Figure 9 in one of two ways:

- You can type an S (for select) to the left of the value you want and press Enter.
- You can type the name 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 10 shows an example of the message displayed with the 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 10. Selection list displayed when a resource is not found

You can do one of the following:

- Select an entry 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 name you specified. You return to the input panel. The name of the resource you specified 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). However, you must later define the specified resource, by that name, using the appropriate view.

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

Note: CICSplex SM checks to see if the referenced resource exists only the first time it encounters the resource name, or when the name of the referenced resource itself is changed. That is, in the example above, if you are creating a CICS system definition and you reference a resource for which no definition exists, then simply accept the name of the referenced resource and complete the definition of the CICS system, CICSplex SM does not again remind you that the referenced resource does not exist. On the other hand, if you change the name of the referenced resource to the name of another undefined resource and again try to create the CICS system, CICSplex SM notifies you that the new resource is not known to the repository; you have the same options again. In either case, you must still remember to create a definition for the referenced resource.

Help pop-ups

You can request help at any time during a CICSplex SM session by issuing the HELp display command (or by pressing the PF key to which it is assigned). When you enter the HELp display command from an information display panel, the help information is displayed in a scrollable pop-up window, as shown in Figure 11 on page 15, that temporarily overwrites the contents of the panel. Those contents are restored when you exit from the help facility.

```

26MAR1999 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =PROGRAM=====EYUPLX01=EYUCSG01=26MAR1999==06:34:54=CPSM=====
CMD Program CICS Enabled Use Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status- Option Require
PROG0123 EYU -----
PROG0123 EYU Help          PROGRAM General View          Help NOTREQU
PROG0345 EYU Command ==>                               Scroll ==> Page NOTREQU
PROG0445 EYU -----
PROGA545 EYU -----
PROGA645 EYU Provides general information about currently NOTREQU
PROGA655 EYU installed programs. NOTREQU
PROGA666 EYU -----
PROGA656 EYU Availability: NOTREQU
PROGA667 EYU -----
PROGA657 EYU The PROGRAM view is available for all managed CICS NOTREQU
PROGA687 EYU systems. NOTREQU
PROGA687 EYU -----
PROGA689 EYUMAS1A ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
PROGA697 EYUMAS1B ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU

```

Figure 11. Help pop-up panel

When you issue the HELP display command from the CICSplex System Manager entry panel, from an input panel, or from the panels associated with option 0 (PROFILE), a full-screen help panel is displayed. The previous screen configuration is restored when you exit from the help facility.

For more information about the CICSplex SM help facility, see “Chapter 4. The CICSplex SM help facility” on page 59.

Information display panel

The information display panel is the panel you see for most of any CICSplex SM session, because it displays the results of CICSplex SM command processing. Figure 12 shows a typical information display panel.

```

26MAR1999 20:25:10 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =PROGRAM=====EYUPLX01=EYUPLX01=26MAR1999==20:25:05=CPSM=====652===
CMD Program CICS Enabled Use Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status Option Require
DFHACP EYUMAS1A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHACP EYUMAS2A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHACP EYUMAS3A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHACP EYUMAS4A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS1A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS2A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS3A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS4A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS1A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS2A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS3A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS4A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU

```

Figure 12. The information display panel

The information display panel consists of a *display area* and a *control area*.

The display area

The display area contains one or more *windows*:

```
W1 =PROGRAM=====EYUPLX01=EYUPLX01=02FEB1995==20:25:05=CPSM=====652===
CMD Program CICS Enabled Use Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status Option Require
DFHACP EYUMAS1A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHACP EYUMAS2A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHACP EYUMAS3A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHACP EYUMAS4A ENABLED 1 1 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS1A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS2A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS3A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAKP EYUMAS4A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS1A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS2A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS3A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHAMP EYUMAS4A ENABLED 1 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHBRCP EYUMAS1A ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHBRCP EYUMAS2A ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHBRCP EYUMAS3A ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHBRCP EYUMAS4A ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHCCNV EYUMAS1A ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
DFHCCNV EYUMAS2A ENABLED 0 0 ASSEMBLER PRIVATE NOCEDF NOTREQU
```

Figure 13. A display area containing a single window

Information returned by a CICSplex SM command is directed to one of the windows in the display area. For a detailed description of CICSplex SM windows, see “Windows” on page 17.

You can display your program function (PF) key assignments in the last two lines of the display area. Depending on the amount of data returned by a CICSplex SM command, the last two lines of data may be overlaid by your PF key assignments. To prevent this from occurring, you can use the ISPF command PFSHOW OFF to suppress display of the PF key assignments. Use the PFSHOW ON command to redisplay them.

The control area

The control area comprises the top three lines of the information display panel:

```
COMMAND ===> SCROLL ===> PAGE
CURR WIN ===> 1 ALT WIN ===>
```

Figure 14. The control area

As its name suggests, the control area controls activity in the remainder of the information display panel. The components of the control area are:

Title line

Displays the date and time of the latest update to the panel and includes the panel title, “INFORMATION DISPLAY”. ISPF short messages appear at the right end of the title line.

COMMAND field

In which you can enter CICSplex SM, ISPF, and TSO commands.

The position of the COMMAND line is user-selectable; you can place it at either the top or the bottom of the information display panel.

All of the examples in this book show the COMMAND field in the control area at the top of the information display panel. Depending on your ISPF options, you may see the COMMAND field at either the top or the bottom of the information display panel.

SCROLL field

Shows the default amount of data to be scrolled in a window when you issue a scroll command. You can replace this value with any of the parameters of the ISPF scroll commands (Up, Down, LEft, and Rlght). The parameters are described in “Scrolling data in a window” on page 50.

CURR WIN field

Identifies the *current window*, which is the window to which command results are directed.

When there are multiple windows in the display area, you can overtype the value in the CURR WIN field to make a different window the current window. For information about display commands you can use to select the current window, see “Changing the current window” on page 39.

ALT WIN field

Identifies a window that is to display the results of any hyperlink operation. The window is known as an *alternate window*. Hyperlinks are described in “Initiating a hyperlink to another view” on page 28.

Windows

A window is a subdivision of the display area of the information display panel. When you begin a CICSplex SM session, the display area of the information display panel contains one window by default. During the session, you can open up to 19 additional windows (giving a total of 20 windows) in a single display area. This means that you can see a variety of related information all at one time. How to open and use additional windows is described in “Manipulating the windowed environment” on page 38.

Windows in a single information display panel are logically independent of each other, and independent processing can occur simultaneously in those windows. You can simultaneously perform actions in more than one window by pressing Enter only once after you type commands in several windows. The results of commands entered in this manner are displayed simultaneously as soon as the command having the longest processing time is processed. Only those windows in which you typed commands contain new information; other windows are not affected.

Note: If you type no commands, but press Enter, the contents of all windows are updated.

If you issue the ISPF command SPLIT to divide the physical screen into two logical screens, or windows, you can open a different CICSplex SM session in each screen. The display area of each panel can contain up to 20 windows. ¹

1. The ISPF command SPLITV is not supported.

Figure 15 shows an information display panel that contains three windows. In this example, windows 1 and 3 contain information, while window 2 is open but contains no data.

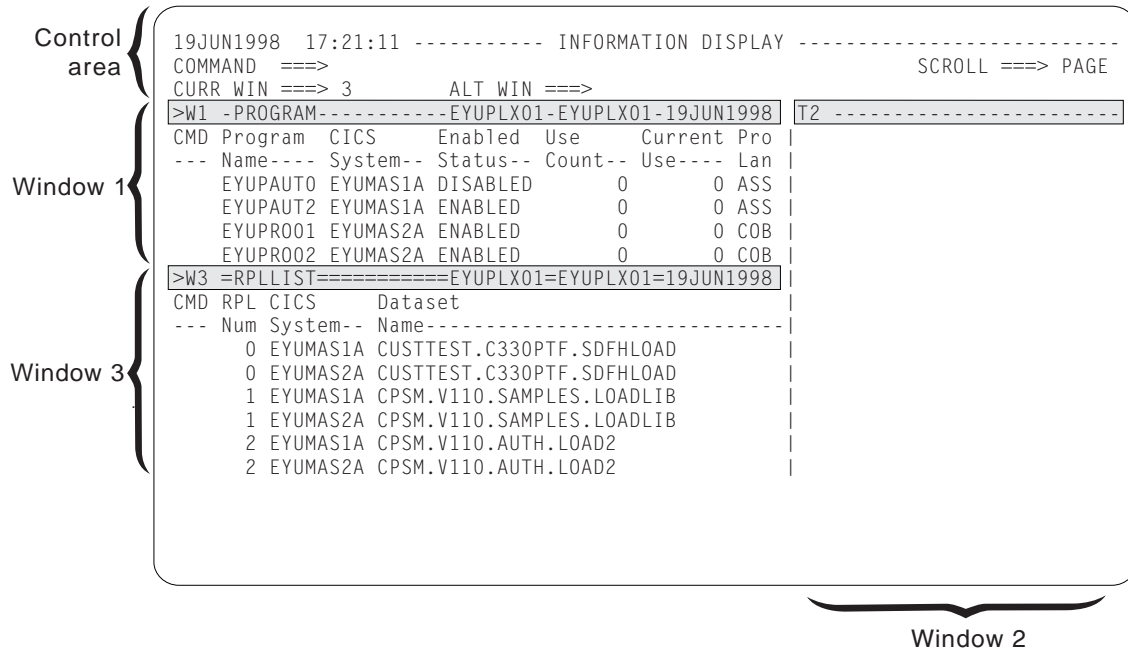


Figure 15. Multiple windows in the display area

The window information line

The top line of a CICSplex SM window is called the *window information line*. It differentiates the window from other windows in the display area, and describes the window contents. Figure 16 shows an example of the window information line:

```
>W1=PROGRAM==PROGRAMS==EYUPLX01=EYUCSG01=02FEB1994==11:30:30==CPSM=====166=
```

Figure 16. The window information line

Reading from left to right in Figure 16, the window information line includes:

- A left and right scroll indicator (>)
- A window identifier (W1)
- A view name (PROGRAM)
- A form name (PROGRAMS)
- The current context of the window (EYUPLX01)
- The current scope of the window (EYUCSG01)
- The date (02FEB1994) and time (11:30:30)
- The product name (CPSM)
- The number of records in the view (166)

The window information line of the current window contains equal signs (=). The window information lines of all other windows contain dashes (-). Each of the fields in the window information line is described in the rest of this section.

Left and right scroll indicator

At the extreme left of the window information line you might see any of the characters <, >, and +. The less than symbol (<) means that there is more data to the left; the greater than symbol (>) means that there is more data to the right; the plus sign (+) means that there is more data to both the left and the right that can be scrolled into view.

Window identifier

The window identifier is a two- or three-character code, where:

- The first character shows the current status of the window. It can be one of:
 - W (waiting), meaning that the window contains data and is available for use
 - T (temporary), meaning that the window is empty and no commands are processing
 - E (error), meaning that an error has occurred as a result of an action directed to that window
 - L (locked), meaning that the window contents cannot be updated automatically
 - P (pending), meaning that a command is currently processing

For a more detailed discussion of the window status values, see “Displaying the window status description” on page 40.

- The rest of the code shows the number assigned by CICSplex SM to the window. Window numbers range from 1 through 20 and are assigned sequentially.

View View is the name of the view resulting from the view command most recently directed to this window. Views are described in “Views” on page 20.

Form Form is the name of the form of data resulting from the most recently issued view command. The form name is displayed only when it differs from the view name. If the form name ends with the letter “S” (as in PROGRAMS), the form is a summary of the view. If the form name ends with the letter “D” (as in PROGRAMD), the form is a detail view, usually of a single occurrence of a resource. View forms are described in “Views” on page 20.

Context

The context value is the name of a CICSplex or CMAS. It identifies the set of CICSplex SM or CICS resources that can be affected by commands directed to this window.

Scope The scope value is the name of a CICS system or CICS system group that is a subset of the CICSplex identified as the context, or is the name of the CICSplex itself. This field is ignored when the context is a CMAS.

Note: This field contains an asterisk (*), meaning no scope is in effect, when this window is displayed as a result of initiating a hyperlink from PlexManager. It also contains an asterisk (*) if no scope is specified on the CICSplex System Manager entry panel. When the context is a CICSplex, you *must* specify a scope before performing any other actions.

Date This value is the date of the most recent change to the view.

Time This value is the time of the most recent change to the view.

Product

This value is the abbreviated name of the product. It can be either CPSM or PLEXMGR.

Number of records

At the extreme right of the window information line is a count of the number of records in the view. For a *detail* view, which provides information about a single resource, this value is always 1. For a *summary* view or a *general* view, which contain information about multiple resources in a tabular form, the count is the number of rows in the table. (Detail, summary, and general views are described in "Views".)

The information display panel always contains at least two sets of date and time values. The date and time in the control area of the information display panel indicate when the panel was last updated. Each window information line also contains date and time values that indicate when the contents of the window were last updated.

Clearing messages

CICSplex SM messages appear in the window, completely overlaying the displayed view. When there are more messages than will fit in the window, you can press Enter to display the next group of messages. When there are no more messages, press Enter again to clear the messages and redisplay the view.

(You can press PF8 to scroll through the messages and redisplay the view. This has the effect of also scrolling the view. When you redisplay the view, different information is visible.)

Views

A CICSplex SM view is a formatted display of data about one or more CICS resources or CICSplex SM definitions. There are three forms of most CICSplex SM views:

General view

A general view contains information about multiple CICS resources or CICSplex SM definitions within the context and scope of the window. This information is presented in tabular form (rows and columns).

Summary view

A summary view contains summarized information about multiple CICS resources within the context and scope of the window. Each column of data is summarized using rules appropriate to the type of data. This information is presented in tabular form.

Detailed view

A detailed view contains information about a single CICS resource or CICSplex SM definition within the context and scope of the window.

If your CICSplex includes systems running a release of CICS for which a view is not available, those systems are not included in that view. If you issue a view command and your CICSplex consists solely of such systems, the following message is displayed:

```
BBMXBD15I There is no data that satisfies your request.
```

The online help facility provides view availability information. Refer to “Chapter 4. The CICSPlex SM help facility” on page 59 for details.

Displaying a view

You can display a view:

- By entering the relevant view command in the COMMAND field of the information display panel control area
- By selecting the view name from a menu
- By performing a hyperlink from one view to another

Each of these ways of displaying a view is described in the remainder of this section.

Issuing a view command

A view command has the same name as the view it produces, or of the form of the view it produces. For example, the PROGRAM view command produces the PROGRAM view; the PROGRAMD command produces a detail form of the PROGRAM view. Many of the view commands have parameters that you can use to refine your request. For example, the full form of the PROGRAM view command is:

```
PROGRAM [prgrmid [ENABLED|DISABLED]]
```

Therefore, you can request a display of all enabled programs, or all disabled programs, or of a particular program, within the current context and scope. If you specify more parameters than are valid on any particular view command, a message is issued.

Note: If you issue a command that results in a display of general or summary views, thousands of records may be displayed. (For example, you might issue the LOCTRAN command to display a list of all local transactions.) The value you specified in the Warning Record Count field on the CICSPlex System Manager entry panel determines the maximum number of records that are displayed without a warning message. (For more information about the Warning Record Count field, see page “Warning Record Count” on page 6.) When the number you specify is exceeded, a warning message similar to the following example is displayed:

```
The data for the current request may result  
in more than 5000 records.
```

The number of records shown in the message is the number of records available when your request is processed. The number that is actually displayed may be different, depending on events that occur in the CICSPlex SM environment during the interval between your request and the display of records.

To display the records, press Enter. To terminate the request without displaying the records, type END or CANCEL. When you terminate the request, the name of the view for which you issued the command is shown, and the following message is displayed:

```
Request for data has been cancelled.
```

You can either reissue the original command, with parameters that reduce the number of records that will be displayed, or issue a different command.

You issue a view command by entering it in the COMMAND field of the information display panel and pressing Enter. You can also assign CICSplex SM view commands to PF keys, as described in “Appendix A. Tailoring your CICSplex SM profile” on page 65.

This book does not describe the CICSplex SM view commands. For detailed descriptions of the view commands and of their effects, see the appropriate books in the CICSplex SM library.

Selecting a view name from a menu

When you know the name of the view you want to see, you can display it simply by issuing the appropriate view command. Sometimes, however, you may not know the name of the view you want to see. When this happens, you can find the name of the view in a menu.

A menu is a list of other menu names or of view names. Figure 17 and Figure 18 on page 23 show the different levels of menus. In Figure 17:

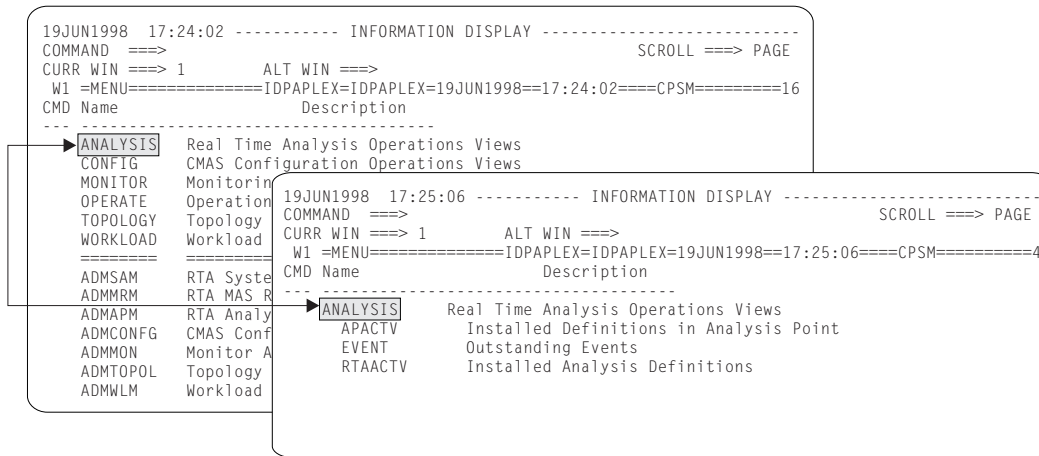


Figure 17. MENU and ANALYSIS menus

- The MENU menu, displayed when you issue the command MENU, lists classes of other menus or of views.
- The ANALYSIS menu, displayed when you enter the command MENU ANALYSIS, lists views.



Figure 18. MENU, OPERATE, and FILE menus

In Figure 18:

- The MENU menu, displayed when you issue the MENU command, lists classes of other menus or of views.
- The OPERATE menu, displayed when you issue the MENU OPERATE command, lists classes of views.
- The FILE menu, displayed when you issue the MENU OPERATE FILE command, lists views.

You can display a menu by issuing a command that specifies the menu you want to see or by selecting its name from another menu. From any menu, you can select and display another menu or a view. To make a selection from a menu, do one of the following:

- Issue the appropriate view or menu command. You can type the parameters along with the command in the COMMAND field; press Enter.
- Type an S (for select) next to the appropriate menu or view name and press Enter. When you are selecting a view, overwrite the line with any appropriate parameters before you press Enter.
- Position the cursor anywhere on the line that lists your selection and press Enter to initiate a hyperlink to the menu or view.

For example, when you issue the command MENU, the menu shown in Figure 19 appears.

```

26MAR1999 18:49:03 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==18:49:03=CPSM=====14===
CMD Name          Description
-----
ANALYSIS  Real Time Analysis Operations Views
CONFIG    CMAS Configuration Operations Views
MONITOR   Monitoring Views
OPERATE   Operations Views
TOPOLOGY  Topology Operations Views
WORKLOAD  Workload Operations Views
=====
ADMSAM    RTA System Availability Monitoring Administration Views
ADMRRM    RTA MAS Resource Monitoring Administration Views
ADMAPM    RTA Analysis Point Monitoring Administration Views
ADMCONFG  CMAS Configuration Administration Views
ADMMON    Monitor Administration Views
ADMTOPOL  Topology Administration Views
ADMWLM    Workload Manager Administration Views
ADMBAS    Business Application Services Administration Views
ADMRES    Business Application Services Resource Views

```

Figure 19. The MENU menu

You can also display the MENU menu by selecting option 2 CPSM from the CICSplex System Manager entry panel.

The MENU menu is a list of other menu names. To display the menu of ANALYSIS views, you can either select ANALYSIS from the MENU menu, or type the command MENU ANALYSIS. When you do this, the ANALYSIS menu shown in Figure 20 appears.

```

26MAR1999 16:51:23 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==16:51:23=CPSM=====4===
CMD Name          Description
-----
ANALYSIS  Real Time Analysis Operations Views
  APACTV  Installed Definitions in Analysis Point
  EVENT   Outstanding Events
  RTAACTV Installed Analysis Definitions

```

Figure 20. The ANALYSIS menu

In the same ways, you can display a menu that is a list of OPERATE menus, or classes of OPERATE views, as shown in Figure 21 on page 25.

```

26MAR1999 19:34:08 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==19:34:08=CPSM=====15===
CMD Name          Description
-----
OPERATE           Operations Views
CICSBTS           CICS BTS Views
CONNECT           Connection Views
DOCTEMP           Document Template Views
DB2               DB2 and DBCTL Views
ENQUEUE           Global Enqueue Views
EXIT              Exit Views
FEPI              FEPI Views
FILE              File Views
JOURNAL           Journal Views
PROGRAM           Program Views
REGION            CICS Region Views
TASK              Task Views
TCPIPS            TCP/IP Service Views
TDQ               Transient Data Queue Views
TEMPSTOR          Temporary Storage Queue Views
TERMINAL          Terminal Views
TRANS             Transaction Views
UOW               Unit of Work Views

```

Figure 21. The OPERATE menu

As a shortcut, you can display a menu by typing only the name of the menu (for example, instead of MENU OPERATE, you can type only OPERATE) in the COMMAND field. However, when you display a menu in this manner, you cannot specify any qualifier with the menu name; thus, you will always get a list of all general and summary views when you use this method. (The qualifiers are described on page 27.) To display the OPERATE menu of FILE views, you can select it from the OPERATE menu, or you can issue the command MENU OPERATE FILE. In fact, the order of the classes does not matter, so you can achieve the same result by issuing the command MENU FILE OPERATE.

Similarly, you can display a menu that lists classes of MONITOR views, as shown in Figure 22 on page 26.

```

26MAR1999 19:34:08 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==19:34:08=CPSM=====14===
CMD Name Description
-----
MONITOR Monitoring Views
MONACTV Installed Monitor Definitions
=====
CONNECT Connection Monitoring Views
DB2 DB2 and DBCTL Monitoring Views
FEPI FEPI Monitoring Views
FILE File Monitoring Views
GLOBAL Global Resource Monitoring Views
JOURNAL Journal Monitoring Views
PROGRAM Program Monitoring Views
REGION CICS Region Monitoring Views
TDQ Transient Data Queue Monitoring Views
TEMPSTOR Temporary Storage Queue Monitoring Views
TERMINAL Terminal Monitoring Views
TRANS Transaction Monitoring Views

```

Figure 22. The MONITOR menu

Note that the MONITOR menu, like the OPERATE menu, also lists a FILE class of views. To display a menu that lists *all* of the FILE views, for both MONITOR and OPERATE, issue the command MENU FILE. This produces a menu like the one shown in Figure 23.

```

26MAR1999 19:34:08 ----- INFORMATION DISPLAY -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==19:34:08=CPSM=====28===
CMD Menu/View Description
-----
MONITOR Monitoring Views
FILE File Monitoring Views
MCMDDT Monitor Data Tables
MCMDDTS Monitor Data Table Summary
MLOCFILE Monitor Local Files
MLOCFILS Monitor Local File Summary
MREMFILS Monitor Remote Files
MREMFILS Monitor Remote File Summary
OPERATE Operations Views
FILE File Views
CFDTPPOOL Coupling Facility Data Tables
CFDTPPOOS Coupling Facility Data Table Summary
CMDT Data Tables
CMDTS Data Table Summary
DSNAME Data Sets
DSNAMES Data Set Summary
FILE Files
FILES File Summary
LOCFILE Local Files
LOCFILES Local File Summary
LSRPBUF LSR Pool Buffers
LSRPBUS LSR Pool Buffer Summary
LSRPOOL LSR Pools
LSRPOOS LSR Pool Summary
REMFILS Remote Files
REMFILS Remote File Summary

```

Figure 23. The FILE menu

Usually, on a menu that lists views, only general and summary views are shown. You can qualify a menu command to include or exclude subsets of views, by adding a qualifier to the command, as follows:

- +** Expands the specified menu, so that *all* levels below the level specified are listed.
- +D** Includes general, detail, and summary views. (That is, detail views are added to the normally displayed list.)
- G** Excludes general views. Includes summary views.
- S** Excludes summary views. Includes general views.

Note: You can combine qualifiers. Thus, if you issue the command MENU OPERATE +D -S, the menu displayed shows all of the OPERATE general and detail views. As an example, issuing the command MENU OPERATE + produces a menu like the one shown in Figure 24.

```

26MAR1999 19:34:08 ----- INFORMATION DISPLAY -----
COMMAND ==>                               SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==19:34:08=CPSM=====15===
CMD Name          Description
-----
  OPERATE          Operations Views
  CICSBTS          CICS BTS Views
  PROCTYP          CICS BTS ProcessTypes
  PROCTYPS         CICS BTS ProcessType Summary
  CONNECT          Connection Views
  CONNECT          ISC/MRO Connections
  CONNECTS         ISC/MRO Connection Summary
  MODENAME         LU6.2 Modenames
  MODENAMS         LU6.2 Modename Summary
  PARTNER          CICS Partners
  PARTNERS         CICS Partner Summary
  PROFILE          CICS Profiles
  PROFILES         CICS Profile Summary
  DOCTEMP          Document Template Views
  DOCTEMP          Document Templates
  DOCTEMPS         Document Template Summary
  DB2              DB2 and DBCTL Views
  DBCTLSS         DBCTL Subsystems
  DBCTLSSS        DBCTL Subsystem Summary
  DB2SS           DB2 Subsystems
  DB2SSS          DB2 Subsystem Summary

```

Figure 24. An example of a partial OPERATE + menu

Another example shows that issuing the command MENU OPERATE FILE -S produces a menu of OPERATE FILE views, excluding the summary views, as shown in Figure 25 on page 28.

```

26MAR1999 19:34:08 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1      ALT WIN ==>
W1 =MENU=====EYUPLX01=EYUPLX01=26MAR1999==19:34:08=CPSM=====9===
CMD Name      Description
-----
OPERATE      Operations Views
FILE         File Views
CFDTPPOOL   Coupling Facility Data Tables
CMDT        Data Tables
DSNAME      Data Sets
FILE        Files
LOCFILE     Local Files
LSRPBUF     LSR Pool Buffers
LSRPOOL     LSR Pools
REMFIL      Remote Files

```

Figure 25. The OPERATE FILE -S menu

Selecting a view from the VIEWS menu

The VIEWS menu also provides access to views; you can display it by issuing the VIEWS command. The VIEWS menu lists all of the available views in alphabetic order. To display a partial list of views, issue the command with a specific or generic view name. For example, to display a list of all the views that begin with the letter C, issue the following command:

```
VIEWS C*
```

To select and display a view from the VIEWS menu, do either of the following:

- Type an S to the left of the view name and press Enter.
- Place the cursor on the view name and press Enter.

Note that on the VIEWS menu list, unlike the MENU menu, you *cannot* overwrite command parameters in the view name and description fields.

Initiating a hyperlink to another view

Many views contain *hyperlink fields*, which provide a direct route from information shown in one view to related information in a different view. Hyperlink fields appear either in high intensity or in a different color from other fields in the view.

The view that results from a hyperlink can be displayed:

- In the window from which you initiate the hyperlink (which need not be the current window), or
- In an alternate window

To direct the results of a hyperlink to the window from which you initiate the hyperlink, simply place the cursor anywhere within the data portion of a hyperlink field and press Enter.

To direct the results of a hyperlink to a second window, type the identifier of that window in the ALT WIN field, place the cursor anywhere within the data portion of the hyperlink field, and press Enter. If you want to direct the results of all subsequent hyperlink requests to the same alternate window, prefix the value in the ALT WIN field with an ampersand (&). For example, entering the value

&3

in the ALT WIN field causes the results of all subsequent hyperlink requests to appear in window 3.

Regardless of where the results of the hyperlink are directed, the window in which the results are displayed becomes the current window.

Note: You cannot hyperlink to an alternate window from a summary view.

The results of a hyperlink request

The view resulting from a hyperlink request can contain either new data or a different form of the existing data. Whether you get new or existing data is determined by the window in which the resulting view is to be displayed, and the existing contents of that view. That is:

- When the results of a hyperlink are directed to a second window, new data is always provided. For example, in Figure 26 on page 30, Tran ID is a hyperlink field in the LOCTRAN view shown in window 1. If you enter the identifier of a second window in the ALT WIN field, position the cursor on the ETVP value under the Tran ID heading, and press Enter, detailed information about transaction ETVP is displayed in window 2.
- When the results of a hyperlink are displayed in the window from which you initiated the hyperlink:
 - A different form of the existing data is provided when the resulting view is from the same family of views for a given resource type. For example, initiating a hyperlink from the Tran ID field in Figure 26 on page 30 produces the LOCTRAN view, which contains detailed information about a specific transaction. As LOCTRAN and LOCTRAN belong to the same family of views, a different form of existing data is provided.
 - New information is provided when the resulting view is not within the same family of views. For example, if you were to initiate a hyperlink from the Program Name field of the LOCTRAN view in Figure 26 on page 30, the result would be the PROGRAMD view, which contains detailed information about the program associated with the designated transaction. As LOCTRAN and PROGRAMD are not within the same family of views, new information is provided.

```

19JUN1998 17:28:59 ----- INFORMATION DISPLAY ----- PAGE
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 2 ALT WIN ==> &2
>W1 -LOCTRAN-----EYUPLX01-EYUPLX01-19JUN1998--17:28:29---CPSM-----128
CMD Tran CICS Enabled Use Program Pri TranCls Purge Dmp Rout
--- ID-- System-- Status-- Count Name-----
ETVP EYUMAS1A ENABLED 0 EYUWLMVP 1 00 NOTPURGEABLE YES DYNA
ETVP EYUMAS2A ENABLED 0 EYUWLMVP 1 00 NOTPURGEABLE YES STAT
ET01 EYUMAS1A ENABLED 0 EYUPRO01 1 00 PURGEABLE YES DYNA
ET01 EYUMAS2A ENABLED 0 EYUPRO01 1 00 PURGEABLE YES STAT
>W2 =LOCTRAN==LOCTRAN=EYUPLX01=EYUPLX01=19JUN1998==17:28:48====CPSM=====1
Tran ID..... ETVP CICS System.. EYUMAS2A Routing..... STAT
Program Name EYUWLMVP Remote System Route Profile.
Remote Name. Tran Priority 1 Use Count..... 0
Enabled Stat ENABLED Task Data Loc BELOW Local Dyn Cnt. 0
Isolate Stat N/A Task Data Key USERDATA Remote Dyn Cnt 0
Shutdwn Stat N/A Resource Sec. RESSECNO Restarted..... 0
System Purge NOTPURGEABLE Screen Size.. DEFAULT Rem Start Cnt. N/A
Tran Dump... TRANDUMP Read Timeout. 0 Stg Violations 0
DTB Opt.... BACKOUT DLock Timeout 0 Clear Stg..... N/A
CMDSEC Opt.. CMDSECNO Runaway Time. N/A TWA Size..... 0
Trace Opt... STANTRACE Runaway Type. N/A Profile..... DFHCICSTV
Tran Class.. 00 TRAN INDOUBT. FORCE Due To..

```

Figure 26. Hyperlink fields within CICSPlex SM views

How hyperlinks affect context and scope values

When you direct the results of a hyperlink to an alternate window, CICSPlex SM ensures that the context and scope of that window are the same as those of the window from which the hyperlink was requested. The context and scope of the alternate window are restored to their previous values when you next clear that window.

Specifying command parameters

Many of the CICSPlex SM view and display commands can be qualified by parameters. For example, here's the syntax of the PROGRAM view command, which displays general information about programs currently listed in the processing program table (PPT):

```
PROGRAM [prgmid [ENABLED | DISABLED]]
```

The parameter *prgmid* is a variable that identifies one or more instances of a program. The values ENABLED and DISABLED are literals that can be used to list the group of programs you're interested in according to their status.

For any variable parameter, you can provide either a specific or a generic name. Generic names can contain:

- An asterisk (*), which must be the last or the only character in the string. It represents any number of characters, including zero. For example:

ABC* All names beginning with the characters ABC

***** All names

- A plus sign (+), in any position, to represent a single character. For example:

TERM0+ All 6-character names starting with TERM0

A+BC+DE

All 7-character names with any character in the second and fifth positions, A in the first position, B in the third, C in the fourth, D in the sixth, and E in the seventh position.

CICSplex SM command parameters are positional: they must be entered in the order shown and be separated from the command and each other by one or more blank spaces. For example, the view command:

```
PROGRAM DFHB* ENABLED
```

displays general information about all enabled programs whose names begin with the characters DFHB. The view command:

```
PROGRAM DISABLED DFHB*
```

is invalid, because the parameters are not specified in the correct order.

Note: When you select a view from a menu, you can overwrite the line containing the view name and description with parameters before you press Enter.

When you specify an incorrect parameter a panel appears, containing messages telling you that your request is incorrect and describing or showing the correct parameters. Figure 27 is an example of the panel that appears when you type a numeric value instead of a correct program name.

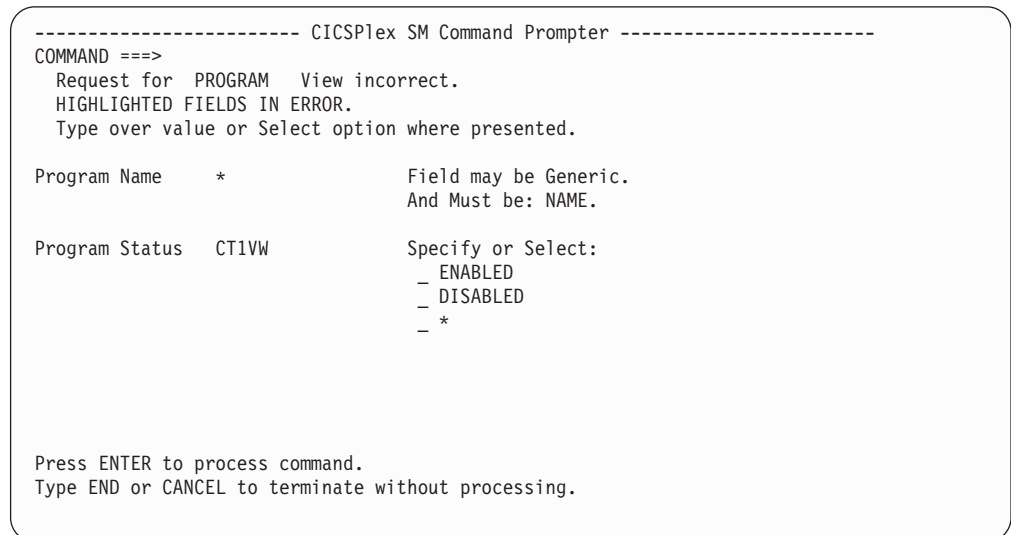


Figure 27. Example of command parameters panel

You can type the correct value over the incorrect value in the highlighted field or, when the parameter must be a specific value (for example, program status, which must be ENABLED, DISABLED, or * for both), you can select the correct value from the selection list.

Using action commands to update data

CICSplex SM action commands act on the data displayed in a view and cause the view to be refreshed. Action commands are either *primary action commands* or *line action commands*.

Primary action commands

Primary action commands affect one or more instances of a CICS resource or CICSplex SM definition in a view. You issue primary action commands and their parameters by entering them in the COMMAND field of the control area, or by pressing the PF key to which they are assigned. Note that, if

you specify more parameters than are valid on a primary action command, the surplus parameters are ignored: no warning message is issued.

When you use a form of a CICSplex SM primary action command that is the same as an ISPF command, the ISPF command takes effect. For example, when you issue the START primary action command, you are swapped to an ISPF session. To avoid this, issue the action command STA from the SYSTEMS view, specifying a parameter that identifies the system that is to be started.

Line action commands

Line action commands affect either a specific occurrence of a resource or definition or, in a summary view, all of the resource instances that contributed to the summary line. Line action commands are issued from the line command field.

Not all action commands are available for all of the supported CICS releases. If you issue an action command that is not available for the specified CICS system, the following message is displayed:

```
EYUEI0596E Action action for sysname not supported for this release of CICS
```

The online help facility provides availability information for action commands that are not available for all of the supported CICS releases. Refer to “Chapter 4. The CICSplex SM help facility” on page 59 for details.

If you issue an invalid action command, or if a command cannot be processed for any reason, error messages may be 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.

In some cases, messages are not automatically displayed in the window. Instead, the ERR indicator appears where the action command was entered. When this happens, you can position the cursor on the ERR indicator and press Enter to display the messages in the window.

Figure 28 on page 33 shows the location of the COMMAND field and of the line command field in both general and detailed views.

```

19JUN1998 17:30:37 ----- INFORMATION DISPLAY -----
COMMAND ==> enable eyupaut0 eyumas1a SCROLL ==> PAGE
CURR WIN ==> 2 ALT WIN ==>
>W1 -PROGRAM-----EYUPLX01-EYUPLX01-19JUN1998--17:30:18---CPSM-----385
CMD Program CICS Enabled Use Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status Option Require
EYUPAUTO EYUMAS1A DISABLED 0 0 ASSEMBLER PRIVATE CEDF NOTREQU
EYUPAUT2 EYUMAS1A ENABLED 0 0 ASSEMBLER SHARED NOCEDF NOTREQU
EYUPR001 EYUMAS2A ENABLED 0 0 COBOL PRIVATE NOCEDF NOTREQU
EYUPR002 EYUMAS2A ENABLED 0 0 COBOL SHARED NOCEDF NOTREQU
>W2 =PROGRAM==PROGRAMD=EYUPLX01=EYUPLX01=19JUN1998==17:30:33===CPSM=====1
dis Program Name. EYUPR002 CICS System... EYUMAS2A Curr Use Cnt. 0
dis Load Address. FF000000 Exec Key..... USEREXECKEY Tot Use Cnt.. 0
Entry Point.. FF000000 Execution Set. FULLAPI Use In Intvl. 0
Length..... 0 Mirror Tranid. Newcopy Cnt.. 0
Enable Status ENABLED Shared Status. SHARED Removed Cnt.. 0
Pgm Language. COBOL LPA/SVA Stat.. NOTAPPLIC Fetch Cnt.... 0
COBOL Type... NOTINIT Current Loc... NOCOPY RPL Number... 0
Usage..... PROGRAM Held Status... NOTAPPLIC Remote Name..
CEDF Option.. NOCEDF Fetch Time.... 00:00:00.00 Remote Sysid.
Data Location BELOW Avg Fetch Time 00:00:00.00 Copy Required NOTREQU
Dynam Status. N/A Concurrency... N/A

```

Figure 28. The COMMAND field and some line command fields

Notes:

1. The primary command typed in the COMMAND field enables the program EYUPAUTO shown in the general view in window 1, the current window.
2. Two line commands are specified in the general view shown in window 1. Each line command causes a specific program shown in that view to be disabled. If window 1 contained a summary view, the line commands would affect all of the resources represented by each line in the view.
3. One line command is specified in the detail view shown in window 2. This command causes the program identified in this view (EYUPR002) to be disabled.
4. When you press either Enter or a PF key, all outstanding primary and line action commands in all windows are processed.

To discover which action commands are valid for a particular view, issue the HELP ACTIONS display command, as described in “Requesting help within help” on page 61. Action commands that are valid for a particular view are also identified in the description of that view. Views are described in detail in other books in the CICSplex SM library.

Repeating a line action command within a view

As you can see from Figure 28, you can enter one line action command at a time in a detail view, but multiple line action commands in a general or summary view. You can repeat a line action command within a view by typing the equals sign (=) in the line command field before pressing Enter. 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 the view. For example:

```

CMD Program CICS
--- Name---- System--
dis PR0G0123 CICS1232

```

```
PROG0323 CICS1233
= PROG0345 CICS1234
ena PROG0445 CICS1234
= PROG0355 CICS1235
```

These line action commands disable programs PROG0123 and PROG0345, and enable programs PROG0445 and PROG0355. The status of PROG0323 is unaltered.

Overtyping fields

An *overtyping field* is a modifiable field in a view that contains data related to a specific CICS resource or CICSplex SM definition. The data can be either of the following:

- A specific value known to CICSplex SM. An example is the Status field that shows that a program is ENABLED or DISABLED.
- A value defined at your site. An example is the program name (which must conform to CICS program name requirements but which itself cannot be specified by CICSplex SM).

Overtyping fields are shown in either high intensity or color. For you to change the contents of an overtyping field, the entire field must be visible. If it is not, you can scroll the window to the left or right to display the remainder of the field. Alternatively, you can use the MAXimize display command, as described on page 42, to maximize the window containing the view.

When the value you enter does not completely overwrite the old value, you do not have to delete the remainder of the field. After you press Enter, only the newly overtyped information is in effect.

If you specified YES in the Require Set field on the CICSplex System Manager entry panel, you must also use the SET line action command to prevent inadvertent modification of information. When you overtype the contents of a field (using SET, if required) and press Enter, CICSplex SM accepts the 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 for that field. For example, to specify program status, you need type only E (for ENABLED) or D (for DISABLED). When your request is not specific enough, or when you enter a value that is not one of the specific values known to CICSplex SM, you are prompted for more specific information and provided with a selection list from which to select a value. (For example, this occurs when you overtype only S on the LOCTRAN view in the Trace Option field, where the possible values are SPECTRACE, STANTRACE, and SPRSTRACE.)

When, in a field for which CICSplex SM expects no specific values but has certain requirements, you enter a value that does not meet the requirements, a popup panel appears containing both a message describing the requirements and a field in which you can enter the correct value. (For example, this occurs when you enter a value outside the range of acceptable values for a numeric field.)

Note: When you want to make more significant modifications to a definition in the data repository, you can use the UPDate command to display a panel similar to the panel used to create the definition.

To change the contents of one or more overtype fields in a general or summary view:

1. If the value in the Require Set field on the CICSplex System Manager entry panel is YES, specify the SET action command in the line command field next to each resource occurrence to be altered. (For more information about the Require Set field, see page “Require Set” on page 8.)
2. Overtyping the current contents of any overtype fields you want to alter with new values.
3. Repeat steps 1 and 2 for each resource occurrence that you want to modify.
4. Press Enter.

For example, window 1 in Figure 29 on page 36 shows how you might change the attributes of two programs. EYUPAUT2 is to change from disabled to enabled status, and EYUPR001 is to be both enabled and marked as shared.

To change the contents of one or more overtype fields in a detail view:

1. If the value in the Require Set field on the CICSplex System Manager entry panel is YES, specify the SET action command in the line command field next to each resource occurrence to be altered. (For more information about the Require Set field, see page “Require Set” on page 8.)
2. Overtyping the contents of each field you want to alter.
3. Press Enter.

Window 2 in Figure 29 on page 36 shows how you might change multiple attributes associated with a single resource. In this case, program EYUPR002 is to be enabled, marked as private, and its CEDF option is to be set to NOCEDF.

Overtyping fields containing the value “N/A” or “NOTAPPLIC” (meaning “not applicable”) are not modifiable. Typically, an overtype field contains this value because the field does not apply to a particular release of CICS. If you position the cursor on the affected field before entering the HELP command (as described in “Issuing HELP without parameters” on page 61), a description of the field, identifying those CICS releases to which it applies, is displayed.

```

19JUN1998 17:30:37 ----- INFORMATION DISPLAY -----
COMMAND ==>>
CURR WIN ==>> 2          ALT WIN ==>>
>W1 -PROGRAM-----EYUPLX01-EYUPLX01-19JUN1998--17:30:18----CPSM-----385
CMD Program CICS Enabled Use Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status Option Require
EYUPAUTO EYUMAS1A ENABLED 0 0 ASSEMBLER PRIVATE CEDF NOTREQU
set EYUPAUT2 EYUMAS1A enabledD 0 0 ASSEMBLER SHARED NOCEDF NOTREQU
set EYUPRO01 EYUMAS2A enabledD 0 0 COBOL sharedE NOCEDF NOTREQU
EYUPRO02 EYUMAS2A DISABLED 0 0 COBOL SHARED CEDF NOTREQU
>W2 =PROGRAM=PROGRAMD=IDPAPLEX=IDPAPLEX=19JUN1998==17:30:33====CPSM=====1
Program Name. EYUPRO02 CICS System... EYUMAS2A Curr Use Cnt. 0
Load Address. FF000000 Exec Key..... USEREXECKEY Tot Use Cnt.. 0
Entry Point.. FF000000 Execution Set. FULLAPI Use In Intvl. 0
Length..... 0 Mirror Tranid. Newcopy Cnt.. 0
Enable Status enabledD Shared Status. private Removed Cnt.. 0
Pgm Language. COBOL LPA/SVA Stat.. NOTAPPLIC Fetch Cnt.... 0
COBOL Type... NOTINIT Current Loc... NOCOPY RPL Number... 0
Usage..... PROGRAM Held Status... NOTAPPLIC Remote Name..
CEDF Option.. NOCEDF Fetch Time.... 00:00:00.00 Remote Sysid.
Data Location BELOW Avg Fetch Time 00:00:00.00 Copy Required NOTREQU
Dynam Status. N/A Concurrency... N/A

```

Figure 29. Using overwrite fields in CICSplex SM views

Moving the cursor

To move the cursor between multiple windows in an information display panel, you can use:

- The cursor-movement keys
- The New Line key, repeated use of which moves the cursor to the first modifiable field in the next and subsequent lines, crossing any window borders that may be encountered
- The Tab key, which moves the cursor to the next modifiable field in a line or to the first modifiable field in the next window

The New Line key and the Tab key do not move the cursor to empty windows.

Chapter 3. The CICSplex SM display commands

During a CICSplex SM session, you can issue:

- ISPF session commands. However you cannot use the ISPF jump function.
- TSO commands, which must be prefixed with the “TSO” command.
- CICSplex SM *view commands* which enable you to manipulate both CICSplex SM and CICS resources. Those view commands that support the creation and maintenance of a CICSplex SM environment are described in *CICSplex SM Administration*. Other view commands are described in the appropriate books in the CICSplex SM library.
- CICSplex SM *display commands*, which allow you to set up a window environment under ISPF and to manipulate the way in which CICSplex SM data is displayed. All display commands, except the HELp display command, are described in detail in this chapter. The HELp display command is described in “Chapter 4. The CICSplex SM help facility” on page 59. A list of all display commands is provided in “Appendix B. A summary of the CICSplex SM display commands” on page 71.

This chapter begins with some general information about issuing commands of any sort in a CICSplex SM environment. The remainder of the chapter describes the CICSplex SM display commands.

How to issue commands

There are two ways of issuing any ISPF, TSO, view, or display command:

- You can assign the command to a PF key. It is recommended that you assign commands that you use frequently to PF keys. For information about changing your CICSplex SM PF key assignments, see “Appendix A. Tailoring your CICSplex SM profile” on page 65.
- You can enter the command and any parameters in the COMMAND field of the information display panel and press Enter.

Multiple commands can be entered on the COMMAND line, provided they are separated by a command delimiter. You can use either the CICSplex SM command delimiter, which is the semicolon (;), or the ISPF command delimiter, which is defined in your ISPF profile. For example, to make window 3 the current window and to display a list of monitor-related menus in that window, you would enter:

```
W3;MENU MONITOR
```

where ; is the command delimiter. The maximum number of commands you can issue at one time is determined by the length of the COMMAND field.

Multiple commands entered in the COMMAND field are processed sequentially. If you press a PF key while these commands are processing, the command currently being processed is completed, then the command assigned to the PF key is processed, then processing of the remaining commands in the COMMAND field resumes. Note, however, that processing does not resume if the command assigned to the PF key is the Quit command. Also, the Quit command does not interrupt processing of the current command.

Syntax notation and conventions

The syntax descriptions of the CICSplex SM commands in the remainder of this book use the following notation:

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

The following conventions also apply:

- Commands and keyword parameters that are literals are shown in uppercase characters. If a command or parameter may be abbreviated, the minimum permitted abbreviation is in uppercase characters and the remainder is shown in lowercase characters. For example, this syntax:

```
PREVIOUS
```

means that PREV is an acceptable abbreviation for the command.

- Variable parameters are shown in lowercase characters. You supply your own data for these parameters. For example, in the command:

```
ASU [asu]
```

you can supply a value in place of the *asu* variable.

- Default values for an optional parameter are underscored. If the parameter is not specified, the default value is used. For example, this syntax:

```
Sort [D|A]
```

means that D (for descending order) is the default value for the SORT command.

- Parameters enclosed by neither braces { } nor brackets [] are required.
- Punctuation symbols and special characters must be coded exactly as shown.

Note: Display command parameters are specified in the same way as view command parameters, which are described in “Specifying command parameters” on page 30.

Manipulating the windowed environment

This section describes those CICSplex SM display commands that allow you to define and alter the windowed environment in which you are working. It describes how to:

- Open additional windows (on this page)
- Change the current window (on page 39)
- Direct the results of a command to a second window (on page 40)
- Display and understand the window status (on page 40)
- Display information about a view (on page 41)
- Maximize a window and restore it to its previous size (on page 42)
- Set the context and scope values (on page 43)
- Save the screen configuration so that it can be reused (on page 46)
- Close a window (on page 48)

Opening additional windows

When the Information Display panel is initially produced, its display area contains one open window. You can open additional windows, up to a maximum of 20 windows per display area, by splitting any window either horizontally or vertically.

To split a window horizontally, type the command

`HSplit`

in the COMMAND field, move the cursor to the row in which the window information line of the new window is to appear, and press Enter. (Alternatively, if the HSplit command has been assigned to a PF key, move the cursor into position before pressing the PF key.)

To split a window vertically, type the command

`VSplit`

in the command field, move the cursor to the column in which the left border of the new window is to appear, and press Enter. (Alternatively, if the VSplit command has been assigned to a PF key, move the cursor into position before pressing the PF key.)

A window must be at least four lines deep (of which the first is the window information line) and eight columns wide. If you position the cursor inside an open window prior to issuing HSplit or VSplit, space for the new window is taken from that window. If the cursor is on a window information line or window border, space for the new window is taken from the adjacent windows.

The newly opened window becomes the current window and its status code is T (temporary). Window status codes are described in “Displaying the window status description” on page 40.

Changing the current window

The window to which the results of a command are directed by default is known as the *current window*. Regardless of the number of windows on the information display, only one window at any one time can be the current window.

You can change the current window by:

- Overtyping the value in the CURR WIN field with the number of the window you want to become the current window
- Issuing the command:

`NEXT`

which causes the next window in the sequence to become the current window

- Issuing the command:

`PREVIOUS`

which causes the previous window in the sequence to become the current window

- Issuing the command:

`Wn`

where n is the number of an existing window

For example, assume you have three open windows and that window 1 is the current window. Issuing the command `W3` causes window 3 to become the current window. Issuing the `NEXt` command causes window 1 to become the current window. Finally, issuing the `PREVious` command causes window 3 to become the current window again.

Directing command results to another window

By default, the results of a command are displayed in the current window. However, you can direct the results of a command to a different window by prefixing the command with the value:

`Wn .`

where n is the number of the open window that is to receive the results of the command. For example, if window 1 is the current window and you issue `W2.MENU OPERATE`, a list of all operations-related menus is displayed in window 2. Window 1 remains the current window.

The `Wn` prefix

This prefix can be used with *all* view commands, and with any of the display commands described in the remainder of this chapter whose effects are felt by a single window.

As described in “Changing the current window” on page 39, the `Wn` value can also be used as a command. To illustrate the difference between the use of `Wn` as a command and as a prefix, consider this example:

```
W2;W3.MENU OPERATE;MENU MONITOR
```

- `W2` makes window 2 the current window.
- `W3.MENU OPERATE` causes the list of operations-related menus to be displayed in window 3.
- `MENU MONITOR` causes the list of monitor-related menus to be displayed in the current window, window 2.

Displaying the window status description

Every window has a one-character code that describes its status. To display the meaning of the status code for the current window in the short message area, issue the command:

```
STATus
```

The status codes are described in Table 2.

Table 2. Window status codes

Code	Meaning	Description
W	Waiting	The window contains data and is available for use.
T	Temporary	The window is empty and no commands are processing. A window's status is T when it is first opened and when it is subsequently cleared.

Table 2. Window status codes (continued)

Code	Meaning	Description
E	Error	An error has occurred as the result of an action directed to the window.
L	Locked	The LOCK command (which is described in “Locking and unlocking a window” on page 54) has been issued to prevent the window’s contents from being automatically updated.
P	Pending	CICSplex SM is processing one or more commands. (Pending status is described in more detail below.)

Pending status:

While a CICSplex SM command is being processed, you cannot issue commands against any window. In most cases, this does not present difficulties. However, if CICSplex SM is processing a command or stack of commands that require complex processing, you might require access to the remaining windows before that processing is complete. In order to “release” the remaining windows, you must cause a TSO terminal attention. You do this by pressing either the ATTN key, on an IBM 3270 display, or any combination of keys that simulates the ATTN function. (For example, the RESET key followed by the PA1 key simulates the ATTN function on the IBM Personal Computer display and the IBM 3179 display.) This causes CICSplex SM to:

- Update the contents of each window in which processing is complete
- Change the status code of any window in which processing is not complete from W to P

This will allow you to issue commands in windows whose status is not P. If command processing is complete the next time you press Enter or a PF key, the contents of the window are updated and the status code changes from P to W.

In a window whose status is P you can issue only the CLEAR, CLOSE, RESET, and Quit commands.

If you issue the STATUS command as part of a list of commands, it is recommended that you place it last in the list. This is because the STATUS command remains displayed after it is issued, and any commands following it cannot be processed until you remove STATUS and press Enter.

To display a detailed explanation of a status code, issue the HELP display command while the status-code meaning is displayed (that is, after you have issued the STATUS command). The explanation of the status code temporarily replaces the CURR WIN and ALT WIN fields. These fields are restored when you press Enter or a PF key.

Displaying information about a view

The window information line, which is described in “The window information line” on page 18, provides some information about the view currently on display in a

window. For example, the window information line tells you the number of records in the view. For a more detailed definition of the view contents, issue:

```
SHOWPosi
```

which causes a pop-up window to overlay the information display panel. To remove the pop-up window, press PF3.

The SHOWPosi pop-up window contains the following information about the view:

- The number of the window to which this information relates.
- The view name.
- The view type. For example, the view type could be “tabular”.
- The view width, which is the maximum number of characters in a row of the view.
- The number of fields, which is the maximum number of fields in a row of the view.
- The number of records in the view.
- The number of records currently on display in the window.

Maximizing and restoring windows

When you are working with multiple windows, you can expand one of those windows to fill the display area. A maximized window can later be restored to its previous position and size in the window configuration.

To expand the current window to its maximum size, issue the command:

```
MAXimize
```

The other windows in the display area remain active, but are hidden behind the maximized window.

While the window is maximized:

- MAX is shown in the panel title line
- You can use the NEXt or PREVIOUS display commands to display the next or previous window in the sequence in its maximized form
- You cannot use the CLOse, RESet, Quit, HSplit, VSplit, SAVEScr, SCReen, or SCREENS display commands.

To restore the maximized window and redisplay all open windows in their previous configuration, issue the command:

```
RESTore
```

The window that is maximized at the time you issue the RESTore command becomes the current window. Also, the data in any window whose status is W (waiting) is refreshed.

Note that, in some circumstances, the END display command can have the same effect as the RESTore command. For more information about the END display command, see “Redisplaying views and forms of views” on page 55.

Setting the context and scope

The context and scope of a window determine which CICSplex SM or CICS resources are affected by commands directed to that window. The window information line identifies a window's current context and scope.

When you begin a CICSplex SM session, the context and scope for all windows are set to one of the following:

- The default values shown on the CICSplex System Manager entry panel
- The values in effect for any saved screen configuration you have installed

At any time during the session, you can change the context and scope settings of individual windows or of all windows opened or cleared subsequently. You can also change the default context and scope values that are to be in effect when a session is next started.

Changing the context of an existing window

To change the context of an existing window, issue the command:

```
CONtext name [product [server]]
```

If you are performing any of the functions made available to you by option 2 (CICSplex SM) of the CICSplex System Manager entry panel:

name is the identifier of a CMAS or of a CICSplex. If you are using the CICSplex SM interface to manage the CICSplex SM environment itself using the CONFIG views (as described in *CICSplex System Manager Administration*), *name* identifies a CMAS. For other uses of CICSplex SM, *name* identifies a CICSplex.

product

is CPSM. If the window information line is currently displaying the product value CPSM, you can specify an asterisk (*) as the *product* value.

server is valid only when the *name* value identifies a CICSplex. It is the name of a CMAS to which the CICSplex is defined. If you are happy to work with any CMAS involved in managing the CICSplex, you can omit this value.

For example:

1. To change the context of the current window to CMAS EYUCMS01 when the product identifier in the window information line is already CPSM, issue:

```
CON EYUCMS01 *
```

2. To change the context of window 4 to CICSplex EYUPLX02 and nominate CMAS EYUCMS02 as the CMAS with which you want to work, issue:

```
W4.CON EYUPLX02 CPSM EYUCMS02
```

If you are performing any of the CAS-management tasks accessible via option 1 (PLEXMGR) of the CICSplex System Manager entry panel:

name identifies a system that is running PLEXMGR (that is, a CAS). To select the CAS that you are currently signed on to, specify a *name* value of asterisk (*). To select a different system, which must be connected to the system you are signed on to and be running PLEXMGR, specify its MVS sysid.

product

is PLEXMGR. If the window information line is currently displaying the product value PLEXMGR, you can specify an asterisk (*) as the *product* value.

server is not valid.

For example:

1. To set the context in window 3 to the CAS you are currently signed on to in order to perform PLEXMGR tasks, issue:

```
W3.CON * PLEXMGR
```

2. To set the context in the current window to CAS SYSC for PLEXMGR tasks, issue:

```
CON SYSC PLEXMGR
```

3. To set the context in the current window to the CAS you are currently signed on to when the product value in the window information line is already set to PLEXMGR, issue:

```
CON * *
```

Notes:

1. 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.
2. When the CONtext command is successful, the view currently on display in the window is automatically updated to reflect the change. Be aware, however, that if you change the context from a CICSplex to a CMAS and the view that was displayed required a context of CICSplex, an error message is issued. The same observation applies when the context is changed from a CMAS to a CICSplex. Similarly, if you change the product value from CPSM to PLEXMGR, the view in the affected window will not be recognized. To avoid such errors, you can name the view that you want displayed in the same command string as the CONtext command. For example, the command:

```
W2.CON EYUPLX02 CPSM *; MLOCTRAN QAB*
```

changes the context of window 2 to CICSplex EYUPLX02 and displays in that window a general view of all monitored local transactions whose names begin with the characters QAB.

Changing the scope of an existing window

To change the scope of an existing window, issue the command:

```
SCOpe name
```

where *name* is the name of a CICS system or CICS system group associated with the current CICSplex, or is the name of the CICSplex itself. The scope value is ignored if the context is not a CICSplex.

When you issue this command, the window is automatically updated to reflect the change. That is, the contents of any view displayed in the window are updated to reflect the new scope.

Changing both context and scope of an existing window

To change both the context and the scope of an existing window in either CICSplex SM or PlexManager, issue the command:

```
SET
```

Figure 30 shows the input panel displayed when you issue the SET command.

```
----- 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 30. The SET command input panel

Context

For CICSplex SM, the name of either the CICSplex or the CMAS that is to become the context.

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

Product

CPSM or PLEXMGR for CICSplex SM or PlexManager, respectively.

Server For CICSplex SM, a CMAS to which the CICSplex is defined. It can be set to an asterisk (*), meaning that any valid CMAS is acceptable.

For PlexManager, an asterisk (*).

Scope For CICSplex SM, any CICS system or CICS system group associated with the CICSplex, or the name of the CICSplex itself. (When the context is a CMAS, scope is ignored.)

For PlexManager, an asterisk (*).

View For CICSplex SM, the name of any view that is valid for the context and scope.

For PlexManager, the name of any PlexManager view.

This causes the window to contain the specified view, qualified by the new context and scope.

Changing context and scope for the rest of the session

To change:

- The context and the scope that are to be in effect for all opened *or cleared* windows for the remainder of the CICSplex SM session

- The default context and scope for your next CICSplex SM session

issue the command:

```
SETD
```

Figure 31 shows the input panel that is displayed when you issue the SETD command.

```

----- SET DEFAULT CONTEXT, PRODUCT AND SCOPE -----
COMMAND ==>                                     SCROLL ==> PAGE

Please confirm Default Parameters:

Context      ==> EYUPLX01
Product      ==> CPSM
Scope        ==> EYUCSG01

Type End to Set Default Parameters
Cancel to quit without setting

```

Figure 31. The SETD command input panel

Context

is the name of either a CICSplex or a CMAS.

Product

is CPSM.

Scope is any CICS system or CICS system group associated with the CICSplex, or is the CICSplex itself. (When the context is a CMAS, scope is ignored.)

The values you specify on the SETD input panel come into effect for any window that is subsequently opened or cleared. They also become the default values, and will appear on the CICSplex System Manager entry panel when a session is next started. SETD has no effect on windows that are currently open. The new values remain in effect until you next change them using SETD, CONtext, SCOpe, or SET².

Notes:

1. You can use the SETD command to make the PlexManager product and context values the defaults. That is, the product value could be PLEXMGR, and the context value could be an MVS sysid. However, to have these values as defaults would be the exception rather than the rule.
2. As SETD has no effect on the current context and scope settings, the values you specify are not validated until you next open a window (as described on page 39) or clear a window (as described on page 57).

Saving and reusing screen configurations

You can save a configuration of windows and views so that they can be reused. To save the current configuration, issue the command:

```
SAVEScr
```

2. Initiating a hyperlink to a different window may cause the context and scope in the second window to change to match those of the first window. For additional information, see "How hyperlinks affect context and scope values" on page 30.

This command causes an input panel to be displayed, into which you enter a name for the configuration (1 through 8 characters) and, optionally, a description (1 through 30 characters).

The saved screen configuration consists of:

- The number of windows, and the size of each one
- The identifier of the current window
- The screen size (24 or 43 lines)
- The context and scope in effect in each window
- The command and its parameters that produced the view in each window
- Forms of views previously displayed in each window, up to a maximum of 20 for each window
- The sort order in effect for each view

The saved screen configuration does *not* include:

- The window status codes
- The automatic screen update (ASU) setting

Screen configuration definitions are stored in the screen repository. The data set containing this repository is usually allocated to your TSO user ID when you start a CICSplex SM session. If the data set is not available, you receive a message stating the reason. If this happens, contact your system administrator for assistance.

The ability to save screen configurations effectively enables the CICSplex SM environment to be tailored for less skilled users, for example, or to support routine and repeated tasks. For example, if, in your environment, four windows are created at the start of every CICSplex SM session, with the same context and scope each time, the CICSplex SM operator does not have to create that configuration from scratch each time: it can be created once, then saved. To use a saved screen configuration, issue the command:

```
SCReen name
```

where *name* identifies an existing configuration. For example, issuing the command SCR SAMPLE causes the configuration named SAMPLE to replace the current configuration.

The total height and width of the windows that make up a configuration must be equal to or less than the size of the display area in which the configuration is used. For example, a configuration created from a 43-line screen cannot be used on a 24-line screen.

To display a view that lists previously saved configurations, issue the command:

```
SCREENS
```

An example of the resulting view is shown in Figure 32 on page 48.

```

26MAR1999 16:19:45 ----- INFORMATION DISPLAY -----
COMMAND ==>
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 32. An example of the SCREENS view

From the resulting view you can:

- Activate a screen configuration by entering an S (for select) next to the appropriate configuration name
- Hyperlink to the screen configuration by moving the cursor to the configuration name and pressing Enter
- Remove a screen configuration by entering a D (for delete) next to the appropriate configuration name

You can select screen configurations created by other users, but note that the “sign-on” message is displayed when you select such a configuration.

SAVEScr, SCReen, and SCREENS cannot be issued when a window is maximized.

Once a screen configuration has been invoked, issuing the END command ends the current view and redisplay the previous view in that screen configuration. Any views displayed prior to invoking the screen configuration are discarded.

Closing windows

You can close one or more windows at any time during a CICSPlex SM session.

- To close the current window and have the freed space redistributed among the remaining windows, issue the command:

```
CLOse
```

Note that the CLOse command is invalid when the target window is maximized, or when there is only one open window.

- To close all windows except window 1, issue the command:

```
RESet
```

This command also clears the contents of window 1 and sets its status code to T (temporary). The RESet command is invalid when a window is expanded. If the RESet command is issued when only one window is open, its effects are the same as those of the CLear command.

- To close all windows and return to the CICSPlex System Manager entry panel, issue the command:

```
Quit
```

(Alternatively, you can use the ISPF command RETURN to return to the CICSPlex System Manager entry panel.)

If the status code of any of the affected windows is P (pending) when you issue the CLOse, RESet, or Quit command, or the ISPF command RETURN, the command that is currently processing in each of those windows is completed. Other outstanding commands are discarded.

Manipulating the contents of a window

This section describes those display commands that allow you to alter the way in which the contents of a view are displayed in a specific window. It describes how to:

- Refresh the contents of a view (on this page)
- Scroll the data in a view (on page 50)
- Sort the contents of a view (on page 51)
- Go directly to a field within a view (on page 52)
- Summarize the data in a view (on page 52)
- Lock and unlock a view (on page 54)
- Redisplay previously displayed views (on page 55)
- Clear the contents of a window (on page 57)

Refreshing the view in a single window

To update the view in the current window, issue the command:

```
DATARefresh
```

This has the effect of reissuing the command that produced the view.

To change the parameter values associated with the command that produced the view without refreshing the data, issue the command:

```
PARm parm1 [parm2 parm3 parm4]
```

where the values *parm1* through *parm4* are valid parameters of the view command that produced the view. You can specify a maximum of four parameter values.

The view in the designated window is updated to reflect the new parameter values. These values replace the previous or default parameters for the view command and remain in effect until you change them or issue a different view command.

To change the parameter values associated with the command that produced the view and refresh the data, issue the command:

```
QPARm parm1 [parm2 parm3 parm4]
```

where the values are the same as those for the PARM command.

Refreshing all views automatically

Views in windows whose status is W (waiting) are updated automatically when you press the Enter key, if the cursor is in the control area and no commands are pending. Such views can also be updated automatically, and at predefined intervals, if you activate the automatic screen update (ASU) facility. To activate ASU, issue the command:

```
ASU [asu]
```

where *asu* is the number of seconds, in the range 3 through 999, between automatic screen updates. The value remains in effect until you next change it, or until ASU is deactivated. If you do not specify a value, the default interval, specified in your user profile, is used. The default ASU interval is described in “Appendix A. Tailoring your CICSplex SM profile” on page 65.

Note that a small interval can increase the CPU overhead if the amount of data to be updated is large.

While ASU is active, no command can be issued for any window, and the COMMAND field contains the message:

```
ASU MODE interval SECONDS - PRESS ATTN TO CANCEL
```

where *interval* is the length of time between updates.

Note: To deactivate ASU, you must cause a TSO terminal attention. How you do this depends on the hardware you are using. For example, if you are using an IBM 3270 display, you can cause a TSO terminal attention by pressing the ATTN key. On other types of display, such as the IBM Personal Computer or the IBM 3179 display, you must unlock the keyboard, by pressing the RESET key, and then press the PA1 key. **Be sure to find out how to invoke the ATTN function on your terminal before starting ASU.**

Scrolling data in a window

The amount of information visible in a window is determined by the size of that window. The window information line indicates whether there is more information to scroll into view:

- A greater than symbol (>) preceding the window identifier means that there is more information to the right.
- A less than symbol (<) preceding the window identifier means that there is more information to the left.
- A plus sign (+) preceding the window identifier means that there is more information to both the left and the right.
- The number at the far right of the window information line is the number of elements in the view.

You can also use the SHOWPosi display command (which is described on page 41) to discover how much data the view contains.

To scroll the contents of a window to see additional information, you can use the ISPF scroll commands:

```
Up  
Down  
LEft  
RIght
```

To specify the amount of scrolling to occur, use one of the following parameters on the appropriate scroll command:

- Page** Scrolls a full page, which is the total scrollable area visible in a window. This is the CICSplex SM default.
- Data** Scrolls one row (if the command is Up or Down) or one field (if the command is LEft or RIght) less than a page.
- Half** Scrolls half a page.

number

Scrolls a number of rows or fields in the range 0 through 9999.

Csr Scrolls to the cursor position. If the cursor is in a field, the display begins at the start of that field.

Max Scrolls to the top, bottom, left, or right margin of the window, as appropriate, and resets the SCROLL field to its previous setting.

Notes:

1. If you specify no parameter on a scroll command, the default scroll parameter, which is displayed in the SCROLL field in the control area of the information display panel, is used. You can use any of these parameters to overtype the default scroll value. This changes the default value for the remainder of the CICSPlex SM session, or until it is next changed.
2. If your PF key settings are displayed, they may cover the last two lines in a window or help pop-up panel. To prevent this from happening, issue the ISPF command PFSHOW OFF.
3. Scrolling to the left or right occurs by field, not by column. The amount of a left or right scroll is reduced by the width of these fields, which are not scrollable:
 - The line command field and the first data field in a general view
 - The line command field in a detailed view

If you scroll right and then left again by a full page, the original contents of the view may not be restored. This situation arises because, when CICSPlex SM scrolls to the right, the first field that is not completely within the view becomes the leftmost scrollable field; when you scroll left again, CICSPlex SM keeps that field *wholly* within the visible part of the view in its new position as the rightmost field.

4. If you scroll to or beyond the last line of data in a view, two lines of data remain visible.

Sorting the contents of a view

You can sort the rows of data in a general or summary view using any of the fields in the view as a sort key. To sort the contents of a view, you

1. Type the command:

```
SOrt [D|A]
```

in the COMMAND field of the Information Display panel. The value D means that the data is to be sorted in descending order; A means that it is to be sorted in ascending order. If neither is specified, numeric data is sorted in descending order, and nonnumeric data is sorted in ascending order.

2. Move the cursor to the column that is to act as sort key, and press Enter.

Alternatively, if the SOrt command is assigned to a PF key, position the cursor on the appropriate field before pressing the PF key.

For example, suppose that a field in the view in the current window contains statistical data in descending order. To rearrange the rows so that the contents of that field are in ascending order in the view, you would type SOrt A in the COMMAND field, place the cursor on any occurrence of the field or on the field heading, and press Enter.

Locating data within a view

The Locate command moves the cursor to a specified data string in a selected column of a general or summary view. (It cannot be used in a detail view.) Once a Locate command has been issued, it can be repeated using the RFind command.

You must move the cursor to the relevant column before you issue the Locate command. If you issue the locate command without first positioning the cursor in the appropriate column, the target string is sought in the leftmost column of the view.

If the target string is in a column that is not in the visible portion of the view, a message is issued telling you to scroll to the left or right to move the data into view.

To go directly to a string within a view of tabular data, issue the command:

```
Locate string [FIRST | LAST | PREV | NEXT]
```

where:

string is the character string you want to locate, and must be specified. The *string* value may begin or end with an asterisk (*) in place of one or more characters. For example, the command:

```
L *lgs
```

locates a string ending with the characters "lgs" in the specified column.

FIRST | LAST | PREV | NEXT

In views where there may be multiple occurrences of the target string in the specified column, you can go directly to the first, last, previous, or next occurrence of the string by specifying the FIRST, LAST, PREV, or NEXT parameter on the Locate command.

If you issue the Locate command without the FIRST, LAST, PREV, or NEXT parameter, the search begins at the row following the cursor position. If the cursor is in the command field, the search begins with the first visible row.

If you issue the Locate command with the PREV parameter, the search begins at the row before the cursor position. If you issue the Locate command with the LAST or PREV parameter, and then issue the RFind command, Locate continues to work backwards through the occurrences of the string and goes to the occurrence before the last one that it located.

Summarizing the data in a view

You can summarize the data in a general or summary view using any field in that view as the grouping factor. When you summarize a summary view, the data is resummarized by the new grouping factor.

Note: The SUM command always summarizes the data originally collected for a general or summary view. If you expand a summary line and display the information used to create the line, a subset of the summarized data is displayed; if you then issue another SUM command, all of the original data (not just the subset of data you just displayed) is resummarized using the new grouping factor. Likewise, if the original general or summary view command was qualified with parameters, only the data collected for the original view can be summarized.

For example, in a view containing the fields Program Language, CEDF Option, and Enabled Status, you can summarize the view contents by using program language, CEDF option, or enabled status as the grouping factor. The summary comprises one summary line for each possible value of the chosen field. So if you summarize a view of program data using CEDF Option as the grouping factor, the summary comprises two lines, one for programs with CEDF, and one for programs with NOCEDF.

To summarize data using CICS system name as the grouping factor, simply issue the command:

```
SUM
```

as shown in Figure 33.

```

26MAR1999 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==> SUM_                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =PROGRAM=====EYUPLX01=EYUCSG01=26MAR1999==11:30:30==CPSM=====
CMD Program CICS  Enabled Use   Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status- Option Require
PROG0123 EYUMAS1A ENABLED   1     0 ASSEMBLER PRIVATE CEDF NOTREQU
PROG0123 EYUMAS1B DISABLED   0     0 COBOL   SHARED NOCEDF NOTREQU
PROG0345 EYUMAS1B DISABLED   0     0 PLI    PRIVATE NOCEDF NOTREQU
PROG0445 EYUMAS1A ENABLED   0     0 C     SHARED NOCEDF NOTREQU
PROGABCD EYUMAS1B DISABLED   0     0 PLI    PRIVATE NOCEDF NOTREQU
PROGABCD EYUMAS1A DISABLED   0     0 C     SHARED NOCEDF NOTREQU

```

Figure 33. Summarizing data by CICS system name

Figure 34 shows the summary that results from issuing the SUM command against the view shown in Figure 33.

```

26MAR1999 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =PROGRAM==PROGRAMS==EYUPLX01=EYUCSG01=26MAR1999==11:30:30==CPSM=====
CMD Program CICS      Count Enabled Use   Current Program Shared CEDF C
--- Name---- System-- ----- Status-- Count-- Use---- Language- Status- Option R
PROG0345 EYUMAS1B      3 DISABLED   0     0 PLI    PRIVATE NOCEDF N
PROGABCD EYUMAS1A      _ 3 DISABLED   0     0 C     SHARED NOCEDF N

```

Figure 34. A Program view summarized by CICS system name

To summarize data using a specific column of the view (other than CICS system) as the grouping factor, type the SUM command in the COMMAND field, position the cursor anywhere in the appropriate column, and press Enter. Alternatively, if the SUM command has been assigned to a PF key, position the cursor before pressing the PF key.

The online help facility provides information about the way CICSplex SM summarizes the contents of each column in a view. Data can be summarized in the following ways:

AVG Shows the average value of all the values in the summarized field.

LIKE Shows information for all data elements having the like condition (for example, ENABLED).

When all elements in the summarized field have the same value, shows that value. When all elements in the summarized field are identical in part of their values, shows the like parts of the value with asterisks (*) representing the unlike parts (for example, CMAS1***). When no part of the value is common to all elements in the summarized field, shows asterisks.

MAX Shows the maximum value of all the values in a summarized field.

MIN Shows the minimum value of all the values in a summarized field.

SUM Shows the total of all values in the summarized field.

Note: All methods of summarizing, except LIKE, apply only to numeric fields.

To display this information, position the cursor in the appropriate column of the summary before you issue the HELp command.

You can issue line action commands against any of the summary lines. If you do this, however, all of the CICS resources combined to form the summary line are affected by the command. Therefore, before you issue an action command, it is recommended that you display the information used to create the summary line. To do this, position the cursor in the Count field of the appropriate summary line and press Enter. Figure 35 shows an example view in which the second of the two summary lines in Figure 34 on page 53 has been expanded.

```

26MAR1999 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =PROGRAM=====EYUPLX01=EYUCSG01=26MAR1999==11:30:30==CPSM=====
CMD Program CICS  Enabled Use   Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status- Option Require
PROG0123 EYUMAS1A ENABLED 1    0 ASSEMBLER PRIVATE CEDF NOTREQU
PROG0445 EYUMAS1A ENABLED 0    0 C      SHARED NOCEDF NOTREQU
PROGABCD EYUMAS1A DISABLED 0    0 C      SHARED NOCEDF NOTREQU

```

Figure 35. A summary line expanded

Note that a summary line can be expanded only within the window containing the summary line.

Locking and unlocking a window

The information in windows whose status code is W (waiting) is updated automatically:

- At specific intervals, if the automatic screen update facility (ASU) is active. (ASU is described in “Refreshing all views automatically” on page 49.)
- When you press Enter, if the cursor is in the control area and no commands are pending.

To prevent this automatic screen update occurring, issue:

```
LOCK
```

This command locks the contents of the target window and changes its status code to L (locked). The contents of any other windows continue to be updated automatically.

While a window remains locked, its contents cannot be updated automatically. However, you can change the contents of a locked window by directing commands directly to that window. That is, the locked window can be the current window, or you can prefix commands with the identifier of the locked window.

To remove the lock from a window, and so restore its ability to be updated automatically, issue:

```
UNL0ck
```

The window status code is changed from L (locked) to W (waiting).

Redisplaying views and forms of views

The CICSplex SM view commands cause data about CICS resources and CICSplex SM definitions to be displayed. Once a view is displayed, you can change the form of the data by:

- Hyperlinking from a hyperlink field to related, general or detailed, information.
- Issuing the SUM display command to produce a summary of the displayed data. (SUM is described in “Summarizing the data in a view” on page 52.)
- Issuing the SOrt display command to rearrange the rows of data in a view. (SOrt is described in “Sorting the contents of a view” on page 51.)
- Issuing the PARms display command to change the parameters used to produce a view. (PARms is described in “Refreshing the view in a single window” on page 49.)
- Issuing the CONtext, SCOpe, or SET display command to change the context and scope qualifying the information contained in a view. (CONtext, SCOpe, and SET are described in “Setting the context and scope” on page 43.)

Occasionally you will need to redisplay previously displayed forms of views. For this purpose, CICSplex SM supplies two display commands, the effects of which differ somewhat from the hierarchical order of the ISPF END command.

1. To redisplay, in reverse order, each previously displayed view, issue:

```
ENDQ
```

Each view is redisplayed in the form in which it was last displayed.

This command can be issued up to 10 times in succession to redisplay, in reverse order, each of the 10 previously displayed views.

The data shown in each view is refreshed as it is redisplayed.

2. To redisplay, in reverse order, each form of each previously displayed view, issue:

```
END
```

This command can be issued up to 20 times in succession. When the forms of the last view have been exhausted, the forms of the immediately preceding view are redisplayed.

For the first redisplayed view (and all of its forms), the data shown is the same data as previously displayed.

For each subsequently redisplayed view the data is refreshed. (The data is not separately refreshed for each redisplayed form.)

By using both the ENDQ and the END commands, you can redisplay (in reverse order) up to 20 forms of a maximum of 10 previously displayed views. To illustrate the way the two commands redisplay views and forms of views, suppose you have displayed the following views, in this order:

- LOCTRAN
- TERMNL
- TERMNLD
- TERMNL2
- PROGRAM
- PROGRAMD

Tables 3, 4, and 5 show the results of issuing either ENDQ or END repeatedly or both in combination.

Table 3. Results of issuing ENDQ

Issue this command	To display this view	In which data is...
	PROGRAMD	
ENDQ	TERMNL2	Refreshed
ENDQ	LOCTRAN	Refreshed

Table 4. Results of issuing END

Issue this command	To display this view	In which data is...
	PROGRAMD	
END	PROGRAM	As you last displayed it
END	TERMNL2	Refreshed
END	TERMNLD	Same refresh as TERMNL2
END	TERMNL	Same refresh as TERMNL2
END	LOCTRAN	Refreshed

Table 5. Results of combining ENDQ and END

Issue this command	To display this view	In which data is...
	PROGRAMD	
END	PROGRAM	As you last displayed it
ENDQ	TERMNL2	Refreshed
END	TERMNLD	Same refresh as TERMNL2
ENDQ	LOCTRAN	Refreshed

When you have redisplayed the last view or form that CICSPlex SM has retained, the message NO MORE VIEWS IN STACK appears in the short message area. If you continue to issue the END command after having received this message, CICSPlex SM:

- Reduces the window, if it is maximized, and restores the previous window configuration

- Closes the designated window when multiple windows are open
- Ends the CICSplex SM session when there is only one open window

Note: While using a screen configuration, issuing END ends the current view and redisplay the previous view in that screen configuration. Any views displayed prior to specifying the screen configuration are discarded. (Refer to “Saving and reusing screen configurations” on page 46 for more information.)

Clearing a window

To remove the contents of the current window, issue:

```
CLEAr
```

The CLEAr command sets the status code of the affected window to T (temporary).

If the status code of the target window is P (pending) when you issue the CLEAr command, the command that is currently processing in that window is completed. Other outstanding commands are discarded.

Chapter 4. The CICSplex SM help facility

At any time during a CICSplex SM session, you can request online assistance by issuing the HELP display command.

When you issue the HELP command:

- From the CICSplex System Manager entry panel
- From any of the panels associated with option 0 (PROFILE) on the CICSplex System Manager entry panel
- From any input panel

a full-screen help panel is displayed. If there is more than one such panel for a help topic, an indication of further panels is provided at the bottom of the panel. To display the next panel in the sequence, you press Enter. To leave the help information, you issue the END command.

When you request help from the information display panel, a scrollable pop-up window partially, and temporarily, overwrites the contents of the panel.³

An example help pop-up is shown in Figure 36.

```

26MAR1999 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =PROGRAM=====EYUPLX01=EYUCSG01=26MAR1999==06:34:54=CPSM=====
CMD Program CICS  Enabled Use    Current Program Shared CEDF Copy
--- Name---- System-- Status-- Count-- Use---- Language- Status- Option Require
PROG0123 EYU  Help          PROGRAM General View      Help  NOTREQU
PROG0123 EYU  Command ==>                               Scroll ==> Page  NOTREQU
PROG0345 EYU  -----
PROG0445 EYU  Provides general information about currently  NOTREQU
PROGA545 EYU  installed programs.                          NOTREQU
PROGA645 EYU  Availability:                                NOTREQU
PROGA655 EYU  The PROGRAM view is available for all managed CICS  NOTREQU
PROGA666 EYU  systems.                                       NOTREQU
PROGA656 EYU  -----
PROGA667 EYU  -----
PROGA657 EYU  -----
PROGA687 EYU  -----
PROGA687 EYU  -----
PROGA689 EYUMAS1A  ENABLED    0      0 ASSEMBLER PRIVATE NOCEDF NOTREQU
PROGA697 EYUMAS1B  ENABLED    0      0 ASSEMBLER PRIVATE NOCEDF NOTREQU

```

Figure 36. Help pop-up

There are three ways of requesting help from the information display panel. You can:

- Issue the HELP display command with parameters
- Issue the HELP display command without parameters, in which case the information you get depends on the position of the cursor
- Request further help from within a help topic

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

3. If you are using a version of ISPF prior to Version 3 Release 1, all help information is provided in full-screen panels.

This chapter describes the three ways of requesting help from the information display panel, describes how to obtain help for some error messages, and explains how to end the help function.

Issuing HELP with parameters

You can request help information by entering the HELP command in the COMMAND field of the information display panel. The syntax of the HELP command is:

```
HELp [HELp | cmd-name | view-name | ACTIONS]
```

where:

HELp causes information about the help facility itself to be displayed

cmd-name

is the name of a display command for which help information is to be displayed

view-name

is the name of the view for which help information is to be displayed

ACTIONS

causes information about the action commands associated with the view shown in the current window to be displayed

For example, if the current window contains the MONSPEC view:

1. The command HEL HEL displays explanatory information about the CICSplex SM help facility.
2. The command HEL SO displays help for the SOrt display command.
3. The command HEL MONSPEC displays help for the MONSPEC view.
4. The command HEL ACTIONS displays help for the CRE, ADD, BRO, REM, UPD, and TEMPMP action commands, which are valid for the MONSPEC view.

Issuing HELP without parameters

If you specify no parameters on the HELP command, the location of the cursor determines the type of help information that is displayed:

If the cursor is ...	You get ...
Anywhere in the control area of the Information Display panel	The introduction to CICSplex SM, which includes a list of primary help topics.
On the view or form-name field on a window information line	An explanation of the view is displayed in the window, along with availability information. The explanation includes the names of any hyperlink fields, overtype fields, and action commands associated with the view.
On any field other than the view or form-name field on a window information line	A description of the appropriate field.
On a line command field of a view	A description of the action commands valid for the view and any CICS release-level restrictions. Note: You can also display a description of the action commands by typing a question mark (?) in the line command field and pressing Enter.
On a field or field heading in a view	An explanation of the field. The explanation indicates whether the field is a hyperlink or overtype field, describes how the data is summarized in a summary line, and includes any CICS release-level restrictions. In addition, if the field contains a CVDA value, the value shown in the view may be truncated; the description of the field, however, shows the full CVDA value.

This is known as *cursor-sensitive help*. Requesting cursor-sensitive help is the easiest way to obtain help information for a view, a field, or an action command, particularly if you have assigned the HELP display command to a PF key. (For information about assigning commands to PF keys, see “Appendix A. Tailoring your CICSplex SM profile” on page 65.)

Requesting help within help

Many of the help pop-up windows contain highlighted words or phrases. These are hyperlinks: if you place the cursor on any of these highlighted words or phrases and press Enter, additional information about the word or phrase is displayed.

The help pop-up window has its own command field in which you can enter further help requests. When the help pop-up window contains information about the online help facility itself, issuing:

HELP Displays information about the online help facility

HELP topic

Displays information about the designated help topic

INDEX

Displays a list of available help topics

When the help pop-up window contains help information for a view, a field within a view, or an action command, issuing:

HELP Displays information about the online help facility

HELP ACTIONS

Displays information about the action commands valid for the view

INDEX

Displays a list of the fields in the view for which help can be requested

INDEX VIEWS

Displays a list of the names of all views that are related to the view in the current window and for which help can be requested. The list item ACTION indicates that help for the actions that can be performed is available.

All entries in the lists produced by both INDEX and INDEX VIEWS are hyperlinks, which means that you can display additional information by placing the cursor on an entry and pressing Enter.

When you request additional information from a pop-up window, a second pop-up window overlays most of the original pop-up window, as shown in Figure 37.

```
26MAR1999 11:30:30 ----- INFORMATION DISPLAY -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =PROGRAM=====EYUPLX01=EYUCSG01=26MAR1999==11:30:30=CPSM=====
CMD Program CICS  Enabled Use  Current Program Shared CEDF
--- Name---- System-- Status-- Count-- Use---- Language- Status- Option
-----|-----|-----|-----|-----|-----|-----|-----|-----|
Help    CICSPlex SM Introduction      Help | SHARED NOCEDF
-----|-----|-----|-----|-----|-----|-----|-----|
Help    How can I use CICSPlex SM?    Help | ARED NOCEDF
-----|-----|-----|-----|-----|-----|-----|-----|
Help    What are action commands?     Help |
Command ==>                            Scroll ==> Page
-----|-----|-----|-----|-----|-----|-----|-----|
Action commands affect one or more CICSPlex
resources or CICSPlex SM definitions represented
in a view. There are primary and line action
commands.

o Primary action commands and their parameters
can be entered in the COMMAND field or
assigned to a PF key. They act against the
view that is in the current window.
```

Figure 37. Nested help pop-ups

Searching a help topic

When information about a specific help topic is displayed in a help pop-up window (in response to the HELP topic command, for example), you can search the help topic by issuing the command:

Find *string*

where *string* is a word or a phrase. Find is not case-sensitive, so you can enter the string in uppercase or lowercase characters. If the string contains a space, you must enclose the string in single quotation marks:

F 'an example'

Requesting help for error messages

CICSplex SM can produce two types of message via its user interface. The first of these—the *information message*, whose identifier ends with the letter “I”—confirms the successful completion of a command. You do not need to respond to information messages. The second type of message—the *error message*, whose identifier ends with the letter “E”—identifies an incorrect command or the failure of a command.

Error messages relating to CICSplex SM panel and window management are displayed in the short message area in the title line of the information display panel. The command that caused the error is left in the COMMAND field. When an error message appears in the short message area, you can issue the HELP command to obtain a brief description (also known as a *long message*) of the error. This description replaces the CURR WIN and ALT WIN fields in the control area. These fields are restored when you next press Enter or a PF key. If you issue the HELP command again while the long message is displayed, CICSplex SM displays the tutorial relating to the command in error. If the error in the short message area does not relate to a specific command, issuing HELP twice in succession causes information about the online help facility to be displayed.

Error messages relating to a view or to a CICS problem encountered during command processing are treated in one of two ways. Either the messages are displayed in the window to which they apply, or the view is redisplayed with ERR in one or more line command fields. When ERR is displayed without any messages, you can position the cursor on the ERR indicator and press Enter to display the messages. Online help information is not available for this category of message. Such messages overwrite the contents of the window, but the data is restored when you next press Enter or a PF key. Several messages might appear for a single error. The first message in the sequence explains the error; the remainder are for diagnostic purposes and can usually be ignored.

All CICSplex SM messages are described in the *CICSplex System Manager Messages and Codes* book.

Ending help

When you have finished using the online help facility, you can issue either of the following commands:

END which removes the current level of help pop-up information

Quit which removes all levels of help information

Appendix A. Tailoring your CICSplex SM profile

A default CICSplex SM user profile is created automatically the first time you access CICSplex SM. The main function of the user profile is to control specific aspects of the display appearance. To tailor the default profile, you select option 0 from the CICSplex System Manager entry panel. When you select option 0, the profile options panel, shown in Figure 38, is displayed.

```
----- PROFILE OPTIONS -----  
OPTION  ==>  
  
 1 CONTROL      - Specify session control parameters  
 2 DISPLAY      - Specify information display parameters  
 3 PFKEYS       - Specify PF keys  
 4 DATE         - Specify date format  
 5 ATTRIBUTES   - Specify display attributes for highlighting
```

Figure 38. The profile options panel

The options presented on the profile options panel are described in the remainder of this appendix.

Setting session control parameters (option 1)

The session control parameters affect two distinct features of a CICSplex SM session: they determine which CAS you connect to when you sign on to CICSplex SM, and they control the *extended diagnostic mode* (XDM).

Note: Any changes that you make to the session control parameters take effect the next time you connect to a CAS:

- If option 0 (PROFILE) was the first option you selected from the CICSplex System Manager entry panel, you are not yet connected to a CAS. The next time you select option 1 (PLEXMGR) or option 2 (CPSM), you are connected to a CAS and the session control parameters you specify here take effect.
- If you selected option 1 or 2 from the CICSplex System Manager entry panel during this ISPF session and prior to making profile changes, you are already connected to a CAS. For the changes to take effect, you must first end the current CICSplex SM session by exiting from ISPF; this will disconnect your session from the CAS. Then, the next time you start a CICSplex SM session, the new session control parameters take effect.

The panel displayed when you select option 1 (CONTROL) from the profile options panel is shown in Figure 39 on page 66.

```

----- SESSION CONTROL PARAMETERS -----
COMMAND ==>

Subsystem ID   ==> CAS3      (Co-ordinating Address Space subsystem ID)

Confirm Parm  ==> NO        (Display parameter confirmation panel, Yes/no)
XDM Mode      ==> NO        (Execute session in diagnostic mode, Yes/No)

Press END to save updates or HELP for more information.

```

Figure 39. The profile options panel: session control parameters

Subsystem ID

is the enterprise-defined name of the coordinating address space (CAS) to which you connect when you start a CICSplex SM session.

In the default user profile, the CAS subsystem ID is “CPSM”. You should replace this value with the identifier of the CAS on the MVS image from which you are using CICSplex SM. If you do not know the name of the CAS to which you want to be connected, ask your system administrator for assistance.

When you next select option 1 or 2 from the CICSplex System Manager entry panel, CICSplex SM establishes a connection to the CAS, and from the CAS to a CMAS managing the CICSplex that is to be the context of the session. If you decide, during a CICSplex SM session, that you want to identify a different CAS, you can return to this panel and overtype the CAS subsystem ID. To establish a connection to the new CAS, however, you must end the current CICSplex SM session by exiting from ISPF and then start a new session.

Confirm parms

controls whether the session control parameters panel is displayed automatically each time you connect to a CAS.

YES causes the session control parameters panel to be displayed the first time you select option 1 or 2 from a CICSplex System Manager entry panel in any ISPF session. This allows you to change the subsystem ID and the XDM setting before a CAS connection is established.

NO prevents the session control parameters panel from being displayed the first time you select option 1 or 2 from a CICSplex System Manager entry panel in any ISPF session. When Confirm Parm is set to NO, you must explicitly select option 0 (PROFILE) from the CICSplex System Manager entry panel to change the session control parameters.

XDM Mode

activates and deactivates the XDM (extended diagnostic mode). You should activate XDM *only* when you are asked to do so by an IBM Support Representative.

YES Activates XDM. When diagnostic messages are produced, they are displayed in the affected window and written to the job log.

NO Deactivates XDM.

XDM is described in the *CICSplex System Manager Problem Determination* book.

Setting information display parameters (option 2)

The information display parameters set the default screen configuration and the default automatic screen update (ASU) interval.

Figure 40 shows the information display parameters panel displayed when you select option 2 from the profile options panel.

```
----- INFORMATION DISPLAY PARAMETERS -----  
COMMAND ==>  
  
Initial screen ==>          (Name of initial screen to be displayed)  
ASU interval   ==> 30      (Auto screen update interval. 15-999 seconds)  
  
Enter END command when all updates are complete.
```

Figure 40. The profile options panel: information display parameters

Initial screen

When an information display panel is first displayed during any CICSplex SM session, its display area contains a single, open window by default. If you would like to be presented with a different screen configuration at the start of a session (for example, if you have discovered that you could usefully start each CICSplex SM session with several windows, each having a different context and scope), you can specify the name of that screen configuration in the Initial screen field of the information display parameters panel.

For more information about screen configurations, see “Saving and reusing screen configurations” on page 46.

ASU interval

The ASU command, described in “Refreshing all views automatically” on page 49, activates the automatic screen update facility. When this facility is active, the data in all unlocked windows is updated automatically at specified intervals.

You can define the length of the ASU interval on the ASU command. Alternatively, you can use the default value, which is specified in the ASU interval field of the information display parameters panel.

By default, the ASU interval is 15. You can overtype the default ASU interval with a value in the range 15 through 999.

Notes:

1. A small interval adds to the CPU overhead when there is a large amount of data to be updated.
2. You should consider increasing the ASU interval value when the status code for all or most windows frequently changes from W (waiting) to P (pending). (This is because, in these circumstances, the window contents are unlikely to be changing between screen updates.)
3. You can use the ASU display command to override temporarily the default ASU interval. This new interval remains in effect until the ASU facility is next deactivated. The minimum ASU value you can specify on the ASU command is 3.

Setting PF keys (option 3)

The default CICSplex SM profile uses the default ISPF PF key assignments. To change these assignments, you can:

- Issue the ISPF KEYS command from anywhere within CICSplex SM, or
- Select option 3 from the Profile Options panel

The resulting panel, shown in Figure 41, shows the current PF key assignments.

```
----- PF KEY DEFINITIONS AND LABELS - PRIMARY KEYS -----
COMMAND ==>

NUMBER OF PF KEYS . . 24                                TERMINAL TYPE ==> 327x

PF1 . . . HELP
PF2 . . . SPLIT
PF3 . . . END
PF4 . . . RETURN
PF5 . . . RFIND
PF6 . . . RCHANGE
PF7 . . . UP
PF8 . . . DOWN
PF9 . . . SWAP
PF10 . . LEFT
PF11 . . RIGHT
PF12 . . RETRIEVE

PF1 Label . .      PF2 Label . .      PF3 Label . .
PF4 Label . .      PF5 Label . .      PF6 Label . .
PF7 Label . .      PF8 Label . .      PF9 Label . .
PF10 Label . .     PF11 Label . .     PF12 Label . .

Press ENTER key to display alternate keys.  Enter END command to exit.
```

Figure 41. The profile options panel: PF key definitions and labels

To change a PF key assignment, overwrite the current value with one or more:

- CICSplex SM commands
- ISPF commands
- TSO commands

Any command or series of commands that you can type in the COMMAND field of an Information Display panel can be assigned to a PF key. The number of commands you can assign to a single PF key is determined by the length of the field into which you are typing the command string. You can use the LABEL fields at the bottom of the panel to assign an identifier to the commands assigned to any particular PF key. For information about commands valid in a CICSplex SM session, see “Chapter 3. The CICSplex SM display commands” on page 37.

Your CICSplex SM PF key settings remain in effect between CICSplex SM sessions; they do not affect non-CICSplex SM applications.

PF key assignments are shown in the last two lines of the display. To prevent these two lines from covering data lines, you can issue the ISPF command PFSHOW OFF to suppress display of the PF key assignments.

Setting the date format (option 4)

When you select option 4 from the profile options panel, the SET DATE FORMAT panel, shown in Figure 42, is displayed. You use this panel to define the date format for all CICSplex SM panels, windows, and views.

```
----- SET DATE FORMAT -----
COMMAND ==>

Date ==> 8 (Date format to be used in Information Display.
Valid specifications are:
1 - mm/dd/yy   2 - dd/mm/yy   3 - yy/mm/dd   4 - ddmmmyy
5 - mm/dd/yyyy 6 - dd/mm/yyyy 7 - yyyy/mm/dd 8 - ddmmmyyyy )

Press END to save updates or HELP for more information.
```

Figure 42. The profile options panel: date format

Each valid date format is associated with a number. To change the format, enter the appropriate number in the Date field.

mm is the 2-digit month

dd is the 2-digit day of the month

yy is the 2-digit year

mmm is a 3-character abbreviation for the month name

yyyy is the 4-digit year

For example, the 26th August 1999 can be displayed in these formats:

1. 08/26/99
2. 26/08/99
3. 99/08/26
4. 26AUG99
5. 08/26/1999
6. 26/08/1999
7. 1999/08/26
8. 26AUG1999

Setting display attributes (option 5)

The display attributes control the appearance of column headings and window borders. Selecting option 5 from the profile options panel produces the DISPLAY ATTRIBUTES panel, which is shown in Figure 43 on page 70.

```

----- DISPLAY ATTRIBUTES -----
COMMAND ==>
Specify display attributes for headings and window borders.

          INTENS  COLOR  HILITE
          -----
Headings:
  with hyper  ___  ___  ___  (for columns with a hyperlink defined)
  w/o hyper   ___  ___  ___  (for other columns)
Borders:
  with focus  ___  ___  ___  (around the current window)
  w/o focus   ___  ___  ___  (around all other windows)

Column Values: (Only first letter required)
  INTENS - High, Low.

  COLOR  - White, Red, Blue, Green, Pink, Yellow, Turquoise.
           (For terminals that support color)

  HILITE - Uscore, Blink, Reverse.
           (For terminals that support extended highlighting)

Enter END when all updates are complete.

```

Figure 43. The profile options panel: display attributes

Headings

The display attributes (intensity, color, and highlighting) of column headings in CICSplex SM views allow you to differentiate those fields that support hyperlinks from those that do not. For example, the column headings of fields that are hyperlinks could be white and underscored, and those that are not could be green.

To change an intensity (INTENS), color, or highlighting (HILITE) attribute, overtype the appropriate field with one of the values shown in the right half of the panel.

All terminals recognize the intensity (INTENS) attribute. If your terminal does not support color or highlighting, these attribute values are ignored.

Borders

The display attributes of the border surrounding a window allow you to identify the current window (that is, the window with focus). To change the intensity, color, or highlighting attribute of a window border, overtype the appropriate field with one of the values shown in the right half of the panel.

Appendix B. A summary of the CICSplex SM display commands

This appendix lists all of the CICSplex SM display commands. For each display command it provides the command name, a brief description of its function, and a reference to additional information.

Table 6. CICSplex SM display commands

Command	Description	Page
ASU	Turns on the automatic screen update (ASU) facility for all open windows.	49
CLEAr	Clears the contents of a window.	57
CLOse	Closes a window and reassigns its space to neighboring windows.	48
CONtext	Changes the context of a window.	43
DATARefresh	Updates the contents of a view in a specific window using the parameter values associated with the command that produced the view.	49
Down	Scrolls the data within a window toward the bottom.	50
END	Redisplays, in reverse order, a maximum of 10 previously issued views and a maximum of 20 alternate forms of each of those views.	55
	Exits one level of nested help.	59
	Reduces expanded window; redisplays last window configuration.	42
	Closes a window and ends a CICSplex SM session.	48
ENDQ	Redisplays, in reverse order, the last form of a maximum of 10 previously issued views.	55
HELp	Displays information about CICSplex SM, panels, views, fields, and messages.	59
HSplit	Splits a window horizontally to open a new window.	39
LEft	Scrolls the data in a window to the left.	50
Locate	Locates a data string within a specified column of a view.	52
LOCK	Prevents the contents of a window from being updated.	54
MAXimize	Expands a window to fill the display area.	42
NEXt	Sets the next sequential window as the current window.	39
PARm	Updates the contents of a view in a specific window by changing the parameter values associated with the command that produced the view. Query data is not refreshed.	49
PREVious	Sets the previous sequential window as the current window.	39
QPARm	Updates the contents of a view in a specific window by changing the parameter values associated with the command that produced the view. Query data is refreshed.	49
Quit	Closes all open windows and displays the CICSplex System Manager entry panel.	48
	Exits from help, regardless of the nesting levels.	59
RESet	Closes all open windows except window 1 and clears the contents of window 1.	48
REStore	Reduces an expanded window to redisplay all open windows in their previous configuration.	42
Right	Scrolls the data in a window to the right.	50
SAVEScr	Saves a new screen configuration, or replaces an existing screen configuration.	46
SCOpe	Changes the scope of a window.	44
SCREen	Activates a specific screen configuration.	46
SCREENS	Displays a view from which you can select or delete a screen configuration.	46

Table 6. CICSplex SM display commands (continued)

Command	Description	Page
SET	Changes the context, product, server, scope, and view associated with an open window.	45
SETD	Sets the context, product, and scope to be associated with all subsequently opened or cleared windows.	45
SHOWPosi	Displays information about a view, such as the number of records it contains and the number of records currently displayed.	41
SOrt	Rearranges the rows within a general view (in ascending or descending order) based on the contents of a field within that view.	51
STATus	Displays an explanation of the window status codes.	40
SUM	Displays summary information about the contents of a column in a general or summary view.	52
UNLOck	Allows the contents of a previously locked window to be updated.	54
UP	Scrolls the data in a window toward the top.	50
VSplit	Splits a window vertically to open a new window.	39
Wn	Makes the window identified by <i>n</i> the current window.	39
	Directs the results of the command to which it is prefixed—as in <i>Wn.LEFT</i> —to the window identified by <i>n</i> .	40

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 *overtyping 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 business transaction services (BTS), a BTS 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
- Transactions started by non-terminal related EXEC CICS START commands

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.

overtyping 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

overtyping 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 *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 typically 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 in the Dynamic field in either the transaction definition or the program 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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