

# **MAINVIEW<sup>®</sup>** **Administration Guide**

**Version 4.1**

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  - license number and password (trial or permanent)
- operating system and environment information
  - machine type
  - operating system type, version, and service pack or other maintenance level such as PUT or PTF
  - system hardware configuration
  - serial numbers
  - related software (database, application, and communication) including type, version, and service pack or maintenance level
- sequence of events leading to the problem
- commands and options that you used
- messages received (and the time and date that you received them)
  - product error messages
  - messages from the operating system, such as `file system full`
  - messages from related software

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# About This Book

This book contains the instructions for maintaining and managing the operational environment of all MAINVIEW<sup>®</sup> products installed at your site.

## How This Book Is Organized

This book contains the following parts:

- Chapter 1 provides an overview of the tasks an administrator is expected to perform to manage MAINVIEW.
- Chapters 2 through 8 describe how to manage and control MAINVIEW operations.
- Chapters 9 and 10 discuss MAINVIEW targets.
- Chapters 11 and 12 discuss single system image context.
- Chapters 13 and 14 discuss the management of historical data sets and product libraries.
- Chapter 15 explains how to create online help.
- The appendixes provide supplemental information.

---

## Conventions

The following conventions are used throughout this book to define command syntax and should not be included with a command:

- Brackets [ ] enclose optional parameters or keywords
- Braces { } enclose a list of parameters; one must be chosen
- A line | separates alternative options; one can be chosen
- An underlined parameter is the default
- An ITEM IN CAPITAL LETTERS indicates exact characters; usage can be all uppercase or lowercase
- Items in *italicized, lowercase* letters are values that you supply
- Commands in uppercase and lowercase letters, such as HSplit, show the command abbreviation by uppercase letters (HS, for example); lowercase letters complete the entire command name as an optional entry

Commands that do not have an abbreviation are in all upper case letters, such as END.

## Command Notations

The following notations are used with MAINVIEW commands:

- A semicolon ; stacks two or more commands:

TRANSFER *target product;view*

where *target* is the system or subsystem being monitored, *product* is the MAINVIEW product monitoring a system or subsystem, and *view* is the name of the view to format performance information for display.

**Note:** A semicolon is the ISPF default delimiter for command stacking. If you change the default to a different character, the semicolon delimiter for MAINVIEW commands also changes to this character.

- 
- A period . directs a command to a window other than the current window:

```
EZALARM;W2.ALARM
```

- Positional qualifiers can be a question mark ? or a plus +; generic qualifiers can be an asterisk \*:

```
MVS*
```

- An asterisk \* used with the CONTEXT command specifies the current system and with the TIME command specifies the current time frame:

```
TIME * * *
```

This requests a time frame of the current date, time, and duration. For more information about the **TIME** command, enter **HELP TIME** on the **COMMAND** line.

- An asterisk \* acts as a place holder for positional parameters used with the **PARm** command. For more information about this command, enter **HELP PARm** on the **COMMAND** line.
- An equals sign = used with the CONTEXT command specifies the context from a previous CONTEXT request and with the TIME command can specify the date, time, or duration from a previous TIME request:

```
TIME 15APR1998 = =
```

This requests the time and duration specified with the previous TIME command.

---

# MAINVIEW Library

The MAINVIEW product family includes the following products:

CMF<sup>®</sup> MONITOR  
MAINVIEW AutoOPERATOR<sup>™</sup>  
MAINVIEW Explorer  
MAINVIEW FOCAL POINT  
MAINVIEW for CICS  
MAINVIEW for DB2<sup>®</sup>  
MAINVIEW for DBCTL  
MAINVIEW for IMS Offline  
MAINVIEW for IMS Online  
MAINVIEW for IP  
MAINVIEW for Linux – Servers  
MAINVIEW for OS/390  
MAINVIEW for UNIX System Services (USS)  
MAINVIEW for VTAM  
MAINVIEW for WebSphere Application Server  
MAINVIEW for WebSphere MQ (formerly known as MAINVIEW for MQSeries)  
MAINVIEW Storage Resource Manager (SRM)  
MAINVIEW SYSPROG Services  
MAINVIEW VistaPoint<sup>™</sup>

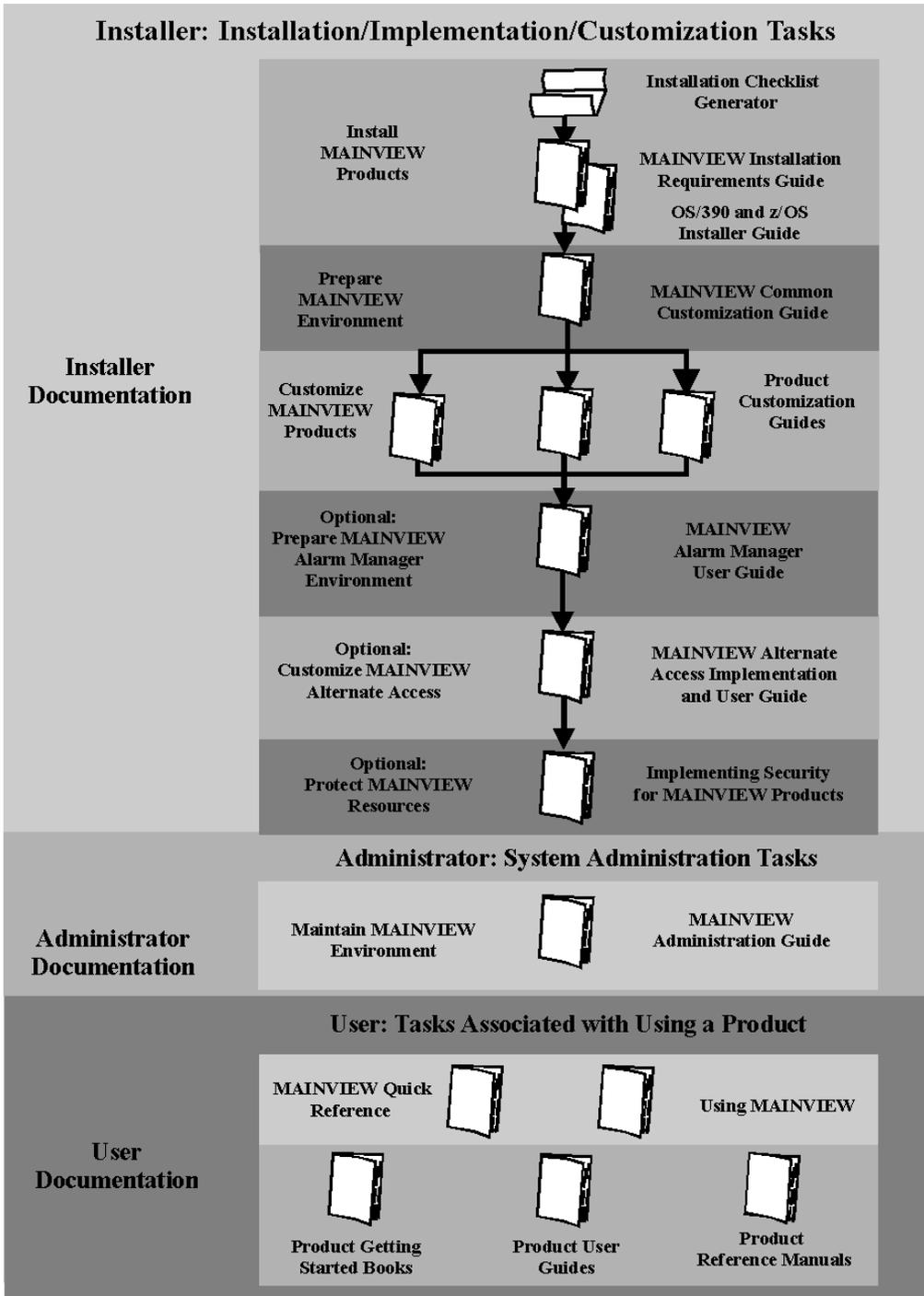
Each of these products provides a product-specific library that typically includes getting started, customization, user, and reference books.

In addition to those books, there are several books and quick references that provide general information common to all or many MAINVIEW products. Those books are listed and described in the following table.

OS/390 and z/OS Installer Guide	provides information about the installation of BMC Software products on OS/390 and z/OS systems
MAINVIEW Installation Requirements Guide	provides information on installation requirements such as software requirements, storage requirements, and system requirements
MAINVIEW Common Customization Guide	provides instructions for manually customizing the MAINVIEW environment for your products
MAINVIEW Products General Information	provides an overview of the MAINVIEW environment and the products that it supports
MAINVIEW Alarm Manager User Guide	explains how to create and install alarm definitions that indicate when exceptions occur in a sysplex
MAINVIEW Alternate Access Implementation and User Guide	explains how to configure, start, and stop VTAM and EXCP AutoLogon sessions to access MAINVIEW products without an active TSO subsystem
Implementing Security for MAINVIEW Products	explains basic MAINVIEW security, enhanced security, and MAINVIEW Alternate Access security
MAINVIEW Administration Guide	provides information on MAINVIEW operations, targets, single-system image contexts, data sets, view customization, and diagnostic facilities
MAINVIEW Quick Reference	introduces the MAINVIEW family of products and lists the commands used to manage the MAINVIEW windows environment
Using MAINVIEW	provides information about working with MAINVIEW products in windows mode, full-screen mode, and from MAINVIEW Explorer

**Note:** MAINVIEW messages are documented in the Messages and Codes online display, which you can access by typing MSG in the command line of any MAINVIEW display.

The following figure shows the documentation for MAINVIEW products and its intended use.



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## Online and Printed Books

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BMC Software provides some printed books with your product order. To request additional books, go to <http://www.bmc.com/support.html>.

## Online Help

MAINVIEW products include extensive online Help. You can access Help by pressing **F1** from any product view or ISPF panel.

## Release Notes and Other Notices

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- updates to the installation instructions
- last-minute product information

In addition, BMC Software sometimes provides updated product information between releases (in the form of a flash or a technical bulletin, for example). The latest versions of the release notes and other notices are available on the Web at <http://www.bmc.com/support.html>.

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# Chapter 1 Managing MAINVIEW

This chapter discusses two concepts you need to understand in order to manage your MAINVIEW products:

- MAINVIEW Infrastructure
- MAINVIEW product groups

The last section of the chapter provides several tables that list MAINVIEW product groups and their associated tasks. You should use these tables as a reference guide to find the tasks you need to complete for your site's combination of MAINVIEW products.

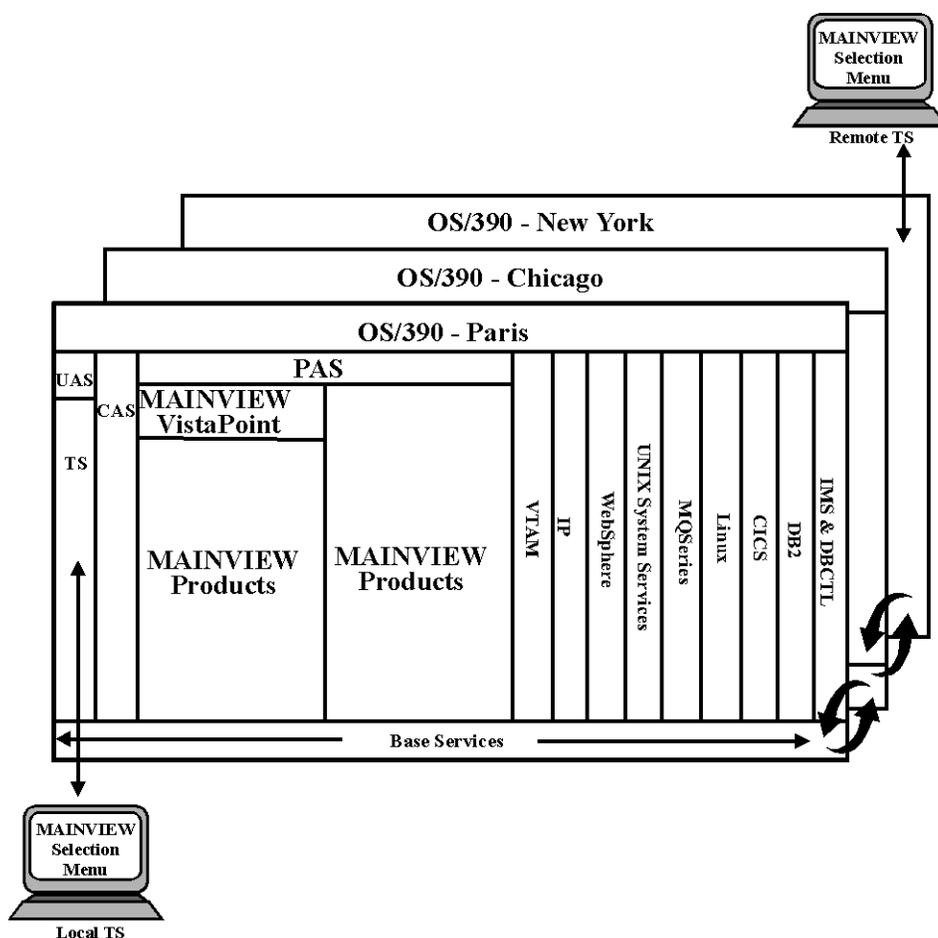
## Understanding the MAINVIEW Infrastructure

MAINVIEW is an integrated family of performance management and automation products that monitor and control traditional and parallel mainframes. MAINVIEW comprises performance monitors, automated operations, and automation applications.

MAINVIEW product integration allows host system monitoring and automation (even in remote locations) through a common terminal session, using the MAINVIEW Selection Menu. The integration of MAINVIEW products is provided through intercommunications technology known as BBI.

BBI integrates the MAINVIEW performance products within a common communications framework that operates across multiple machines in multiple locations as shown in Figure 1-1 on page 1-2. This integrated architecture allows a single terminal session, using one or more MAINVIEW products, to monitor and manage multiple local or remote targets, whether OS/390 itself (sysplex and nonsysplex) or subsystems like CICS, DB2, IMS, IP, Linux, MQSeries, UNIX, VTAM, and WebSphere.

Figure 1-1 BBI Architecture



For products that operate in MAINVIEW windows mode, this architecture provides a built-in separation of the data, application, and end-use dimensions of systems management for maximum flexibility and extensibility. BBI communications, data collection, and the end-user terminal session run in three distinct address spaces:

- coordinating address space(CAS)
- product address space (PAS)
- user address space (UAS)

This multiple address space structure provides a consistent, flexible environment for managing literally hundreds of MVS systems. Depending on the products installed, this allows you to

- Access different systems and products quickly and easily with simple target switching, direct hyperlinks between products, or multiple concurrent views on one terminal session screen

- Summarize data on a single system or across multiple MVS images
- View historical or realtime data from multiple systems summarized into one view
- Enter commands for multiple products on multiple systems
- Apply simple or complex data filtering conditions

## Coordinating Address Space (CAS)

The CAS runs as a subsystem and is used by most of the MAINVIEW products. It manages communication with other CASs on other local and remote systems and allows direct communication between an individual terminal session and a product address space. Usually, there is one CAS per MVS system image, but there is no limit to the number of remote systems with CASs with which a single CAS can communicate.

A product establishes an independent connection with its local CAS, so you can add new products or new upgrades without affecting existing products or other configurations.

Each CAS contains a product called Plex Manager that provides administration and operations views that help you

- manage communication links with other CASs
- monitor the activity of accessible products
- create SSI contexts
- control security for products

## Product Address Space (PAS)

The PAS runs as an MVS subsystem. It comprises special routines, including data collectors, to support one or more MAINVIEW products.

- The MVS PAS supports the following MAINVIEW products:
  - CMF MONITOR
  - MAINVIEW for OS/390
  - MAINVIEW for UNIX System Services
  - MAINVIEW SYSPROG Services
  - MAINVIEW VistaPoint (for MVS workloads)

There is one MVS PAS per MVS image. The MVS PAS always connects to the CAS on that MVS image.

- The BBI-SS PAS supports the following MAINVIEW products:
  - MAINVIEW AutoOPERATOR
  - MAINVIEW for CICS
  - MAINVIEW for DB2
  - MAINVIEW for DBCTL
  - MAINVIEW for IMS Online
  - MAINVIEW for WebSphere MQ (formerly known as MAINVIEW for MQSeries)
  - MAINVIEW VistaPoint (for CICS, DB2, DBCTL, and IMS workloads)

Multiple instances of the BBI-SS PAS can run on a single MVS image and contain one or more products. Depending on the products installed, the BBI-SS PAS may or may not connect to a CAS on that MVS image.

BBI-SS PASs on local and remote systems are linked together to provide cross-system communication for an individual terminal session through a local BBI-SS PAS to any other BBI-SS PAS.

- Product-specific PASs support the following MAINVIEW products:
  - MAINVIEW for IP
  - MAINVIEW for Linux – Servers
  - MAINVIEW for VTAM
  - MAINVIEW for WebSphere Application Server
  - MAINVIEW Storage Resource Manager (SRM)

For MAINVIEW for Linux – Servers and MAINVIEW for VTAM, multiple instances of the PAS can run on a single MVS image. In the case of MAINVIEW for Linux – Servers each PAS can monitor up to 500 Linux images. You can run multiple PASs to support the number of Linux images you plan to monitor.

For MAINVIEW for IP, MAINVIEW for WebSphere Application Server and MAINVIEW SRM, only one product-specific PAS can be active for each product on an MVS image.

- The MAINVIEW Alarm Manager PAS supports all MAINVIEW products that run in windows mode.

The products must be connected to the same CAS as MAINVIEW Alarm Manager. See the *MAINVIEW Alarm Manager User Guide* for more information.

## User Address Space (UAS)

The UAS is the home for a terminal session. A terminal session provides the end-user session for all MAINVIEW products. The terminal session connects to a CAS if there is one available, or to a BBI-SS PAS, or to both. There are three types of UASs:

- TSO address space

Using a TSO address space, your terminal session can access MAINVIEW products and perform other TSO/ISPF functions.

- VTAM or EXCP address space using MAINVIEW Alternate Access

Using a separate address space that communicates with your terminal with either VTAM or EXCP, your terminal session can access MAINVIEW products and also perform other ISPF functions.

- MAINVIEW Host Gateway using MAINVIEW Explorer

Using the MAINVIEW Explorer Web browser, your terminal session can access MAINVIEW products from a PC.

## Understanding MAINVIEW Product Groups

Table 1-1 on page 1-6 shows how MAINVIEW products are grouped together for discussion in this book. This book presents administrative procedures based upon these MAINVIEW product groups.

Selected chapters of this book include a box listing MAINVIEW product groups. The procedures described in the chapter pertain only to those MAINVIEW product groups shown within the box. Examine the group listing to verify if the procedures apply to your site's combination of MAINVIEW products before completing any procedure in a chapter.

**Table 1-1 MAINVIEW Product Groups**

<b>Group</b>	<b>Product</b>
All	All products
Group 1	MAINVIEW AutoOPERATOR
	MAINVIEW FOCAL POINT
Group 2	CMF MONITOR
	MAINVIEW for OS/390
	MAINVIEW for UNIX System Services (USS)
	MAINVIEW VistaPoint
	MAINVIEW SYSPROG Services
Group 3	MAINVIEW for CICS
	MAINVIEW for DB2
	MAINVIEW for DBCTL
	MAINVIEW for IMS Online
	MAINVIEW for WebSphere MQ (formerly known as MAINVIEW for MQSeries)
Group 4	MAINVIEW for IP
	MAINVIEW for Linux – Servers
	MAINVIEW for VTAM
	MAINVIEW for WebSphere Application Server
	MAINVIEW Storage Resource Manager (SRM)

MAINVIEW product groups are shown in Table 1-1. Table 1-2 on page 1-7 shows the tasks you need to complete as an administrator based upon the product groups installed at your site.

Each row of Table 1-2 lists a major task you are responsible for completing as a MAINVIEW administrator. Some tasks must be completed for all MAINVIEW products; others need to be completed for only certain groups of products.

Use Table 1-2 as a guide through this book. An X within a table cell means this task applies to this group of MAINVIEW products. Table 1-2 includes a chapter reference to get more information about a listed task.

**Warning!** Before you do any of the tasks shown in Table 1-2, be sure to review Chapter 14, “Using Product Libraries.” The names of distributed product target libraries are used in this manual for reference only. **Distributed libraries should never be modified.** Any changes made to these libraries will be overwritten by subsequent SMP maintenance.

**Table 1-2 Administrative Tasks by MAINVIEW Product Group**

MAINVIEW Administrative Tasks	MAINVIEW Product Groups				Reference
	1	2	3	4	
Manage a CAS		X	X	X	Chapter 2, “Managing the Coordinating Address Space”
Manage an MVS PAS		X			Chapter 3, “Managing the MVS Product Address Space”
Manage a BBI-SS PAS	X		X		Chapter 4, “Managing the BBI-SS Product Address Space”
Manage Cross-System Communication	X	X	X	X	Chapter 5, “Managing Cross-System Communication”
Manage MAINVIEW Explorer		X	X	X	Chapter 6, “Managing MAINVIEW Explorer”
Control BBI-SS PAS Resources	X		X		Chapter 7, “Controlling BBI-SS PAS Resources”
Control Diagnostic Messages		X	X	X	Chapter 8, “Controlling Diagnostic Messages (Plex Manager)”
Obtain Status of Targets and Systems		X	X	X	Chapter 9, “Displaying the Status of Targets and Systems (Plex Manager)”
Manage Targets	X	X	X	X	Chapter 10, “Managing Targets and Target Contexts”
Obtain Status of SSI Contexts		X	X	X	Chapter 11, “Displaying the Status of SSI Contexts”
Define SSI Contexts		X	X	X	Chapter 12, “Managing Single System Image (SSI) Contexts”
Manage Historical Data Sets		X	X	X	Chapter 13, “Managing Historical Data Sets”
Use Product Libraries	X	X	X	X	Chapter 14, “Using Product Libraries”
Create Online Help		X	X	X	Chapter 15, “Creating Online Help”
Manage a product-specific PAS				X	Section on managing the PAS in your product’s user documentation.



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# Chapter 2    Managing the Coordinating Address Space

The information described in this chapter applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- Group 4

The coordinating address space (CAS) provides necessary services to these groups of MAINVIEW products. BMC Software recommends automatically starting a CAS when the system where it runs is IPLed. The CAS should continue running until the system needs to be brought down or until you need to change CAS runtime performance parameters. Refer to the *MAINVIEW Common Customization Guide* for instructions on preparing a CAS startup procedure and defining cross-system communication between CASs on multiple systems.

This chapter describes several procedures to manually start, stop, and modify the runtime performance of a CAS. In most cases, you can complete these procedures without affecting other MAINVIEW subsystems. Each procedure is discussed in a separate section within this chapter.

## Starting a CAS

### Notes:

- Starting a CAS requires 30Kb of CSA and 700K of ECSA; see the *MAINVIEW Installation Requirements Guide* for more information.
- If you are running the Resource Management Facility (RMF) from IBM in addition to MAINVIEW for OS/390 and CMF:
  - You must start RMF before starting the CAS and MVS PAS for these MAINVIEW products.
  - You must stop the CAS and MVS PAS before stopping RMF when you shut down your system.

To start a CAS:

- Step 1** Verify that the JCL for the CAS started task procedure exists.

The *MAINVIEW Common Customization Guide* describes the JCL for creating the CAS started task procedure. By default, the CAS started task procedure created during AutoCustomization is BBMCAS. Your site may have defined a different CAS procedure name and library.

- Step 2** Enter the START command from the MVS operator console:

```
S
procname[.id][,SSID=ssid][,CAPS={N|Y}[[,COLD={N|Y}]
[,DUMP={Y|N|ALL}]],EMM={Y|N}][,XDM={Y|N}][,SUB=MSTR
]
[,CONVXCF={Y|N}]
```

“CAS START Command Parameters” on page 2-3 describes the START command parameters.

- Step 3** Look for the following console message that confirms the CAS was started successfully:

```
BBMZA001I CAS(casname)SSID(ssid)INITIALIZATION
COMPLETE - Rv.r.m(modID)
```

## CAS START Command Parameters

Table 2-1 lists each parameter that can be used with the START command.

**Table 2-1 CAS START Command Parameters**

Parameter	Description
procname	Required; the name of the startup procedure for the CAS; for example, BBMCAS as created by AutoCustomization.
.id	Optional; an arbitrary ID that identifies the CAS started task. For example, you might enter <code>START BBMCAS.CASA</code> to start a CAS identified as CASA and <code>START BBMCAS.CASB</code> to start a CAS called CASB. This way, you can control the two CAS started tasks independently.
SSID=ssid	Required for the CAS startup procedure, but optional for the START command. <i>ssid</i> identifies the CAS subsystem ID to the UAS and PAS. If an SSID is not specified for the START command, the SSID for the PROC statement in the CAS startup procedure is used by default. Be sure your MAINVIEW users know the SSID value, as this value is required for the Subsystem ID field in the Session Control Parameters panel. For a PAS to connect to a CAS, the SSID values in both the CAS and PAS startup procedures must be the same. See the <i>MAINVIEW Common Customization Guide</i> for more information about creating CAS and PAS startup procedures.
CAPS={Y N}	Optional; identifies whether the CAS should provide katakana terminal support for console and WTO messages issued from the CAS. The default is N (NO): console and WTO messages appear in mixed case. If you initialize the CAS with CAPS=Y, console and WTO messages are converted to uppercase for katakana terminals.
CONVXCF={Y N}	Optional; indicates whether a CAS uses the Cross-System Coupling Facility (XCF) to communicate with other CASs in a sysplex environment. The default is Y (YES), and BMC Software strongly recommends using the default. CONVXCF=Y indicates that XCF is to be used as the primary communication method between CASs. All participating CASs must reside in the same sysplex and XCF group (as identified by the DFLTGRP= parameter). VTAM will be used to communicate with a CAS that is not in the same sysplex. If all the CASs are in the same sysplex and XCF group, CONVXCF=Y allows the CAS to auto-discover and auto-connect to the other CASs through XCF. All the existing VTAM APPLID definitions in the CASDEF entries for individual CASs can be removed. Refer to the <i>MAINVIEW Common Customization Guide</i> for additional information on XCF support.
COLD={Y N}	Optional; indicates whether CAS startup should be a cold start. The default is N (NO). Specify COLD=Y only upon the request of BMC Software Customer Support in an attempt to clear an error condition. Inappropriate use of COLD=Y may exhaust available MVS linkage indexes, a condition which requires an IPL to restore normal system operation. When the CAS initializes, several control blocks and load modules are placed in common storage. Most of this storage is freed when the CAS terminates. However, certain blocks are retained to permit the reuse of previously allocated system resources—in particular, MVS system linkage indexes. In addition, two load modules are retained in common storage. COLD=N reuses those control blocks and load modules rather than building new ones. COLD=Y causes the linkage indexes, control blocks and load modules to be discarded. The linkage indexes and common storage occupied by those resources are lost until the system is IPLed.

**Table 2-1 CAS START Command Parameters (continued)**

DFLTGRP= <i>name</i>	Optional; identifies the Cross-system Coupling Facility (XCF) group name to be used at CAS start up. The default is BBGROUP. DFLTGRP= can be used during migration from one release of MAINVIEW to another. You can use it to start a test CAS on an MVS system that is already running a production CAS. By specifying different XCF group names, you can run two CASs on the same system.
DUMP={N Y ALL}	Optional; indicates whether system dumps (SDUMPs) are taken when a severe error is detected by a CAS. The default is Y (YES); dumps are taken when the error occurs in privileged code. DUMP=N suppresses all dumps within the CAS. DUMP=ALL allows dumps for all errors, whether the error occurs in privileged or problem-state code. You should use ALL only as instructed by BMC Software Customer Support.
EMM={Y N}	Optional; indicates whether extended message mode is active when starting the CAS. The default is N (NO). EMM messages are a subset of messages controlled by the XDM parameter. You can enable EMM messages by specifying EMM=Y without specifying XDM messages. However, EMM=Y is not recommended for normal CAS operation (only as instructed by BMC Software Customer Support).
SPCF=Y	Required; indicates that the CAS uses the Cross-System Coupling Facility (XCF) to communicate with other CASs in a sysplex environment. SPCF=Y is automatically set at CAS start up because XCF is required to support certain CAS subtasks. <b>Note:</b> If SPCF=N is specified, the parameter is ignored and the following message is displayed:  BBMZA101I SPCF=Y is required for MAINVIEW Infrastructure (MVI) version 4.0.0 and above
XDM={Y N}	Optional; indicates whether the CAS operates in extended diagnostic mode (XDM), which produces additional messages and suspends some CAS error recovery processing. The default is N (NO). <b>Warning:</b> Only specify XDM=Y as instructed by BMC Software Customer Support. The XDM=Y parameter disables certain error recovery mechanisms that could severely impact your CAS subsystem.
SUB=MSTR	Optional; allows the CAS to start and run independently of the JES.

---

## Examples of CAS START Commands

The following examples show how to start a CAS under various conditions:

- S BBMCAS

This example starts a CAS using the default parameters. The `BBMCAS` parameter is the default startup procedure name for the CAS.

- S BBMCAS .TEST

This example starts a CAS with the identifier of `TEST` using default parameters. This is useful when an existing production CAS is currently running on the system. `BBMCAS` is the startup procedure name for the production CAS. `BBMCAS.TEST` is a unique `.id` name of the test CAS.

- S BBMCAS ,CAPS=Y

This example starts a CAS that provides katakana terminal support for console and WTO messages.

- S BBMCAS ,EMM=Y

This example starts a CAS with extended message support.

- S BBMCAS ,XDM=Y

This example starts a CAS with extended diagnostic message support. Normally, you should use the `XDM=Y` parameter only under the direction of BMC Software Customer Support to diagnose an error condition.

## CAS Initialization in a Multisystem Environment

After a local CAS is started, cross-system communication with a remote CAS requires the following conditions be met:

- VTAM is available on the local and remote systems.
- VTAM APPL definition is active on the remote system.
- VTAM CDRM definition is active on the local system for the remote CAS.
- CAS definitions for local and remote CASs have the correct VTAM application names defined for each system.

The local CAS automatically checks for VTAM availability and for the VTAM application to become active on the remote system. After the remote CAS becomes available, the local CAS establishes cross-system communication and issues the following messages:

BBCSB042I      Communications initiated with (*casname*) using *ssid*

BBMXCL61I      Event Based System Monitor to *casname* initiated using  
<XCF | VTAM>

If the remote system VTAM is not available or the VTAM application for the remote CAS is not active, the following message is issued:

BBCSB043I      Unable to communicate with (*casname*) using *ssid*

**Note:** You can configure the remote VTAM application to be directly activated at VTAM startup by adding the major node name to SYS1.VTAMLST member ATTCON $xx$ .

Be aware that VTAM can take a long time to initialize after an IPL and may not be available when the local CAS is ready to establish cross-system communication with the remote CAS. This is particularly true if your remote system has defined START commands for VTAM, the CAS, and the PAS as part of your IPL procedure, such as in the SYS1.PARMLIB member COMMND $xx$ .

If any VTAM applications are inactive or incorrectly defined, you may not be able to establish cross-system communication. See Chapter 10, “Managing Targets and Target Contexts” for more information about configuring VTAM and CAS definitions for cross-system communication. See the *MAINVIEW Common Customization Guide* for more information about troubleshooting possible cross-system communication problems.

## Stopping a CAS

After a CAS is running, you should not have to stop it unless you want to change runtime parameters that cannot be dynamically changed with the MVS MODIFY command.

When you stop a CAS, local and cross-system communication is disrupted. This can affect the operation of active PASs. Display the DIAGSESS view from PLEXMGR, which shows the active sessions on the system you are running. BMC Software recommends that you stop all active PASs and user sessions *before* stopping the CAS.

---

To stop the CAS:

- Step 1** Verify the procedure name for the CAS you want to stop.
- Step 2** Stop all product address space(s) (PAS) supported by this CAS.
- Step 3** Issue the STOP command from the MVS operator console:

P *procname*

Or, if the CAS was started with an ID, issue:

P *id | stepname*

“CAS START Command Parameters” on page 2-3 discusses both parameters.

- Step 4** Look for the following console message that indicates the CAS has terminated successfully.

BBMZA999I    SSID(*ssid*) shutdown complete - CC=0000

## Restarting a CAS after Applying Maintenance

If you applied SMP/E maintenance to correct a problem, yet the symptom persists, you may need to stop the CAS and restart it. Some PTFs require that the CAS be recycled before their code can take effect.

One feature of MAINVIEW products that run in the windows environment is to speed up the initialization code. In order to do this, code is loaded into Common (a common component of the windows environment base code) by the CAS for use by PAS, CAS, and TSO address spaces. If a PTF is applied to a module that is in Common, the CAS will need to be restarted in order to become active. Most commonly used routines, including the InfoMgr display code, are in this category.

**Note:** The CAS must be cold started before the changes introduced by the PTF can take effect.



---

## Chapter 3    **Managing the MVS Product Address Space**

The information described in this chapter applies only to the products in Group 2 (see Table 1-1 on page 1-6).

The MVS product address space (PAS) runs as a started task.

During AutoCustomization or manual customization, you can define the MVS PAS so it is started at IPL (see the *MAINVIEW Common Customization Guide* for more information). However, if you need to manually start, modify, or stop the PAS, or if you are customizing the PAS for the first time, you may want to refer to information in this chapter.

This chapter begins with a discussion of some questions commonly asked by new MVS PAS users; provides instructions for starting, stopping, and modifying the MVS PAS; describes each parameter defined to the MVS PAS PROC statement; and discusses how to run two CMF MONITOR Extractors concurrently on the same system for testing purposes.

### **Questions and Answers about the MVS PAS**

The questions and answers in this section address some of the questions many new MAINVIEW users have.

### **What happens when the MVS PAS is initialized?**

First, the MVS PAS tries to connect to the CAS. Then, if the CAS is available, the MVS PAS brings up its data collectors, including the CMF MONITOR Extractor, as soon as a connection is made. If the CAS is not available, the MVS PAS starts the CMF MONITOR Extractor only, then tries to establish connection with the CAS 60 times, once every 5 seconds. If a connection is made during this time period, the other data collectors are started. If a connection is not made, you must restart the data collectors when the CAS is available using a MODIFY command with `DC=START` specified (see “Using the MODIFY Command to Change MVS PAS Operation” on page 3-16 for more information).

### **What happens if the CAS becomes unavailable while MAINVIEW for OS/390 or CMF MONITOR Online is running?**

All data collectors terminate **except the CMF MONITOR Extractor**; however, if you have the PGDDLAY Extractor control statement defined, this sampler goes into a wait state until the CAS returns and the data collectors are reinitialized. Once the CAS is back up, to initialize any terminated data collectors and reconnect the PAS to the CAS, you can enter a MODIFY command for the PAS with `DC=START` specified. You do not have to bring the PAS down and then restart it again—you can reconnect the PAS dynamically and reinitialize the data collectors. The PGDDLAY sampler resumes operation, as well. At that time, you can use the MAINVIEW Selection Menu to re-attempt access to your MAINVIEW product.

### **What happens to the Extractor if the CAS or one of the MVS PAS's data collectors goes down?**

Nothing. With the exception of the PGDDLAY extractor, once the MVS PAS is initialized, the CMF MONITOR Extractor remains available at all times, regardless of the status of the CAS or other data collectors in the MVS product address space.

### **Can I run two copies of CMF MONITOR on the same system?**

Yes. There are two ways to do this:

- You can run two MVS PASs on the same system. For more information about running multiple MVS PASs, see “Running MVS PASs Concurrently” on page 3-19.
- You can run two Extractors in the same MVS PAS by using CMF MONITOR's two modes, CPM and IPM. For more information about CPM and IPM modes, see the *CMF MONITOR Batch User Guide and Reference*.

### What if I set things up so the Extractor used by the MVS PAS also records SMF data? Is this data at risk?

Not as long as the MVS PAS itself is up and running. Even if the CAS or one of the other data collectors goes down, the Extractor continues to write SMF records.

## Starting the MVS PAS

### Notes:

- Starting an MVS PAS requires 70K of CSA and 2000K of ECSA. See the *MAINVIEW Installation Requirements Guide* for more information.
- If you are running the Resource Management Facility (RMF) from IBM in addition to MAINVIEW for OS/390 and CMF:
  - You must start RMF before starting the CAS and MVS PAS for these MAINVIEW products.
  - You must stop the CAS and MVS PAS before stopping RMF when you shut down your system.

To start the MVS PAS:

**Step 1** Verify that the JCL used to start the MVS PAS has been created (see the *MAINVIEW Common Customization Guide* for more information).

**Step 2** From the MVS operator console, enter the START command:

```
START procname
[ .id],SYSID=sysid[,XDM={Y|N}][,CXEN={Y|N}]
[,DC={CPM|IPM|START|STOP}[,CPM={xx|00}]
[,IPM={xx|00}][EM={xx|00}][,SSID=ssid]
[,CMDID=symbol]
```

“MVS PAS Started Task Parameters” on page 3-4 describes each parameter.

**Step 3** Look for the following console message that verifies a successful MVS PAS initialization:

```
MVS PAS (ssid) initialization complete, rx.x.x
(rmid)
```

## MVS PAS Started Task Parameters

Table 3-1 describes each parameter in the MVS PAS started task procedure.

**Table 3-1 MVS PAS Start Parameters**

PROC Parameter	Description
procname	Required; the name of the startup procedure for the PAS; for example, MVSPAS.
.id	Optional; an arbitrary ID for this started task. For example, you might enter <code>START MVSPAS.PASA</code> to start a PAS identified as PASA and <code>START MVSPAS.PASB</code> to start a PAS called PASB. This way, you can control the two PASs independently.
SYSID= <i>sysid</i>	Required; specifies the SMF system ID for your system.
XDM={Y N}	Optional; specifies whether or not the MVS PAS should execute in extended diagnostic mode, which produces additional messages and suspends some PAS error recovery processing. The default is N (NO). <b>Warning:</b> Only specify <code>XDM=Y</code> as instructed by BMC Software Customer Support. The <code>XDM=Y</code> parameter disables certain error recovery mechanisms that could severely impact your system.
CXEN={Y N}	Optional ( <b>CMF MONITOR Online only</b> ); controls whether or not more than one copy of the Extractor can initialize on the same system. The default is Y (YES), which allows enqueue and workload sampling and writing to SMF data sets. You can run more than one CMF Extractor on your system at a time. However, only one Extractor can sample workload data (MVS 4.3 and below) or enqueue data. By specifying <code>CXEN=N</code> for any additional Extractors, more than one CMF MONITOR Extractor can execute on the same system concurrently. <code>CXEN=N</code> prevents the Extractor from writing to SMF data sets, sampling workload data, and sampling enqueue data. You should not run multiple Extractors because of associated overhead, unless it is required in trial situations to evaluate MAINVIEW for OS/390. <code>CXEN=N</code> should be defined to a trial Extractor, if necessary.

Table 3-1 MVS PAS Start Parameters (continued)

PROC Parameter	Description
DC={CPM IPM  <u>START</u>  STOP}	<p>Optional (<b>CMF MONITOR Online and MAINVIEW for OS/390 only</b>); affects the samplers associated with the PGDDLAY and CFDATA Extractor control statement and the MVS PAS data collectors; it has the following attributes:</p> <p><b>START</b>            The default; MVS PAS data collectors initialize at startup under CPM monitoring mode. When the data collectors are initialized, access to CMF MONITOR Online and/or MAINVIEW for OS/390 is provided. The CMF samplers associated with the PGDDLAY and CFDATA Extractor control statements are enabled for sampling.</p> <p><b>STOP</b>             Data collectors do not initialize when the MVS PAS initializes. You cannot access CMF MONITOR Online and/or MAINVIEW for OS/390. CMF's PGDDLAY and/or CFDATA Extractor control statements do not sample data because both gather information from the MVS PAS data collectors.</p> <p><b>CPM</b>              MVS PAS data collectors initialize and accept data from the Extractor in CPM mode at startup. Specifying DC=CPM is the same as DC=START.</p> <p><b>IPM</b>              MVS PAS data collectors initialize and accept data coming from the Extractor in IPM mode at startup.</p> <p>If you specify DC=IPM, you must also specify the parameter IPM=xx, where xx is the suffix of the CMFIPMxx control statement member pointed to by the //PARMLIB DD statement.</p> <p>The DC parameter can also be changed by using an MVS MODIFY command, so the data collectors can be started or stopped or the monitoring modes switched without requiring the MVS PAS (and Extractor) to be stopped and then started. There is an additional operand you can specify with the DC= parameter when the MVS MODIFY command is issued:</p> <p><b>STATUS</b>            Status of each data collector is displayed in the job log.</p> <p><b>Warning!</b> DC=STATUS should not be specified at MVS PAS initialization because the data collectors do not initialize. It should be used only when the PAS is running.</p> <p>For more information about how to use the MODIFY command, see "Using the MODIFY Command to Change MVS PAS Operation" on page 3-16.</p>
CPM={xx{00}}	<p>Optional (<b>CMF MONITOR Online and MAINVIEW for OS/390 only</b>); specifies the two-character suffix of the CMFCPMxx control statement member in the data set pointed to by the //PARMLIB DD statement.</p> <p>The member pointed to by the CPM parameter must be named CMFCPMxx, where xx is the suffix defined with CPM=. The default is CPM=00.</p> <p>The control statement member contains Extractor REPORT and sampler control statements. This member controls the operation of the CPM mode samplers and defines the resources the Extractor monitors.</p> <p>CPM mode samplers execute either when a MODIFY command is issued or when the CPM parameter is used. Sample control statement members are in <i>hilevel.UBBPARM</i> data set created by AutoCustomization.</p> <p>The CPM mode control statement member the Extractor uses can be changed while the Extractor is active by using the MODIFY command; see the "Using the MODIFY Command to Change MVS PAS Operation" on page 3-16 for more information.</p> <p><b>Warning:</b> If CPM=STOP is issued, the address space is terminated unless IPM monitoring mode is active.</p>

Table 3-1 MVS PAS Start Parameters (continued)

PROC Parameter	Description
IPM={xx 00}	<p>Optional (<b>CMF MONITOR Online and MAINVIEW for OS/390 only</b>); specifies the two-character suffix of the CMFIPMxx control statement member in the data set pointed to by the //PARMLIB DD statement. The default is IPM=STOP.</p> <p>You should add this parameter to the PAS started task procedure only if you always want to start the IPM monitor when the CPM monitor starts.</p> <p>The member pointed to by the IPM parameter must be named CMFIPMxx, where xx is the suffix defined with IPM=. The default is IPM=00.</p> <p>The control statement member contains the Extractor REPORT and sampler control statements, which are detailed in the <i>CMF MONITOR Batch User Guide and Reference</i>. This member controls the operation of the IPM mode samplers and defines the resources the Extractor monitors.</p> <p>IPM mode samplers execute either when a MODIFY command is issued or when the IPM parameter is used. Sample control statement members are in the <i>hilevel.UBBPARM</i> data set created by AutoCustomization.</p> <p>The IPM mode control statement member the Extractor uses can be changed while the Extractor is active by using the MODIFY command; see “Using the MODIFY Command to Change MVS PAS Operation” on page 3-16 for more information.</p>

Table 3-1 MVS PAS Start Parameters (continued)

PROC Parameter	Description
XDS={xx STOP}	<p>Optional (<b>CMF MONITOR Online only</b>); controls the collection of data by the cross-system data server (XDS) (MVS 5.1 and above and MVS 4.3 with Dynamic Exit Facility usage restrictions).</p> <p>To share cross-system data, all the systems must be in the same sysplex, the MVS PAS on each system must have XDS active, DC=START must be specified for each MVS PAS, and the CAS on all systems must be in the same CASDEF XCF group.</p> <p>For SDSF to use XDS data, the BBLINK data set needs to be in either the link list or in the TSO logon procedure STEPLIB.</p> <p>To collect XDS data, specify XDS=xx, where xx indicates the suffix of a CMFXDSxx member of <i>hilevel.LUBBPARM</i> created by AutoCustomization. You can switch to a different XDS member without stopping either the MVS PAS or XDS by using the MODIFY command. For example, if you are running the MVS PAS pointing to the CMFXDS00 member with XDS=00, you can begin using the CMFXDS01 member by issuing the MODIFY command <code>F MVSPAS ,XDS=01</code>. You can also stop XDS without stopping the MVS PAS by issuing the MODIFY command <code>F MVSPAS ,XDS=STOP</code>.</p> <p>The three parameters for the CMFXDSxx members are TYPE, RECORDS, and SIZE. Each of these parameters may be specified only once in a particular XDS member. If a line begins with an asterisk (*), that line is ignored. Data in columns 73-80 is also ignored.</p> <p>TYPE Defines which SMF record types are included in the XDS SMF record buffer for the CX10XDQY and CX10XDRC APIs. Specify one of the following:</p> <p>TYPE CMF to use output records from CMF itself. Use this to buffer all type 70-78 records, as well as all CMF user record types. This is the default value if the TYPE parameter is not specified.</p> <p>TYPE SMF to use SMF IEFU83, IEFU84, and IEFU85 dynamic exits. Use this to buffer all record types except those written to CMF Extractor output data sets. If the CMF Extractor is writing to SMF, TYPE SMF works exactly the same as TYPE ALL.</p> <p>TYPE ALL to use both SMF-provided and CMF-provided records.</p> <p>TYPE NONE to allow API calls and CX10XDGS requests for type 79 data from this system without buffering records on this system.</p>

**Table 3-1 MVS PAS Start Parameters (continued)**

PROC Parameter	Description
<p>XDS={xx STOP} (continued)</p>	<p><b>RECORDS</b> Defines which SMF record types and subtypes are included in the XDS buffer. This must be a subset of the records specified for collection by the TYPE parameter. Records specified with this parameter are available for CX10XDQY (XDS record query) and CX10XDRC (XDS record retrieval) API calls.</p> <p>In addition, cross-system snapshots of type 79 data are available from the CX10XDGS (XDS data-gathering service) API call.</p> <p>Specify the records you want to include in the buffer by listing those types in a list (which may continue on multiple lines) that follows the RECORDS parameter. For example, if you want to buffer type 70 and 72 records only, you specify RECORDS 70,72. You can specify subtypes by placing a hyphen (-) after a type, followed immediately by the subtype. For example, to buffer only subtype 3 of type 72 records, specify RECORDS 72-3.</p> <p>Ranges of types and subtypes can be specified either by using a colon to separate the start and end of a range or by using an X character to indicate all digits in a range. For example, to buffer record types 70 through 79, you can specify either RECORDS 70:79 or RECORDS 7X.</p> <p>If you do not want to buffer any records, specify RECORDS NONE. If you want to buffer all record types included in the TYPE parameter, specify RECORDS ALL. This is the default if you do not include a RECORDS parameter.</p> <p><b>SIZE</b> Defines how much SMF data should be buffered before records are lost because of buffer wrap-around.</p> <p>Specify a size in the format of SIZE <i>nnnu</i>, where <i>nnn</i> is a one- to nine-digit number and <i>u</i> is one of the following:</p> <p>(blank)bytes  Kkilobytes (2**10 bytes)  Mmegabytes (2**20 bytes)  Ggigabytes (2**30 bytes)</p> <p>For example, for a buffer size of 3 megabytes, specify SIZE 3M. If you do not specify the SIZE parameter, the default buffer size is 32M.</p> <p>You can also specify the word PURGE with this parameter to indicate that the existing buffer should be discarded at the time of a MODIFY command, rather than when the new buffer fills up. For example, to change a buffer size from 3 megabytes to 5 megabytes and immediately discard the 3 megabyte buffer, specify SIZE 5M,PURGE on the member referred to by the MODIFY command.</p>

Table 3-1 MVS PAS Start Parameters (continued)

PROC Parameter	Description																								
EM={xx}00	<b>(MAINVIEW for OS/390 only)</b> ; specifies the two-character suffix of the PWSCPMxx control statement member you want MAINVIEW for OS/390's Exception Monitor to use.																								
SSID=ssid	Required; specifies the subsystem ID of the CAS to which the MVS PAS should connect. The CAS is started as a separate address space from the MVS PAS and must be initialized before the MVS PAS is initialized. For a PAS to connect to a CAS, the SSID values in both the CAS and PAS startup procedures must be the same.																								
CMDID=symbol	Optional; defines a single character that can be used in place of the MODIFY command and <i>procname</i> when a MODIFY command is issued to the PAS. You can use the CMDID= parameter as a quick method for issuing commands. You must manually add the CMDID= parameter to the PAS procedure statement to enable this support. Valid operands are: <table style="margin-left: 40px; border: none;"> <tr> <td>ç</td> <td>(</td> <td>+</td> <td>`</td> </tr> <tr> <td> </td> <td>&amp;</td> <td>!</td> <td>'</td> </tr> <tr> <td>)</td> <td>È</td> <td>:</td> <td>"</td> </tr> <tr> <td>-</td> <td>/</td> <td>%</td> <td>_</td> </tr> <tr> <td>&gt;</td> <td>?</td> <td>@</td> <td>*</td> </tr> <tr> <td>=</td> <td>&lt;</td> <td></td> <td></td> </tr> </table> <p>Certain operands may need to be enclosed within quotes to work in your specific environment. Alternatively, operands may be specified as a 2-digit hexadecimal representation.</p> <p>For example, if you specify CMDID=* on the PAS procedure statement, you can issue the command DC=STATUS from the console by entering This uses fewer keystrokes than issuing the MODIFY command, but either method can be used. For information about using the MODIFY command, see the "Using the MODIFY Command to Change MVS PAS Operation" on page 3-16.</p>	ç	(	+	`		&	!	'	)	È	:	"	-	/	%	_	>	?	@	*	=	<		
ç	(	+	`																						
	&	!	'																						
)	È	:	"																						
-	/	%	_																						
>	?	@	*																						
=	<																								

## Examples of MVS PAS START Commands

The following are examples of how the START command can be entered to start the MVS PAS:

- To start the MVS PAS using the default parameters, enter this command:

```
S MVSPAS , SYSID=SYSA
```

where *MVSPAS* is the startup procedure name for the PAS and the SMF ID for the system is *SYSA*.

- To start the Extractor in the MVS PAS, but not the data collectors, enter this command:

```
S MVSPAS , SYSID=SYSA , DC=STOP
```

where *MVSPAS* is the startup procedure name for the PAS and the SMF ID for the system is *SYSA*. The *DC=STOP* parameter prohibits the data collectors from initializing, which also means the Extractor's *PGDDLAY* and/or *CFDATA* control statements have no data to collect.

- To start an alternate MVS PAS when a primary MVS PAS is already executing, enter this command:

```
S MVSPAS . TEST , SYSID=SYSA , CXEN=N
```

where *MVSPAS* is the startup procedure name for the PAS, *TEST* is a unique *.id* value, and the SMF ID for the system is *SYSA*. The *CXEN=N* parameter allows an alternate Extractor to initialize on a system where a primary Extractor is already executing.

- To start an MVS PAS using a different control statement member for MAINVIEW for OS/390's Exception Monitor, enter this command:

```
S MVSPAS , SYSID=SYSB , EM=01
```

where *MVSPAS* is the startup procedure name for the PAS and the SMF ID for the system is *SYSB*. The *EM=01* parameter initializes the Exception Monitor using the control statements in BBPARM member *PWSCPM01*.

- To modify an MVS PAS when BMC Software Customer Support has requested that you enable extended diagnostic messages to help determine the cause of an error condition, enter this command:

```
S MVSPAS , SYSID=SYSC , XDM=Y
```

**Note:** Do not enable the `XDM=` parameter unless requested to do so by BMC Software Customer Support.

- To start an MVS PAS using different IPM and CPM control statement members for the Extractor, enter this command:

```
S MVSPAS , SYSID=SYSB , CPM=04 , IPM=01
```

where `MVSPAS` is the startup procedure name for the PAS and the SMF ID for the system is `SYSB`. The `CPM=04` parameter initializes the CPM monitoring mode of the Extractor using the control statements in BBPARM member `CMFCPM04`. The `IPM=01` parameter initializes the IPM monitoring mode of the Extractor using the control statements in BBPARM member `CMFIPM01`.

## About CPM Control Statement Members

The MVS PAS startup procedure contains a `CPM=` parameter that points to a control statement member that defines the operating conditions and data you want the CMF MONITOR Extractor and the MVS data collectors to use for CPM monitoring mode.

The default is control statement member is `CMFCPM00`.

To use a control statement member other than `CMFCPM00`:

- Step 1** Create a member by the name of `CMFCPMxx`, where `xx` is a unique 2-character alphanumeric suffix in `hilevel.UBBPARM` (created by AutoCustomization).
- Step 2** Specify the unique 2-character suffix on the `CPM=` parameter and enter a `MODIFY` command that points to the new member (see “Using the `MODIFY` Command to Change MVS PAS Operation” on page 3-16) or restart the MVS PAS.
- Step 3** To define the new member so it is read at MVS PAS initialization, do one of the following:
  - Copy the control statement member into the data set allocated by the DD name `PARMLIB` (`hilevel.UBBPARM` by default).

- If you have an existing data set that contains the control statement member, concatenate that data set name to the data set allocated by the DD name PARMLIB. Your concatenation should look something like this:

```
//PARMLIB DD DISP=SHR,DSN=hilevel.CMFdsn
//          DD DISP=SHR,DSN=hilevel.UBBPARAM
//          DD DISP=SHR,DSN=hilevel.BBPARM
```

where *CMFdsn* is a data set containing the desired CPM control statement member.

The CMFCPM00 default member was constructed during customization (see the *MAINVIEW Common Customization Guide* for more information). The control statements contained in CMFCPM00 vary, depending upon the mix of products you have installed.

For example, if you have MAINVIEW for OS/390 and/or CMF MONITOR installed, CMFCPM00 looks like this:

**Figure 3-1 CMFCPM00 for MAINVIEW for OS/390 and CMF MONITOR**

```
*****
*
*   SAMPLE CMF EXTRACTOR CONTROL CARDS FOR USE WITH THE
*   MAINVIEW FOR OS/390.
*
*   THE SAMPLERS SPECIFIED BELOW REPRESENT THE MINIMUM SET
*   REQUIRED BY MAINVIEW FOR OS/390 DATA COLLECTORS.
*   ADDITIONAL SAMPLER CONTROL STATEMENTS MAY BE ADDED AS
*   NEEDED TO SATISFY OTHER REPORTING REQUIREMENTS.
*
*****
*
REPORT CPM,INTERVAL=QTR,RUNTIME=1440,SMFRECID=240,
      GBL=1000,CSA=100,SMF=NO,SYNCH=00
*
ASMDATA
CHANNEL
CPU      SAMPLE=500
DEVICE   SAMPLE=500,CLASS=DASD
DEVICE   SAMPLE=1000,CLASS=TAPE,OFFLINE=YES
*ENQUEUE
PAGING   SAMPLE=5000
```

The statements shown in Figure 3-1 are described in Table 3-2.

**Table 3-2 Description of Extractor Statements in Sample CMFCPM00 Member**

Statement	Description
REPORT	<p>Sets global parameters for an Extractor run.</p> <p>CPM specifies continuous (as opposed to intermittent) monitoring mode.</p> <p>INTERVAL=QTR specifies that data from the samplers is gathered every 15 minutes, on the quarter-hour.</p> <p>RUNTIME=1440 specifies the maximum number of minutes that CPM mode remains active.</p> <p>SMFRECID=240 specifies an identification for SMF records (if you choose to have the MVS PAS CMF Extractor write SMF records).</p> <p>When started with this version of CMFCPM00, the Extractor writes SMF data to the data sets specified on the CMFCPM1 and CMFCPM2 DD statements.</p> <p>GBLS=1000 specifies that the global sampler should gather data every 1000 milliseconds.</p> <p>CSA=100 specifies the amount of CSA required, 100K.</p> <p>SMF=NO specifies that this control statement member does not write SMF records.</p> <p>SYNCH=00 specifies that the recording interval is not synchronized.</p>
ASMDATA	<p>Collects auxiliary storage management data, including information on the I/O activity of page and swap data sets and Auxiliary Storage Manager (ASM) data constants.</p> <p>Because a value is not specified, the default value is used; data is collected at a rate of once per second.</p>
CHANNEL	<p>Collects channel path statistics from the channel path measurement table at the beginning and end of each recording interval.</p>
CPU	<p>Collects CPU and CPU-dispatching data, including information on CPU wait, busy, and idle status, online and offline times, queue depth, and processor concurrency.</p> <p>SAMPLE=500 means CPU data is collected every 500 milliseconds (or every half second).</p>
DEVICE	<p>Measures DASD devices for busy and wait status, I/O activity, online and offline times, and volume activity.</p> <p>SAMPLE=500 indicates DASD devices are measured every 500 milliseconds (or every half second).</p> <p>CLASS=DASD indicates the device type as DASD devices.</p>
DEVICE	<p>Measures tape devices for busy and wait status, I/O activity, online and offline times, and volume activity.</p> <p>SAMPLE=1000 indicates DASD devices are measured once per second.</p> <p>CLASS=TAPE indicates the device type as tape devices.</p> <p>OFFLINE=YES indicates that offline devices are sampled.</p>
ENQUEUE	<p>Usually collects activity on queuing conflicts. In CMFCPM00, however, this statement is commented out to allow you to run two copies of the CMF Extractor simultaneously. (Only one concurrently active copy of the CMF Extractor can monitor enqueue activity. This does not affect your MAINVIEW for OS/390 or CMF MONITOR data.) If you decide to use the MVS PAS Extractor for production, be sure to remove the comment from this statement.</p>
PAGING	<p>Collects paging and swapping data.</p> <p>SAMPLE=5000 means paging and swapping data is sampled every 5 seconds.</p>

## About IPM Control Statement Members

The MVS PAS startup procedure contains an `IPM=` parameter that points to a control statement member which defines the operating conditions and data you want the CMF MONITOR Extractor and the MVS data collectors to use for IPM monitoring mode.

The default is `IPM=STOP`, which specifies that no IPM member is used and the Extractor is not initialized to run in IPM mode.

To use a control statement member other than `CMFIPM00`:

- Step 1** Create a member by the name of `CMFIPMxx`, where `xx` is a unique 2-character alphanumeric suffix in `hilevel.UBBPARM` (created by AutoCustomization).
- Step 2** Specify the unique 2-character suffix on the `IPM=` parameter and enter a `MODIFY` command that points to the new member (see “Using the `MODIFY` Command to Change MVS PAS Operation” on page 3-16) or restart the MVS PAS.
- Step 3** To define the new member so that it is read at MVS PAS initialization, do one of the following:
- Copy the control statement member into the data set allocated by the DD name `PARMLIB` (`hilevel.UBBPARM` by default).
  - If you have an existing data set that contains the control statement member, concatenate that data set name to the data set allocated by the DD name `PARMLIB`. Your concatenation should look something like this:

```
//PARMLIB DD DISP=SHR,DSN=hilevel.CMFdsn
//          DD DISP=SHR,DSN=hilevel.UBBPARM
//          DD DISP=SHR,DSN=hilevel.BBPARM
```

where `CMFdsn` is a data set containing the desired IPM control statement member.

The `CMFIPM00` default member was constructed during customization (see the *MAINVIEW Common Customization Guide* for more information). The control statements contained in `CMFIPM00` vary, depending upon the mix of products you have installed.

For example, if you have MAINVIEW for OS/390 or CMF MONITOR Online installed, CMFIPM00 looks like this:

**Figure 3-2 CMFIPM00 for MVMVS and CMF MONITOR**

```

*****
*
*   SAMPLE CMF EXTRACTOR CONTROL CARDS FOR USE WITH THE
*   MAINVIEW FOR OS/390.
*
*   THE SAMPLERS SPECIFIED BELOW REPRESENT THE MINIMUM SET
*   REQUIRED BY MAINVIEW FOR OS/390 DATA COLLECTORS.
*   ADDITIONAL SAMPLER CONTROL STATEMENTS MAY BE ADDED AS
*   NEEDED TO SATISFY OTHER REPORTING REQUIREMENTS.
*
*****
*
REPORT  IPM, INTERVAL=2, RUNTIME=1440, SMFRECID=240,
        GBLS=NO, CSA=150, SMF=NO
*
ASMDATA
CHANNEL
CPU      SAMPLE=500
DEVICE   SAMPLE=500, CLASS=DASD
DEVICE   SAMPLE=1000, CLASS=TAPE, OFFLINE=YES
ENQUEUE
PAGING   SAMPLE=5000

```

See Table 3-2 on page 3-13 for information about the sampler control statements shown in Figure 3-2; see the *CMF MONITOR Batch User Guide and Reference* for more information about IPM mode and the sampler control statements.

## Using the MODIFY Command to Change MVS PAS Operation

You may need to modify the operation of the MVS PAS or the CMF MONITOR Extractor while it is running, such as start or stop the data collectors, change the Extractor monitoring mode, or change the configuration of your Extractor control statement set.

Using an MVS MODIFY command, you can change some of the MVS PAS parameters without having to recycle the PAS or disrupt Extractor recording. The following parameters can be used in a MODIFY command:

CPM=  
DC=  
IPM=  
XDS=  
R=

**Note:** The R= parameter is available only if you have MAINVIEW for OS/390 installed. This parameter lets you enter a MODIFY command that executes a SYSPROG service from the PAS. The operand for the R= parameter is any valid SYSPROG command name. For more information about SYSPROG commands, see the *MAINVIEW for OS/390 User Guide and Reference*. The remaining PAS parameters can be used with a START command only.

### The R= Parameter for MAINVIEW for OS/390

For MAINVIEW for OS/390, an R=*sysprog* parameter allows you to invoke SYSPROG services from the MVS console. The *sysprog* value includes the name of the service and any parameters required by the service. If the CMDID=*symbol* parameter is also defined, you can invoke the SYSPROG services from the MVS console as follows:

```
symbol symbol sysprog
```

where:

*symbol*            Is a previously defined CMDID character.

*sysprog*           Is a SYSPROG service name.

For example, if CMDID=# is defined in the MVS PAS started task procedure, you could invoke the SYSPROG INFO service by entering ##INFO from the MVS console. One # symbol replaces the F MVSPAS value and the other # symbol replaces the R= parameter.

Examples of valid MODIFY commands that can be used to control the MVS PAS and the Extractor are shown in the following table:

**Table 3-3 MODIFY Command Examples for the MVS PAS**

If you enter	The MVS PAS
F MVSPAS,IPM=03,CPM=04	Invokes IPM and CPM sampling modes using control statement members CMFIPM03 and CMFCPM04.
IPM=XY	Invokes the IPM mode with control statement packet CMFIPMXY when the PAS was initialized with CMDID=>.
DC=STOP	Stops the data collectors; CMF MONITOR Online and/or MAINVIEW for OS/390 are unavailable. For CMF MONITOR customers, the samplers for the PGDDLAY and CFDATA control statements, if defined, suspend their sampling functions.
F MVSPAS,DC=START	Invokes the data collectors. CMF MONITOR Online and/or MAINVIEW for OS/390 are initialized. For CMF MONITOR, the samplers for the PGDDLAY and CFDATA control statements, if defined, begin or resume their sampling functions.
F MVSPAS,R=INFO	For MAINVIEW for OS/390, the SYSPROG INFO service is invoked.
F MVSPAS,DC=STATUS	Produces a status display of the MVS PAS data collectors on the console.
F MVSPAS,XDS=00	Starts (or restarts) XDS using BBPARM member CMFXDS00.
F MVSPAS,CPM=07	Invokes CPM mode with control statement member CMFCPM07 when the PAS is initialized with CMDID=>.

## Stopping the MVS PAS

Once the MVS PAS is operational, you may want to stop it for some reason. When you stop the MVS PAS, any local or cross-system sessions with CMF MONITOR Online or MAINVIEW for OS/390 are disrupted.

By using the **CONtext** command to display the DIAGSESS view in PLEXMGR, you can see the active sessions on the system you are viewing.

To stop the MVS PAS:

- Step 1** Verify the procedure name for the MVS PAS you want to stop.
- Step 2** From the MVS operator console, enter the STOP command:

```
P procname
```

Or, if the PAS was started with an ID, enter:

```
P id
```

**Note:** BMC Software recommends using the STOP command rather than the CANCEL command to stop the MVS PAS. “MVS PAS Started Task Parameters” on page 3-4 discusses these two parameters.

Optionally, you may want to stop the MVS PAS data collectors only and leave just the Extractor operating to conserve system resources; for example, when you are not using CMF MONITOR Online. When you stop the data collectors, any local or cross-system sessions with CMF MONITOR Online or MAINVIEW for OS/390 are disrupted, but the Extractor is not.

To enable and disable the MVS PAS data collectors without affecting the Extractor, see information about the `DC=` parameter in “Using the MODIFY Command to Change MVS PAS Operation” on page 3-16.

---

## Running MVS PASs Concurrently

The MVS PAS contains the CMF MONITOR Extractor. For MVS 5.1 or above, any number of extractors can collect workload data in a single MVS image. For OS/390 1.2 or above, any number of extractors can collect enqueue data in a single MVS image. However, only one extractor can write SMF records at a time in a single MVS image.

If you already have:

- A production MVS PAS executing on a system where you want to test another MVS PAS
- An existing Extractor used by a product, such as DASD ADVISOR

the CXEN parameter (see “MVS PAS Started Task Parameters” on page 3-4) can be used to run two MVS PASs or an Extractor and an MVS PAS concurrently. To run a test MVS PAS on the same system as a production MVS PAS (or Extractor-based product), specify `CXEN=N` in the test MVS PAS started task procedure before PAS initialization.

**Note:** You should replace your production Extractor or MVS PAS with the test MVS PAS as soon as you feel comfortable doing so.



---

# Chapter 4 Managing the BBI-SS Product Address Space

The following MAINVIEW products run in the BBI-SS product address space (BBI-SS PAS):

- MAINVIEW AutoOPERATOR
- MAINVIEW for CICS
- MAINVIEW for DB2
- MAINVIEW for DBCTL
- MAINVIEW for IMS Online
- MAINVIEW for WebSphere MQ (formerly known as MAINVIEW for MQSeries)
- MAINVIEW VistaPoint (for CICS, DB2, and IMS workloads)

This chapter discusses the operation of the BBI-SS PAS. It includes procedures to start, modify, and stop the BBI-SS PAS.

## BBI-SS PAS Operation

BBSAMP member SSJCL contains sample JCL to start a BBI-SS PAS. You can edit this sample JCL to create a job or a procedure and to identify the type of start.

If the PROC statement is used, the BBI-SS PAS is activated as a started task. If the JOB statement is used, the BBI-SS PAS is activated by submitting the job. The BBLINK library must be authorized or initialization will fail.

**Note:** The default region size is 64M to enable product access to sufficient extended storage. Storage is allocated only when needed.

## Starting a BBI-SS PAS

Because the BBI-SS PAS is independent of the target system, the BBI-SS PAS should be started at IPL and remain active regardless of the status of the target system(s).

To start the BBI-SS PAS, issue the following START command:

```
S procname[ .id][ ,SSID=ssid][ ,START=type]
```

where

<i>procname</i>	Required; the name of the startup procedure for the PAS.
<i>.id</i>	Optional; an arbitrary ID for this started task.
SSID= <i>ssid</i>	Optional; specifies the subsystem ID for your system. This parameter overrides the subsystem ID specified in the PROC member.
START= <i>type</i>	Optional; specifies the type of BBI-SS PAS startup where <i>type</i> can be  WARM which reuses control blocks previously obtained in MVS CSA (default)  COLD which frees control blocks held by any previous BBI-SS PAS and obtains new control blocks  FREE which frees control blocks in the same manner as a cold start and terminates the BBI-SS PAS immediately after the storage is freed  KILL which removes the BBI-SS PAS from MVS as if it was never started and leaves control blocks allocated. This option should only be used in an emergency when the PAS cannot be restarted using any other method. The next time the BBI-SS PAS is started, an automatic cold start is performed.  A warm start is the default and should be used whenever possible. See “Warm Start of a BBI-SS PAS” on page 4-3 and “Cold Start of a BBI-SS PAS” on page 4-3 for more information.

If, during a BBI-SS PAS start, a link to another BBI-SS PAS fails because VTAM cannot complete the connection, this message is issued:

```
PM0503W  BBI CONNECTION FAILED FROM subsys TO subsys
```

where *subsys* is the 1- to 4-character BBI-SS PAS ID.

After this message is issued, BBI initialization continues. When the problem with the link is corrected, the link can be started with the BBI control command `START LINK` (see “BBI Control Commands” on page 7-16 for more information about the `START` command).

## Warm Start of a BBI-SS PAS

A warm start reuses control blocks previously obtained in MVS CSA. TS users that were connected to the BBI-SS PAS remain connected within their current applications. If an application was in refresh mode, it continues to refresh.

A warm start should be used whenever possible. By default, the JCL in BBSAMP member `SSJCL` specifies `START=WARM`.

## Cold Start of a BBI-SS PAS

A BBI-SS PAS cold start frees control blocks held by any previous BBI-SS PAS and obtains new control blocks for the new BBI-SS PAS. It can be automatic or requested. A cold start request is specified in BBSAMP member `SSJCL` as `START=COLD`.

A cold start may be necessary whenever `PRODUCT` statements are added, removed, or modified in `BBPARM` member `BBISSP00`. Otherwise, this request should be made only because BMC Software Customer Support has advised this or because this is the only way to start a BBI-SS PAS.

**Note:** The BBI-SS PAS should not be cold started when the associated IMS control region is up. If a cold start of the BBI-SS PAS is done, an IMS control region outage could occur.

An automatic cold start occurs after

- an IPL
- BBI maintenance that affects BBI data in CSA (any module name with a prefix of DM) is applied
- the previous BBI-SS PAS was started with START=KILL

**Note:** (MAINVIEW AutoOPERATOR only) The VPOOL parameter in SSJCL can be used to reset shared variables after a cold start except for an automatic cold start where a reset is forced after an IPL. The VPOOL parameter is used as follows:

```
VPOOL=RESET | NORESET
```

The default is NORESET.

If a warm start is attempted and the version of the BBI-SS PAS being started is not compatible with the version of the previous BBI-SS PAS used, the operator is prompted with a message that the releases are not compatible. The operator can then specify COLD or CANCEL.

**Note:** START=FREE frees all allocated CSA in the same manner as a cold start. However, the BBI-SS PAS terminates immediately after the storage is freed.

## Starting a BBI-SS PAS before JES (MAINVIEW AutoOPERATOR Only)

If you want MAINVIEW AutoOPERATOR to automate functions that are normally performed before JES is operational, the MAINVIEW AutoOPERATOR subsystem must be started before JES.

To start the BBI-SS PAS before JES:

**Step 1** Allocate a minimum of three dump data sets with:

```
RECFM=VBA , LRECL=125 , BLKSIZE=1632 , DSORG=PS
```

Make each one large enough to accommodate the largest dump you expect.

**Step 2** Add the following allocations to your BBI-SS PAS JCL, pointing to the dump data sets created in the previous step.

```
//BBDUMP01 DD DISP=SHR,DSN=dumpdsn1
,VOL=SER=....,UNIT=....
//BBDUMP02 DD DISP=SHR,DSN=dumpdsn2
,VOL=SER=....,UNIT=....
//BBDUMP03 DD DISP=SHR,DSN=dumpdsn3
,VOL=SER=....,UNIT=....
//SYSTSIN DD DUMMY
//SYSTSPRT DD DUMMY
```

**Note:** The SYSTSIN and SYSTSPRT DD statements are required for REXX support.

- Step 3** Catalog all data sets referenced in the SSJCL procedure in the master catalog or change all allocations to UNIT/VOLSER allocations.
- Step 4** Store the procedure in the data set SYS1.PROCLIB. Do not store it in a user proclib supported by JES.
- Step 5** Add a TIME= parameter to the EXEC statement in BBSAMP member SSJCL.
- Step 6** Start the BBI-SS PAS with the command:

```
S SSJCL.id, SUB=MSTR
```

The BBI-SS PAS opens the first DUMP data set when the BBI-SS PAS starts. This data set closes and the next one opens after an abend occurs. When the last one is opened and used, it is reopened and reused over and over until dumps are reset using the BBI control command .RESET DUMP. You can issue this command from a terminal session, the MVS console, or an EXEC in the standard BBI command format.

**Note:** The terminal session (TS) can be started only after JES has initialized. If the MAINVIEW AutoOPERATOR BBI-SS PAS is started prior to JES, the IMFEXEC SUBMIT command cannot be used.

## Using the Stall Interval Parameter

BBPARM member BBISSPnn contains a parameter for specifying the elapsed-time stall interval for overall BBI initialization:

```
STALL=nnn
```

where *nnn* is the number of seconds (elapsed-time) before the BBI-SS PAS recognizes a stall condition. The default is 180 seconds. When the stall limit is reached, the BBI-SS PAS terminates with the message:

```
SS0924E  STALL DETECTED DURING INITIALIZATION
```

Many BBI-SS PAS to BBI-SS PAS communication links can require significant time to complete. Use the STALL parameter to raise the time limit.

## Invoking Timer-Driven Services at BBI-SS PAS Startup

At BBI-SS PAS startup, a group of user-defined timer-driven requests can be invoked automatically if the following conditions are met:

- The requests are defined in a member of BBPARM.

The BBPARM member can contain predefined requests to start services or logging requests.

- The member name is specified with the BLK parameter in BBPARM member BBIISP00.

A separate request can be specified for each target.

## Displaying the Status of a BBI-SS PAS

You can check the status of a BBI-SS PAS and its resources by using the BBI control command DISPLAY ACTIVE. Following is an example of the result of a DISPLAY ACTIVE command for a BBI-SS PAS:

**Figure 4-1 Example of Status of a BBI-SS PAS**

```
BBI-SS STATUS AT hh:mm:ss ON SYSA           where SYSA is the SMFID
BBI VERSION 260 STARTED ON dd-mmm-yy AT hh:mm:ss
MONITORS  DEFINED - 030, ACTIVE - 010
LINKS     DEFINED - 003, ACTIVE - 002
USERS     DEFINED - 020, ACTIVE - 005
IMAGE LOG - ACTIVE - ON DATASET 1
JOURNAL   - ACTIVE - ON DATASET 1
```

See “BBI Control Commands” on page 7-16 for more information.

## Target Subsystem Termination

Normal or abnormal termination of a target subsystem does not affect BBI-SS PAS operation. When a target subsystem terminates, active monitors or timer-driven service requests for that target subsystem quiesce automatically. They restart when the target subsystem resumes operation. Any attempt to execute services that require access to an inactive target subsystem result in a message being issued.

## Stopping a BBI-SS PAS

The BBI-SS PAS is terminated under two conditions:

- MVS shutdown
- BMC Software product or target system configuration modification, which might require changes to certain BMC Software parameters

A BBI-SS PAS can be either a started task or a job. If the BBI-SS PAS is a started task, you can terminate the BBI-SS PAS with an MVS STOP command against the started task ID (stepname). If the BBI-SS PAS is a job, you can terminate the BBI-SS PAS with an MVS CANCEL or STOP command; for example:

```
P procname
```

where *procname* is the job name or started procedure name of the BBI-SS PAS.

Or, if the PAS was started with an ID, issue:

```
P id
```



---

---

# Chapter 5 Managing Cross-System Communication

Skip this section if:

- All CASs are running in the same sysplex and the default XCF group name of BBGROUP is acceptable.

CASs communicate through the XCF link as long as they all have the same XCF group name, as described in the *MAINVIEW Common Customization Guide*.

- The current CAS is not communicating with another CAS on a different sysplex through a VTAM or TCP/IP link.

The information in this chapter applies to specific MAINVIEW products. “Managing CAS-to-CAS Communication” on page 5-2 applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

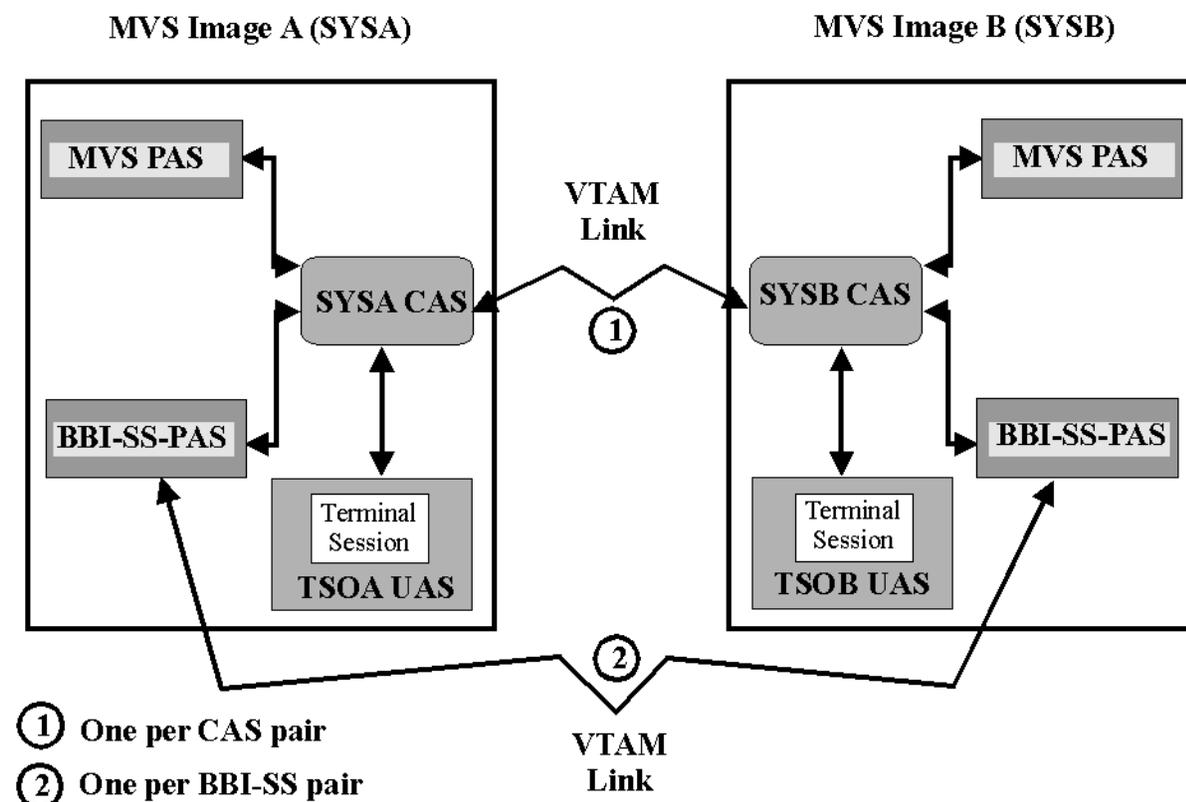
- Group 2
- Group 3
- Group 4

“Managing Cross-System Communication between BBI-SS PASs” on page 5-20 applies only to the following groups of MAINVIEW products:

- Group 1
- Group 3

One of the principal benefits of BMC Software's MAINVIEW Infrastructure is the ability to monitor the performance of multiple MAINVIEW products from a single terminal session. You can see the current or historical performance of systems running simultaneously on all MVS images.

Figure 5-1 System Communication Links



## Managing CAS-to-CAS Communication

The information in this section applies to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- Group 4

CAS-to-CAS communication allows your terminal session to access information from PASs connected to another CAS, perhaps on another MVS image or in a remote data center.

Figure 5-1 on page 5-2 shows how MAINVIEW products communicate with each other between MVS images. Typically, a single CAS serves as a node that transfers information collected from all BMC Software PASs running on an MVS image. XCF communication is automatically established between CASs running in the same sysplex and in the same XCF group. If you do not want two sets of CASs within a sysplex to communicate using XCF, you can change the default XCF group to a different value by using

- the DFLTGRP= parameter on the CAS start up JCL
- the CASDEF administrative view

For example, if you have a production set and a test set, the test CASs can use a default group name of TESTCAS while the production CASs use the default group name BBGROUP.

VTAM communication is established between CASs running on separate images outside of a sysplex environment. Optionally, you can establish TCP/IP communication by specifying a port number and IP address on the CAS definition.

This section describes how to manage communication between CASs. Table 5-1 lists common tasks and associated commands to control cross-system communication links between a local and a remote CAS. Each task includes a page reference to more information about completing the task.

**Table 5-1 Cross-System Communication Activity Management Tasks**

To	Do	See
View the status of all CAS-to-CAS links	Display the CASACT view	"Displaying Active Systems and Sessions" on page 5-3
Start VTAM communication links	Use the SStart primary or ST line command	"Starting VTAM Communication" on page 5-4
Quiesce VTAM communication links	Use the QUIEsce primary or QUI line command	"Quiescing VTAM Communication" on page 5-5
Halt VTAM communication links	Use the HALt primary or HAL line command	"Halting VTAM Communication" on page 5-7
Manage CAS definitions	Refer to Table 5-2 on page 5-8 for information about specific tasks	"Managing CAS Definitions" on page 5-8

## Displaying Active Systems and Sessions

Plex Manager's CASACT view shows the status of all CAS-to-CAS communication links. The CASACT view also allows you to manage cross-system VTAM communication links between CASs. By entering commands from this view, you can start, halt, or quiesce cross-system VTAM communication links between CASs.

**Note:** Commands associated with the CASACT view affect the current CAS only, which is identified by a Yes in the Cur Sys field.

To access the CASACT view:

- If you are already in Plex Manager, type **CASACT** on the **COMMAND** line and press **Enter**. Plex Manager is option P on the MAINVIEW Selection Menu.
- If you are in another MAINVIEW product running in windows mode, use the following CONtext command to access Plex Manager and display the CASACT view:

**CON \* PLEXMGR;CASACT**

The CASDEF view is displayed, as shown in Figure 5-2.

**Figure 5-2 CASACT View (Left)**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
>W1 =CASACT=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====2
CMD System Cur Description SPCF XCF VTAM IP --VTA
--- ----- Sys ----- Act Conv Act Act --App
C001 Yes Production CAS (VTAM) Yes No Yes No C001
C002 No TCP/IP Test CAS No No No No C002
    
```

You can scroll to the right to display the remaining fields of the CASACT view, as shown in Figure 5-3.

**Figure 5-3 CASACT View (Right)**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
<W1 =CASACT=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====2
CMD System --VTAM-- XCF Port- IP Address
--- ----- --Appl-- Group-- Num-- -----
C001 C001 C400PALL
C002 C002 C400QALL 4104 172.017.008.092
    
```

You can get more information about each field on the CASACT view by placing the cursor on a field and pressing the Help key.

### Starting VTAM Communication

The **STart** command establishes VTAM communication with a remote CAS that is newly defined, quiesced, or has been previously halted.

**Note:** The **STart** command has no effect on the local CAS nor on any CAS that has an active communication link (VTAM Act field is YES).

After you enter the **STart** command, the following occur:

- The following message is displayed:

```
BBMYAD10I  START command accepted; CAS communications will
           start on next cycle
```

- The VTAM communication link between the local CAS and a remote CAS becomes active.
- The VTAM Act field of the CASACT view changes from No to Yes.

**Note:** The STart command operates on a timer cycle. When you issue the STart command the request may take as much as 10 minutes to complete. This delay is designed to limit CPU overhead.

There are two forms of the STart command:

- Primary command

The primary command is entered as follows:

```
COMMAND  ===> ST system
```

where *system* is the name of a remote CAS listed in the System field.

- Line command

The ST line command is entered in the line command field (CMD) at the left of the CASACT view. VTAM communication is started for the remote CAS where the command is entered.

## Quiescing VTAM Communication

The QUIEsce command inactivates VTAM communication between a local and a remote CAS. When you quiesce communication, all VTAM communication stops between a local and remote CAS after processing all pending requests for information. For example, suppose your local CAS is SYSA. You open a window, access MAINVIEW for OS/390 on SYSB, and enter the WFLOW command. If communication between SYSA and SYSB is quiesced, the VTAM communication link does not end until WFLOW is displayed.

After VTAM communication quiescs, you cannot access the remote CAS until you restart communication again with the *STart* command; see “Starting VTAM Communication” on page 5-4 for more information.

**Note:** Before using the *QUIEsce* command, you should display the *DIAGSESS* view to see a list of the active product and user sessions communicating with the local CAS. Based on the information shown in *DIAGSESS*, you can determine the potential impact of quiescing CAS communication.

After you enter the *QUIEsce* command, the following occur:

- All pending requests for information are processed.
- Windows opened to the remote CAS are terminated for terminal sessions logged on through the local CAS.
- Windows opened to the local CAS are terminated for terminal sessions logged on through the remote CAS.
- VTAM links between the two CASs become inactive.
- Windows eventually become empty and a T appears in the window status field on the window information line.

**Note:** You cannot use the *QUIEsce* command against the local CAS, which is identified by a Yes in the *Cur Sys* field of the *CASACT* view.

There are two forms of the *QUIEsce* command:

- Primary command

The primary command is entered as follows:

```
COMMAND ==> QUIE system
```

where *system* is the name of a remote CAS listed in the *System* field.

- Line command

The *QUI* line command is entered in the line command field (*CMD*) at the left of the *CASACT* view. VTAM communication is quiesced for the remote CAS where the command is entered.

## Halting VTAM Communication

The HALt command stops VTAM communication between a local and a remote CAS. All VTAM communication between the local and remote CAS terminates immediately. After the communication link is inactive, you must use the STart command to reestablish the link to another CAS. see “Starting VTAM Communication” on page 5-4 for more information.

**Note:** You should display the DIAGSESS view to see a list of active product and user sessions communicating with the local CAS before using the HALt command. Based on the information presented by the DIAGSESS view, you can determine the potential impact of halting communication between CASs.

After you enter the HALt command, the following occur:

- Windows opened to the remote CAS are terminated for terminal sessions logged on through the local CAS.
- Windows opened to the local CAS are terminated for terminal sessions logged on through the remote CAS.
- VTAM links between the local and remote CASs become inactive.
- Windows are blank and a T appears in the window status field on the window information line.

**Note:** You cannot use the HALt command against a local CAS, which is identified by a Yes in the Cur Sys field of the CASACT view.

There are two forms of the HALt command:

- Primary command

The primary command is entered as follows:

```
COMMAND ==> HAL system
```

where *system* is the name of a remote CAS listed in the System field.

- Line command

The HAL line command is entered in the line command field (CMD) at the left of the CASACT view. VTAM communication stops for the remote CAS where the command is entered.

## QUIEsce versus HALt

When you QUIEsce communication with a CAS, VTAM communication does not terminate until all outstanding information requests are completed between CASs. By contrast, when you HALt VTAM communication between CASs, VTAM communication terminates immediately, regardless of outstanding requests for information.

## Managing CAS Definitions

To manage CAS definitions for cross-system communication, see the tasks listed in Table 5-2.

**Table 5-2 CAS Definition Management Tasks**

To	Do	See
Add CAS definitions for the first time	Display the CASDEF view	"Define CAS -to-CAS Communication" in the <i>MAINVIEW Common Customization Guide</i>
View all CAS definitions	Display the CASDEF view	"Accessing the CASDEF View" on page 5-9
View the details of one CAS definition	Display the CASDEFD view	"Accessing the CASDEFD View" on page 5-10
Obtain the edit lock to perform any command except INStall	Use the EDIT primary command	"Editing CAS Definitions" on page 5-10
Add a CAS definition after first time customization	Use the ADD primary or A line command	"Adding CAS Definitions" on page 5-11
Change an existing CAS definition	Use the CHAnge primary or C line command	"Changing Existing CAS Definitions" on page 5-12
Define TCP/IP communication for a CAS	Review TCP/IP requirements	"Defining TCP/IP Communication" on page 5-14
Cancel edit mode, adds, or changes in progress	Use the CANcel primary command	"Cancelling CAS Definition Edits" on page 5-16
Delete a CAS definition	Use the DELete primary or DEL line command	"Deleting a CAS Definition" on page 5-17
Reinstate a CAS definition that was previously deleted	Use the UNDelete primary or UND line command	"Recovering a CAS Definition" on page 5-17
Immediately update the CAS with new or changed CAS definitions	Use the INStall primary or INS line command	"Immediately Installing Changes to CAS Definitions" on page 5-18
Permanently save changes to the UBBPARM parameter library CAS definition member (BBMTYB00)	Use the SAVE primary command (or the END command)	"Saving CAS Definitions" on page 5-19

## Accessing the CASDEF View

To access the CASDEF view:

- If you are already in Plex Manager, type **CASDEF** on the **COMMAND** line and press **Enter**. Plex Manager is option P on the MAINVIEW Selection Menu.
- If you are in another MAINVIEW product running in windows mode, use the following CONtext command to access Plex Manager and display the CASDEF view:

**CON \* PLEXMGR;CASDEF**

The CASDEF view is displayed, as shown in Figure 5-4.

**Figure 5-4 CASDEF View (Left)**

```

ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1           ALT WIN ==>
>W1 =CASDEF=====SYSB=====*(===== (00 BROWSE           )=====PLEXMGR==D=====2
CMD CAS      Cur Description                      Status          VTAM
--- Name---- Sys -----                        ----- ApplNam
   C001      Yes Production CAS (VTAM)           Installed         C001
   C002      No TCP/IP Test CAS                   Installed         C002
    
```

**Note:** The word Yes in the Cur Sys field indicates the local CAS.

You can scroll to the right to display the remaining fields of the CASDEF view, as shown in Figure 5-5.

**Figure 5-5 CASDEF View (Right)**

```

ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1           ALT WIN ==>
>W1 =CASDEF=====SYSB=====*(===== (00 BROWSE           )=====PLEXMGR==D=====2
CMD CAS      VTAM      Port IP                      Del
--- Name---- ApplName Num-- Address---          ---
   C001      C001                                No
   C002      C002      4104 172.017.008.092 No
    
```

You can get more information about each field on the CASDEF view by placing the cursor on a field and pressing the Help key.

## Accessing the CASDEFD View

To access the CASDEFD view for specific details about a CAS definition:

- Step 1** Display the CASDEF view, as described in “Accessing the CASDEF View” on page 5-9.
- Step 2** Place the cursor on the CAS definition you want to see details about and press **Enter**.

The CASDEFD view is displayed, as shown in Figure 5-6.

**Figure 5-6 CASDEFD View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =CASDEF==CASDEFD==SYSB=====*(00 BROWSE          )=====PLEXMGR==D=====1
  Cas Name..... C002      Description... TCP/IP Test CAS
  Current System. No      Status..... Installed
  Identification--
  MVS Sysname.... C002      SMF ID..... *
  Sysplex..... *          Subsys Name... *
  Communication--
  VTAM Appl..... C002      XCF Group.... C400QALL
  VTAM Mode..... *NONE*
  Port Number... 4104      IP Address.... 172.017.008.092
  Parmlib Suffixes
  SepDef Suffix.. 00      TgtDef Suffix. 00
  SecDef Suffix.. 00      ConDef Suffix. 00
  Common SerDef.. 00
  Update Info-----
  UpdSystem..... SYSC      UpdTime..... hh:mm:ss
  UpdUser..... MVQ10      UpdDate..... ddmmmyyyy
  Deleted?..... No
    
```

For information about any CASDEFD field, place the cursor on a field and press the Help key.

## Editing CAS Definitions

To obtain the edit lock on the CAS definition member (BBMTYB00) in the UBBPARM library and use other commands available in the CASDEF or CASDEFD views, use the EDIT command. You cannot add, change, or delete CAS definitions unless you first obtain an edit lock on a CAS definition member.

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

The EDIT command is entered on the COMMAND line of the CASDEF or CASDEFD view.

Once you are in edit mode, you can:

- Add CAS definitions
- Change CAS definitions
- Cancel CAS definition edits
- Delete CAS definitions
- Recover deleted CAS definitions
- Permanently save CAS definition edits

## Adding CAS Definitions

To add new CAS definitions, use the ADD command. You must be in edit mode before you can add a new definition. See “Editing CAS Definitions” on page 5-10 for more information.

When the ADD command is used, the Add CAS System Definition dialog is displayed with default values or with the values of an existing CAS definition that you want to use as a template for the new definition.

To save a new CAS definition (BBMTYB00) in the UBBPARM parameter library, use a SAVE or END command (or its corresponding PF key) as described in “Saving CAS Definitions” on page 5-19.

To cancel a new CAS definition while you are defining it, use the CANCEL command as described in “Cancelling CAS Definition Edits” on page 5-16.

There are two forms of the ADD command:

- Primary command

From the CASDEF view, the primary command is entered as follows:

```
COMMAND ==> ADD casname
```

where *casname* is the name of the CAS definition you want to create. This name should be the same as the MVS system where the CAS definition is being created (unless you are defining a test CAS and a production CAS is already running on the same system).

The Add CAS System Definition dialog is displayed with the default values except for the CAS System Name and MVS System Name fields. They contain the *casname* value that you specified.

From the CASDEFD view, the primary command is entered as follows:

COMMAND ===> ADD

Since the CASDEFD view displays only one CAS definition at a time, the current definition is assumed to be the definition that you want to use as the template for a new definition.

The Add CAS System Definition dialog is displayed with the values for the current definition. You must change at least the CAS System Name field.

- Line command

The A line command is entered in the line command field of the CASDEF or CASDEFD view. The action is taken against the CAS definition where the command is entered.

The current definition is assumed to be the definition you want to use as the template for a new definition. The Add CAS System Definition dialog is displayed with the values for the current definition. You must change at least the CAS System Name field.

## Changing Existing CAS Definitions

To change an existing CAS definition, use the CHAnge command in edit mode. The Change CAS System Definition dialog is displayed, as shown in Figure 5-7, with the details of the specified CAS definition. You can modify any field in this dialog except the CAS System Name field. Press the Help key for information about each field in this dialog:

**Figure 5-7 Change CAS System Definition Dialog**

```

----- Change CAS System Definition -----
COMMAND ===>

CAS System Name ==== C002      (Recommend same as MVS System Name)
Description       ===> TCP/IP Test CAS

System Identification Information:
MVS System Name  ===> C002          SMF ID           ===> *
SysPlex Name     ===> *              Subsystem ID    ===> *

System Communication Information:
VTAM Appl Name   ===> C002
XCF Group Name   ===> C400QALL
IP Address       ===> 172.017.008.093
Port Number      ===> 4104

Parmlib Suffix Information:
SepDef Suffix    ===> 00          TgtDef Suffix   ===> 00
SecDef Suffix    ===> 00          ConDef Suffix   ===> 00
Common SerDef    ===> 00
    
```

To save your changes as a member of the UBBPARM parameter library, use a SAVE or END command (or its corresponding PF key) as described in “Saving CAS Definitions” on page 5-19.

To cancel your changes, use the CANCEL command as described in “Cancelling CAS Definition Edits” on page 5-16.

There are two forms of the CHANGE command:

- Primary command

From the CASDEF view, the primary command is entered as follows:

```
COMMAND ==> CHA casname
```

where *casname* is the name of the CAS definition that you want to change.

From the CASDEFD view, the primary command is entered as follows:

```
COMMAND ==> CHA
```

Since the CASDEFD view displays only one CAS definition at a time, the current definition is assumed to be the definition that you want to change.

- Line command

The C line command is entered in the line command field of the CASDEF or CASDEFD view. The action is taken against the CAS definition where the command is entered.

## Defining TCP/IP Communication

To define TCP/IP communication for a CAS, you must specify the following fields in the Add or Change CAS System Definition dialog:

### IP Address

Specify a unique IP address consisting of four decimal numbers between 0 and 255, with each number separated by a period.

### Port Number

Specify a unique port number for the CAS as a value between 0 and 65535.

**Note:** Be sure to assign a unique port number to each application that runs on a given MVS image. For example, if you are running MAINVIEW Explorer, the CAS must use a different port number than MAINVIEW Explorer.

In addition to specifying an IP address and port number, you must consider the following requirements for TCP/IP communication.

### Secure TCP/IP Ports

BMC Software recommends that you use a secure TCP/IP port for each production CAS. This section explains how to secure a TCP/IP port for use by a CAS.

In the profile data set for your TCP/IP started task, there is a section for reserving the port. If the started task name and step name of your CAS are the same, you can reserve the port number by started task name. If you use a different step name, you must reserve the port number by the step name of your CAS started task.

The following example is from SYS1.IBMTCP.PRD.CNTL(PROFILE):

---

```
;Reserve ports for the following servers.
;
NOTES:
;
;A port that is not reserved in this list can be used by
any user.
;If you have TCP/IP hosts in your network that reserve
ports
;in the range 1 - 1023 for privileged applications, you
should
;reserve them here to prevent users from using them.
;
;The port values below are from RCF 1060, "Assigned
Numbers."
PORT
4100 TCP C410 ; CAS 41 reserved PORT
```

---

### **OMVS Segment Definitions**

To use TCP/IP communication, each started task (such as a CAS or PAS) and the TSO user IDs that will be accessing them (such as the UAS) must have OMVS segments defined for their USER names.

The following generic RACF example assigns a default USERID and GROUPID to provide access to TCP/IP from *any* started task. To restrict access to TCP/IP in a production environment, you can use a mask to identify certain started tasks (such as the CAS and PAS that will be communicating with TCP/IP). In this example, the values shown in ***bold italics*** are user-supplied values.

```

/*-----*/
AG  OMVSGRP  OWNER(IBMUSER)  SUPGROUP(SYS1)    OMVS(GID(00002))
AG  OMVSDFLT OWNER(OMVSGRP)  SUPGROUP(OMVSGRP) OMVS(GID(99999))
/*-----*/
ADDUSER OMVSUSER OWNER(IBMUSER)  DFLTGRP(OMVSDFLT) +
      NAME('OMVS DEFAULT USERID ')      +
      PASSWORD(1234568)                   +
      UACC(READ) LANGUAGE(PRIMARY(ENU)) +
      OMVS ( UID(99999) HOME(/home) PROGRAM(/bin/sh))
PW USER(OMVSUSER)  INTERVAL(001)
ALTUSER OMVSUSER OMVS(UID(99999) HOME(/home) PROGRAM('/bin/sh'))
/*-----*/
RDEF      FACILITY BPX.DEFAULT.USER UACC(READ) OWNER(SECADM) +
      ALLDATA('OMVSUSER/OMVSDFLT')
PE BPX.DEFAULT.USER      CLASS(FACILITY) ID(SECADM) ACCESS(ALTER)
/*-----*/
SETROPTS CLASSACT(FACILITY) RACLIST(FACILITY)
SETROPTS RACLIST(FACILITY) REFRESH
/*-----*/

```

---

When a CAS or PAS initializes, a message like the following is displayed:

```
IEF695I START MV41CAST WITH JOBNAME MV41CAST IS ASSIGNED TO
USER MVSSTC, GROUP MVSDEV
```

In this case, an OMVS segment was defined for the assigned user name, MVSSTC.

### Cancelling CAS Definition Edits

To exit edit mode, the Add CAS System Definition dialog, or the Change CAS System Definition dialog, use the CANcel command. You can cancel your changes at any time while in edit mode.

If you enter CANcel when the Add or Change dialogs are displayed, you are returned to the CASDEF or CASDEFD view and the edit lock is still active.

If you enter CANcel when either the CASDEF or CASDEFD view is displayed with the edit lock active, you are returned to browse mode. The UBBPARAM CAS definition parameter member is reinstated to its original contents when the edit lock was obtained or since the last SAVE or END command was used. The edit mode status field on the window information line changes from (00 EDIT ) or (00 EDIT MOD ) to (00 BROWSE ) to indicate that the edit lock is no longer active.

## Deleting a CAS Definition

To delete specific CAS definitions from the UBBPARM parameter library, use the DELEte command in edit mode. A CAS definition is marked for deletion and is removed from display when the DELEte command is entered. However, the definition is not actually removed from the UBBPARM CAS definition member (BBMTYB00) until a SAVE or END command (or its corresponding PF key) is used (see “Saving CAS Definitions” on page 5-19 for more information). Until the change is saved, you can UNDelete a CAS definition to recover it as described in “Recovering a CAS Definition” on page 5-17.

There are two forms of the DELEte command:

- Primary command

From the CASDEF view, the primary command is entered as follows:

```
COMMAND ==> DEL casname
```

where *casname* is the name of the CAS definition that you want to delete.

From the CASDEFD view, the primary command is entered as follows:

```
COMMAND ==> DEL
```

Since the CASDEFD view displays only one CAS definition at a time, the current definition is assumed to be the definition that you want to delete.

- Line command

The DEL line command is entered in the line command field of the CASDEF or CASDEFD view. The action is taken against the CAS definition where the command is entered.

## Recovering a CAS Definition

To recover a CAS definition that was deleted with the DELEte command, use the UNDelete command in edit mode. The UNDelete command can recover a definition that was deleted as long as a SAVE or END command (or its corresponding PF key) has not been used.

A CAS definition can be redisplayed with UNDelete or by entering the following on the COMMAND line:

PARm DELETED ( \* )

This command displays all the CAS definitions currently marked for deletion.

Undeleting a CAS definition also causes the Del field value in the CASDEF view or the Deleted? field value in the CASDEFD view to change from No to Yes.

There are two forms of the UNDelete command:

- Primary command

From the CASDEF view, the primary command is entered as follows:

```
COMMAND ==> UND casname
```

where *casname* is the name of the CAS definition that you want to recover. If you do not remember the name of the CAS, use the PARm DELETED(\*) command first.

From the CASDEFD view, the primary command is entered as follows:

```
COMMAND ==> UND
```

Since the CASDEFD view displays only one CAS definition at a time, the current definition is assumed to be the definition that you want to recover.

- Line command

The UND line command is entered in the line command field of the CASDEF or CASDEFD view. The action is taken against the CAS definition where the command is entered.

## Immediately Installing Changes to CAS Definitions

To immediately install changes to CAS definitions without waiting until the CAS is recycled or the next system IPL, use the INStall command. The INStall command dynamically updates the runtime version of a CAS definition.

**Note:** INStall *does not* update identification or cross-system communication parameters in CAS definitions and *does not* save changes to the UBBPARM member. A SAVE or END command (or its corresponding PF key) updates the UBBPARM member (see “Saving CAS Definitions” on page 5-19 for more information).

There are two forms of the INStall command:

- Primary command

From the CASDEF view, the primary command is entered as follows:

```
COMMAND ==> INS casname
```

where *casname* is the name of the CAS definition that you want to update dynamically.

From the CASDEFD view, the primary command is entered as follows:

```
COMMAND ==> INS
```

Since the CASDEFD view displays only one CAS definition at a time, the current definition is assumed to be the definition that you want to update.

- Line command

The INS line command is entered in the line command field of the CASDEF or CASDEFD view. The action is taken against the CAS definition where the command is entered.

## Saving CAS Definitions

To save a new CAS definition as a member of the UBBPARM library, or to save changes to existing CAS definitions in the UBBPARM library, enter the SAVE command. SAVE can be used at any time in edit mode. The edit mode status field on the window information line changes from ( 00 EDIT MOD ) to ( 00 EDIT ) to indicate that the edit lock is still active and all modifications are saved.

**Note:** The END command (or its corresponding PF key) also saves any changes that you made while in edit mode.

# Managing Cross-System Communication between BBI-SS PASs

The information in this section applies to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

Group 1  
Group 3

Figure 5-1 on page 5-2 also illustrates VTAM links that enable MAINVIEW products in a BBI-SS PAS on one MVS image to communicate with those on another MVS image. This section describes how to manage VTAM communication between BBI-SS PASs located on different MVS images.

You can start, stop, and display communication links between BBI-SS PASs by issuing one of the following BBI control commands from a terminal session, a MAINVIEW AutoOPERATOR EXEC, or an MVS operator's console:

```
.START LINK
.STOP LINK
.DISPLAY LINK
```

Table 5-3 summarizes the use of these commands:

**Table 5-3 Control Commands for VTAM Links between BBI-SS PASs**

Command	Keywords	Parameters	Description
DISPLAY D	LINK L	ALL  <i>ssid</i>	Logs status of all or specified communications links to this BBI-SS PAS.
START S	LINK L	ALL  <i>ssid</i>	Starts communications link between the BBI-SS PAS subsystem and the current BBI-SS PAS or between all available BBI-SS PASs and the current BBI-SS PAS. START LINK attempts to open the ACB if it is not open.
STOP P	LINK L	ALL  <i>ssid</i>	Stops communications link between the BBI-SS PAS subsystem and the current BBI-SS PAS or all available BBI-SS PASs and the current BBI-SS PAS.

To use these BBI control commands:

- For command notation shown in Table 5-3:
  - Command and keyword abbreviations are shown as an alternate choice as indicated by a vertical line between them.
  - Default parameters are in boldface type.

- The symbolic word, *ssid*, represents a 1- to 4-character BBI subsystem ID.
- For command syntax:
  - Use a blank between commands and keywords.
  - Use an equal sign, blank, or comma between keywords and parameters.

See “BBI Control Commands” on page 7-16 for further information about the use of BBI control commands.



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# Chapter 6 Managing MAINVIEW Explorer

This chapter explains how to start and stop the MAINVIEW Explorer host server and client.

## Starting and Stopping the Host Server

Before you launch MAINVIEW Explorer in a Web browser to access host data, the host server must be running as a started task with an OMVS segment defined to the user associated with the authorized started task. To start the host server, type the MVS START command at the MVS console:

```
START procedure
```

where *procedure* is the catalogued procedure containing the JCL to run the host server. The distributed procedure name is BBMXPJCL, however, it might have been renamed during installation.

**Note:** For information about the MAINVIEW Explorer host server startup procedure, see the *MAINVIEW Common Customization Guide*.

After the host server has initialized, the following message is written to the MVS console:

```
BBWIA002A MVExplorer Host Server is ready
```

To stop the host server, type the MVS STOP command either at the MVS console or on the COMMAND line in SDSF:

```
P procedure
```

or type the MVS MODIFY command:

```
F procedure ,STOP
```

where *procedure* is the name of host server started task (and the procedure that was used to start it).

## Starting the Client

After the host server is started, use the following procedure to start the MAINVIEW Explorer client.

**Step 1** Make sure the host server is running, as described in ...

**Step 2** Start Internet Explorer.

**Step 3** In the **Address** bar, type

```
http://host:port
```

*host* is the IP address or name of the host on which the MAINVIEW Explorer host server is executing.

*port* is the value specified for the PORT= parameter in the host server procedure. The distributed procedure name is BBMXPJCL, however, it might have been renamed during installation.

For example:

```
http://bmcsysc:3940
```

or

```
http://172.18.9.82:3940
```

**Step 4** Before MAINVIEW Explorer is displayed in your Web browser, a security window is displayed requesting that you verify the use of software from BMC Software. If you do not want to see this prompt again, check the **Always trust** box in the window.

**Step 5** Each time you start MAINVIEW Explorer, you are prompted to supply your TSO user ID and password. You can already be logged on using the same TSO user ID. Type your TSO user ID and password and select the **OK** button.

After MAINVIEW Explorer is launched the first time, select the Microsoft Internet Explorer **Favorites => Add to Favorites** menu option to record the URL and make it easier to access in the future.



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# Chapter 7      Controlling BBI-SS PAS Resources

The information in this chapter applies to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 1
- Group 3

This chapter describes the logging and control commands shared by group 1 and group 3 products in the BBI-SS PAS.

## Logging

BBI records system commands, responses, and messages in a BBI-SS PAS Journal log data set. It records a user's terminal session commands and responses in a TS Journal log data set. Two data sets are allocated for the BBI-SS PAS and TS Journals. MAINVIEW for CICS, MAINVIEW for IMS Online, MAINVIEW for DBCTL, and MAINVIEW for DB2 use two Image logs to record screen images produced by timer-driven services.

This section describes:

- What is recorded in the logs and when
- How to view, display, switch, and print a log
- Log maintenance and recovery

The record formats for the Journal and Image logs are described in Appendix B, “Journal Log Record Format” and Appendix C, “Image Log Record Format.”

## BBI-SS PAS Journal Log

A BBI-SS PAS Journal log consists of two log data sets, BBIJRNL1 and BBIJRNL2, which are used alternately. BBI-SS PAS Journal logging begins automatically when the BBI-SS PAS is started, unless the corresponding DD statements are removed from the BBI-SS PAS JCL.

A BBI-SS PAS Journal log records:

- All BBI commands and responses issued from TS users assigned to the BBI-SS PAS
- All commands and responses issued automatically by MAINVIEW AutoOPERATOR EXECs
- Time stamps for BBI-SS PAS and target system start and stop
- Any warning or exception warning message issued by services
- BBI informational, error, and audit messages
- Service commands and messages
- DB2 commands and messages (MAINVIEW for DB2 only)

When messages are written to the MVS console, such as WTOs (write-to-operators), the BBI-SS PAS subsystem ID is appended whenever possible. The subsystem ID is not recorded in the BBI-SS PAS Journal log.

### Viewing a BBI-SS PAS Journal Log Online

Use the LOG DISPLAY option from the Primary Option Menu to view a BBI-SS PAS Journal log online. The log displayed is identified by the entry in the TGT field, which you can change. You can scroll the display left and right.

- If a target system ID is entered, the Journal log of the BBI-SS PAS assigned to the target is displayed.
- If a BBI-SS PAS ID is entered, the Journal log of that BBI-SS PAS is displayed.

The TGT value can be modified. When the value is changed, the BBI-SS PAS Journal belonging to that specified target is displayed.

### Enhanced Journal Facility:

The Standard Journal Facility displays all messages from the BBI-SS PAS assigned to the specified target (default). However, the Enhanced Journal Facility provides user-customizable views of the Log Display. It allows you to view subsets of the Journal log defined by one or more message origins.

The PROFILE command displays an input panel where you can define which messages you want to see. You can specify up to six patterns for message origins to be included and six patterns for message origins to be excluded in the display. Generic qualifiers can be used to define these patterns. For example, you can include all messages from CICS\* and exclude all messages from CICSTEST.

You also can include messages from the current target specified in the TGT field by specifying the variable, &target, in the Included Origins column.

These specifications are saved in *userid*.BBPROF member LDPARM00. This enables each user to have an individual application profile (see “Profile Libraries” on page 14-9).

To view the origin of the messages in the Log Display, scroll to the left.

**Note:** You must specify JOURNAL=ENHANCED in BBPARM member BBISSP00 for the target BBI-SS PAS for the PROFILE specifications to take effect.

The PROFILE specifications are not active for a target of LOCAL.

### Displaying the Status of a BBI-SS PAS Journal Log

To display the status of a BBI-SS PAS Journal log, use the BBI control command DISPLAY JOURNAL (see “BBI Control Commands” on page 7-16 for more information about the DISPLAY command).

### Switching BBI-SS PAS Journal Log Data Sets

When one BBI-SS PAS Journal log data set becomes full, logging is automatically switched to the alternate data set.

Logging also can be switched manually to the alternate data set with the BBI control command SWITCH JOURNAL. This could be used, for example, to synchronize the data sets with a target session (see “BBI Control Commands” on page 7-16 for more information about the SWITCH command).

Whenever a Journal log data set is switched, either automatically or manually, a user exit (BBIUSR01) is invoked automatically to dump and reset the data set so that it is available for reuse (see the *MAINVIEW Common Customization Guide* for more information).

**Note:** If both Journals are full, the switch cannot complete and logging stops.

### Printing a BBI-SS PAS Journal Log

There are three ways to print a BBI-SS PAS Journal log:

- Automatically. User exit BBIUSR01 is scheduled automatically to invoke a started task that prints and resets the BBI-SS PAS Journal log data set (see the *MAINVIEW Common Customization Guide*).
- Manually. Copy BBSAMP (see “Sample Libraries” on page 14-8) member DLOGJCL. Edit the copied sample procedure to replace the PROC statement with a JOB statement. Submit the job to print and reset the BBI-SS PAS Journal log data set so it can be reused.

**Note:** To print the BBI-SS PAS Journal log to a data set on disk or tape, the BBIPRINT DD statement can be modified to point to a data set with `DCB=(RECFM=FBA,LRECL=121)`. Any suitable BLKSIZE is allowed.

- Manually. Copy BBSAMP member PLOGJCL. Edit the copied sample JCL and submit the job to print and **not** reset the BBI-SS PAS Journal log data set. The data set must first be closed.

### Restricting BBI-SS PAS Journal Log Messages and Commands

Use the Journal log user exit routine SMLXIT to selectively restrict the messages and commands that go to the BBI-SS PAS Journal log. The message text, however, cannot be altered.

The exit must be link-edited as reusable with the name SMLXIT. The following conventions are used:

- Upon entry, register 0 points to one of the following:
  - The VTAM node name that issued the command or received the message
  - The job name of the target system that sent a message to the BBI-SS PAS

- The user ID that issued the command
- The subsystem name that responded to the command

Register 1 points to one of the following:

- +0 points to the length (two bytes) of the command or message text
  - +4 points to the actual text to be edited
- Upon exit, all registers are restored except for register 15, which contains one of the following return codes:
    - RC=0  
Log the message or command to the BBI-SS PAS Journal log.
    - RC=4  
Do not log the message.

**Note:** Do not call other routines from this exit. The message cannot be changed.

A coding example of the Journal log exit is supplied in BBSAMP (see “Sample Libraries” on page 14-8) member SMLXIT. Make any required changes, then assemble and link-edit SMLXIT into the load library. If SMLXIT is in the load library, the exit is loaded at BBI-SS PAS initialization time. The message:

```
SM0340I  USER JOURNAL LOGGING EXIT LOADED
```

is displayed on the console and written to the BBI-SS PAS Journal log.

## BBI-SS PAS Journal Log Maintenance and Error Handling

When the Journal log is full or an I/O error is encountered on the Journal, a user exit named BBIUSR01 is invoked (see the *MAINVIEW Common Customization Guide*).

When an error occurs, a message is sent to the BBI-SS PAS Journal log for user action. Logging can be resumed by issuing the BBI control command `START JOURNAL` described in “BBI Control Commands” on page 7-16. When a BBI-SS PAS Journal log is restarted after being stopped for any reason, recording resumes where it left off when the Journal was stopped.

## TS Journal Log and Screen Print Data Set

The TS Journal log is a local journal (BBIJRNLL) allocated in each UAS that can be used to record all user commands and system responses. TS screen images can be captured by using the PRINT (PF4/16) key and recorded in a BBISPRNT data set. BBIJRNLL and BBISPRNT are allocated with the MAINVIEW CLIST as described below.

### Allocating the TS Journal or Screen-Print Data Set

A local Journal log for user commands and system responses (BBIJRNLL) and a screen print log (BBISPRNT) can be allocated to a UAS.

The TS Journal (BBIJRNLL) and screen print data set (BBISPRNT) are allocated by the MAINVIEW CLIST parameters shown below.

Specify:

- JOURNAL (YES)
- PRINT(YES)

**Note:** Logging occurs only if you specify LOGGING=YES in BBITSP00 and JOURNAL=YES in the MAINVIEW CLIST.

The contents of the BBISPRNT data set can be printed later (see the sample JCL in BBSAMP (see “Sample Libraries” on page 14-8) member SLOGJCL).

The TS Journal log wraps around when full. The log reinitializes and recording starts at the beginning of the data set. All information previously recorded on the data set is lost.

When a TS Journal log restarts after the TS stops for any reason, log recording resumes where it was before the TS stopped.

### Viewing a TS Journal Log Online

Use the Log Display option from the Primary Option Menu to view a TS Journal log online. The log displayed is identified by the entry in the TGT field, which can be changed. Enter LOCAL in the TGT field to display the TS Journal log.

## Printing a TS Journal Log

To print a TS Journal log:

- Step 1** Copy the sample procedure in BBSAMP member DLOGJCL.
- Step 2** Edit the copy you created:
  - 2.A** Replace the PROC statement with a JOB statement.
  - 2.B** Change the BBIJRNL data set names to reference the TS Journal log data set.
- Step 3** Submit the job.

## BBI-SS PAS Image Log

This section applies to these products only:

- MAINVIEW for CICS
- MAINVIEW for DB2
- MAINVIEW for DBCTL
- MAINVIEW for IMS Online

A BBI-SS PAS Image log consists of two log data sets, BBIIMAG1 and BBIIMAG2, which are used alternately. BBI-SS PAS Image logging begins automatically when the BBI-SS PAS is started unless the corresponding DD statement is removed from the BBI-SS PAS JCL. The *MAINVIEW Common Customization Guide* describes how these logs are allocated.

**Note:** These statements must be changed from comments to active DD statements.

BBI logic tests the space available in the image log data set before the image is added. If sufficient space is not available, BBI invokes the CLOSE and OPEN routines for the image log. As a result, even though a secondary extent may exist, it will not be used.

If logging stops for any reason, it can be resumed by issuing the BBI control command START IMAGE as described in “BBI Control Commands” on page 7-16.

A BBI-SS PAS Image log records screen images that are produced automatically by timer-driven analyzer and monitor services.

## Capacity of the BBI-SS PAS Image Log

Images logged to the data set are of two types with different lengths. Thus, the capacity of the log depends on the mix of records logged to that data set. As a guideline, the image log uses 4092 bytes to store one large image—that is, 10 per 3380 track.

## Displaying the Status of a BBI-SS PAS Image Log

The status of a BBI-SS PAS Image log can be checked with the BBI control command `DISPLAY IMAGE` (see “BBI Control Commands” on page 7-16 for more information about the `DISPLAY` command).

## Switching BBI-SS PAS Image Log Data Sets

When one BBI-SS PAS Image log data set becomes full, logging automatically switches to the alternate data set.

Logging can also be switched to the alternate data set manually with the BBI control command `SWITCH IMAGE`. This could be used, for example, to synchronize the data sets with a target session, (see “BBI Control Commands” on page 7-16 for more information about the `SWITCH` command).

Whenever logging switches, either automatically or manually, a started task `BBIUSR02`, is invoked to print the data set (see the *MAINVIEW Common Customization Guide*). Any data residing on the alternate data set is overwritten.

## Printing a BBI-SS PAS Image Log

There are two ways to print a BBI-SS PAS Image log:

- Automatically. The started task, `BBILOG`, is a procedure that can be scheduled automatically to print a full BBI-SS PAS Image log data set.
- Manually. The sample procedure in `BBSAMP` (see page “Sample Libraries” on page 14-8) member `ILOGJCL` can be edited to replace the `PROC` statement with a `JOB` statement and submitted to print a BBI-SS PAS Image log data set. Selection statements can also be defined as described in “Selecting and Printing Image Log Records” on page 7-10.

## BBI-SS PAS Image Log Maintenance and Error Handling

When the Image log data set is full or an I/O error is encountered on the Image log, a user exit named BBIUSR02 is invoked (see the *MAINVIEW Common Customization Guide*).

After the error is corrected, logging can be resumed by issuing the BBI control command `START IMAGE` (see “BBI Control Commands” on page 7-16 for more information about the `START` command).

When a BBI-SS PAS Image log is restarted after being stopped for any reason, it resumes recording at the beginning of the log data set identified as BBIIMAG1. Any data on BBIIMAG1 is overwritten.

## TS Image Log

This section applies to these products only:

- MAINVIEW for CICS
- MAINVIEW for DB2
- MAINVIEW for DBCTL
- MAINVIEW for IMS Online

A TS Image log consists of one log data set, BBIIMAGL (ddname BBIIMAG1). TS Image logging begins automatically when the TS is started unless one of the following conditions is met:

- The symbolic parameter `IMAGE(NO)` is used in the MAINVIEW CLIST.
- The corresponding DD statement is removed from the MAINVIEW CLIST.
- The parameter `IMAGE=NO` is specified in BBPROF (see Chapter 14, “Using Product Libraries”) member BBITSP00.

A TS Image log records BBI screen images produced by the TS.

The TS Image log wraps around when full. The log is reinitialized and recording is started at the beginning of the data set. All information previously recorded on the data set is lost.

If the BBI-SS PAS is restarted while TS Image logging is active, then TS Image logging will also restart at that time. All information previously recorded in the data set is lost.

## Printing a TS Image Log

A TS Image log can be printed by copying the sample JCL in BBSAMP (see “Sample Libraries” on page 14-8 ) member ILOGJCL, editing it to replace the PROC statement with a JOB statement, and submitting the job. Selection statements can also be defined, as described in “Selecting and Printing Image Log Records” on page 7-10.

## Selecting and Printing Image Log Records

The program IMRPRINT may be executed from the BBLINK library to select and print the Image records (X'FB') from the BBI Image logs (BBI-SS PAS or TS). (Sample JCL is in BBSAMP member ILOGJCL.) If no selection is specified, all records are printed in chronological sequence.

The Image log record contains a screen image produced by a display service. It may be produced as a record of a terminal request on the TS Image log. If the screen image is produced as the result of a timer-driven service request, it is logged to the BBI-SS PAS Image log. This second type may be either an informational display or a plot display of the historical data collected by a monitor service.

Each display record selected for printing is printed as it appears on the screen, except for the date and time fields (which are supplied on output to the terminal). The target name is shown on line 2 of the screen image. Additional information is printed to the right of the service display.

The last line, SELECTION SATISFIED: nn, appears only if selection was specified.

```
DATE yy/ddd      TIME hh:mm:ss.s
SUBMITTING USERID: LNX001
SELECTION SATISFIED: 01
```

An additional option, if selection is specified, allows the selected records to be written out to the file SELWRITE in addition to, or instead of, being printed. These records then can be sorted as needed and used again as input to IMRPRINT for printing in sequence. The satisfied SELECT statement number is put in the field MSGSELNR on output so that it is available for sorting.

At the completion of processing, the totals are printed as shown in the following example. If no selection is specified, only the first four lines appear.

TOTAL LOG RECORDS READ:	1,528,799
TOTAL AUDIT RECORDS READ:	127
TOTAL AUDIT RECORDS PRINTED:	127
TOTAL AUDIT RECORDS WRITTEN:	54
NUMBER SELECTED, SELECT 01:	73
NUMBER SELECTED, SELECT 02:	54

Job control language for IMRPRINT is shown in Figure 7-1.

**Figure 7-1 JCL for IMRPRINT**

```
//PRINT EXEC PGM=IMRPRINT[,PARM='UC']
//LOGFILE DD DSN=<BBI Image log>,DISP=OLD
//LIST DD SYSOUT=A
//SELECT DD *
        select records (optional)
/*
//SELWRITE DD DSN=<AUDIT RECS>,DISP=NEW, (or DUMMY)
//          DCB=(RECFM=VB,LRECL=2332,BLKSIZE=nnnn)
//
```

**Note:** PARM=UC is required only if the screens are to be printed only in uppercase.

## Selecting Image Records

The 80-byte records are selected with a SELECT statement. If none are selected, all BBI audit records are printed.

The selection syntax is free format and keyword-oriented:

- A maximum of 80 columns can be used.
- Statements can be started anywhere and continued on any number of records, but symbols cannot be broken at position 80 and continued on the next statement.
- Keywords need not begin a new record.
- Any number of blanks, commas, slashes, or parentheses (which are ignored) can be interspersed in the text between symbols.

- Specify comments between asterisks (for example, a comment is begun by one asterisk and closed when another asterisk or the end of that record is found).

**Note:** If the input records are line numbered, place an asterisk after the text so the number is considered a comment.

A maximum of 20 SELECT statements can be entered:

- The logical condition OR applies between them.
- An audit record is printed only once (the first time it satisfies a SELECT statement). However, it can be output multiple times to the SELWRITE file, once for each SELECT statement it satisfies.
- The default is to PRINT the record.

The logical condition AND applies between selection types (for example, LTERM or TIME) within one SELECT statement:

- Any number of types can be specified in any order, but none can be duplicated within one SELECT (that is, specify all operands of one type together).
- No select types are required on a SELECT statement.

The logical condition OR applies between the operands or operand ranges specified for one type:

- The total number of operands in all SELECT statements must not exceed 500.
- Within this limit, any number of operands or operand ranges can be specified for one selection type.

## SELECT Statement

This section describes the SELECT statement syntax and parameters.  
The syntax is:

```
SELECT [ PRINT | NOPRINT ] keywords
```

or

```
SELECT [ WRITE | NOWRITE ] keywords
```

Table 7-1 lists valid SELECT keywords and operands.

**Note:** SERVICE=PLOT can be used to select all graphic display records.  
REQID, not SERVICE, is used to select specific monitor displays.

**Table 7-1** SELECT Keywords and Operands

Keywords	Description	Operands
SERVICE	Analyzer service name	A 2- to 5-character, alphanumeric service name and an optional 1- to 8-character, alphanumeric parameter. The two fields must be separated by a hyphen; for example, SERVICE=DB2ST-RATE. If no parameter and no hyphen are specified, all images that match the service name are selected. If a hyphen is specified followed by a blank, only those images that match the service name and have no parameter are selected.
REQID	Monitor service request identifier	A 2- to 5-character, alphanumeric request ID and a 1- to 8-character, alphanumeric parameter. The two fields must be separated by a hyphen; for example, REQID=SQLAC-CTL. The parameter must match the SET request parameter used to create the image.
DATE	Julian date	Numeric, 5 digits. Format is yyddd, where: yy is the year ddd is the Julian day (001-366)
TIME	Time of day	Numeric, 4 digits. Format is hhmm, where: hh can be 00 to 24 mm can be 00 to 59
USERID	Submitting USERID	Alphanumeric symbol, 1 to 8 characters.
USRQUAL	Submitting USERID qualifier	Alphanumeric symbol, 1 to 7 characters.
COMPLET	Service completion code mnemonic	Alphanumeric symbol, 2 characters. Valid entries are: OK Successful NV Invalid request SC Security violation IF IMS request failed OF OS request failed AB Service abended NP Invalid parameter NG Service unsuccessful, not OK
LTERM	Submitting user ID qualifier	Alphanumeric symbol, 1 to 8 characters.

Each input record is printed on the LIST file as it is read. When a new SELECT statement is recognized, a message with the assigned sequential select number is printed.

If any errors are found in the selection statements, error messages are written to the LIST file and the program terminates with a condition code of 20 (review the messages for this code). All statements are edited as much as possible.

**Examples:**

- Select all LOCK, ULOCK, and PLOT requests entered from the terminal with ID AAB01 specified and print them. Also, select all plots logged asynchronously by timer requests submitted from the same terminal.

```
SELECT SERVICE=LOCK, ULOCK, PLOT USERID=AAB01
```

- Select all requests for service DB2EX and write them to the SELWRITE file.

```
SELECT WRITE NOPRINT SERVICE=DB2EX
```

- Select the requests made between 10 a.m. and 12 noon submitted from the terminal with ID AAB01. Also, select those requests for the services DMON and DWARN from any terminal. Print is the default.

```
SELECT TIME=1000-1200, USERID=AAB01  
SELECT TIME=1000-1200, SERVICE=DMON, DWARN
```

- Select all requests to be printed. Write to the file any requests made from terminals with a name beginning with ABC, or any for a DB2ST, EDMPL, or BFRPL service.

```
SELECT (PRINT) SELECT WRITE USRQUAL=ABC  
SELECT WRITE  
SELECT WRITE SERVICE=(DB2ST, EDMPL, BFRPL)
```

**Note:** If a service entered from user ID ABC001 requested DB2ST, this audit record is written twice. Although the PRINT option was not turned off in SELECT statements 02-03, all requests are printed only once, selected by the first SELECT statement.

- Select all PLOT displays of the timer-driven monitor request BPUTL-BP0 (buffer pool utilization for pool BP0).

```
SELECT REQID=BPUTL-BP0
```

---

**Selection Edit Messages**

POS *nn*:       SELECT STATEMENT *nn* DEFINITION STARTED

POS *nn*:       WARNING - INVALID CHARACTER IGNORED

POS *nn*:       ERROR - DUPLICATE OPTION

POS *nn*:       ERROR - KEYWORD REQUIRED, TEXT IGNORED UNTIL  
                  FOUND

POS *nn*:       ERROR - DUPLICATE SELECT TYPE, SKIP TO NEXT  
                  KEYWORD

POS *nn*:       WARNING - EQUALS MISSING AFTER TYPE

POS *nn*:       ERROR - NO OPERANDS FOUND FOR THIS TYPE

POS *nn*:       ERROR - RANGE SPECIFICATION INVALID

POS *nn*:       ERROR - OPERAND INVALID FOR THIS TYPE

POS *nn*:       ERROR - TOO MANY OPERANDS

SELECT RECORD(S) INVALID - PROCESSING TERMINATED

## BBI Control Commands

BBI control commands are used to control resources and functions for these products:

- MAINVIEW Alarm Manager
- MAINVIEW AutoOPERATOR
- MAINVIEW for CICS
- MAINVIEW for DB2
- MAINVIEW for DBCTL
- MAINVIEW for IMS Online
- MAINVIEW for WebSphere MQ (formerly known as MAINVIEW for MQSeries)

These commands log the status of and modify the BBI-SS PAS online system. As described in “Issuing a BBI Control Command” on page 7-26, BBI control commands can be issued from a TS, a MAINVIEW AutoOPERATOR EXEC, or an MVS operator's console. For example, to log the status of the target BBI-SS PAS to the Journal log, the following DISPLAY ACTIVE control command would be entered from a TS:

```
.D A
```

This status information then can be viewed by using the BBI general service LOG DISPLAY.

To use the BBI control commands:

- Use a blank between commands and keywords.
- Use an equal sign, blank, or comma between keywords and parameters.

Table 7-2 on page 7-17 lists the BBI control commands and uses the following notation conventions:

- Command and keyword abbreviations are shown as an alternate choice as indicated by a vertical line between them.
- Default parameters are in **boldface** type.
- The symbolic word, *ssid*, represents a 1- to 4-character BBI subsystem ID.
- The symbolic word, *userid*, represents a 1- to 7-character TSO user logon ID.
- The symbolic word, *destid*, represents a 1- to 8-character VTAM destination ID.

Table 7-2 BBI Control Commands

Command	Keywords	Parameters	Description
CANCEL   C	EXEC   E	<i>eid</i>   ALL	<b>(MAINVIEW AutoOPERATOR only)</b> Cancels the EXEC identified by <i>eid</i> (either running or queued) or cancels all EXECs. Use extreme caution when using the ALL keyword as all EXECs running or queued at that point in time will be cancelled.
DISPLAY   D	ACTIVE   A	no parameter	Logs the status of the BBI-SS PAS.
	EXEC   E	ALL   HIGH   NORMAL   STATS	<b>(MAINVIEW AutoOPERATOR only)</b> Displays statistics for RUNNING and QUEUED EXECs (STATS), high priority EXECs (HIGH), normal priority EXECs (NORMAL), or all EXECs (ALL).
	GME   G	CONN   C PUBLISH   P RECEIVE   R TRACE   T TRACE, <i>nnnn</i>   T, <i>nnnn</i> no parm	Provides a summary status of the local General Messages Exchange (GME) node. CONNDisplays status of GME connections. A specific connection is displayed by specifying the GME NAME. PUBLISHDisplays details of PUBLISHED GME subjects. RECEIVEDisplays details of the GME applications that are registered to receive messages. TRACEDisplays a summary of the trace records by class. TRACE, <i>nnnn</i> Displays up to 10 trace records starting with the specified trace record sequence number. no parmDisplays status of the local GME node.
	IMAGE   I	no parameter	(MAINVIEW for CICS, MAINVIEW for IMS Online, MAINVIEW for DBCTL, MAINVIEW for DB2) Logs the status of BBI-SS PAS Image log.
	JOURNAL   J	no parameter	Logs the status of BBI-SS PAS Journal log.
	KEYS   K	no parameter	Displays all the option password keys read from the BBKEYS member of BBPARM (see "Parameter Libraries" on page 14-6) and their validation status.
	LINK   L	<b>ALL</b>   <i>ssid</i>	Logs status of all or specified communications links to this BBI-SS PAS.

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
DISPLAY   D (continued)	NETCALRT   NETC	<b>ALL</b>   <i>destid</i>	(MAINVIEW AutoOPERATOR only) ALLRequests the status of all destinations and their current MAINVIEW AutoOPERATOR to COMMAND/POST interface tasks. It is the default. <i>destid</i> Specifies a VTAM ID to request the status of a specific destination.
	PARTNERS	no parameter	<b>(MAINVIEW AutoOPERATOR only)</b> Displays the status of the TapeSHARE partners in the TapeSHARE PLEX.
	PRODUCTS   P	no parameter	Displays all BBI products with their current status which can be:  <i>prdname</i> ACTIVE   INACTIVE  where: <i>prdnamel</i> s the name of the product. ACTIVEProduct was initialized properly and was not stopped. INACTIVEProduct was initialized properly at BBI-SS PAS startup, but it was stopped or was not found (not initialized properly).
	REMOTE	no parameter	Display status of all remote TS users connected to this BBI-SS PAS through a remote BBI-SS PAS.
	RULES	no parameter	<b>(MAINVIEW AutoOPERATOR only)</b> Shows whether MAINVIEW AutoOPERATOR Rule processing is enabled or disabled.
	SOF		<b>(MAINVIEW AutoOPERATOR only)</b> Displays the Shared Object Facility.
	SSR	no parameter	Displays subsystem resource usage, including CPU usage for each exit.
	USER   U	<b>ALL</b>   <i>name</i>	Logs status of all TS users assigned to this BBI-SS PAS.
	VPOOL   V	<b>ALL</b>   <i>name</i> [PROFILE   SHARED]	<b>(MAINVIEW AutoOPERATOR only)</b> Displays the SHARED (default) or PROFILE variable pool statistics for a particular variable ( <i>name</i> ) or for all variables.
	XCF	no parameter	Displays the other BBI-SS PASs that this PAS is connected to, their cross-system coupling facility (XCF) member names, and how many requests are pending on this connection.

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
GET   G	<i>dddd</i>	ONLINE GIVE   NOGIVE TAKE   NOTAKE	<p><b>(MAINVIEW AutoOPERATOR only)</b> Allows you to VARY the status of a tape device online where <i>dddd</i> is the device address. The parameters that can be used with this command are:</p> <p>ONLINE Locates the device on any TapeSHARE partner, VARYs it offline to that partner, and online to the local partner.</p> <p>GIVE   NOGIVE Changes the status of the device to GIVE or NOGIVE. You can use this parameter with ONLINE for example, you can issue:</p> <p><code>.G <i>dddd</i>, ONLINE, NOGIVE</code></p> <p>This VARYs the device online and does not allow it to be GIVEN back to the original partner.</p> <p>TAKE   NOTAKE Changes the status of the device to TAKE or NOTAKE. You can use this parameter with ONLINE for example, you can issue:</p> <p><code>.G <i>dddd</i>, ONLINE, NOTAKE</code></p> <p>This VARYs the device online and does not allow it to be TAKEN by another partner.</p>
HELP   H	<b>ALL</b> <i>command</i>	no parameter	The HELP command displays syntax information and examples for the BBI control commands. You can request information for a specified command, (.H D) or for all commands (.H ALL). The default is ALL.
LOCATE   L	U, <i>dddd</i>	no parameter	<b>(MAINVIEW AutoOPERATOR only)</b> Locates and displays the status of a device, where <i>dddd</i> is the device address.
MVA   A	<i>command</i>		<b>(MAINVIEW Alarm Manager only)</b> Issues a MAINVIEW Alarm Manager PAS control command. For a list of valid commands and parameters, see the <i>MAINVIEW Alarm Manager User Guide</i> .

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
RESET   E	AUTH   A	ALL   <i>userid</i>	Re-creates the BBPARM (see "Parameter Libraries" on page 14-6) data set authorization of all TS users or one specific user on this BBI-SS PAS. If ALL is specified, all authorization is recreated for local and remote users as well as the generic authorization defined by \$GENERIC, \$USERID, and \$RMTID.
	BLDL   B	SYSPROC	<b>(MAINVIEW AutoOPERATOR only)</b> Reissues the BLDL for the data set (BBPROC) allocated by DD name SYSPROC to activate EXEC members that were added or to delete members. The RESET command is not required when existing members are modified because the changes take place immediately.
	BM	DB2 ID	<b>(MAINVIEW for DB2 only)</b> Terminates and restarts a connection between MAINVIEW for DB2 and the target DB2 subsystem ID.
	TS	VALIDATE	<b>(MAINVIEW AutoOPERATOR only)</b> Checks the path validity for all tape devices.  For example, suppose a path was marked as ACTIVE before this command is issued. If the path for a tape device becomes INACTIVE when the .E TS,VALIDATE command is issued, the entry in the device table for that tape device will be marked as INACTIVE.
	DUMP   D	no parameter	Dump data set is reused until reset dump command is issued from a TS session. Dump data sets are cleared only when specified in the SSJCL.
	GME   G	nodename	Stops and starts communications with a GME server node using the parameters specified from the active BBPARM member AAOGMExx. Possible specifications for nodename are: TGTNAMEIs the name of the GME server node whose connection is to be stopped and started. Typically, this will be the workstation ID of the system where the remote GME server node is running. IP Address:Port Is a combination of the IP address and the port number connected by a colon (:). Hostname:Port Is a combination of the hostname and the port number connected by a colon (:).

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
RESET   E (continued)	NETC   NETCALRT	[ALL   <i>destid</i> ] [ON   OFF   RELOAD]	<p><b>(MAINVIEW AutoOPERATOR to COMMAND/POST interface only)</b> Defines any destination that can be stopped or restarted.</p> <p>The format of the command is:</p> <pre>.RESET NETC [ALL  <i>destid</i>][ON OFF RELOAD]</pre> <p>ALL(Default) Indicates all destinations are to be processed as specified by ON, OFF, or RELOAD. <i>destid</i>Indicates a specific destination (VTAM ID) to be processed as specified by ON, OFF, or RELOAD. ON(Default) Attempts to establish a connection. OFFIs a request to disconnect a connection. RELOADIs a request to send all ALERTs to the specified destination without dropping or reestablishing the connection.</p>
	PARM   P	AAOALTxx	<p><b>(MAINVIEW AutoOPERATOR to COMMAND/POST Interface only)</b> Drops all connections to COMMAND/POST and terminates the VTAM session. After processing of AAOALTxx where xx can be any suffix, the VTAM connection and all remote connections are established.</p>
		AAOALSxx	<p><b>(MAINVIEW AutoOPERATOR only)</b> Reinitializes the parameters specified by AAOALS00.</p>
		AAOARPxx	<p><b>(MAINVIEW AutoOPERATOR only)</b> Reinitializes the parameters specified by AAOARP00.</p>
		AAOEXPxx	<p><b>(MAINVIEW AutoOPERATOR only)</b> Reinitializes the parameters specified by AAOEXP00.</p>
		AAOGMExx   RECYCLE AAOGMExx   RESYNC	<p>Reinitializes the parameters specified by AAOGME00.</p> <p>Possible options are to specify:</p> <p>RECYCLEStops the GME environment, disabling all connections, and restarts the GME environment, re-establishing all connections.</p> <p>RESYNCSStops any active GME connections that might exist (but have been removed from the active BBPARM member AAOGMExx) and starts any new connections that may have been added to AAOGMExx since the recycle or startup of MAINVIEW AutoOPERATOR.</p>

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
RESET   E (continued)	PARM   P (continued)	AAOTSPxx	<b>(MAINVIEW AutoOPERATOR only)</b> Reinitializes the parameters specified by AAOTSP00.
		CMRPRBT	<b>(MAINVIEW for CICS only)</b> Reinitializes a table that sets default and user threshold values for messages displayed with the PROBLEM service or background problem services.
		CMRSECU	<b>(MAINVIEW for CICS and MAINVIEW AutoOPERATOR for CICS Option only)</b> Reinitializes the CMRSECU module and creates a table of security definitions.
		CMRSOPT <i>region</i>	<b>(MAINVIEW for CICS only)</b> Reinitializes a startup table of monitoring parameters for the CICS environment. The format of the command is:  .RESET PARM CMRSOPT <i>region</i>  where <i>region</i> is the name of the target CICS region to have its CMRSOPT reset.
		xxxBEX00	<b>(MAINVIEW for DB2 and MAINVIEW for IMS Online only)</b> Where xxx represents a product code: DMRDMRBEX00 applies to MAINVIEW for DB2 IMFIMFBEX00 applies to MAINVIEW for IMS Resets message logging, background sampler exception, and application trace parameters specified in the member.
RULES	no parameter	<b>(MAINVIEW AutoOPERATOR only)</b> Reinitializes all currently active Rule Sets.	
STATS   S	no parameter	<b>(MAINVIEW AutoOPERATOR only)</b> Resets message/automation statistics.	

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
SET   T	DUMPS	[YES   NO   SDUMP]	Creates BBI formatted dumps (BBI-SS PAS only) if YES is specified. If SDUMP is specified, SVC dumps are created for the BBI-SS PAS only. The format of the command is: .T DUMPS=YES .T DUMPS=NO .T DUMPS=SDUMP
	RULE	[ENA   DIS   TEST] <i>rule id</i>	<b>(MAINVIEW AutoOPERATOR only)</b> Enables (ENA), disables (DIS), places a Rule into test mode (TEST) by <i>rule id</i>  Examples of this command are:  .T RULE,ENA,ICH00001 .T RULE,DIS,ICH00012
	RULESET	[ENA   DIS   RES   SAV] <i>rule set name</i>	<b>(MAINVIEW AutoOPERATOR only)</b> Enables (ENA) or disables (DIS) a Rule Set by <i>rule set name</i> You also can reset (RES) or save (SAV) a Rule Set(s) by <i>rule set name</i> . Resetting a Rule Set is the same as disabling and re-enabling a Rule Set.  Examples of this command are:  .T RULESET,ENA,RUL01CSM .T RULESET,DIS,RUL01CSM .T RULESET,RES,RUL01CSM .T RULESET,ENA,AAORULxx .T RULESET,SAV,AAORULxx

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
START   S	BM	DB2 ID	<b>(MAINVIEW for DB2 only)</b> Attempts to reestablish a connection between MAINVIEW for DB2 and the target DB2 subsystem ID. If the connection is successfully established, it restarts all background monitors for that subsystem.
	COMP	NETCALRT   NETC	<b>(MAINVIEW AutoOPERATOR to COMMAND/POST interface only)</b> Requests the starting of the MAINVIEW AutoOPERATOR to COMMAND/POST interface task.
	EXEC   E	( <i>pattern name</i> )	<b>(MAINVIEW AutoOPERATOR only)</b> Starts EXECs using matching <i>pattern name</i> (use * for all EXECs).
	GME   G	nodename	Starts communications with a General Messages Exchange (GME) server node using connection parameters read from the active BBPARM member AOGME00.  For a description of possible values for nodename, refer to the description for RESET GME nodename in this table.
	GTS	[nn]	<b>(MAINVIEW AutoOPERATOR and MAINVIEW for WebSphere MQ only)</b> Starts the Generic TCP/IP Server (GTS) using the parameters in BBPARM member BBTTCPnn, where nn is the suffix specified for the GTS=nn parameter in BBPARM member BBISSP00. If the GTS parameter is not specified in BBISSP00, member BBTTCP00 is used to start the GTS.  To override the GTS parameter in BBISSP00, specify the suffix of an existing BBTTCPnn member, for example:  S GTS,02
	IMAGE   I	no parameter	<b>(MAINVIEW for CICS, MAINVIEW for IMS Online, MAINVIEW for DBCTL, MAINVIEW for DB2)</b> Starts Image logging for the current BBI-SS PAS. Startup logic is the same as when a BBI-SS PAS is initially started.
	JOURNAL   J	no parameter	Starts Journal logging for the current BBI-SS PAS. Startup logic is the same as when a BBI-SS PAS is initially started.
	LINK   L	ALL ssid	Starts communications link between the BBI-SS PAS subsystem and the current BBI-SS PAS or between all available BBI-SS PASs and the current BBI-SS PAS. START LINK attempts to open the ACB if it is not open.
	LOGON   LO	no parameter	Allows users to log on to the BBI-SS PAS through VTAM.
RULES	no parameter	<b>(MAINVIEW AutoOPERATOR only)</b> Starts Rules processing.	

Table 7-2 BBI Control Commands (continued)

Command	Keywords	Parameters	Description
STOP   P	BM	DB2 ID	<b>(MAINVIEW for DB2 only)</b> Terminates a connection between MAINVIEW for DB2 and the target DB2 subsystem ID.
	COMP	NETCALRT   NETC	<b>(MAINVIEW AutoOPERATOR only)</b> Requests the stopping of a MAINVIEW AutoOPERATOR to COMMAND/POST interface task.
	EXEC   E	( <i>pattern name</i> )	<b>(MAINVIEW AutoOPERATOR only)</b> Stops the EXECs by using a specific <i>pattern name</i> such as:  .STOP EXEC A*  which disables scheduling of all EXECs beginning with the letter A. Use * for all EXECs. Issuing the command .RESET BLDL SYSPROC re-enables the scheduling of all EXECs.
	GME   G	nodename	Stops communication with a General Messages Exchange (GME) node. For a description of possible values for nodename, refer to the description for RESET GME nodename in this table.
	GTS	no parameter	<b>(MAINVIEW AutoOPERATOR and MAINVIEW for WebSphere MQ only)</b> Stops the Generic TCP/IP Server (GTS).
	IMAGE   I	no parameter	<b>(MAINVIEW for CICS, MAINVIEW for IMS Online, MAINVIEW for DBCTL, MAINVIEW for DB2)</b> Stops Image logging for the current BBI-SS PAS.
	JOURNAL   J	no parameter	Stops Journal logging for the current BBI-SS PAS.
	LINK   L	ALL   <i>ssid</i>	Stops communications link between the BBI-SS PAS subsystem and the current BBI-SS PAS or all available BBI-SS PASs and the current BBI-SS PAS.
	LOGON   LO	no parameter	Stops users from logging onto BBI-SS PAS through VTAM (active users are not affected).
	<b>RULES</b>	no parameter	<b>(MAINVIEW AutoOPERATOR only)</b> Stops Rules processing. The effect is similar to inactivating all active Rule Set entries.
SWITCH   I	IMAGE   I	no parameter	<b>(MAINVIEW for CICS, MAINVIEW for IMS Online, MAINVIEW for DBCTL, MAINVIEW for DB2)</b> Switches from the current Image log data set to the alternate and invokes a started task.
	JOURNAL   J	no parameter	Switches Journal logging to the alternate data set and invokes a started task. A switch cannot be made if the alternate data set is full.

## BBI Control Command Operation

BBI control commands operate against a specific BBI-SS PAS, depending on where the command is issued:

- If the command is issued from an MVS DDOCS console, it operates against the BBI-SS PAS assigned to the local target environment.
- If the command is issued from a TS, it operates against the BBI-SS PAS for the target identified in the TGT field or the BBI-SS PAS identified in the TGT field. The target BBI-SS PAS can be either local or remote.

## Issuing a BBI Control Command

BBI control commands can be issued from a TS, a MAINVIEW AutoOPERATOR EXEC, or from the MVS operator's console.

- If the command is issued from an MVS operator's console, it operates against the BBI-SS PAS assigned to the local target environment.
- If the command is issued from a TS, it operates against the BBI-SS PAS for the target identified in the TGT field or the BBI-SS PAS identified in the TGT field. The target BBI-SS PAS can be either local or remote.

The control command is preceded by either:

- A period (.) for TS command entry
- An MVS MODIFY (F) command or MVS subsystem command recognition character for operator console entry

To enter a BBI control command from:

- A TS

Use the COMMAND field of any application display panel.

When BBI control commands are issued in a COMMAND field, they must be prefixed by a period (.) to prevent conflicts with local application commands as shown with the following command:

```
COMMAND ==>> .S LINK,SSB2
```

- MVS operator's console

Use either the MVS MODIFY (F) command or the MVS subsystem command recognition character.

- BBI control command example with MVS MODIFY command (F):

```
F SSA1,D ACTIVE
```

F is the MVS MODIFY command

SSA1 is the BBI-SS PAS job name or started task ID

D is BBI control command

- BBI control command example with MVS subsystem command recognition character:

```
:D ACTIVE
```

: is MVS subsystem command recognition character specified in BBPARM member BBISSP00

D is the BBI control command

The MVS subsystem command recognition character is defined with the CMDCHAR parameter in BBPARM (see “Parameter Libraries” on page 14-6) member BBISSP00. It is CMDCHAR=: for this example. If no character is specified (default), the subsystem command recognition character cannot be used.

The command is processed by each BBI-SS PAS that has a matching subsystem command recognition character specified in its associated BBPARM member BBISSP00.

Be sure this character does not conflict with subsystem command recognition characters defined for other MVS subsystems, such as the JES subsystem.

## Logging BBI Control Commands and Responses

All BBI commands and responses are recorded on the BBI-SS PAS Journal log. If the command is issued from an MVS DIDOCS console, command responses are also returned to the originating console as singleline or multiline WTOs.

## BBI Control Command Responses

The following responses are general to all BBI commands:

- Short Message Response to TS:

```
COMMAND ISSUED
```

- BBI-SS PAS Journal Log and MVS Console Response:

```
IM9100I  BBI COMMAND ACCEPTED
```

```
IM9135E  BBI COMMAND REJECTED
```

```
IM9131E  INVALID BBI COMMAND FOLLOWS:
```

```
IM9132E  COMMAND  command string
```

```
IM9133E  INVALID SYNTAX FOR COMMAND  command
```

```
IM9134E  INVALID PARAMETER FOR  resource * parameter *
```

```
IM9136E  ERROR EXECUTING COMMAND:
```

```
IM9132E  COMMAND  command string
```

To display the responses to entered commands, use the **LOG DISPLAY** option on the Primary Option Menu to view the BBI-SS PAS Journal log.

To view a detailed explanation of any error message or abend code, use the **MESSAGES** option from the Primary Option Menu.

---

---

# Chapter 8      **Controlling Diagnostic Messages (Plex Manager)**

The information in this chapter applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- Group 4

Plex Manager's DIAGMSG view displays the current state of MAINVIEW diagnostic monitoring. Using DIAGMSG's line commands, options can be set that regulate the type of messages produced by MAINVIEW components and an external security manager (ESM) such as CA-ACF2. This chapter explains how to use the DIAGMSG view to set monitoring options that regulate the type and extent of diagnostic messages produced by MAINVIEW when operating in windows mode.

## Displaying the DIAGMSG View

Figure 8-1 shows an example of the DIAGMSG view. For more information about any DIAGMSG view field, place the cursor over the field and press the HELP key. A help pop-up window describes the view field you selected.

**Figure 8-1 DIAGMSG View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 =DIAGMSG=====SYSB=====*=====ddmmmyyyy==hh:mm:ss=PLEXMGR==D==11==
CMD Option Status Scope Description / Diagnostic Activity
-----
GXDM OFF Global Extended Diagnostic Mode
LXDM OFF Local Extended Diagnostic Mode
GEMM ON Global Extended Message Mode
LEMM OFF Local Extended Message Mode
LSEMM OFF Local Security Extended Message Mode
LESTR OFF Local Extended Security Trace
GESTR OFF Global Extended Security Trace
LSSTR OFF Local Simple Security Trace
GSSTR OFF Global Simple Security Trace
GSSM OFF Global Safe Security Message Display
SAFTRACE N/A acf2/MVS ACF2 SAFTRACE GSO Option
SAFTRC N/A LogonID ACF2 LogonID SAF-TRC attribute
WSXASTR OFF Window Extended Authorization Simple Trace

```

To access the DIAGMSG view:

- If you are currently displaying a Plex Manager view, type DIAGMSG in the COMMAND field and press Enter.
- If you are displaying another MAINVIEW product view:
  1. Return to the MAINVIEW Selection Menu.
  2. Select option P, Plex Manager, from the MAINVIEW Selection Menu. The EZPLEX menu is displayed.
  3. On the EZPLEX menu under Diagnostics, position the cursor on Messages and press Enter.

Alternatively, you can enter the following CONtext command and display DIAGMSG in a single step:

```
CON * PLEXMGR;DIAGMSG
```

The abbreviated name of each diagnostic message or debugging option is shown in DIAGMSG's Option field. The Status field shows the current state (On or Off) of the option. The Scope field indicates the extent of the MAINVIEW environment monitored by a specific diagnostic option.

DIAGMSG options can be enabled or disabled. Enter a line command in the CMD field of the line displaying the diagnostic option whose state you want to change.

**ON** Enables the diagnostic option.

**OFF** Disables the diagnostic option.

## Understanding Message and Diagnostic Options

Each option listed by DIAGMSG represents a MAINVIEW diagnostic mode with a characteristic scope and a set of associated messages that can be issued if the mode is active.

Valid MAINVIEW diagnostic or message modes are described in Table 8-1.

**Table 8-1** MAINVIEW Diagnostic Message Modes

Mode	Description
GXDM	<p>Global Extended Diagnostic Mode</p> <p>Global Extended Diagnostic Mode extends Extended Diagnostic Mode (XDM) monitoring to the entire MAINVIEW subsystem, which includes the CAS and all connected product and user address spaces.</p> <p>GXDM mode is set by the XDM=Y parameter of the CAS started task procedure.</p> <p>Extended Diagnostic Mode initiates additional internal diagnostic and validation procedures. It is not recommended for normal MAINVIEW operation. In addition, Extended Diagnostic Mode causes all Extended Message Mode messages to be issued in the same manner as the GXDM option.</p>
LXDM	<p>Local Extended Diagnostic Mode</p> <p>Local Extended Diagnostic Mode sets monitoring conditions for the current CAS, PAS, or UAS. Local Extended Diagnostic Mode issues all Extended Message Mode messages similar to the LEMM option.</p> <p>Local Extended Diagnostic Mode initiates additional internal diagnostic and validation activity. It is not recommended for normal MAINVIEW operation.</p>
GEMM	<p>Global Extended Message Mode</p> <p>Global Extended Message Mode sets monitoring conditions for diagnostic messages issued by the CAS and any connected address space, such as a PAS or a UAS.</p> <p>Global Extended Message Mode issues standard diagnostic messages similar to the GXDM option.</p>
LEMM	<p>Local Extended Message Mode</p> <p>Local Extended Message Mode sets monitoring conditions for diagnostic messages issued by the current address space.</p> <p>Standard security diagnostic messages that are controlled by LSEMM mode are a subset of LEMM messages. Therefore, LSEMM messages are issued when LEMM mode is active, regardless of LSEMM status.</p> <p>Likewise, when LEMM mode is active, you cannot disable standard security messages by disabling the LSEMM option.</p>

**Table 8-1 MAINVIEW Diagnostic Message Modes (continued)**

Mode	Description
LSEMM	<p>Local Security Extended Message Mode</p> <p>Local Security Extended Message Mode sets monitoring conditions for standard security diagnostic messages issued by the current address space.</p> <p>Messages controlled by LSEMM mode are a subset of messages managed by LEMM mode. LSEMM mode can manage the set of security-oriented messages independently of LEMM mode. However, if LEMM mode is active, you cannot prevent security diagnostic messages from being issued by inactivating LSEMM mode.</p>
LESTR	<p>Local Extended Security Trace</p> <p>Local Extended Security Trace mode manages extended diagnostic security trace messages produced by the current address space.</p> <p>These messages are in addition to LSEMM messages and provide more information than the standard security trace messages.</p> <p>Local Simple Security Trace messages (LSSTR) are a subset of the security trace messages managed by LESTR mode.</p>
GESTR	<p>Global Extended Security Trace</p> <p>Global Extended Security Trace mode manages extended diagnostic security trace messages produced by the CAS and all connected address spaces.</p> <p>These messages are in addition to the LSEMM option messages and provide more information than standard security trace messages.</p> <p>Messages managed by GSSTR mode are a subset of GESTR messages. When GESTR mode is active, GSSTR messages are displayed regardless of the state of the GSSTR option.</p>
LSSTR	<p>Local Simple Security Trace</p> <p>Local Simple Security Trace mode manages simple diagnostic security trace messages issued by the current address space.</p> <p>LSSTR messages are a subset of the messages managed by the LESTR option. When LESTR mode is active, LSSTR messages are displayed regardless of the state of the LSSTR option.</p>
GSSTR	<p>Global Simple Security Trace</p> <p>Global Simple Security Trace mode manages simple diagnostic security trace messages issued by the CAS and all connected address spaces.</p> <p>GSSTR mode allows simple security trace messages to be managed independently of GESTR mode messages.</p>
GSSM	<p>Global Safe Security Message</p> <p>Global Safe Security Message mode manages safe security messages issued by an external security manager during the initialization phase of a MAINVIEW window.</p> <p>The default value is OFF; safe security messages are not displayed.</p> <p>Safe security messages are standard messages issued during the creation of a security environment by the external security manager at sign-on. Safe security messages include message IDs, such as BBMSS201I, ICH70001I, TSS7000I, TSS7001I, and ACF01137, plus any additional messages designated by your installation.</p> <p>Inherited security environments that are established during window initialization produce messages that normally convey insignificant information. These messages are typically bypassed. In cases where these messages may be important, the GSSM option can be set ON to display these messages under all circumstances.</p> <p>If the external security manager returns any messages other than safe security messages during window initialization, this option value is ignored and <i>all</i> security messages are displayed.</p>

Table 8-1 MAINVIEW Diagnostic Message Modes (continued)

Mode	Description
WSXASTR	<p>Extended Authorization Simple Trace</p> <p>Extended Authorization Simple Trace mode manages simple Extended Authorization security interface trace messages issued in response to target or context activity occurring in the current window.</p> <p>Extended Authorization is the name of the internal mechanism used by most components to authorize end user access to resources protected by the security interface. The simple trace messages issued by Extended Authorization are more general than those issued as a result of activating the LSSTR option.</p> <p>You can dynamically enable or disable the display of simple trace messages for Extended Authorization security calls from the current window by specifying the appropriate line command.</p> <p>A value of OFF means that Extended Authorization trace messages are disabled for the current window and are not displayed.</p> <p>A value of ON means that Extended Authorization trace messages are enabled for the current window and are displayed in a manner similar to error messages.</p>
SAFTRACE	<p>CA-ACF2 SAFTRACE GSO Option Status</p> <p>CA-ACF2 SAFTRACE GSO Option Status mode manages messages produced by the CA-ACF2 external security manager in the current context.</p> <p>The SAFTRACE option indicates the status of the CA-ACF2/MVS 5.2 SAFTRACE GSO option, which is maintained by CA-ACF2 for each MVS image. You can alter the status of this option only with facilities provided by CA-ACF2 for this purpose.</p> <p>The SAFTRACE option status is shown because it <i>must</i> be enabled to control SAFTRC messages.</p> <p>A value of ON in the Status column indicates the CA-ACF2 5.2 SAFTRACE GSO option is enabled. Requests for SAFTRC messages are supported.</p> <p>A value of OFF in the Status column indicates the CA-ACF2 5.2 SAFTRACE GSO option is disabled and the CA-ACF2 NOSAFTRACE GSO option is in effect. Requests for SAFTRC messages are ignored.</p> <p>For CA-ACF2 Release 6.0 and above, the SAFTRACE GSO option is not supported and is always shown as OFF.</p>
SAFTRC	<p>CA-ACF2 LOGONID SAF-TRC Attribute</p> <p>Displayed only if CA-ACF2 is the external security manager in the current context.</p> <p>The SAFTRC (SAF Interface Trace) option provides the status and temporary control over the SAF-TRC attribute of the LOGONID in effect for the address space for the current context for CA-ACF2 Release 5.2 only.</p> <p>The SAF-TRC attribute specifies that the CA-ACF2 5.2 system's SAF interface component is to issue SAF trace messages describing the parameters for each RACROUTE macro instruction executed in the address space, provided that the SAFTRACE GSO option also is enabled.</p> <p>For SAF trace messages to be generated by CA-ACF2, the SAFTRACE GSO option must be enabled <i>and</i> the address space LOGONID must have the SAF-TRC attribute. You can temporarily enable the SAF-TRC attribute by turning this option ON .</p> <p>You can dynamically, but only temporarily, enable or disable CA-ACF2 5.2 SAF trace messages for the current address space LOGONID by specifying the appropriate line command.</p> <p>A value of OFF means that SAF trace messages are disabled for the current address space LOGONID or that the LOGONID is to be temporarily made to have the NOSAF-TRC attribute.</p> <p>A value of ON means that SAF trace messages are enabled for the current address space LOGONID or that the LOGONID is to be made to have the SAF-TRC attribute temporarily.</p>

## Understanding the Scope of an Option

DIAGMSG's *Scope* field indicates the extent that an option monitors activity across an MVS system. Valid scope values are shown in the following table:

Scope	Description
CA-ACF2/MVS	Diagnostic monitoring occurs over the entire range of a CA-ACF2 security subsystem running on the current MVS image. The CA-ACF2/MVS scope requires the LSEMM option to be enabled or CA-ACF2 to be the designated external security manager in the current context.
Global	Diagnostic monitoring applies to the CAS and all connected address spaces.
Local	Diagnostic monitoring applies to the current address space only.
LogonID	Diagnostic monitoring is limited to the current CA-ACF2 LOGONID address space. The LogonID scope requires the LSEMM option be enabled or CA-ACF2 be the external security manager in the current context.
Window	Diagnostic monitoring applies only to the current window and target (instance of a product).

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# Chapter 9     Displaying the Status of Targets and Systems (Plex Manager)

The information in this chapter applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

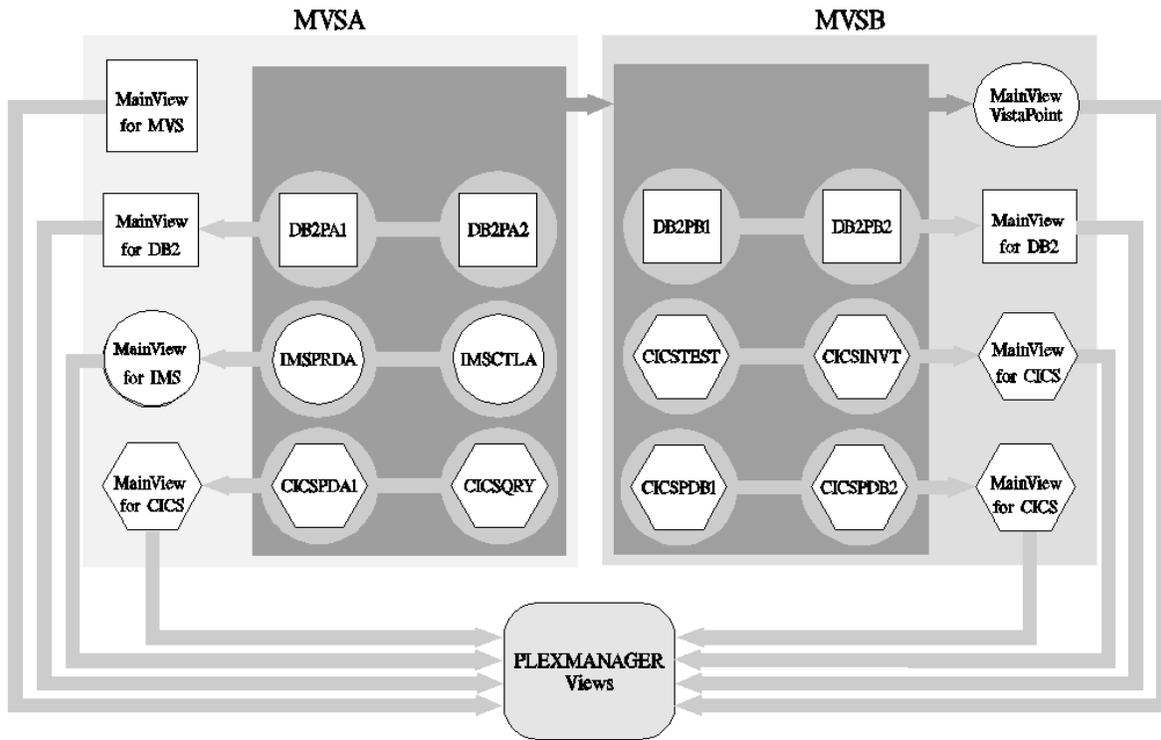
- Group 2
- Group 3
- Group 4

Plex Manager manages target applications monitored by the MAINVIEW family products. Plex Manager provides a series of related views that list target applications and the status of MAINVIEW products that monitor their performance. These views are used to assess your site's current MAINVIEW environment and also serve as a starting point to examine individual targets.

**Note:** Only those products and targets that are defined to a CAS are displayed. Depending on product release levels, DB2, IMS, or CICS targets may be available only if MAINVIEW VistaPoint is installed.

Figure 9-1 on page 9-2 shows an example of MAINVIEW products monitoring their respective applications across two MVS images. Plex Manager views show the status of MAINVIEW products by each application's target context that has been defined for monitoring. Although Plex Manager may be defined through a CAS running on a local MVS image, the status of MAINVIEW products running on remote images is shown also through these views.

Figure 9-1 Plex Manager Status Views of MAINVIEW Products



There are two main types of Plex Manager status views. The first type can be considered detail views that list all target applications defined to the CAS in the current view context.

Summary views are the second type of Plex Manager status views. In the example shown in Figure 9-1, there are two MAINVIEW for CICS systems running on MVS. Both systems independently monitor different CICS regions. In this case, Plex Manager's summary views show the combined status of MAINVIEW for CICS running on MVS. Summary views are essential to report data gathered from SSI contexts composed of multiples instances of products operating across multiple MVS images.

This chapter describes the following Plex Manager status views:

- |                 |  |
|-----------------|--|
| <b>PLEX</b>     | This view shows the status of local and remote MAINVIEW products. PLEX lists active and inactive products based upon the individual target contexts of products defined to the local CAS. Figure 9-2 on page 9-4 shows an example of Plex Manager's PLEX view. |
| <b>PLEXOVER</b> | This view summarizes the status of local and remote MAINVIEW products. PLEXOVER lists active and inactive targets by context and the status of the product monitoring the target. Figure 9-3 on page 9-4 shows an example of Plex Manager's PLEXOVER view.     |
| <b>PLEXAREA</b> | This view summarizes the status of local and remote MAINVIEW products. PLEXAREA lists active and inactive targets grouped by area and shows the total number of products defined for each area.  |
| <b>PLEXPROD</b> | This view summarizes the status of local and remote MAINVIEW products. PLEXPROD lists active and inactive targets grouped by area and shows the number of instances of a particular product on any connected system.   |

## Accessing Plex Manager Status Views

Use the following methods to access Plex Manager's status views:

- If you are not in MAINVIEW:

1. Start a TS by executing the MAINVIEW CLIST as:

```
COMMAND ==> TSO EX 'hilevel.UBBSAMP(MAINVIEW)'
```

or by starting a VTAM or EXCP MAINVIEW Alternate Access terminal session that executes the MAINVIEW CLIST.

2. Select option P for Plex Manager.

The EZPLEX menu is the default view that appears first when you access Plex Manager from the MAINVIEW Selection Menu.

3. On the EZPLEX menu, position the cursor on one of the following Target Activity fields and press Enter:

- **Sum by Area** for the PLEXAREA view
- **Sum by Product** for the PLEXPROD view
- **Sum by System/Prod** for the PLEXOVER view
- **Not Summarized** for the PLEX view

- If you are in another MAINVIEW product running in windows mode, use the following CONtext command:

```
CON * PLEXMGR;viewname
```

- If you are currently displaying a Plex Manager view, enter *viewname* on the COMMAND line.

Following are examples of the PLEX and PLEXOVER status views:

**Figure 9-2 PLEX View**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> CSR
CURR WIN ==> 1 ALT WIN ==>
>W1 =PLEX=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====47
C Product Context System Description Status
-----
CMF SYSB SYSB CMF MONITOR Online (5.2.1) Active
CMF SYSA SYSA CMF MONITOR Online (5.2.1) Active
MVCICS TERXCICS SYSA TENERA Active
MVCICS GUPCIC4 SYSA GUPTA CICS V4.10 Active
MVCICS SYGYCICS SYSA SYZYGY CICS V3.30 Active
MVCICS SSICICS SYSA SPECIALIZED SOFTWARE V Active
MVCICS PUBCICS SYSA BCS PUBLIC CICS V2.12 Active
MVCICS SSICIC3 SYSA SPECIALIZED SOFTWARE V Active
MVCICS GUPCICS SYSA GUPTA CICS V3.30 Active
MVCICS SSICIC4 SYSA SPECIALIZED SOFTWARE V Active
MVCICS ETCCIC4 SYSA EMPRISE TECH CICS V4.1 Active
MVCICS ETCDLSOT SYSA EMPRISE TECH CICS V3.3 Active
MVCICS ETCCICS SYSA EMPRISE TECH CICS V3.3 Active
MVCICS TERZCICS SYSA TENERA Active
MVCICS PUBCIC3 SYSA BCS PUBLIC CICS V3.30 Active
```

**Figure 9-3 PLEXOVER View**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> CSR
CURR WIN ==> 1 ALT WIN ==>
>W1 =PLEXOVER=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====50
C Context Product Description Status Server
-----
DB2P MVDB2 BCS TEST DB2 V4 Active SSA6
DB2P MVVP BCS TEST DB2 V4 Active SSA6
DB2X MVDB2 BCS PROD DB2 V4 Active SSA1
DB2X MVVP BCS PROD DB2 V4 Active SSA1
ETCCICS MVCICS EMPRISE TECH CICS V3.3 Active SSA1
ETCCICS MVVP EMPRISE TECH CICS V3.3 Active SSA1
ETCCICS1 MVCICS EMPRISE TECH CICS V3.3 Active SSA1
ETCCICS1 MVVP EMPRISE TECH CICS V3.3 Active SSA1
ETCCIC4 MVCICS EMPRISE TECH CICS V4.1 Active SSA1
ETCCIC4 MVVP EMPRISE TECH CICS V4.1 Active SSA1
ETCDLSOT MVCICS EMPRISE TECH CICS V3.3 Active SSA1
ETCDLSOT MVVP EMPRISE TECH CICS V3.3 Active SSA1
GUPCICS MVCICS GUPTA CICS V3.30 Active SSA1
GUPCICS MVVP GUPTA CICS V3.30 Active SSA1
GUPCIC4 MVCICS GUPTA CICS V4.10 Active SSA1
```

In each of these views, the `Context` field shows the name of the target context recognized by the CAS. The `Status` field shown to the right of the view indicates whether monitoring is active or not.

For more information about these views, place the cursor over the view name shown on the window information line and press the `HELP` key. Also, help is available for view fields. Place the cursor over a field and press the `HELP` key to get a description of the field.

## Navigating with Plex Manager Status Views

Plex Manager's status views are useful navigation aids when you need to work with several MAINVIEW products concurrently on multiple systems. You can display a Plex Manager status view and repeatedly use its hyperlinks to access targets and/or contexts displayed from the view. By convention, the left-most data field of a view hyperlinks to other views.

Place a Plex Manager view in the current window. Define an open window as the `ALT WIN` value. Hyperlink from the Plex Manager view to display the target application in the alternate window.

Alternatively, you can use the `S` or `E` line commands to select a target shown on a Plex Manager status view.



---

---

# Chapter 10 Managing Targets and Target Contexts

The information in this chapter applies to specific MAINVIEW products.

“Managing Targets” on page 10-2 applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 1
- Group 3

“Managing Target Contexts” on page 10-3 applies only to the following groups of MAINVIEW products:

- Group 2
- Group 3
- Group 4

This chapter discusses how to manage targets and target contexts.

A target is the system or subsystem being monitored by one or more MAINVIEW products, such as an MVS image, IMS or DB2 subsystem, or CICS region. A target context is a single target/product combination.

When a product is running in full-screen mode, the target ID is displayed in the upper-right corner of the screen in the TGT field. When a product is running in windows mode, the target context is displayed on the window information line. In windows mode you also can view data from several targets at once and the context displayed on the window information line is called an SSI context. See Chapter 11 “Displaying the Status of SSI Contexts” on page 11-1 and Chapter 12 “Managing Single System Image (SSI) Contexts” on page 12-1 for more information about defining and displaying SSI contexts.

Target IDs are defined in the BBI-SS PAS in BBPARM member BBIJNT00 for applications running in full-screen mode (see “Managing Targets” on page 10-2). Target contexts are defined with Plex Manager's TGTDEF and TGTDEFD views for applications running in windows mode (see “Defining a Target Context” on page 10-3).

**Note:** For MAINVIEW for CICS, new targets can be dynamically defined using the Plex Manager Add Target Definition administrative dialog from the TGTDEF view. The target definitions are saved in BBPARM member BBMTXPnn, where nn is a number from 00 to 99. The definitions are appended to an in-memory list of target entries from BBPARM member BBIJNT00. Existing targets cannot be modified with the administrative dialog.

## Managing Targets

The information in this section applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 1
- Group 3

Targets for group 1 and 3 products are defined in BBPARM member BBIJNT00, as described in the *MAINVIEW Common Customization Guide*. Each target must be associated with the subsystem ID (*ssid*) of the BBI-SS PAS that monitors it. A single BBI-SS PAS can monitor multiple targets of different types.

All targets (both local and remote) to be accessed from TSs connected to a BBI-SS PAS must be defined in the BBIJNT00 member in that BBI-SS PAS. The target and *ssid* specification is used to route user requests to the correct BBI-SS PAS. To simplify maintenance, you may want to maintain a common BBIJNT00 member that includes all targets.

Alternatively, for MAINVIEW for CICS, an administrative dialog (see “Managing Target Contexts” on page 10-3) can be used to define and add targets. Target definitions created with this dialog are activated only when the INSTall command is entered.

When INSTall is entered or a PAS first starts, the PAS contacts the CAS and is notified about new target definitions. The PAS retrieves a list of defined targets and targets active on other PASs from the CAS. It appends this information to a list of targets built during startup from BBPARM member BBIJNT00.

**Important!** Existing targets defined in BBIJNT00 cannot be changed with the administrative dialog. If this dialog is used to change targets already defined in BBIJNT00, the change is ignored.

When a BBIJNT00 member is changed, the BBI-SS PAS must be restarted for the changes to take effect.

A default target name for your TS is set by the TARGET parameter in the BBITSP00 member of the BBPROF data set. There must be a matching target name defined in BBPARM member BBIJNT00.

## Managing Target Contexts

The information in this section applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- Group 4

This section explains how to manage target contexts for group 2 and group 3 products when operating in windows mode:

- “Defining a Target Context” on page 10-3 explains how to define a target context.
- “Managing Target Context Definitions” on page 10-11 describes how to manage target contexts after they have been defined and recognized by Plex Manager.

## Defining a Target Context

You can use a target context definition for targets that are critical to your site. When you define a target context, you specify a unique target/product combination. Defining a target context allows you to:

- Specify products that you expect to be active for a target

If a product is not active at a target, a signal can be made to a MAINVIEW AutoOPERATOR to start that product.

- See the status of that target/product combination

A CAS automatically monitors active products when it initializes. Specifying a target context definition causes the CAS to report the status of a product even if that product is not active.

- Define a security profile for that target context

To define target contexts:

- Step 1** Use the information in “Step 1. Plan a Target Context Definition” on page 10-4 to plan for the necessary target context definitions.
- Step 2** Create target definitions by following the instructions in “Step 2. Define a Target Context” on page 10-6.
- Step 3** If necessary, enable target monitoring by following the instructions in “Step 3. Enable a Target Context Definition Member in the Local CAS” on page 10-10 to define a target definition member to the local CAS definition.

### Step 1. Plan a Target Context Definition

Target context definitions impose certain requirements. This section describes issues that must be considered as part of the overall planning of a target context definition. When you plan your target context definitions, consider the following:

- Verify that you are authorized to access each MVS system.
- Ensure cross-system communication is established between the local CAS and each remote CAS that provides data from a target context that is part of the definition. If VTAM communication links are not established between CASs, data cannot be accessed from those target contexts. See the *MAINVIEW Common Customization Guide*.
- Determine if you need to create a target context definition for local or remote products that monitor critical systems.

The CAS reports products that are active. If you want to know about a product that is not active, you can create a target context for that product/target combination. This allows the CAS to report on product availability through the Plex Manager views.

- Target context definitions allow you to define a unique security profile for each target even when multiple targets are monitored by the same BBI-SS or MVS PAS.

If you need to create a target context definition in order to apply a specific security resource definition member to a product, determine the two-digit suffix of the security resource member (created through the SERDEF view for the product) by displaying the SERDEFL view in that product.

If a security profile for a target context is not specified, the product security resource definition 00 suffix is used. If that does not exist in the BBSECURE data set, the default security resource definitions supplied by BMC Software are used.

The default security configuration provides security calls for all resources in your product. In a shared DASD environment where all PASs across systems share the same security parameter library, you may need to define a different security resource definition member to one or more products. For example, you might want your production system products to have different security parameters than your test system products. Since CMF MONITOR Online and MAINVIEW for OS/390 share the same security parameter library on each MVS image, you can define a default security resource definition member to CMF and a different security resource definition member to MAINVIEW for OS/390—or vice versa.

If you change the security resource parameter member for a product, you must recycle the address space that supports that product to make the change effective:

Plex Manager	The CAS must be recycled.
Group 2 products	The MVS PAS must be recycled.
Group 3 products	The BBI-SS PAS must be recycled.
Group 4 products	The product-specific PAS must be recycled.

By default, target context definitions are added to a BBPARM library member with a suffix of 00.

If the default member is used, the instructions in “Step 3. Enable a Target Context Definition Member in the Local CAS” on page 10-10 can be skipped.

- In a shared DASD environment, if all CASs use the same target context definition member and share the same parameter library, you need to maintain only one definition member.

For customization or maintenance, you can:

- Define or change the target context definitions in a target context definition member for one CAS

- Enter a single command from the TGTDEF view of all other CASs
- Recycle the affected product PASs (necessary only if the security resource parameter has been changed)

## Step 2. Define a Target Context

A target context definition for each MAINVIEW product must be defined in a BBPARM member so you can monitor the corresponding targets across multiple MVS images. Later, you may need to add new definitions or maintain existing definitions.

Plex Manager provides a set of views to define target contexts and maintain them after they have been created. There are three target context definition views in Plex Manager:

<b>TGTDEFL</b>	Lists all existing BBPARM members that contain target context definitions; see “Displaying a List of BBPARM Target Context Definition Members” on page 10-12.
<b>TGTDEF</b>	Lists target context definitions contained in a single BBPARM member. Use this view to add, change, generate, update, or delete target context definitions. The changes to the definition can be saved to the BBPARM member.
<b>TGTDEFD</b>	Shows the details of a single target context definition in one BBPARM member. You can perform the same functions to a single definition in TGTDEFD that you can perform to all definitions in TGTDEF.

See “Managing Target Contexts” on page 10-3 for more information about target context definition management tasks.

A target context definition contains:

- 1- to 8-alphanumeric character target name (special characters are not allowed in the target name)
- Description of the target
- Filter condition(s) that select information about target systems and products defined as a complex filter condition

If you are defining target context definitions for the first time, see “Create a Target Context Definition” on page 10-7.

## Create a Target Context Definition

To define target contexts specifically for monitoring by the CAS or to define to a local product a set of security resource calls defined in a security parameter member, BMC Software recommends that you follow this procedure on each system in your sysplex or multisystem environment:

- Step 1** Start the CASs and PASs across systems for the products that you want to create target context definitions for. See “Starting a CAS” on page 2-2, “Starting the MVS PAS” on page 3-3, and “Starting a BBI-SS PAS” on page 4-2 for CAS and PAS startup instructions, respectively.
- Step 2** Display the MAINVIEW Selection Menu on your local system by executing the MAINVIEW CLIST and select option P for Plex Manager.
- The EZPEX menu is displayed.
- Step 3** Type TGTDEF SUFFIX(00) on the COMMAND line and press Enter to display the TGTDEF view with the default 00 suffix parameter member.
- Note:** If you do not define the SUFFIX(00) parameter when requesting the TGTDEF view, the message, BBMYA121I TARGET DEFINITION MEMBER *nn* DOES NOT EXIST IN BBPARM, is displayed.
- Step 4** Enter EDIT on the COMMAND line to obtain the edit lock.
- Step 5** Enter GENERATE on the COMMAND line to automatically add a definition for each active product displayed from the PLEX view (see Figure 9-2 on page 9-4).
- Step 6** If you need to define additional target contexts that are not defined using the GENERATE command, enter ADD on the COMMAND line to display the ADD TARGET DEFINITION panel, as shown in Figure 10-1.

**Figure 10-1 ADD TARGET DEFINITION Panel**

```

----- ADD TARGET DEFINITION -----
COMMAND ==>

Target Specification:
  Target name ==>          Name to uniquely identify the target
  Alias      ==>          Target alias
  Release    ==>          IMS/DB2 only: Target release (eg.1.3)
  IMS type   ==>          IMS only: System type (DBDC,DBCTL)

  Product    ==>          MAINVIEW Product Name
  Server     ==>          PAS Server Name
  System     ==>          CAS System Name

  Description ==>

Security Specification:
  ID          ==> 00          Product Resource ID (2 digits)
  Userid      ==>          Default userid, GLOBAL, or blank
  Name        ==>          Security Applid for this Target

Press END to add the target definition.

```

The ADD TARGET DEFINITION administrative dialog allows you to define a MAINVIEW product/target combination (target context). You can use this dialog to:

- Change or add new targets for an MVS PAS or to add new targets for a BBI-SS PAS running MAINVIEW products in windows mode.

MAINVIEW for CICS (5.2 and above) uses this information to define targets dynamically. This is in addition to targets defined using BBPARM member BBIJNT00.

- Provide security information for local or cross-system products sharing a security parameter library.

Target information for the Add Target Definition administrative dialog comprises:

- The 1- to 8-alphanumeric character name of a target to be managed by an MVS or BBI-SS PAS
- An alias name for a BBI-SS PAS target IMS or DB2 subsystem or APPLID for a CICS region
- A release number for a BBI-SS PAS IMS, DB2, or DBCTL target

- Type of IMS target, DBDC or DBCTL

DBDC specifies an IMS DB/DC system. DBCTL specifies a DBCTL system. The default is DBDC. This parameter is used when the `Product` parameter is MVIMS (MAINVIEW for IMS Online).

- A description of the target system

Security information comprises:

- Security application ID for the product
- Default security user ID
- Suffix of the security parameter library member used to secure resources belonging to the product

**Step 7** Provide the appropriate information for each product.

If you need more information about a field, press the HELP key.

**Step 8** Enter END to return to the TGTDEF view.

**Step 9** Repeat steps 6 through 8 for each MAINVIEW product you want the CAS to specifically monitor. Also, repeat steps 6 through 8 for each local product for which you need to define a specific security resource BBPARM member. (With a shared BBPARM parameter library, you can define a security resource BBPARM member to the target context definition for any product, not just for local products.)

**Step 10** Enter the SAVE command on the COMMAND line to save the information to the target context definition member in BBPARM.

**Step 11** Enter the INSTall command on the COMMAND line to dynamically activate new target context definitions.

**Step 12** If each CAS has a unique BBPARM parameter library, repeat steps 2 through 11 on each CAS.

If all CASs share the same BBPARM parameter library:

**12.A** Repeat steps 2 and 3 on each CAS or open a window to the Plex Manager on each CAS and display the TGTDEF view.

**12.B** Repeat step 11 on each CAS.

### Step 3. Enable a Target Context Definition Member in the Local CAS

After defining and installing a target context definition member, the local CAS definition must be updated to use the desired member.

The default target context definition member assigned to a CAS definition is 00. If you update the 00 member with the target context definitions, you do not need to change the local CAS definition. If you create a new member with a suffix other than 00, the local CAS must be updated.

To enable a specific target context definition in the local CAS, refer to the instructions in “Managing CAS Definitions” on page 5-8 and perform the following steps:

- Step 1** Display the CASDEF view.
- Step 2** Enter the EDIT command to obtain the edit lock.
- Step 3** Enter the CHAnge command for the local CAS definition.
- Step 4** Modify the value in the `TgtDef Suffix` field of the CHANGE CAS SYSTEM DEFINITION panel to be the two-digit value of the target context definition member you want the local CAS to use.
- Step 5** Enter the END command to return to the CASDEF view.
- Step 6** Enter the SAVE command to save the update in the CAS definition member in the BBPARM library.
- Step 7** Enter the INStall command to immediately update the CAS definition in the local CAS, adding the new target context definition member. The local CAS will now use the new target context definition member you specified.

In addition, if you changed the `Resource Definition Parameter Member`, `Default Userid`, or `Security Applid` fields for a target context definition in the member, the address space supporting the product must be recycled:

- Plex Manager      The CAS must be recycled.
- Group 2 products    The MVS PAS must be recycled.
- Group 3 products    The BBI-SS PAS must be recycled.
- Group 4 products    The product-specific PAS must be recycled.

## Managing Target Context Definitions

This section consists of a series of ordered procedures to adapt an existing target context definition in response to changes in the target systems at your site.

Table 10-1 lists common tasks to manage MAINVIEW target context definitions. Each of these tasks is described separately in a subsequent section of this chapter.

**Table 10-1 Target Context Definition Management Tasks**

To	Do	See
View a list of all target context definition members defined in BBPARM	Display the TGTDEFL view	"Displaying a List of BBPARM Target Context Definition Members" on page 10-12
Select a target context definition member for display	Display the TGTDEFL view	"Displaying a Target Context Definition Member" on page 10-13
Delete a target context definition member from the BBPARM library	Display the TGTDEFL view	"Deleting a Target Context Definition Member" on page 10-14
List the target context definitions in a target context definition member	Display the TGTDEF view	"Accessing the TGTDEF View" on page 10-15
Add a new target context definition member to the BBPARM library	Use the SUFFIX( <i>nn</i> ) parameter of the TGTDEF view command	"Adding a New Target Context Definition Member" on page 10-16
View the details of one target context definition defined in a target definition member	Display the TGTDEFD view	"Accessing the TGTDEFD View" on page 10-17
Obtain the edit lock to perform any command except INSTall	Use the EDIT primary command	"Editing Target Context Definitions" on page 10-18
Automatically generate target context definitions for all active targets	Use the GENERATE primary command	"Generating Target Context Definitions" on page 10-19
Add a target context definition	Use the ADD primary or A line command	"Adding a Target Context Definition" on page 10-20
Change an existing target context definition	Use the CHAnge primary or C line command	"CHANGE TARGET DEFINITION Panel" on page 10-22
Copy the contents of one target context definition member into another	Use the COPY primary command	"Copying Target Context Definition Members" on page 10-23
Cancel edit mode, adds, or changes in progress	Use the CANcel primary command	"Cancelling Target Context Definition Edits" on page 10-24
Delete a target context definition from a BBPARM member	Use the DELete primary or DEL line command	"Deleting a Target Context Definition" on page 10-25
Reinstate a previously deleted target context definition	Use the UND line command	"Recovering a Target Context Definition that Was Previously Deleted" on page 10-25

**Table 10-1 Target Context Definition Management Tasks (continued)**

To	Do	See
Immediately update the local CAS with new or changed target context definitions	Use the INSTall primary or INS line command	"Installing Changes to a Target Context Definition" on page 10-26
Permanently save changes to a BBPARM parameter library target context definition member	Use the SAVE primary command	"Saving a Target Context Definition" on page 10-27

### Displaying a List of BBPARM Target Context Definition Members

TGTDEFL displays a list of the existing BBPARM members containing target context definitions that belong to the BBPARM library defined for the local CAS. Use this view to select and delete members from the parameter library:

- To select a target context definition member for display in the TGTDEF view, see "Displaying a Target Context Definition Member" on page 10-13.
- To delete a target context definition member from the BBPARM library, see "Deleting a Target Context Definition Member" on page 10-14.

To access the TGTDEFL view:

- If you are already in Plex Manager, type TGTDEFL on the COMMAND line and press Enter.

**Note:** Plex Manager is option P on the MAINVIEW Selection Menu.

- If you are in another MAINVIEW product running in windows mode, use the following CONtext command to access Plex Manager and display the TGTDEFL view:

```
CON * PLEXMGR ; TGTDEFL
```

TGTDEFL appears in a window, as shown in Figure 10-2.

**Figure 10-2 TGTDEFL View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1           ALT WIN ==>
  W1 =TGTDEFL=====MVSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====3
CMD Member Description
--- Suffix -----
    00   All Target Context Definitions
    01   Production Target Context Definitions
    02   SysA Test Target Context Definition

```

**Note:** When no members exist in the BBPARM data set (such as the very first time you display this view), the following message appears in the Description field of the TGTDEFL view:

```
Empty member--Select to create
```

For more information about any TGTDEFL field, place the cursor on the field and press the HELP key.

See “Managing Target Contexts” on page 10-3 for more information about TGTDEFL commands.

### Displaying a Target Context Definition Member

Enter the Select command from the TGTDEFL view to display a target context definition member.

When the Select command is used, the TGTDEF view, shown in Figure 10-7 on page 10-16, is displayed with the contents of the specified target member.

The Select command can be entered as a primary command or as a line command.

### Primary Select Command

The primary form of the Select command is entered on the COMMAND line and requires that you define the *nn* suffix value of the member you want to display, like this:

**Figure 10-3 Primary Select Command to Display a Target Context Definition**

```
ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> S nn                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =TGTDEFL=====MVSB=====*****ddmmmyyy==hh:mm:ss====PLEXMGR==D====3
CMD Member Description
--- Suffix -----
00    All Target Context Definitions
01    Production Target Context Definitions
02    SysA Test Target Context Definition
```

### S Line Command

The S line command is entered in the line command column of the TGTDEFL view. The action is taken against the member on the line where the command is entered.

When the TGTDEFL view is displayed, enter the S line command like this:

**Figure 10-4 Select Line Command to Display a Target Context Definition**

```
ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =TGTDEFL=====MVSB=====*****ddmmmyyy==hh:mm:ss====PLEXMGR==D====3
CMD Member Description
--- Suffix -----
00    All Target Context Definitions
01    Production Target Context Definitions
S 02    SysA Test Target Context Definition
```

### Deleting a Target Context Definition Member

Enter the DELEte command from the TGTDEFL view to delete a target context definition member from the BBPARM parameter library.

When the DELEte command is used, the target is removed from the member list shown in TGTDEFL. There is no confirmation panel; enter DELEte only when you are sure you want to remove a BBPARM member.

The DELEte command can be entered as a primary command or as a line command.

## Primary DELeTe Command

The primary form of the DELeTe command is entered on the COMMAND line and requires that you define the *nn* suffix value of the member you want to delete, like this:

**Figure 10-5 Primary DELeTe Command**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> DEL 02                                     SCROLL ==> PAGE
CURR WIN ==> 1           ALT WIN ==>
W1 =TGTDEFL=====MVSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====3
CMD Member Description
--- Suffix -----
    00    All Target Context Definitions
    01    Production Target Context Definitions
    02    MVSA Test Target Context Definition
```

## DEL Line Command

The DEL line command is entered in the line command column of the TGTDEFL view. The action is taken against the member on the line where the command is entered.

When the TGTDEFL view is displayed, enter the DEL line command like this:

**Figure 10-6 DELeTe Line Command**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1           ALT WIN ==>
W1 =TGTDEFL=====MVSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====3
CMD Member Description
--- Suffix -----
    00    All Target Context Definitions
    01    Production Target Context Definitions
DEL 02    MVSA Test Target Context Definition
```

## Accessing the TGTDEF View

To access the TGTDEF view:

- If you are already in Plex Manager, do one of the following:
  - Display the TGTDEFL view, as discussed in “Displaying a List of BBPARM Target Context Definition Members” on page 10-12, and select a BBPARM member for display, as discussed in “Displaying a Target Context Definition Member” on page 10-13.

— Type the following on the COMMAND line and press Enter:

```
TGTDEF SUFFIX (nn)
```

where *nn* is the two-digit suffix of the BBPARM member you want to display.

**Note:** Plex Manager is option P on the MAINVIEW Selection Menu.

- If you are in another MAINVIEW product running in windows mode, use the following CONtext command to access Plex Manager and display the TGTDEF view:

```
CON * PLEXMGR;TGTDEF SUFFIX (nn)
```

TGTDEF appears in a window, as shown here:

**Figure 10-7 TGTDEF View**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 =TGTDEF=====MVSB=====*(00 BROWSE )=====PLEXMGR=D=====6
CMD CAS Target Product Description Install
--- Name---- Name-----
MVSB MVSB PLEXMGR PLEXMGR on System B Installed
MVSB MVSB MVMVS MVMVS on System B Installed
MVSB MVSB CMF CMF on System B Installed
MVSC MVSC PLEXMGR PLEXMGR on System C Installed
MVSC MVSC MVMVS MVMVS on System C Installed
MVSC MVSC CMF CMF on System C Installed
```

For more information about any TGTDEF field, place the cursor on the field and press the HELP key.

See “Managing Target Contexts” on page 10-3 for more information about TGTDEF commands.

### Adding a New Target Context Definition Member

To add a new target context definition member to the BBPARM library, enter the TGTDEF view command with its SUFFIX (*nn*) parameter, as shown in the following example:

```
TGTDEF SUFFIX (nn)
```

where *nn* is a two-digit suffix value from 00 to 99 that currently is not being used.

The TGTDEF view appears in the window, as shown here: .

**Figure 10-8 TGTDEF View — Messages**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =TGTDEF=====MVSB=====*(03 BROWSE          )====PLEXMGR==D====
BBMYA121I Target Definition Member 03 does not exist in BBPARM
BBMXBD15I There is no data which satisfies your request
-Related:BBMXBD23I    0 records presented by the Product

```

These messages appear because a new definition member that does not contain any definitions has been added. To add target context definitions to a new member:

- Step 1** Enter the EDIT command; see “Editing Target Context Definitions” on page 10-18.
- Step 2** Perform one of the following:
- Enter the ADD command; see “Adding a Target Context Definition” on page 10-20.
  - Enter the GENERATE command; see “Generating Target Context Definitions” on page 10-19.
  - Follow the instructions provided in “Create a Target Context Definition” on page 10-7. See “Managing Target Contexts” on page 10-3 for more information about TGTDEF commands.

### Accessing the TGTDEFD View

TGTDEF does not show all details about all target products, but you can display the TGTDEFD view to see the details of a single target context definition.

To access the TGTDEFD view to see the specific details about a target context definition:

- Step 1** Display the TGTDEF view as described in “Accessing the TGTDEF View” on page 10-15.
- Step 2** Place the cursor on the CAS Name field for the target definition you want to see and press Enter to hyperlink to the TGTDEFD view for that CAS.

The TGTDEFD view appears in the window, as shown here:

**Figure 10-9 TGTDEFD View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
>W1 =TGTDEF==TGTDEFD==MVSB=====*(00 BROWSE )====PLEXMGR==D==1
Target Details:
  Target Name... MVSA Cas Name... MVSA
  Alias..... VPASN Product.... MVVP
  Release ..... 1.1 Server..... MVSPASA
  IMS type .... DBDC Description: System A - MAINVIEW VistaPoint
Security Info..
  Applid..... *NONE* Dflt Userid. *NONE*
  SerDef Suffix. 00
Update Info...
  UpdSystem.... MVSB UpdTime.... hh:mm:ss
  UpdUser..... USR1 UpdTime.... ddmmmyyyy
    
```

For more information about any TGTDEFD field, place the cursor on the field and press the HELP key.

See “Managing Target Contexts” on page 10-3 for more information about TGTDEFD commands.

### Editing Target Context Definitions

You must first obtain the edit lock on a target context definition member to add, change, generate, delete, undelete, or save a target definition.

To obtain the edit lock on a new target definition member in the BBPARM library:

**Step 1** Follow the instructions in “Adding a New Target Context Definition Member” on page 10-16 to add a new BBPARM member.

**Step 2** Enter the EDIT command on the COMMAND line.

To obtain the edit lock on an existing target definition member in the BBPARM library:

**Step 1** Display the member in the TGTDEF view (see “Accessing the TGTDEF View” on page 10-15) or display one target context definition from a member in the TGTDEFD view (see “Accessing the TGTDEFD View” on page 10-17).

**Step 2** Enter the EDIT command on the COMMAND line.

When the edit lock is obtained, the edit mode status field on the window information line changes from ( 00 BROWSE ) to ( 00 EDIT ) to indicate the edit lock is active.

Once you are in edit mode, you can:

- Save target context definitions
- Add target context definitions
- Generate automatic target context definitions
- Change target context definitions
- Delete target context definitions
- Undelete target context definitions

See “Managing Target Contexts” on page 10-3 for more information.

### Generating Target Context Definitions

The GENERATE command automatically creates a target context definition for each active undefined product recognized by the local CAS. You must be in edit mode before you can enter the GENERATE command; see “Editing Target Context Definitions” on page 10-18.

When GENERATE is used, a target context definition is created for each product that appears on the TGTACT view with an Active status. The GENERATE command is a shortcut command for defining target definitions because you do not have to enter the ADD command and complete the ADD TARGET DEFINITION panel for each definition individually. As products become active on the TGTACT view, you can enter GENERATE and Plex Manager automatically adds definitions for only the undefined active products.

The GENERATE command is entered on the COMMAND line and is entered in the same way on both the TGTDEF and TGTDEFD views.

When GENERATE is used, the following messages can appear for each active target currently defined:

```
BBMYA117W Unable to generate the following target
context definitions
-Related:BBMXBQ20W Service point definition exists:
system context product server
```

Press Enter to clear these messages.

The TGTDEF view is updated with target context definitions for active products that display on the TGTACT view. The TGTDEFD view does not appear to be updated, but when you return to the TGTDEF view, the new target context definitions are listed.

After entering the GENERATE command:

To	Use	See
Cancel any new target context definitions	CANcel primary command	"Cancelling Target Context Definition Edits" on page 10-24
Make new target context definitions active immediately	INSTall primary or INS line command	"Installing Changes to a Target Context Definition" on page 10-26
Save the new definitions to the BBPARAM parameter library member	SAVE primary command	"Saving a Target Context Definition" on page 10-27

### Adding a Target Context Definition

Enter the ADD command to add a new target context definition, you must be in edit mode before you can enter the ADD command; see "Editing Target Context Definitions" on page 10-18.

When the ADD command is used, the ADD TARGET DEFINITION panel, shown in Figure 10-1 on page 10-8, is displayed either with \* (asterisk) values or with the values of an existing target context definition that you want to use as a template for a new target context definition. How you enter the ADD command determines the field values that display.

**Note:** See "Create a Target Context Definition" on page 10-7 for information about each field in this panel.

When the information for a new target context definition is complete, press END from the panel to return to the TGTDEF or TGTDEFD view. The TGTDEFD view does not appear to be updated, but when you return to the TGTDEF view, the new target context definition is listed.

Once you have added a new target context definition:

To	Use	See
Cancel the new target context definition	CANcel primary command	“Cancelling Target Context Definition Edits” on page 10-24
Make the new target context definition active immediately	INSTall primary or INS line command	“Installing Changes to a Target Context Definition” on page 10-26
Save the new definition to the BBPARM parameter library member	SAVE primary command	“Saving a Target Context Definition” on page 10-27

The ADD command can be entered as a primary command or as a line command.

### Primary ADD Command

The primary form of the ADD command is entered on the COMMAND line and is entered in the same way on both the TGTDEF and TGTDEFD views.

When the primary ADD command is used, the ADD TARGET DEFINITION panel appears with blank fields.

### A Line Command

The A line command is entered in the line command column and is entered in the same way on both the TGTDEF and TGTDEFD views. The action is taken against the resource on the line where the command is entered.

The current definition is assumed to be the definition you want to use as a template for a new definition. The ADD TARGET DEFINITION panel appears with the values for the current definition. You must cancel from this panel or change at least one of the following four fields:

- Target
- Product
- Server
- System

### Changing a Target Context Definition

Enter the CHAnge command to change an existing target context definition. You must be in edit mode before you can enter the CHANGE command; see “Editing Target Context Definitions” on page 10-18.

When the CHAnge command is used, the CHANGE TARGET DEFINITION panel is displayed, as shown in Figure 10-10, with the details of the specified target context definition. You can modify any field in this panel, except the following four fields:

- Target
- Product
- Server
- System

For information about each field, press your help key.

**Figure 10-10 CHANGE TARGET DEFINITION Panel**

```

----- CHANGE TARGET DEFINITION -----
COMMAND ==>

Target Specification:
Target name === SYSE           Name to uniquely identify the target
Alias      ==> YKCASN         Target alias                               name
Release   ==> 1.1           IMS/DB2 only: Target release (eg. 1.3)
IMS type  ==> DBDC         IMS only: System type (DBDC,DBCTL)

Product   === PLEXMGR        MAINVIEW Product Name
Server    === PLEXMGR        PAS Server Name
System    === SYSE          CAS System Name

Description ==> Target Manager

Security Specification:
ID        ==> 00           Product Resource ID (2 digits)
Userid    ==> BITYKCL      Default userid, GLOBAL, or blank
Name      ==>             Security Applid for this Target

Press END to change the target definition.
    
```

When changes to the description and security parameters for the target context definition are complete, press END to return to the TGTDEF or TGTDEFD view.

After changing a target context definition:

To	Use	See
Cancel the changes	CANcel primary command	"Cancelling Target Context Definition Edits" on page 10-24
Make the changes active immediately	INSTall primary or INS line command	"Installing Changes to a Target Context Definition" on page 10-26
Save the changes to the BBPARM parameter library member	SAVE primary command	"Saving a Target Context Definition" on page 10-27

The CHAnge command can be entered as a primary command or as a line command.

## Primary CHAnge Command

The primary form of the CHAnge command is entered on the COMMAND line. This command can be used only from the TGTDEFD view.

Since the TGTDEFD view displays only one target context definition at a time, the current definition is assumed to be the definition you want to change.

## C Line Command

The C line command is entered in the line command column and is entered in the same way on both the TGTDEF and TGTDEFD views. The action is taken against the resource on the line where the command is entered.

## Copying Target Context Definition Members

The COPY command copies the contents of one target context definition member into another member. You must be in edit mode with the member you want to copy into before you can enter the COPY command; see “Editing Target Context Definitions” on page 10-18.

The COPY command is entered on the COMMAND line and is entered in the same way on both the TGTDEF and TGTDEFD views.

When the TGTDEF view is displayed, enter the COPY command like this:

**Figure 10-11 COPY Command from the TGTDEF View**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> COPY nn                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =TGTDEF=====MVSB=====*(00 EDIT           )====PLEXMGR==D===6
CMD CAS      Target  Product  Description          Install
--- Name---- Name---- -----
MVSB      MVSB      PLEXMGR  PLEXMGR on System B      Installed
MVSB      MVSB      MVMVS    MVMVS on System B        Installed
MVSB      MVSB      CMF       CMF on System B           Installed
MVSC      MVSC      PLEXMGR  PLEXMGR on System C      Installed
MVSC      MVSC      MVMVS    MVMVS on System C        Installed
MVSC      MVSC      CMF       CMF on System C           Installed
```

where *nn* is the suffix of the member you want to copy from. Suffix values for each target context definition member are shown on the TGTDEFL view; see “Displaying a List of BBPARM Target Context Definition Members” on page 10-12. The TGTDEF view is updated with the target context definitions included in the member you copied from.

When the TGTDEFD view is displayed, enter the COPY command like this:

**Figure 10-12 COPY Command from the TGTDEFD View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> COPY nn                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =TGTDEF==TGTDEFD==MVSB=====*(00 EDIT          )====PLEXMGR==D==1
Target Details:          Description: System A - CMF MONITOR Online
Cas Name..... MVSA      Product..... CMF
Target Name... MVSA      Server..... MVSPASA
    
```

where *nn* is the suffix value for the member you want to copy. Suffix values for each target context definition member are shown on the TGTDEFL view; see “Displaying a List of BBPARM Target Context Definition Members” on page 10-12. The TGTDEFD view does not appear to be updated, but when you return to the TGTDEF view, the target context definitions in the member you copied from are listed.

### Canceling Target Context Definition Edits

Enter the CANcel command to exit edit mode, the ADD TARGET DEFINITION panel, or the CHANGE TARGET DEFINITION panel. Any time during an edit lock, you can cancel your changes.

If you enter CANcel when either the ADD or CHANGE panel is displayed, you are returned to the TGTDEF or TGTDEFD view that was being ADDED or CHANGED; the edit lock remains active.

If you enter CANcel when either the TGTDEF or TGTDEFD view is displayed:

- You are returned to browse mode; the edit mode status field on the window information line changes from (00 EDIT ) or (00 EDIT MOD ) to (00 BROWSE ) to indicate the edit lock is no longer active.
- The BBPARM target context definition parameter member is refreshed from storage with either its contents when the edit lock was obtained or the contents since the last SAVE or END command was entered.

The CANcel command is entered on the COMMAND line of the TGTDEF or TGTDEFD views and the ADD and CHANGE TARGET DEFINITION panels.

## Deleting a Target Context Definition

Enter the DELEte command to delete a target context definition from a target definition member. You must be in edit mode before you can enter the DELEte command; see “Editing Target Context Definitions” on page 10-18.

The DELEte command is entered in the line command column and is entered in the same way on both the TGTDEF and TGTDEFD views. The action is taken against the current definition where the command is entered.

When the DELEte command is used, a target context definition no longer appears in a view. It is deleted from the parameter library when a SAVE or END command (or its corresponding PF key) is entered.

Once you have deleted a target context definition:

To	Use	See
Cancel the deletion and restore the target context definition	CANcel primary command	“Cancelling Target Context Definition Edits” on page 10-24
Reinstate the target context definition	PARm DELETED(*) primary command, then UND line command	“Recovering a Target Context Definition that Was Previously Deleted” on page 10-25
Dynamically remove the definition immediately	INSTall primary or INS line command	“Installing Changes to a Target Context Definition” on page 10-26
Permanently remove the definition from the BBPARM member	SAVE primary command (or END command)	“Saving a Target Context Definition” on page 10-27

## Recovering a Target Context Definition that Was Previously Deleted

The UND line command recovers a target context definition marked for deletion. You must be in edit mode as described in “Editing Target Context Definitions” on page 10-18. As long as you are in edit mode, you can delete and recover target definitions. However, if you delete a target definition and then save or exit the TGTDEF view, you cannot recover the target you just deleted, because it is no longer in the saved target definition member in the BBPARM library.

A target context definition is removed from display in the TGTDEF view when the DELEte command is used. To redisplay a definition:

**Step 1** Enter the following command on the COMMAND line:

```
PARM DELETED ( * )
```

**Step 2** Enter the UND command against the target context definition.

The `UND` line command is entered in the line command column in the same way on both the `TGTDEF` and `TGTDEFD` views. The action is taken against the current resource where the command is entered.

### Installing Changes to a Target Context Definition

The `INSTall` command can be entered from the `TGTDEF` or `TGTDEFD` view. Enter the `INSTall` command to immediately update the local CAS and install changes to one or all target context definitions without waiting until the CAS is recycled or the next system IPL.

The `INSTall` command dynamically updates the runtime version of the target context definitions in the local CAS if the local CAS is using the currently displayed `BBPARM` member. In a shared `BBPARM` environment, you must display the `BBPARM` member in `TGTDEF` on each CAS and enter the `INSTall` command to update the runtime version for each CAS.

#### Notes:

- If you changed the `Resource Definition Parameter Member`, `Default Userid`, or `Security Applid` fields, you must:
  - Use the `INSTall` command to update the target definitions in the local CAS.
  - Recycle the PAS.
- If you used the `Add Target Definition` dialog to add a new `BBI-SS PAS` target (`MAINVIEW` for `CICS 5.2` and above):
  - The `INSTall` command installs any changes made to the target list into target tables used by the PAS.
  - The `SAVE` command saves a copy of these dynamic target definition(s) in `BBPARM` member `BBMTXP00`.

No changes are made to any target entries in `BBPARM` member `BBIJNT00`.

`INSTall` does not save changes to the `BBPARM` member—a `SAVE` or `END` command (or its corresponding PF key) updates the `BBPARM` member; see “Saving a Target Context Definition” on page 10-27.

The `INSTall` command can be entered as a primary command or as a line command.

### Primary INSTall Command

The primary form of the INSTall command is entered on the COMMAND line.

When INSTall is entered from the TGTDEF view, all of the target context definitions in the currently displayed BBPARM member are updated in the runtime version of the local CAS.

Since the TGTDEFD view displays one target context definition at a time, only the current definition is updated in the runtime version of the local CAS when INSTall is entered from the TGTDEFD view.

### INS Line Command

The INS line command is entered in the line command column and is entered in the same way on both the TGTDEF and TGTDEFD views. The action is taken against the current resource where the command is entered.

## Saving a Target Context Definition

Use the SAVE command to save changes or deletions to existing target definitions or save new target context definitions to the BBPARM target definition parameter member.

The SAVE command updates the target context definition member in BBPARM for the local CAS or, in a shared BBPARM environment, for all CASs. The next time the local CAS or a CAS in a shared BBPARM environment is initialized, the newly saved target context definition parameters become active. Use the INSTall command (see “Installing Changes to a Target Context Definition” on page 10-26) instead to activate changes immediately to a target context definition member.

The SAVE command is entered on the COMMAND line. You must be in edit mode before you can enter the SAVE command; see “Editing Target Context Definitions” on page 10-18.

**Note:** The END command (or its corresponding PF key) also saves any changes that you made while in edit mode.

When the SAVE command is used, the TARGET DEFINITION PARAMETER MEMBER panel appears, as shown in Figure 10-13.

- If you are saving changes to an existing target context definition member, this panel shows the previously defined Target Member Description field value.

- If you are saving a new target context definition member, this panel appears with a blank Target Member Description field. The TARGET DEFINITION PARAMETER MEMBER panel is used to change or define a description about a target context definition member, which appears in the Description field on the TGTDEFL view.

**Figure 10-13 TARGET DEFINITION PARAMETER MEMBER Panel**

```

----- TARGET DEFINITION PARAMETER MEMBER -----
COMMAND ==>

Target Member Description ==>

Enter END to save the target context definition parameter member.
Enter CANCEL to leave without saving.
    
```

Do the following when this panel is displayed:

- Step 1** Retain the currently defined value or define a description that does describe the contents of the target member. The description can be up to 30 characters in length.
- Step 2** Press END to update or define the description and to save any changes to the current member in the BBPARM library.

When you return to either the TGTDEF or TGTDEFD view, the edit mode status field on the window information line has changed from ( 00 EDIT MOD ) to ( 00 EDIT ) to indicate the edit lock is still active but all modifications have been saved.

---

---

# Chapter 11 Displaying the Status of SSI Contexts

The information in this chapter applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- Group 4

Plex Manager's CONACT, CONACTZ, and CONACTD views show the current monitoring status of targets within SSI contexts defined to the local CAS. An SSI context enables users to view multiple targets running across several MVS images in a single view and work with the information as if it came from a single system. These views show what MAINVIEW products are monitoring their target applications for a specific SSI context. This chapter describes how to use these views to assess the current monitoring status of targets within an SSI context.

Table 11-1 on page 11-2 lists the Plex Manager views to obtain the monitoring status of SSI contexts. Each view shows the monitoring status with a differing level of detail. The views have hyperlinks that allow you to shift between them to display the level of detail you need to make your assessment. The remainder of this chapter describes each view in a separate section.

**Table 11-1 SSI Context Activity Tasks**

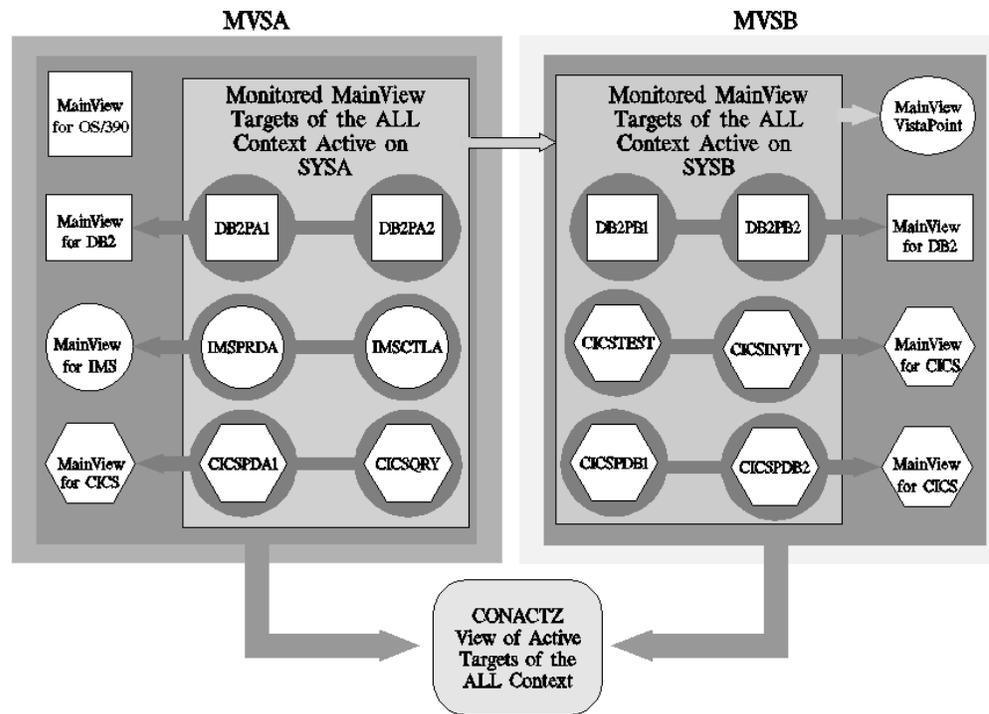
To	Do	See
Display a list of all available SSI contexts and the summary status of each MAINVIEW product defined to an SSI context	Display the CONACTZ view	"Displaying the CONACTZ View" below
View the status of each MAINVIEW product monitoring individual targets within an SSI context	Display the CONACT view	"Displaying the CONACT View" on page 11-4
Display the status of a single MAINVIEW product monitoring a specific application target within an SSI context	Display the CONACTD view	"Displaying the CONACTD View" on page 11-6

## Displaying the CONACTZ View

The CONACTZ view displays a list of active SSI contexts recognized by the local CAS. It gives a summary status of the MAINVIEW products monitoring their targets within each SSI context. CONACTZ displays the number of targets defined to the SSI context for each MAINVIEW product and the count of targets that are currently monitored.

Figure 11-1 on page 11-3 shows an example of an ALL SSI context that incorporates targets running on two MVS images. MAINVIEW products are running on both images to monitor their respective targets.

Figure 11-1 CONACTZ View within the ALL Context



In this example, CONACTZ summarizes monitoring of the targets within the context across both MVS images for each MAINVIEW product. Use the following methods to access CONACTZ:

- If you are already in Plex Manager, type CONACTZ on the COMMAND line. (Plex Manager is option P on the MAINVIEW Selection Menu.)
- If you are in another MAINVIEW product running in windows mode, use the following CONText command:

```
CON * PLEXMGR;CONACTZ
```

Figure 11-2 shows a CONACTZ view that summarizes MAINVIEW monitoring within the ALL SSI context of Figure 11-1 on page 11-3.

**Figure 11-2 CONACTZ View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =CONACTZ=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====7
CMD SSI      Product  Description                               Num  Num
--- Context- -----
ALL          MVMVS    All targets                               2   2
ALL          PLEXMGR   All targets                               2   2
ALL          MVCICS    All targets                               6   6
ALL          MVVP     All targets                               14  14
ALL          MVDB2    All targets                               4   4
ALL          MVIMS    ALL targets                               2   2
ALL          CMF      All targets                               2   2
    
```

For help about any field in this view, place the cursor on the field and press the HELP key.

CONACTZ provides a hyperlink to the CONACT view. Place the cursor on the SSI Context field of the MAINVIEW product that has targets defined within the SSI context.

## Displaying the CONACT View

CONACT shows the status of targets monitored by MAINVIEW products within an SSI context. CONACT expands the summarized counts of CONACTZ to show the individual monitoring status of each target.

Alternatively, CONACT also can be displayed by the following methods:

- If you are already in Plex Manager, type CONACT on the COMMAND line.

**Note:** Plex Manager is option P on the MAINVIEW Selection Menu.

- If you are in another MAINVIEW product running in windows mode, use the following CONtext command:

```
CON * PLEXMGR;CONACT
```

Figure 11-3 shows the CONACT view of the CICS targets that are defined to the ALL context of Figure 11-1 on page 11-3. The CICS targets summarized in the previous CONACTZ view are expanded to show the monitoring status of individual regions. The CICSTEST region is inactive. All remaining regions are active, which agrees with the summary status shown in the previous CONACTZ view.

**Figure 11-3 CONACT View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
>W1 =CONACT=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====16
CMD SSI Product Target Status Description
--- Context- ----- Context- of_Target--- -----
ALL MVCICS CICSPPA1 ACTIVE CICS PRODUCTION 1 ON MVSA
ALL MVCICS CICSQRY ACTIVE CICS QUERY REGION ON MVSA
ALL MVCICS CICSPPB1 ACTIVE CICS PRODUCTION 1 ON MVSB
ALL MVCICS CICSPPB2 ACTIVE CICS PRODUCTION 2 ON MVSB
ALL MVCICS CICSTEST INACTIVE CICS TEST REGION MVSB
ALL MVCICS CICSINVT ACTIVE CICS INVENTORY REGION MVSB
ALL MVDB2 DB2PA1 ACTIVE DB2 PRODUCTION 1 ON MVSA
ALL MVDB2 DB2PA2 ACTIVE DB2 PRODUCTION 2 ON MVSA
ALL MVIMS IMSPRDA ACTIVE IMS PRODUCTION 1 ON MVSA
ALL MVIMS IMSCTLA ACTIVE IMS CTL ON MVSA
ALL MVDB2 DB2PB1 ACTIVE DB2 PRODUCTION 1 ON MVSB
ALL MVDB2 DB2PB2 ACTIVE DB2 PRODUCTION 2 ON MVSB
ALL MVMVS MVSA ACTIVE MainView FOR MVS ON MVSA
ALL MVMVS MVSB ACTIVE MainView FOR MVS ON MVSB
ALL PLEXMGR MVSA ACTIVE TARGET MANAGER ON MVSA

```

To obtain information about the status value in the Status field for a product monitoring a target that is part of an SSI context, place the cursor on the Status field and press the HELP PF key.

Place the cursor on a view field and press the HELP key to display an online help panel that describes a CONACT view field.

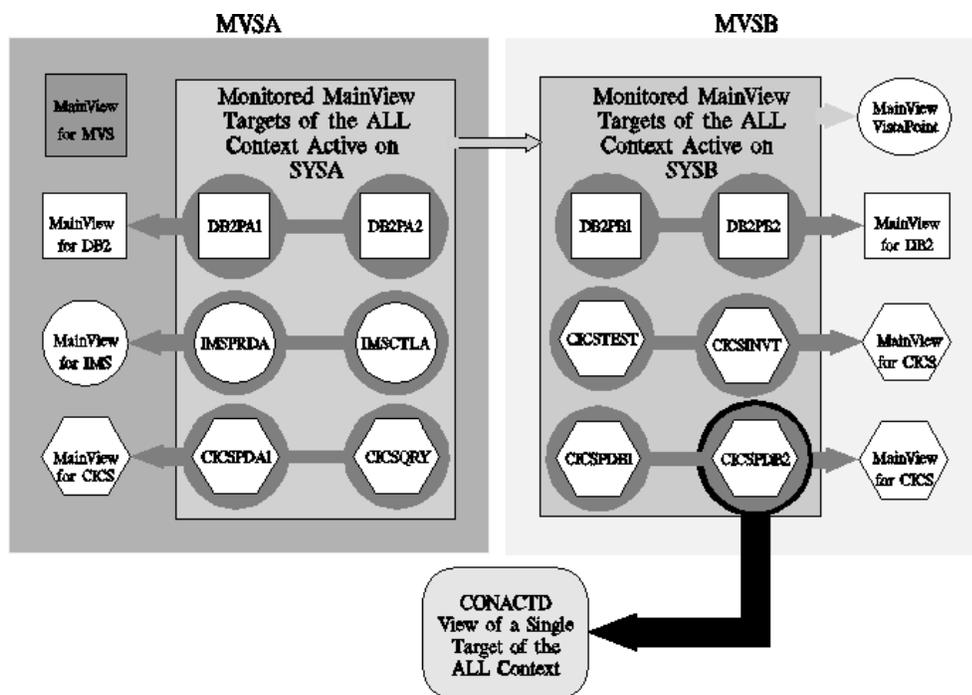
CONACT provides a hyperlink to the CONACTD view. Place the cursor on the SSI Context field of the MAINVIEW product that has targets defined within the SSI context.

## Displaying the CONACTD View

CONACTD is a detail view. It shows the monitoring status of an individual application target within an SSI context.

Figure 11-4 on page 11-6 shows an example of a single target selected within an SSI context. CONACTD provides more information about monitoring of this specific CICS region within the ALL context.

Figure 11-4 CONACTD View of an Individual Target within an SSI Context



To display a CONACTD view, invoke a hyperlink from the CONACT view by placing the cursor on a product in SSI context name and pressing Enter.

Figure 11-5 shows an example of a CONACTD view that provides more information about monitoring the CICS region shown in Figure 11-4 on page 11-6.

**Figure 11-5 CONACTD View**

```

ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =CONACT===CONACTD==SYSB=====*=====ddmmmyyy==hh:mm:ss====PLEXMGR==D====1
  SSI...  ALL Description          All target systems (predefined)
  Product MVCICS
  Target. CICSPDB2
  Server.  SSA1
  System. MVS
  Status. ACTIVE
    
```

For help about any field in this view, place the cursor on the field and press the HELP PF key.



---

---

# Chapter 12 Managing Single System Image (SSI) Contexts

The information in this chapter applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- Group 4

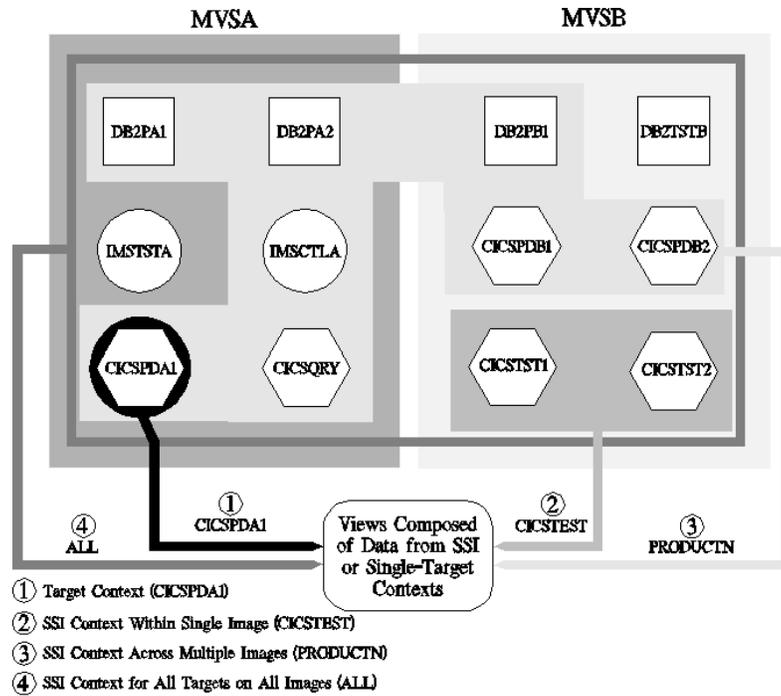
A context is a frame of reference for the data you display in views. A context can be limited to a single target application or be expanded to include all recognized targets providing data to a MAINVIEW product. In the case where you are viewing multiple targets, you can set the scope of your views to display selected targets within a context.

Contexts that include more than a single target are called single system image (SSI) contexts. An SSI context functions as a high-level filter that selects the data appearing in your views by the following criteria:

- Target name (CICS region, IMS or DB2 subsystem, MVS)
- Products attached to a coordinating address space (CAS)
- MAINVIEW product
- Product attached to a product address space (PAS)

Figure 12-1 on page 12-2 shows CICS, IMS, DB2, and MVS target applications operating on two MVS images. MAINVIEW products are monitoring their respective targets.

Figure 12-1 Views Set within SSI and Target Contexts



The ALL single system image (SSI) context incorporates data from all target applications recognized by the CAS. ALL is a default SSI context that is available to the MAINVIEW products shown in Figure 12-1 (4). In this example, the ALL context represents the combination of all targets across both MVS images.

Figure 12-1 (1) is also an example of a target context. A context set to CICSPDA1 within a MAINVIEW for CICS view is restricted to data collected from a single CICS region.

In either case, the context is a frame of reference that determines the data collected from MAINVIEW target applications that appears in views.

An SSI context must be defined in a series of Plex Manager views. The definition describes the filter conditions that select targets for the views set within the SSI context. After that, other requirements must be met before displaying views set to an SSI context. To support a user-defined SSI context definition, ensure that:

- The correct SSI context definition member is defined to the local CAS.
- Your user ID is authorized to access each target.

This chapter describes how to create an SSI context definition. A series of numbered procedures describe the major steps to define and then implement an SSI context.

---

SSI contexts impose certain requirements. This section describes several issues that must be considered as part of the overall planning for an SSI context definition. When you plan for SSI context definitions, consider the following:

- You must ensure cross-system communication is available between the local CAS and each CAS that provides data from a target system that belongs to the SSI context. If VTAM communication links are not established between CASs, target data cannot be accessed from those systems.
- If you need to define SSI context definitions across systems, BMC Software recommends:
  - Use a consistent naming convention to describe the target products that belong to an SSI context.
  - Ensure that each similarly named SSI context definition contains the same configuration of target systems and products.

Both recommendations are easily applied in a shared DASD environment that permits parameter libraries to be shared across systems. If different parameter libraries are used by CASs operating on different systems, separate copies of the SSI context definition must be maintained. These two recommendations ensure SSI context definitions can be maintained easily if each system requires its own definition.

- Use wildcard characters to declare values set in an SSI context definition. You can avoid potential maintenance by using wildcard characters that generically incorporate a range of targets.
- To avoid updating the local CAS definition to point to a different member, add SSI context definitions to the default parameter member with a suffix of 00.
- If all CASs use the same SSI context definition member and share the same parameter library, you need maintain only one definition member.

SSI context definitions are created with MAINVIEW's Plex Manager services. Plex Manager provides a set of views to define and maintain context definitions:

**CONDEFL** Lists the suffixes of BBPARM members that contain existing context definitions.

**CONDEF** Lists the context definitions contained in a single BBPARM member.

Use this view to add, cancel, change, copy, or delete context definitions within one member.

**CONDEFD** Shows the details of a single context definition belonging to a single BBPARM member.

You can perform all the same functions in CONDEFD to a single definition that you can perform in CONDEF for all SSI definitions.

An SSI context definition contains:

- 1- to 8-alphanumeric character context name
- Description of the SSI context
- Filter condition(s) that identify target systems and products belonging to the context

## Creating an SSI Context Definition

**Note:** The predefined SSI context ALL can be used to view data from all systems and products recognized by the local CAS. If the ALL context meets the needs of your site, you *do not* need to define an SSI context.

BMC Software recommends the following procedure be completed on each system where you want views displaying SSI contexts of data:

**Step 1** Select option P, Plex Manager, from the MAINVIEW Selection Menu.

The EZPLEX menu is displayed.

**Step 2** On the EZPLEX menu under Administration, position the cursor on Context Definition and press Enter to display the CONDEF view shown in Figure 12-2.

**Note:** When you display CONDEF on a system for the first time, only the predefined ALL context definition exists in default member 00.

**Figure 12-2 CONDEF View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =CONDEF=====SYSC*****=(00 BROWSE          )=====PLEXMGR==D===1
CMD SSI      Description                               Number_of Filter
--- Context- -----                                Filters-- #1----
ALL          All target systems (predefined)          1 TGTNAME=*

```

**Step 3** Enter EDIT on the COMMAND line to obtain the edit lock.

**Step 4** Enter ADD on the COMMAND line to display the ADD SSI CONTEXT DEFINITION panel shown in Figure 12-3.

**Figure 12-3 ADD SSI CONTEXT DEFINITION Panel**

```

----- ADD SSI CONTEXT DEFINITION -----
COMMAND ==>

SSI Context ==>
Description ==>

Inclusion Filters: (Target is included if any are true)
  1
  2
  3
  4
  5
  6
  7
  8

Equivalent SUBSTITUTION parameters to be used in filter expression:
%1=TGTNAME      %2=TGTSYSTEM  %3=TGTPRODUCT  %4=TGTSERVER
%5=TGTDESC      %6=cursystem

Type  END to add the SSI context definition
      CANcel to leave without adding

```

The ADD SSI CONTEXT DEFINITION panel allows you to specify one or more filter conditions that select the target systems and MAINVIEW products to be in the SSI context.

**Step 5** As shown in Figure 12-4 on page 12-6:

- Enter a name (1- to 8-alphanumeric characters) for your SSI context

- Provide a description (maximum of 40 characters)
- Select the target system(s) (maximum of 8) to be in the SSI context using inclusion filters as shown in the following example

For a description of a field, select it with your cursor and press your help key.

**Figure 12-4 Completed Example of the ADD SSI CONTEXT DEFINITION Panel**

```

----- ADD SSI CONTEXT DEFINITION -----
COMMAND ==>

SSI Context ==> CMFABC
Description ==> CMF ON MVSA, MVSB, MVSC

Inclusion Filters: (Target is included if any are true)
 1 (TGTPRODUCT IN (CMF, PLEXMGR)) AND (%2 in (MVSA, MVSB, MVSC))
 2
 3
 4
 5
 6
 7
 8

Equivalent SUBSTITUTION parameters to be used in filter expression:
%1=TGTTNAME    %2=TGTSYSTEM    %3=TGTPRODUCT    %4=TGTSERVER
%5=TGTTDESC    %6=cursystem

Type  END to add the SSI context definition
      CANCEL to leave without adding
    
```

- Step 6** Press your END key to return to the CONDEF view.
- Step 7** Enter the SAVE command on the COMMAND line to save the information.
- Step 8** Enter the INSTall command on the COMMAND line to dynamically activate the new SSI context definition.
- Step 9** If all CASs share the same BBPARM parameter library, repeat steps 2, 3, and 8 for each CAS.

If each CAS has a unique BBPARM parameter library, repeat steps 1 through 8 for each CAS.

If you want the local CAS to use a new SSI context definition you just installed, take the following steps.

**Note:** The name of the default BBPARM member containing SSI context definitions has a suffix of 00. If you updated this member, you do not need to perform the following procedure.

- Step 1** Display the CASDEF view.
- Step 2** Obtain the edit lock.
- Step 3** Enter the **CHAnge** command.
- Step 4** Modify the value in the `ConDef Suffix` field of the **CHANGE CAS SYSTEM DEFINITION** panel to be the two-digit value of the SSI context definition member you want the local CAS to use.
- Step 5** Enter the **END** command to return to the CASDEF view.
- Step 6** Enter the **SAVE** command to save the update in the CAS definition member in the BBPARM library.
- Step 7** Enter the **INStall** command to immediately update the local CAS with the new SSI context definition member.

The local CAS will now use the new SSI context definition member you specified.

## Managing SSI Context Definitions

Table 12-1 lists common tasks to manage SSI context definitions.

**Table 12-1 SSI Context Definition Management Tasks**

To	Do	See
View a list of all SSI context definition members defined in BBPARM	Display the CONDEFL view	"CONDEFL View" on page 12-9
Display the contents of an SSI context definition member	Display the CONDEFL view	"Displaying an SSI Context Definition Member" on page 12-10
Delete an SSI context definition member from the BBPARM library	Display the CONDEFL view	"Deleting an SSI Context Definition Member" on page 12-10

**Table 12-1 SSI Context Definition Management Tasks (continued)**

<b>To</b>	<b>Do</b>	<b>See</b>
View the contents of products and targets in an SSI context definition member	Display the CONDEF view	"Accessing the CONDEF View" on page 12-11
Add a new SSI context definition member to the BBPARM library	Use the SUFFIX( <i>nn</i> ) parameter of the CONDEF view command	"Adding a New SSI Context Definition Member" on page 12-12
View the details of one product monitoring a target defined in an SSI context	Display the CONDEFD view	"Accessing the CONDEFD View" on page 12-13
Obtain the edit lock to enable you to modify the definitions	Use the EDIT primary command	"Editing an SSI Context Definition" on page 12-14
Copy the contents of one SSI context definition to another	Use the COPY primary command	"Copying an SSI Context Definition Member" on page 12-15
Add an SSI context to an SSI context definition member.	Use the ADD primary or A line command	"Adding an SSI Context Definition" on page 12-16
Change an existing SSI context definition	Use the CHAnge primary or C line command	"Changing an Existing SSI Context Definition" on page 12-17
Cancel edit mode and ADDs, CHAngeS, or DELEtes that were not saved	Use the CANcel primary command	"Cancelling Modifications to an SSI Context Definition" on page 12-20
Delete an SSI context definition from another SSI context definition member	Use the DELeTe primary or DEL line command	"Deleting an SSI Context Definition" on page 12-20
Immediately update the local CAS with new or changed SSI context definitions	Use the INSTAll primary command	"Installing Changes to SSI Context Definitions" on page 12-22
Permanently save changes to an SSI context definition member	Use the SAVE primary command	"Saving an SSI Context Definition" on page 12-22

## Accessing the CONDEFL View

You can use CONDEFL to perform the following functions:

- To display a list of all SSI context definition members defined in BBPARM for the local CAS
- To select an SSI context definition member for display (see “Displaying an SSI Context Definition Member” on page 12-10)
- To delete an SSI context definition member from the BBPARM library (see “Deleting an SSI Context Definition Member” on page 12-10).

To access the CONDEFL view:

- If you are already in Plex Manager, type CONDEFL on the COMMAND line and press Enter.

**Note:** Plex Manager is option P on the MAINVIEW Selection Menu.

- If you are in another MAINVIEW product running in windows mode, use the following CONtext command to access Plex Manager and display the CONDEFL view:

```
CON * PLEXMGR;CONDEFL
```

The CONDEFL view appears as shown here:

**Figure 12-5 CONDEFL View**

```

ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>>                                SCROLL ==>> PAGE
CURR WIN ==>> 1          ALT WIN ==>>
  W1 =CONDEFL=====SYSC=====*=====ddmmmyyy==hh:mm:ss====PLEXMGR==D====2
CMD Member Description
--- Suffix -----
    00 Production SSI Contexts
    01 Test New Context
    
```

For help on any CONDEFL field, place the cursor on the field and press the HELP key.

## Displaying an SSI Context Definition Member

Enter the Select command from the CONDEFL view to display the contents of an SSI context definition member.

After issuing the Select command, the CONDEF view, shown in Figure 12-8 on page 12-12, is displayed with the contents of the specified SSI context member.

The Select command can be entered as a primary command or as a line command.

### The Select Primary Command

The Select primary command is entered on the COMMAND line and requires that you define the *nn* suffix value of the member you want to display, like this...

**Figure 12-6 Select Primary Command**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> S nn                                     SCROLL ==> PAGE
CURR WIN ==> 1           ALT WIN ==>
W1 =CONDEFL=====SYSC=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====2
CMD Member Description
--- Suffix -----
    00   Production SSI Contexts
    01   Test New Context
    
```

### The Select Line Command

The S line command is entered in the line command column of the CONDEFL view. The action is taken against the member on the line where the command is entered.

## Deleting an SSI Context Definition Member

Enter the DELEte command from the CONDEFL view to delete an SSI context definition member from the BBPARM parameter library.

After issuing the DELEte command, the SSI context is removed from the member list shown in CONDEFL.

The DELEte command can be entered as a primary or a line command.

## DELeTe Primary Command

The DELeTe primary command is entered on the `COMMAND` line and requires that you define the *nn* suffix value of the member you want to delete, like this:

**Figure 12-7 Delete Primary Command**

```
ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> DEL nn                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =CONDEFL=====SYSC=====*=====ddmmmyyy==hh:mm:ss====PLEXMGR==D====2
CMD Member Description
--- Suffix -----
    00   Production SSI Contexts
    01   Test New Context
```

## DELeTe Line Command

The DEL line command is entered in the line command column of the CONDEFL view. The action is taken against the member on the line where the command is entered.

## Accessing the CONDEF View

To access the CONDEF view:

- If you are already in Plex Manager, type CONDEF on the `COMMAND` line and press Enter. Plex Manager is option P on the MAINVIEW Selection Menu.
- If you are in another MAINVIEW product running in windows mode, use the following CONText command to access Plex Manager and display the CONDEF view:

```
CON * PLEXMGR ; CONDEF
```

Figure 12-8 shows an example of the CONDEF view.

**Figure 12-8 CONDEF View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
>W1 =CONDEF=====SYSC=====*(00 BROWSE )=====PLEXMGR==D==10
CMD SSI Description Number_of Filter
--- Context- ----- Filters--#1----
ALL All target systems (predefined) 1 TGTNAME = *
BENTST1 BEN1TEST SSI Context 2 (TGTNAME = S*) & (%3=
BENTST2 BEN2TEST CNTXTDEF 4 TGTPRODUCT = CMF
BENTST3 BEN3TEST SSI Context Definition 1 TGTPRODUCT = PLEXMGR
BENTST4 BEN4TEST Context 5 %1 IN (CMFA,MVMVS1)
BENTST5 BEN5TEST CNTXTDEF 3 %3 NOT IN (MVVP,MVCICS)
NEWTST1 NEWTEST1 2 TGTNAME >= 'SYSG'
PRODMVS Production MVMVS 2 TGTPRODUCT= MV*
TESTCMF All Test CMF 1 (%3=CM*) OR (%2=SYS*)
TESTMVS All Test MVMVS 1 (%3=M*) | (%2=SYS*)
    
```

For help on any CONDEF field, place the cursor on the field and press the HELP key.

See “Managing SSI Context Definitions” on page 12-7 for more information about CONDEF commands.

## Adding a New SSI Context Definition Member

To add a new SSI context definition member to the BBPARM library, enter the CONDEF view command with its SUFFIX(*nn*) parameter as shown in the following example:

```
CONDEF SUFFIX(nn)
```

where *nn* is a unique two-digit suffix value from 00 to 99 that is not currently used.

The CONDEF view appears in the window as shown here. This example is a result of issuing CONDEF SUFFIX(03).

**Figure 12-9 CONDEF View after Creating a New SSI Definition Member**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> PAGE
CURR WIN ==> 1 ALT WIN ==>
W1 =CONDEF=====SYSC=====*(03 BROWSE )=====PLEXMGR==D=====
BBMYA548I SSI Context Definition Member 03 does not exist; Predefined
context ALL will be used
    
```

These messages indicate the new member is empty except for the predefined ALL context. To add SSI context definitions to the new member:

- Step 1** Enter the EDIT command; see “Editing an SSI Context Definition” on page 12-14.
- Step 2** Perform one of the following:
- Enter the ADD command; see “Adding an SSI Context Definition” on page 12-16.
  - Enter the COPY command; see “Copying an SSI Context Definition Member” on page 12-15.
  - Follow the instructions provided in “Creating an SSI Context Definition” on page 12-4. See “Managing SSI Context Definitions” on page 12-7 for more information about CONDEF commands.

## Accessing the CONDEFD View

The full width of a CONDEF view cannot be shown within a single window. Enter a series of RIGHT commands to shift right and scroll through the filter fields. You can display the CONDEFD view and see all the filters listed in a detail view.

To access the CONDEFD view to see the specific details about an SSI context definition:

- Step 1** Display the CONDEF view as described in “Accessing the CONDEF View” on page 12-11.
- Step 2** Place the cursor on the name of SSI context definition you want to see details about and press Enter to invoke the hyperlink to CONDEFD.

The CONDEFD view appears in the window as shown here:

**Figure 12-10 CONDEFD View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =CONDEF==CONDEFD==SYSC=====*(00 BROWSE          )====PLEXMGR==D====1
  SSI Context... ALL
  Member Suffix. 00
  Update System. SYSC
  Update User ID JXM1
  Update Date... ddmmmyyyy
  Update Time... hh:mm
  Description... All Targets
  No. of Filters 1
  Filter #1..... %1=*
  Filter #2.....
  Filter #3.....
  Filter #4.....
  Filter #5.....
  Filter #6.....
  Filter #7.....
  Filter #8.....
    
```

For help about any CONDEFD field, place the cursor on the field and press the HELP key.

See “Managing SSI Context Definitions” on page 12-7 for more information about CONDEFD commands.

## Editing an SSI Context Definition

Obtain an edit lock on a new or existing SSI context definition member in the BBPARM library. An edit lock enables you to issue other commands available with the CONDEF or CONDEFD views.

**Note:** You cannot add, change, copy, delete, or save SSI context definitions unless you first obtain the edit lock on the SSI context definition member.

When the edit lock is obtained, the edit mode status field on the window information line changes from (00 BROWSE ) to (00 EDIT ) to indicate the edit lock is active.

After you are in edit mode, you can:

- Save changes in an SSI context definition to the BBPARM member
- Add other SSI context definitions to the SSI context definition member being edited

- Delete SSI context definitions
- Copy the contents of existing SSI context definition members into the current member being edited
- Change SSI context definitions (see “Managing SSI Context Definitions” on page 12-7 for more information)

## Copying an SSI Context Definition Member

Enter the COPY command to copy the contents of one SSI context definition member into another. You must be in edit mode viewing the member you want to copy into before entering the COPY command; see “Editing an SSI Context Definition” on page 12-14.

The COPY command is entered on the COMMAND line and is entered in the same way on both the CONDEF and CONDEFD views.

When the CONDEF view is displayed, enter the COPY command like this:

**Figure 12-11 COPY Primary Command from the CONDEF View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> COPY nn                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =CONDEF=====SYSC=====*(00 EDIT          )====PLEXMGR==D====10
CMD SSI      Description                                Number_of Filter
--- Context- -----                                Filters--#1----
ALL          All target systems (predefined)           1 TGTNAME = *
BENTST1     BEN1TEST SSI Context                       2 (TGTNAME = S*) & (%3=
BENTST2     BEN2TEST CNTXTDEF                          4 TGTPRODUCT = CMF
BENTST3     BEN3TEST SSI Context Definition            1 TGTPRODUCT = PLEXMGR
BENTST4     BEN4TEST Context                          5 %1 IN (CMFA,MVMVS1)
BENTST5     BEN5TEST CNTXTDEF                          3 %3 NOT IN (MVVP,MVCICS)
NEWTST1     NEWTEST1                                  2 TGTNAME >= 'SYSG'
PRODMVS     Production MVMVS                          2 TGTPRODUCT= MV*
TESTCMF     All Test CMF                              1 (%3=CM*) OR (%2=SYS*)
TESTMVS     All Test MVMVS                            1 (%3=M*) | (%2=SYS*)

```

where *nn* is the suffix value of the member that you want to copy from. Suffix values for each SSI context member are shown on the CONDEFD view; see “CONDEFD View” on page 12-9. The CONDEF view is updated with the SSI context names contained in the member that you copied from.

When the CONDEFD view is displayed, enter the COPY command like this:

**Figure 12-12 COPY Primary Command from the CONDEFD View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> COPY nn                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =CONDEF==CONDEFD==SYSC=====*(00 EDIT          )====PLEXMGR==D====1
  SSI Context... ALL
  Member Suffix. 00
  Update System. SYSC
    
```

where *nn* is the suffix value for the member you want to copy. Suffix values for each SSI context member are shown on the CONDEFL view; see “CONDEFL View” on page 12-9. The CONDEFD view does not appear to be updated, but when you return to the CONDEF view, the SSI context names included in the member you copied from are listed.

## Adding an SSI Context Definition

Enter the ADD command to add a new SSI context definition. You must be in edit mode before you can enter the ADD command; see “Editing an SSI Context Definition” on page 12-14.

When the ADD command is issued, the ADD SSI CONTEXT DEFINITION panel shown in Figure 12-3 on page 12-5 is displayed, either blank or with the values of an existing SSI context definition that you want to use as a template for a new SSI context definition. How you enter the ADD command determines the field values that display.

See “Creating an SSI Context Definition” on page 12-4 for information about each field in this panel.

After defining the name, description, and filter conditions of a new SSI context definition, press the END key. Save the definition to the BBPARAM parameter library member by issuing the SAVE command; see “Saving an SSI Context Definition” on page 12-22. If you want to make the new SSI context definition active immediately, enter the INSTall command; see “Installing Changes to SSI Context Definitions” on page 12-22.

To cancel a new SSI context definition while you are defining it, enter the CANcel command; see “Cancelling Modifications to an SSI Context Definition” on page 12-20.

The ADD command can be entered as a primary command or as a line command.

### **ADD Primary Command**

The ADD primary command is entered on the `COMMAND` line and is entered in the same way on both the `CONDEF` and `CONDEFD` views.

When the ADD command is issued from the `CONDEF` view, the ADD SSI CONTEXT DEFINITION panel appears with blank fields.

The `CONDEFD` view displays only one SSI context definition at a time. The current definition is assumed to be the definition you want to use as a template for a new definition. The ADD SSI CONTEXT DEFINITION panel appears with the values for the current definition. You must at least change the `SSI Context` field or enter the `CANcel` command to exit from this panel.

### **Add Line Command**

The A line command is entered in the line command column in the same way on both the `CONDEF` and `CONDEFD` views. The action is taken against the resource displayed on the panel where the command is entered.

The displayed definition is assumed to be the template you want to use for a new definition. The ADD SSI CONTEXT DEFINITION panel appears with the values for the current definition. You must at least change the `SSI Context` field or enter the `CANcel` command to exit from this panel.

## **Changing an Existing SSI Context Definition**

Enter the `CHAnge` command to change the values of an existing SSI context definition. You must be in edit mode before you can enter the `CHAnge` command; see “Editing an SSI Context Definition” on page 12-14.

After the CHAnge command is issued, the CHANGE SSI CONTEXT DEFINITION panel is displayed, as shown in Figure 12-13. It gives the details of the specified SSI context definition. You can modify any field in this panel, except the SSI Context field. See “Creating an SSI Context Definition” on page 12-4 for information about each field in this panel.

**Figure 12-13 CHANGE SSI CONTEXT DEFINITION Panel**

```

----- CHANGE SSI CONTEXT DEFINITION -----
COMMAND ==>

SSI Context === CMFABC
Description === CMF PRODUCT ON MVSA, MVSB, SYSC

Inclusion Filters: (Target is included if any are true)
  1 (TGTPRODUCT IN (CMF, PLEXMGR)) AND (%2 in (MVSA, MVSB, SYSC))
  2
  3
  4
  5
  6
  7
  8

Equivalent SUBSTITUTION parameters to be used in filter expression:
%1=TGTTNAME    %2=TGTSYSTEM    %3=TGTPRODUCT    %4=TGTSERVER
%5=TGTDDESC    %6=cursystem

Type  END to add the SSI context definition
      CANcel to leave without adding
  
```

After changing the description and/or filter conditions for the SSI context definition, press END from the panel to save the definition to the BBPARM parameter library member. To make the changes active immediately, enter the INSTAll command; see “Installing Changes to SSI Context Definitions” on page 12-22.

To cancel your changes, enter the CANcel command; see “Cancelling Modifications to an SSI Context Definition” on page 12-20.

The CHAnge command can be entered as a primary command or as a line command.

### CHAnge Primary Command

The CHAnge primary command is entered on the COMMAND line. This command is entered differently depending on whether the CONDEF or CONDEFD view is displayed.

When the CONDEF view is displayed, enter the CHA<sup>n</sup>GE command like this:

**Figure 12-14 CHANGE Primary Command from the CONDEF View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> CHA SSIname                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =CONDEF=====SYSC=====*(00 EDIT                )====PLEXMGR==D====10
CMD SSI      Description                                Number_of Filter
--- Context- -----                                Filters--#1----
ALL          All target systems (predefined)          1 TGTNAME = *
BENTST1     BEN1TEST SSI Context                      2 (TGTNAME = S*) & (%3=
BENTST2     BEN2TEST CNTXTDEF                        4 TGTPRODUCT = CMF
BENTST3     BEN3TEST SSI Context Definition           1 TGTPRODUCT = PLEXMGR
BENTST4     BEN4TEST Context                          5 %1 IN (CMFA,MVMVS1)
BENTST5     BEN5TEST CNTXTDEF                        3 %3 NOT IN (MVVP,MVCICS)
NEWTEST1    NEWTEST1                                  2 TGTNAME >= 'SYSG'
PRODMVS     Production MVMVS                          2 TGTPRODUCT= MV*
TESTCMF     All Test CMF                              1 (%3=CM*) OR (%2=SYS*)
TESTMVS     All Test MVMVS                            1 (%3=M*) | (%2=SYS*)
    
```

where *SSIname* is the name of the SSI context definition you want to change, as shown in the SSI Context field.

When the CONDEFD view is displayed, enter the CHA<sup>n</sup>GE command like this:

**Figure 12-15 CHA<sup>n</sup>GE Primary Command from the CONDEFD View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> CHA                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =CONDEF===CONDEFD==SYSC=====*(00 EDIT                )====PLEXMGR==D====1
  SSI Context... PRODMVS
  Member Suffix. 00
  Update System. SYSC
    
```

The CONDEFD view displays only one SSI context definition at a time. The displayed definition is assumed to be the definition you want to change.

### Change Line Command

The C Line command is entered in the line command column of both the CONDEF and CONDEFD views. The action is taken against the resource displayed on the panel where the command is entered.

## Canceling Modifications to an SSI Context Definition

Enter the **CAN**cel command to cancel changes made to an SSI context during an edit lock. If you enter **CAN**cel when either the **ADD** or **CHANGE** panel is displayed, you are returned to the respective **CONDEF** or **CONDEFD** view and the edit lock remains active.

If you enter **CAN**cel when either the **CONDEF** or **CONDEFD** view is displayed:

- You are returned to browse mode; the edit mode status field on the window information line changes from (00 EDIT ) or (00 EDIT MOD ) to (00 BROWSE ) to indicate that the edit lock is no longer active.
- The **BBPARM** SSI context definition member is refreshed from storage with the contents of the member since the last **SAVE** command was issued.

The **CAN**cel command is entered on the **COMMAND** line of the **CONDEF** and **CONDEFD** views and the **ADD** and **CHANGE SSI CONTEXT DEFINITION** panels.

## Deleting an SSI Context Definition

Enter the **DE**lete command to delete a specific SSI context definition from a **BBPARM** parameter library. You must be in edit mode before you can enter the **DE**lete command; see “Editing an SSI Context Definition” on page 12-14.

When the **DE**lete command is issued, an SSI context definition is marked for deletion and is removed from Plex Manager's views. However, the definition is not deleted from the **BBPARM** SSI context definition member until the **SAVE** command is issued; see “Saving an SSI Context Definition” on page 12-22.

The **DE**lete command can be entered as a primary command or as a line command.

### **DE**lete Primary Command

The **DE**lete primary command is entered on the **COMMAND** line. This command is entered differently depending on whether the **CONDEF** or **CONDEFD** view is displayed.

When the CONDEF view is displayed, enter the DELete command like this:

**Figure 12-16 DElete Primary Command from the CONDEF View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> DEL SSIname                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =CONDEF=====SYSC=====*(00 EDIT                )====PLEXMGR==D====10
CMD SSI      Description                                Number_of Filter
--- Context- -----                                Filters--#1----
ALL          All target systems (predefined)          1 TGTNAME = *
BENTST1     BEN1TEST SSI Context                      2 (TGTNAME = S*) & (%3=
BENTST2     BEN2TEST CNTXTDEF                          4 TGTPRODUCT = CMF
BENTST3     BEN3TEST SSI Context Definition           1 TGTPRODUCT = PLEXMGR
BENTST4     BEN4TEST Context                          5 %1 IN (CMFA,MVMVS1)
BENTST5     BEN5TEST CNTXTDEF                          3 %3 NOT IN (MVVP,MVCICS)
NEWTEST1    NEWTEST1                                  2 TGTNAME >= 'SYSG'
PRODMVS     Production MVMVS                           2 TGTPRODUCT= MV*
TESTCMF     All Test CMF                               1 (%3=CM*) OR (%2=SYS*)
TESTMVS     All Test MVMVS                             1 (%3=M*) | (%2=SYS*)

```

where *SSIname* is the name of the SSI context definition you want to delete, as shown in the SSI Context field.

When the CONDEFD view is displayed, enter the DELete command like this:

**Figure 12-17 DElete Primary Command from the CONDEFD View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> DEL                                         SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =CONDEF===CONDEFD==SYSC=====*(01 EDIT                )====PLEXMGR==D====1
SSI Context... NEWTEST1
Member Suffix. 01
Update System. SYSC

```

The CONDEFD view displays only one SSI context definition at a time. The displayed definition is assumed to be the definition you want to delete.

### DElete Line Command

The DEL line command is entered in the line command column and is entered in the same way on both the CONDEF and CONDEFD views. The action is taken against the current definition where the command is entered.

## Installing Changes to SSI Context Definitions

The INSTall command immediately updates the local CAS with changes to SSI context definitions. INSTall dynamically updates the runtime version of the SSI context definition in the CAS without waiting until the CAS is recycled or the next system IPL.

INSTall does not save changes to the BBPARM member. Use the SAVE command to update the BBPARM member; see “Saving an SSI Context Definition” on page 12-22.

After you use the INSTall command, the CONDEFD view does not change to reflect your update. To see the status of your SSI context definitions, display the CONTACTZ view.

## Saving an SSI Context Definition

Enter the SAVE command to save changes or deletions to SSI context definitions within BBPARM SSI context definition members.

The SAVE command is entered on the COMMAND line. You must be in edit mode before you can enter the SAVE command; see “Editing an SSI Context Definition” on page 12-14.

When the SAVE command is issued, the CONTEXT DEFINITION PARAMETER MEMBER panel appears, as shown in Figure 12-18.

- If you are saving changes to an existing context definition, this panel shows the previously defined Context Member Description field value.
- If you are saving a new context definition, this panel appears with a blank Context Member Description field.

**Figure 12-18 Saving a New SSI Context Definition Member**

```

----- CONTEXT DEFINITION PARAMETER MEMBER -----
COMMAND ====>

Context Member Description ====>

Enter END to save the context definition parameter member.
Enter CANCEL to leave without saving.
    
```

Do the following when the CONTEXT DEFINITION PARAMETER MEMBER panel is displayed:

- Step 1** Enter a description of up to 31 characters; it will appear in the Description field on the CONDEFL view.
- Step 2** Press END to update or define the description and save any changes to the current member in the BBPARM library.

When you return to either the CONDEF or CONDEFD view, the edit mode status field on the window information line changes from (00 EDIT MOD ) to (00 EDIT ) to indicate the edit lock is still active but all modifications have been saved.



---

# Chapter 13 Managing Historical Data Sets

The information in this chapter applies only to the following MAINVIEW products or groups of products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- MAINVIEW for IP

This chapter provides information about the MAINVIEW historical data sets. You can view historical data by using the TIME command.

# Understanding the Historical Database

This section provides information about the historical database and how it operates in the MAINVIEW environment so you can better control and manage your data.

## What Is the Historical Database?

The historical database is a group of up to 100 VSAM data sets that store the data collected by each PAS. There is a unique historical database for each PAS. As data is gathered by a PAS's data collectors, the historical recorder writes data to the PAS's historical database. One set of records is written by the historical recorder at the end of each interval.

**Note:** With MAINVIEW for OS/390 version 2.7.00 or later, the PAS can optionally have a second historical recorder and database that are used to record long-term history. For more information about long-term data collection, see the *MAINVIEW for OS/390 Customization Guide*.

The historical database consists of two logical components:

- Up to 100 data sets (VSAM clusters), to house data from the recent past and, optionally, to serve as a receptacle for data that has been loaded from archived data. Each data set is either
  - allocated to the PAS by a HISTDS $nn$  DD statement in the PAS started task procedure
  - dynamically allocated with the DSLIST view

**Note:** For long-term history data sets, the DD statement is HST1DS $nn$ . To access the DSLIST view for long-term history, first use the DSLISTZ view to display information about both historical databases, and then hyperlink to the appropriate DSLIST view.

- An optional archive, consisting of a tape library and/or offline data sets, to store data that is too outdated or voluminous to maintain online.

MAINVIEW provides the tools to allocate and maintain historical data sets.

## Historical Data in a Multi-System, Multi-Product Environment

If you have multiple PASs running on multiple systems and plan to establish cross-system communication, or you have multiple PASs running on the same system, keep in mind that:

- Each PAS on each system requires a unique historical database. Use the system's SMF ID as the second qualifier and the PAS ID as the third qualifier when allocating the VSAM data sets to indicate the system and PAS to which each historical database belongs; for example, *hilevel.smfid.pasid.HISTDS01*. This distinguishes one system's historical data sets from another's and ensures the integrity of each system's data.
- MAINVIEW products that share the same PAS on the same system also share the same historical data sets.

## When Is Historical Data Recorded?

If you have allocated historical data sets, historical reporting begins as soon as the PAS is initialized.

For CMF MONITOR and MAINVIEW for OS/390, data is written into the historical data sets at the same rate that performance data is recorded by the CMF MONITOR Extractor. That is, if the Extractor interval is set to 30 minutes, then data is written to the historical database every 30 minutes as well. (You specify the Extractor rate on the REPORT statement in the CMFCPMxx or CMFIPMxx control member.)

For CMF MONITOR and MAINVIEW for OS/390, if IPM recording becomes active for the Extractor, the historical recorder uses the IPM rate, not the CPM rate. This can result in interval rates of 5- or 10-minute increments and can impact data usage when viewing multiple intervals of historical data in a view.

**Note:** If long-term data collection is activated in MAINVIEW for OS/390 version 2.7.00 or later, data is written to the second historical database at a rate that is some multiple of the short-term interval described here. For information on how the long-term interval is specified, see the *MAINVIEW for OS/390 Customization Guide*.

For products that execute in the BBI-SS PAS (Group 3 products), data is recorded at the interval specified with the IRRI parameter in BBPARM member BBIISP00. If the IRRI parameter is not specified in BBIISP00, the length of the recording interval defaults to 15 minutes.

Intervals are usually synchronized on the hour. For example, if an interval is defined as 15 minutes and extraction begins at 07:49 a.m., the first interval lasts 11 minutes until the hour of 08:00 a.m. is reached. From then on, the intervals are 08:00 to 08:15, 08:15 to 8:30, and so on.

## Where Is Historical Data Recorded?

The historical data initially is written to the end of the historical file containing the most recent data.

You can control subsequent file selection by issuing commands on the DSLIST view; see “Managing the Historical Database” on page 13-8 for more information.

### Initial File Selection

When the historical recorder initializes, the first thing it does is select a historical data set to write to. Under most circumstances, the historical recorder selects the historical data set it was writing to last when the PAS stopped. This data set contains the most recent historical data.

For example, if the data set allocated on the HISTDS03 DD statement in the PAS procedure was the last data set written to last night, the historical recorder again chooses the data set named on the HISTDS03 DD statement to write to the next morning.

If you make the data set named on the HISTDS03 DD statement ineligible for recording by issuing the O line command on the DSLIST view, the historical recorder searches for an empty data set to write to.

If an allocated, empty data set does not exist on any of the HISTDS*nn* or HST1DS*nn* DD statements, the recorder selects the data set containing the oldest data and overwrites it.

### Subsequent File Selection

The historical recorder records data gathered by the PAS in historical data sets at regular intervals. The historical recorder checks each data set's status (open, active, quiesced, unquiesced, error, closed) and recording eligibility (yes or no) to determine which data set to write to.

When the historical recorder must search for a data set to write to, the search starts with the next data set in numerical order—in the case of the previous example, the data set named on the HISTDS04 DD statement. If the data set named on HISTDS04 is not empty, the historical recorder keeps searching for an empty data set using data sets defined on the HISTDS $nn$  DD statements.

If an allocated, empty data set does not exist on any of the HISTDS $nn$  DD statements, the recorder selects the data set containing the oldest data and overwrites it.

### Forced File Selection

Although the historical recorder selects the *first* historical data set to write to, you have control over the subsequent data sets selected for data recording by using the DSLIST line commands; see “Managing the Historical Database” on page 13-8 for more information.

You use these line commands to perform all historical database maintenance (with the exception of archival and retrieval of historical data sets).

See Table 13-2 on page 13-8 for more information about issuing line commands.

## How Many Historical Data Sets Should You Allocate?

You can allocate as many or as few data sets as you need, up to the limit of 100. Default customization provides for 3 data sets. When a data set is full, the historical recorder uses the next data set until that one is also full, and so on. When all the data sets are full, recording begins again with the first data set and the data is overwritten.

To determine the appropriate number of historical data sets for your site, collect sample data for one hour and then size the data sets according to how many hours worth of data you want to collect.

**Note:** You can use the DSLIST view to add historical data sets dynamically, as described in “Dynamically Adding a Historical Data Set” on page 13-20.

## Allocating Historical Data Sets to the Historical Database

A historical data set is added to DSLIST by being allocated to the PAS as part of the historical database.

After you have created and formatted the VSAM files that comprise the historical database as described in the *MAINVIEW Common Customization Guide*, you are ready to allocate the data sets that you want the historical recorder to write to.

MAINVIEW provides two methods for allocating historical data sets to a PAS, as shown in Table 13-1.

**Table 13-1 Historical Database Allocation Methods**

Method	Refer to
Dynamic allocation through the DSLIST view The PAS does not need to be recycled if you add historical data sets using this method.	"Dynamically Adding a Historical Data Set" on page 13-20
Allocation at PAS initialization by including DD statements in the PAS started task procedure for each data set The PAS must be recycled if you add historical data sets using this method.	The <i>MAINVIEW Common Customization Guide</i>

If you prefer, you can use a combination of both methods (hardcoding DD statements in the PAS procedure and interactive allocation with the DSLIST view) to allocate as many historical data sets as you need during your user session.

# Defining Historical Data Support

To define historical data support for your product, you must:

- Step 1** Allocate and format a historical database of VSAM data sets for the PAS supporting your product(s) (see “Understanding the Historical Database” on page 13-2).
- Step 2** Define the data sets in the historical database to the PAS started task procedure (see your product's customization guide) or use the DSLIST view (see “Allocating Historical Data Sets to the Historical Database” on page 13-6).

**Note:** BMC Software recommends that you define data sets to the historical data set using the DSLIST view, as this method provides more flexibility with initial recording options and deallocation.

Once the historical database is created and at least one file is allocated to hold historical data, you manage the historical database and control access to historical data using the DSLIST view. DSLIST allows you to perform tasks such as:

- Determining which historical data sets are available for recording data
- Changing the status of historical data sets
- Controlling read and write access to the historical data sets

You also may want to archive and restore historical data sets with the standard utility your site uses.

## Managing the Historical Database

This section covers the maintenance tasks you perform to control historical data and manage the historical database used by a PAS.

To control the historical database for the current PAS, use the tasks in Table 13-2.

**Table 13-2 Historical Database Management Tasks**

To	Do	See
Understand how the historical database is structured and how data is recorded to the historical database	Review the information in "Understanding the Historical Database"	"Understanding the Historical Database" on page 13-2
View the status of all historical data sets	Display the DSLIST view	"Accessing the DSLIST View" on page 13-9
Understand what the status of a historical data set means for recording or displaying data	Access online help for the Status field or review the information in this chapter	"Understanding the Status of a Historical Data Set" on page 13-10
Change a data set's recording eligibility	Use the O line command	"Changing Recording Eligibility" on page 13-11
Select the next data set for recording	Use the F line command	"Selecting the Next Data Set for Recording" on page 13-11
Restrict read and write access to a data set	Use the Q line command	"Restricting Read and Write Access to the Active Data Set" on page 13-14
Reinstate read and write access to a data set	Use the U line command	"Reinstating Read and Write Access to a Quiesced Data Set" on page 13-16
Close a data set	Use the F or Q line command	"Closing a Data Set" on page 13-17
Empty a data set	Use the R line command	"Emptying a Historical Data Set" on page 13-19
Allocate a historical data set to the PAS	Use the ADD primary command or modify the PAS started task procedure	"Dynamically Adding a Historical Data Set" on page 13-20 or "Allocating Historical Data Sets to the Historical Database" on page 13-6
Permanently save changes made to historical data sets	Use the SAVE primary command	"Permanently Saving Dynamic Changes to the Historical Database" on page 13-22

**Table 13-2 Historical Database Management Tasks (continued)**

To	Do	See
Deallocate a historical data set	Use the D line command	"Deallocating a Historical Data Set" on page 13-23
Move data to and from the archive	Use the REPRO or EXPORT function in IDCAMS	"Archiving and Retrieving Historical Data" on page 13-24

## Accessing the DSLIST View

Use the DSLIST view to manage the historical database. DSLIST shows the names of the data sets that comprise the historical database and allows you to issue commands against these data sets. Using DSLIST, you can allocate, deallocate, empty, or close a data set and control the read and write access to a data set.

To access the DSLIST view:

- Step 1** Access a MAINVIEW product that uses historical data and ensure that the product is running in windows mode.

**Note:** Plex Manager does not contain a DSLIST view because it does not use historical data.

- Step 2** On the **COMMAND** line, type **DSLIST** and press **Enter**.

**Note:** For MAINVIEW for OS/390 version 2.7.00 and later, display the DSLISTZ view first. Then hyperlink on the type of historical data set (short-term or long-term) for which you want information.

The DSLIST view is displayed, as shown here.

**Figure 13-1 DSLIST View**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ===>                                     SCROLL ===> PAGE
CURR WIN ===> 1          ALT WIN ===>
>W1 =DSLIST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D=====3
C DDNAME   From Date  Time  To Date  Time  Rec Status Pending Data set name
- - - - -
HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active ***** BOOLE.IMAGSYS
O HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed ***** BOOLE.IMAGSYS
HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Closed ***** BOOLE.IMAGSYS

```

The DSLIST view displays information about historical data sets that are currently allocated to the PAS. For help on any DSLIST field, place the cursor on the field and press the HELP PF key.

## Understanding the Status of a Historical Data Set

The Status field indicates the current state of a historical data set. Table 13-3 shows the valid Status field values that can appear for a data set on DSLIST and explains what each value means in terms of reading or writing availability.

**Table 13-3 Understanding the Status of a Historical Data Set**

<b>When the status is</b>	<b>Available for Writing</b>	<b>Available for Reading</b>
Active Only one data set at a time per PAS can have an Active status.	Yes The historical recorder is currently writing historical data to this data set.	Yes
Closed	Yes, if the Rec field indicates Yes. No, if the Rec field indicates No.	Yes, regardless of the Rec field value. No, if the Pending field value is SEL PEND.
Error There is an error condition with the data set.	No	No
Open This was the most recent Active data set before the historical recorder switched to a different data set, but this data set has not been closed yet. The Open status rarely occurs; it could indicate an impending error condition for the data set.	No	Yes
Qscd	No	No

## Changing Recording Eligibility

To change a historical data set's recording eligibility, use the O line command. This command can be used on data sets with a Closed status only; it has no effect on data sets with another status.

The recording eligibility, originally set on the Add Historical Data Set panel (see Figure 13-15 on page 13-21), appears in the Rec field and indicates whether or not the historical recorder can write data to a data set.

The O line command controls write access to a data set and toggles recording eligibility from Yes to No and back again each time it is issued against a data set.

Figure 13-2 shows how to issue the O line command against a data set to control write access by the historical recorder.

**Figure 13-2 Using the O Line Command to Change Recording Eligibility**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D=====3
C DDNAME   From Date  Time  To Date    Time  Rec Status Pending Data set nam
- - - - -
  HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active ***** PROD1.IMAGSY
  o HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed ***** PROD1.IMAGSY
  HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Closed ***** PROD1.IMAGSY

```

When Enter is pressed, the value in the Rec field immediately changes to Yes or No.

## Selecting the Next Data Set for Recording

To force the historical recorder to switch recording to a different data set at the end of the current interval, issue the F line command.

You can issue the F line command against only one data set per interval. Once issued, you must wait until the end of the current interval for command processing to complete before you can issue this command against a different data set.

The F line command can be used against a historical data set that has a Status field value of Closed and a Rec field value of Yes only; it has no effect on data sets with another status.

- If the historical data set you want to select has a Rec field value of No, issue the O line command to change its eligibility to Yes; see page 13-11.
- If the historical data set you want to select has a Status field value other than Closed, see page 13-17 for information about how to change a data set status to Closed.

When the F line command is issued, the Pending field value changes to SEL PENDING for the selected data set and to QUIESCED for the currently active data set.

When the current interval ends:

- The historical recorder switches recording to the selected data set and writes the record for the interval that just ended.
- The Status field changes to Active and the Pending field value changes back to asterisks for the selected data set.
- The Status field changes to Qscd and the Pending field value retains a QUIESCED status for previously active data set.

**Note:** The previously active data set retains a QUIESCED pending state throughout the duration of the new interval. Data cannot be written to or read from this data set from the time the F line command is issued until the end of the new interval.

At the end of the new interval, the QUIESCED pending state automatically ends and the Pending field value changes to a Qscd status. A quiesced data set must be manually unquiesced to become eligible for recording or reading again. Issue the U line command to unquiesce a quiesced data set; see page 13-16

Figure 13-3 shows how to issue the F line command against a data set to force the historical recorder to switch recording to it at the end of the current interval.

**Figure 13-3 Using the F Line Command to Switch Data Set Recording**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D====3
C DDNAME  From Date  Time  To Date    Time  Rec Status Pending Data set nam
-----
HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active ***** PROD1.IMAGSY
f HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed ***** PROD1.IMAGSY
HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Closed ***** PROD1.IMAGSY
    
```



## Restricting Read and Write Access to the Active Data Set

To restrict read and write access to the active historical data set at the end of the interval, issue the Q line command.

Once the Q line command is issued, you can neither write to nor read from the active data set and you must wait until the end of the current interval for command processing to complete.

The Q line command can be used against a historical data set that has a Status field value of Active only; it has no effect on data sets with another status.

When the Q line command is issued against the active data set, the Pending field value changes to QUIESCED. Recording to or reading from the active quiesced data set is prohibited immediately.

When the current interval ends:

- The historical recorder switches recording to the next available data set and writes the record for the interval that just ended.
- The Status field changes to Active for the new data set.
- The Status field changes to Qscd for the previously active data set and the Pending field retains a QUIESCED value.

**Note:** The previously active data set retains a QUIESCED pending state throughout the duration of the new interval. Data cannot be written to or read from this data set from the time the Q line command is issued until the end of the new interval.

At the end of the new interval, the QUIESCED pending state automatically ends and the Pending field value changes to a Qscd status. A quiesced data set must be manually unquiesced to become eligible for recording or reading again. Issue the U line command to unquiesce a quiesced data set; see “Reinstating Read and Write Access to a Quiesced Data Set” on page 13-16.

Figure 13-7 shows how to issue the Q line command against the active data set to force the historical recorder to switch recording to the next available data set at the end of the current interval.

**Figure 13-7 Using the Q Line Command to Restrict Read/Write Access**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                               SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D=====3
C DDNAME   From Date  Time  To Date    Time  Rec Status Pending Data set nam
- - - - -
q HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active ***** PROD1.IMAGSY
  HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Closed ***** PROD1.IMAGSY
  HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed ***** PROD1.IMAGSY
```

Figure 13-8 shows how the Pending field changes when you issue the Q line command.

**Figure 13-8 Pending Field Change for a Quiesced Data Set**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                               SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D=====3
C DDNAME   From Date  Time  To Date    Time  Rec Status Pending Data set n
- - - - -
  HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active QUIESCED PROD1.IMAG
  HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Closed ***** PROD1.IMAG
  HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed ***** PROD1.IMAG
```

Figure 13-9 shows how the Status field changes at the end of the current interval.

**Figure 13-9 Status Field Changes Resulting from Q Line Command**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                               SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D=====3
C DDNAME   From Date  Time  To Date    Time  Rec Status Pending Data set n
- - - - -
  HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active ***** PROD1.IMAG
  HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Qscd QUIESCED PROD1.IMAG
  HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed ***** PROD1.IMAG
```

Even though the HISTDS02 data set has older data than the HISTDS01 data set, the HISTDS01 data set becomes the Active data set because it has a Rec field value of Yes. The HISTDS02 has a Rec field value of No, so it is not eligible to have data written to it; see “Changing Recording Eligibility” on page 13-11 for more information.



Figure 13-11 shows how to issue the U line command against a quiesced data set to reinstate read and write access.

**Figure 13-11 Using the U Line Command to Reinstate Read/Write Access**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ===>
CURR WIN ===> 1          ALT WIN ===>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D====3
C DDNAME   From Date  Time  To Date    Time  Rec Status Pending Data set nam
- - - - -
  HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active  *****  PROD1.IMAGSY
u HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Qscd   *****  PROD1.IMAGSY
  HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed  *****  PROD1.IMAGSY

```

## Closing a Data Set

There are a number of ways to close a data set, depending on the data set's current status.

A Closed status for a data set is important because it enables a data set for reading. The ability to write to a closed data set is controlled by the O line command; see “Changing Recording Eligibility” on page 13-11.

Also, a data set must be closed before the following historical management tasks can be performed:

- “Changing Recording Eligibility” on page 13-11
- “Selecting the Next Data Set for Recording” on page 13-11
- “Emptying a Historical Data Set” on page 13-19
- “Deallocating a Historical Data Set” on page 13-23

Table 13-4 on page 13-18 describes how to close a data set for each Status field value.

**Table 13-4 Closing a Historical Data Set**

<b>When the status is</b>	<b>Do this</b>	<b>See</b>
Active	Use the F or Q line command to change the Active status to Qscd. Issue the U line command to change the status from Qscd to Closed.	“Selecting the Next Data Set for Recording” on page 13-11 or “Restricting Read and Write Access to the Active Data Set” on page 13-14 and “Reinstating Read and Write Access to a Quiesced Data Set” on page 13-16
Closed	Issue the O line command to set recording eligibility.	“Changing Recording Eligibility” on page 13-11
Error	Issue the R line command to make the data set eligible for recording again. The R line command empties the data in the data set. If you can determine a reason for the error condition based on diagnostic messages, you may be able to archive the data set before resetting it.	“Emptying a Historical Data Set” on page 13-19
Open	Nothing; the data set is pending a closed condition and should close automatically unless an error condition is pending. An Open status rarely occurs. If this status is retained for more than one interval, an I/O error could be keeping the data set from closing.	The operator's console or job log for messages that may indicate a reason why the data set cannot close.
Qscd	Issue the U line command to change the Qscd status to Closed.	“Reinstating Read and Write Access to a Quiesced Data Set” on page 13-16

## Emptying a Historical Data Set

To reset, or empty, a historical data set and make it available for reuse, issue the R line command.

**Note:** Offload the data into an inactive historical data set or to tape *first* if you want to save it for later use. See “Archiving and Retrieving Historical Data” on page 13-24 for more information.

The R line command can be used against a historical data set that has a Status field value of Closed or Error; it has no effect on data sets with another status.

Figure 13-12 shows how to issue the R line command against a closed data set to empty a historical data set.

**Figure 13-12 Using the R Line Command to Empty a Historical Data Set**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D=====3
C DDNAME   From Date  Time  To Date    Time  Rec Status Pending Data set nam
- - - - -
  HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active  *****  PROD1.IMAGSY
  HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Qscd   *****  PROD1.IMAGSY
  r HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed  *****  PROD1.IMAGSY
```

When the R line command is issued, the Reset Confirm panel, shown in Figure 13-13, is displayed for confirmation that you want to discard the data.

**Figure 13-13 Confirming that a Historical Data Set Should Be Emptied**

```
----- Reset Confirm -----
COMMAND ==>                                     SCROLL ==> CSR

Confirm the resetting of the Interval Recorder dataset

Dataset name:          PROD1.IMAGSYSB.HISTDS02
Confirm reset of dataset:      (Yes/No)

END to exit resetting historical dataset
CANCEL to exit without resetting historical dataset
HELP to view related help
RESET to reset to initial data
```

To empty the data set, type Yes and press END. To cancel the reset command, type No or leave the field blank.

When END is entered, the DSLIST view is redisplayed. Figure 13-14 shows how the empty data set is displayed on the DSLIST view.

**Figure 13-14 How an Empty Historical Data Set Is Displayed**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLISL=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D====3
C DDNAME   From Date  Time  To Date   Time  Rec Status Pending Data set nam
- - - - -
HISTDS01  dd/mm/yyyy  hh:mm dd/mm/yyyy  hh:mm Yes Active  *****  PROD1.IMAGSY
HISTDS03  dd/mm/yyyy  hh:mm dd/mm/yyyy  hh:mm Yes Qscd   *****  PROD1.IMAGSY
HISTDS02                00:00                00:00 No  Closed *****  PROD1.IMAGSY

```

**Note:** If the Rec field indicates No for an empty data set, use the O line command to enable this data set for recording; see “Changing Recording Eligibility” on page 13-11.

## Dynamically Adding a Historical Data Set

To allocate a historical data set dynamically so that it is added to the historical database and appears in DSLIST, enter the ADD command. The ADD command can be entered as a primary command or as a line command.

When you use the ADD command, you have a choice of permanently or temporarily allocating the historical data set. To permanently save a dynamically allocated historical data set so that it is retained when the PAS is recycled, issue the SAVE command while adding a historical data set (see page 13-22 for more information); otherwise, the data set is allocated temporarily.

To add a historical data set dynamically:

- Step 1** Create the data set by following the instructions for your type of PAS (MVS or BBI-SS) in the *MAINVIEW Common Customization Guide*.
- Step 2** Display the DSLIST view for the product for which you want to add a historical data set by following the instructions on page 13-9.
- Step 3** Enter the ADD command in one of the following ways:
  - On the **COMMAND** line, type **ADD** and press **Enter**.
  - In the line command column, type **A** and press **Enter**.

The Add Historical Data Set panel is displayed, as shown here.

**Figure 13-15 Add Historical Data Set Panel**

```

----- Add Historical Data Set -----
COMMAND ==>>                                SCROLL ==>> CSR

Enter dataset name and recording eligibility.
-Enter a fully qualified dataset name
-Do not enclose dataset name in quotes
-Dataset must have already been created

Dataset name:
Record?           May be used for recording? Yes/No

END to exit adding historical dataset
ADD to add historical dataset and continue add dialog
CANCEL to exit the add dialog
HELP to view related help
RESET to reset to initial data

```

- Step 4** Enter the name of the historical data set you want to allocate in the **Dataset name** field.
- Step 5** Specify whether you want this data set to be eligible for recording by typing **YES** or **NO** in the **Record?** field and then pressing **Enter**.

The message DATA SET STARTED is displayed.

**Note:** Use this field to set recording eligibility of a data set initially; use the O line command to control recording eligibility once the data set is allocated (see “Changing Recording Eligibility” on page 13-11 for more information).

- Step 6** Optionally, add information for additional data sets, if necessary, and press **Enter** for each data set to add it dynamically.
- Step 7** Press END to return to the DSLIST view.

The message DATA SET ALLOCATED is displayed for each newly allocated data set and the data set name is added to the DSLIST view. Dynamic allocation is complete but does not make the data set a permanent member of the historical database. When the PAS is recycled, the data set name no longer appears on DSLIST and must be added again.

To permanently add a dynamically allocated data set to the historical database, issue the SAVE command (see page 13-22 for more information).

## Permanently Saving Dynamic Changes to the Historical Database

To permanently save a dynamically added historical data set to the historical database, or permanently remove a deallocated data set (that was originally added dynamically) from the historical database, issue the SAVE command after allocating or deallocating the data set.

When you use the SAVE command, you affect the contents of the PARMFILE DD data set. The data set names currently displayed on the DSLIST view are saved to the PARMFILE data set and become part of the historical database.

Any historical data set names in PARMFILE are permanently part of the historical database because when the PAS is initialized, both the HISTDSnn DD and the PARMFILE DD statements are read—the data sets defined to these statements comprise the historical database at PAS initialization.

Therefore, if you add a historical data set and issue SAVE, it becomes part of the historical database, and if you deallocate (see “Deallocating a Historical Data Set” on page 13-23) a historical data set that was previously dynamically added and issue SAVE, the data set is removed from the historical database.

The SAVE command is issued on the COMMAND line, not as a line command, like this:

**Figure 13-16 Issuing the DSLIST SAVE Command**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> save                               SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLIST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D====3
C DDNAME   From Date  Time  To Date   Time  Rec Status Pending Data set nam
-----
HISTDS01  dd/mm/yyyy  hh:mm  dd/mm/yyyy  hh:mm  Yes Active  *****  PROD1.IMAGSY
HISTDS03  dd/mm/yyyy  hh:mm  dd/mm/yyyy  hh:mm  Yes Closed  *****  PROD1.IMAGSY
HISTDS02  dd/mm/yyyy  hh:mm  dd/mm/yyyy  hh:mm  Yes Closed  *****  PROD1.IMAGSY
    
```

If you do not issue the SAVE command, historical data sets that are dynamically added are lost from, and those that are deallocated are added back to, the historical database at the next PAS initialization.

## Deallocating a Historical Data Set

To remove a historical data set that was previously dynamically allocated (see page 13-20) from the historical database and remove its name from the DSLIST view, issue the D line command.

The D line command can be used against a historical data set that has a Status field value of Closed; it has no effect on data sets with another status or on data sets allocated to the historical database through a HISTDS*nn* DD statement.

Permanent deallocation occurs when you deallocate a data set that was dynamically added and then issue the SAVE command (see page 13-22).

Temporary deallocation occurs if you issue only the D line command against a data set and not the SAVE command. The exception to this case is when a data set was added and saved during a previous session. The data set name appears in PARMFILE and is read and allocated as part of the historical database at the next PAS initialization.

Issue the SAVE command to permanently remove a data set name from PARMFILE and permanently deallocate the data set from the historical database.

Figure 13-17 shows how to issue the D line command against a closed data set to remove the historical data set from the DSLIST view.

**Figure 13-17 Using the D Line Command to Deallocate a Historical Data Set**

```
ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =DSLST=====SYSB=====*=====dd/mm/yyyy=hh:mm:ss====MVMVS==D====3
C DDNAME   From Date  Time  To Date    Time  Rec Status Pending Data set nam
- - - - -
  HISTDS01 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Active ***** PROD1.IMAGSY
  HISTDS03 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm Yes Closed ***** PROD1.IMAGSY
d HISTDS02 dd/mm/yyyy hh:mm dd/mm/yyyy hh:mm No  Closed ***** PROD1.IMAGSY
```

After you press Enter, the data set is deallocated and removed from the DSLIST display. You can re-allocate a historical data set again by using the ADD command (see page 13-20).

## Archiving and Retrieving Historical Data

You can use the REPRO or EXPORT function of IBM's IDCAMS utility or the standard utility your site uses to archive historical data to tape or to offline data sets. At a later time, you can use the same utility to retrieve the data from the archive into a historical data set for viewing.

### Archiving Data

As soon as a historical data set fills up, MAINVIEW sends a status message to the operator console. BMC Software recommends setting up an automation product that uses this operator console message to trigger the IDCAMS REPRO or EXPORT function to automatically offload historical data to the archive each time a data set reaches capacity. For example, you can use one of these automation products:

- MAINVIEW AutoOPERATOR
- the standard utility that your site uses

### Retrieving Data

When you restore archived historical data, the data set you move the data to must be currently allocated and must not be eligible for recording.

When you complete the restoration of a historical data set from tape, there are either no time and date stamps displayed or invalid date and time stamps displayed in the From Date, To Date, and Time fields for the data set.

The date and time data is not correct because the PAS reads the date and time of historical data sets only at data set initialization time or when data sets are added dynamically.

To restore archived historical data and display the correct date and time of a restored historical data set on the DSLIST view, BMC Software recommends this procedure:

- Step 1** Use the D line command to deallocate the historical data set (see page 13-23).
- Step 2** Restore data from the archive using an IDCAMS or other standard utility.

- Step 3** Use the ADD command to add the historical data set (see page 13-20) to the historical database.
  
- Step 4** Optionally use the SAVE command (see page 13-22) if you want to permanently save the data set allocations so they are not removed at the next PAS initialization.



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# Chapter 14 Using Product Libraries

Of the distributed target libraries, only those libraries and data sets that are changed by customization are described in this section. The purpose of this section is to ensure that site changes to customized product libraries are not lost when your site migrates to a new version or applies product maintenance.

This section provides information about which product libraries to use when you make changes to a product. It explains how the product libraries are created, what their intended use is, and which libraries to use to make your site's changes.

The types of product libraries are:

- SMP-maintained distributed target libraries

These are created during product installation. They contain load modules, parameters, procedures, samples, views, screen definitions for views, and view help in their original form. The installation procedures are described in the *OS/390 and z/OS Installer Guide*.

**Note:** Never modify these libraries without SMP procedures.

- Site-customized product libraries

These are created for you by AutoCustomization, or you can create them manually. They contain versions of distributed library members modified to your site's requirements.

---

- Product user libraries

Each user can have their own version of views, screen definitions containing views, and view help in a library with their user ID.

A user profile (*uprefix.userid.BBPROF*) is created during terminal session initialization if one does not exist already, depending on what products are installed.

- Image and Journal Logs

These are used by some products that run in the BBI-SS PAS for recording screen images or messages. They are created for you by AutoCustomization, or you can create them manually.

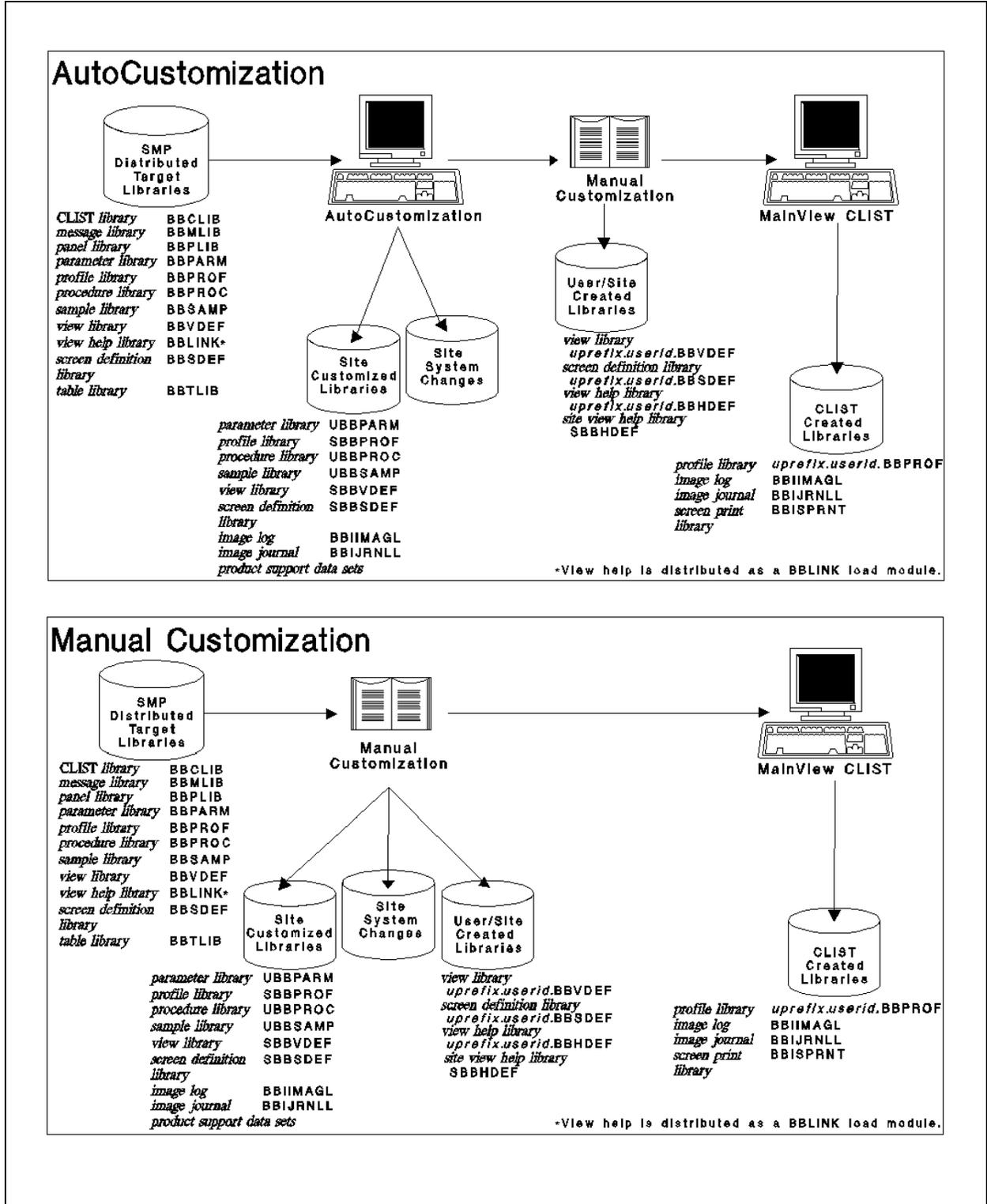
- Product support data sets

These data sets are required for some product functions. They are created for you by AutoCustomization, or you can create them manually.

**Note:** AutoCustomization procedures are described in the *OS/390 and z/OS Installer Guide*. Manual procedures for creating product libraries are described in the *MAINVIEW Common Customization Guide*.

Figure 14-1 on page 14-3 shows how customized product libraries are created.

Figure 14-1 MAINVIEW Product Library Customization



---

## Distributed Libraries

The distributed libraries are as follows:

- Link library** This data set contains MAINVIEW environment and product-specific load modules.
- Parameter library**  
Product parameters
- Members in this library contain parameter definitions for related products and product-specific parameter definitions.
- Sample library** Product samples
- Members in this library contain macros, sample JCL, and sample user exit routines.
- Profile library** Profile information
- This library contains members that define PF keys, target system defaults, primary option menu, unique application profiles, and cycle refresh definitions for a user's terminal session for the products that run in full-screen mode.
- Procedure library**  
MAINVIEW AutoOPERATOR execute command lists (EXECs)
- Members in this library contain user-defined automated applications.
- View library** Product views
- Members in this library contain views used by products operating in windows mode.
- Screen library** Screen definitions with views
- Members in this library include screen definitions containing one or more views.
- View help library**  
Help text
- This library contains help text for products providing views.
- Message library** Messages and abend codes
- This library, called BBMLIB, contains messages and abend codes issued by MAINVIEW products.
- Panel library** ISPF panels

---

Each member in this library, called BBPLIB, is a panel definition for the terminal session. User-customized panels should be placed in a separate library and concatenated in front of the distributed panel library.

**CLIST library** MAINVIEW CLISTs

AutoCustomization and CLISTs used by specific MAINVIEW products are in this library, called BBCLIB.

**Table library** MAINVIEW tables

This library, called BBTLIB, contains MAINVIEW product tables, AutoCustomization tables, and some MAINVIEW product command tables.

**Note:** Use the contents of the distributed libraries as models to create your own site-customized product libraries. The distributed libraries should never be modified. All changes described in this manual should be made only to site-customized product libraries. If you change the distributed libraries, subsequent SMP maintenance will overwrite your changes.

## Customized Libraries

The customized libraries include some or all of the following:

- your own versions of the distributed libraries
- product support data sets

These include the following:

— BBIBBCFG

This data set is used by MAINVIEW AutoOPERATOR, MAINVIEW FOCAL POINT, MAINVIEW for CICS, MAINVIEW for DB2, MAINVIEW for DBCTL, MAINVIEW for IMS Online, MAINVIEW for WebSphere MQ, and MAINVIEW VistaPoint. BBIBBCFG identifies BBPARM configuration member suffixes to the BBI-SS PAS.

— BBIDIV, BBIVARS

These data sets are used by MAINVIEW AutoOPERATOR products. BBIDIV is a data storage data set. BBIVARS is a variable pool data set.

### — PARMFILE

This data set is for MAINVIEW for OS/390 workload configuration definitions and for products supporting historical data processing with the view TIME command.

- image and journal logs

These are used by MAINVIEW AutoOPERATOR, MAINVIEW for CICS, MAINVIEW for DB2, MAINVIEW for DBCTL, and MAINVIEW for IMS Online. The Image log is for screen images from timer-driven service requests. The Journal log is for BBI-SS PAS and product commands, responses, and messages.

## Parameter Libraries

Each member in this data set contains parameters for a separate product or group of related products. Your site can have several parameter libraries, a distributed version and one or more site-customized versions. Multiple parameter library data sets can be concatenated together. With this technique, a site parameter library set can be created and a data set individualized for each PAS can be concatenated before the site library.

### BBPARM

BBPARM is a distributed target library that is created during product installation. This version should never be modified. Subsequent SMP maintenance will overwrite any changes you make. The distributed name is used in this manual for reference only.

### UBBPARM

UBBPARM is a copy of the distributed parameter library. It can be created automatically by AutoCustomization, or you can create it manually.

**Note:** AutoCustomization creates a UBBPARM data set as *hilevel.image.UBBPARM*; for example, *hilevel.IMAGSYSD.UBBPARM*. This lets each MVS image have its own BBPARM data set for unique parameters.

Use this copy to make any parameter library changes described in this manual.

## AutoCustomization

If you used AutoCustomization when you installed your product libraries as described in the *OS/390 and z/OS Installer Guide*, it created a UBBPARM data set for you and customized its members.

## Manual Customization

If you are customizing the product manually:

1. Create your own UBBPARM data set.
2. Copy the members that you need from the distributed BBPARM library into the UBBPARM data set that you created.
3. Change the members that you copied in UBBPARM.

## Customized IMS Parameters

You can define unique parameters for individual IMS systems, either by copying and renaming specific members and including them in UBBPARM or by creating user-defined parameter data sets, referred to as *ibbparm* data sets.

These methods for customizing parameters are used only by MAINVIEW for IMS Online, MAINVIEW for IMS Offline, MAINVIEW for DBCTL, and MAINVIEW AutoOPERATOR for IMS.

### Customized IMFSYS00 and IMFECPO0 Members

In the UBBPARM data set, you can include a copied, renamed version of IMFSYS00 to customize the system parameters for an IMS system, including the SUBSYS parameter, which establishes communication between the IMS and the BBI-SS PAS. The name of an IMS-specific system parameter member must be in the following format:

*imsidSYS* (where *imsid* is the four-character IMS identification code)

You can also include a copied, renamed version of IMFECPO0 to customize the Event Collector parameters for an IMS system. The name of an IMS-specific Event Collector parameter member must be in the following format:

*imsidECP* (where *imsid* is the four-character IMS identification code)

If you do not need to customize other UBBPARM members for an IMS system, you do not need to create and allocate a separate *ibbparm* parameter data set for that system.

### User-Defined Parameter Data Set

You can allocate an *ibbparm* parameter data set to contain any members that you want to make unique to an IMS system. The *ibbparm* data set must be allocated manually; it is not created through AutoCustomization.

If you do not need to customize any parameter members other than IMFSYS00, IMFECPO0, or both for an IMS system, an *ibbparm* data set is not required. Instead, you can include renamed versions of the members in UBBPARM, as described in “Customized IMFSYS00 and IMFECPO0 Members” on page 14-7.

## Sample Libraries

The members in this data set contain:

- sample JCL that can be edited and submitted to perform specified functions
- macros that are referenced when assembling user-written services
- sample user exit routines

Your site can have several sample libraries, a distributed version and one or more site-customized versions. Some members are for more than one product and some are product-specific.

### BBSAMP

BBSAMP is a distributed target library that is created during product installation. This version should never be modified. Subsequent SMP maintenance will overwrite any changes you make. The distributed name is used in this manual for reference only.

---

## UBBSAMP

UBBSAMP contains copies of members from the distributed sample library. It can be created automatically by AutoCustomization, or you can create it manually. You can use UBBSAMP to make any changes to members described in this manual.

### AutoCustomization

If you used AutoCustomization when you installed your product libraries as described in the *OS/390 and z/OS Installer Guide*, it created a UBBSAMP data set for you if one did not exist already. UBBSAMP contains copies of members from the distributed sample library. Use these members to customize a product to your site's needs.

### Manual Customization

If you are customizing the product manually:

1. Create your own UBBSAMP data set.
2. To change a sample member described in this manual, copy the members that you need from the distributed BBSAMP library into the UBBSAMP data set that you created.
3. Change the members that you copied in UBBSAMP.

## Profile Libraries

This section applies only to:

MAINVIEW AutoOPERATOR  
MAINVIEW for CICS  
MAINVIEW for DB2  
MAINVIEW for DBCTL  
MAINVIEW for IMS Online

Your site can have several profile libraries, a distributed version and one or more site-customized versions. Members in this data set contain profile information and cycle refresh definitions. Other members are dynamically created. Do not change any members in this library unless instructed to.

You can have a site profile library and a user profile library. The site library can be created automatically by AutoCustomization, or you can create it manually. The site library is a common profile shared by all site users. The MAINVIEW CLIST creates a user profile automatically if one does not exist already. Users should have their own profile library so that each user can specify:

- unique PF keys
- CYCLE commands
- target system defaults
- primary Option Menu
- a unique set of application profiles

The user profile and the site profile should be concatenated before the distributed profile. When a profile is saved, it is stored in the first profile library defined in the concatenation.

## **BBPROF**

BBPROF is a distributed target library that is created during product installation. This version should never be modified. Subsequent SMP maintenance will overwrite any changes you make. The distributed name is used in this manual for reference only.

## **SBBPROF**

SBBPROF is an optional data set. It can be created automatically by AutoCustomization, or you can create it manually. Use SBBPROF to make any changes described in this manual that you want to be shared by all users at your site.

### **AutoCustomization**

If you used AutoCustomization when you installed your product libraries as described in the *OS/390 and z/OS Installer Guide*, it created an SBBPROF data set for you and customized its members.

## Manual Customization

If you are customizing the product manually:

1. Create a common SBBPROF data set for your site.
2. Copy the members that you need from the distributed BBPROF library into the SBBPROF data set that you created.
3. Change the members that you copied in SBBPROF.

## User BBPROF

There should be a profile data set for each user so that each user has an individual application profile. The MAINVIEW CLIST created a user profile automatically if one did not exist. It is called *userid.BBPROF*, where *userid* is the user's logon ID. This data set contains profile members customized by a user.

## Procedure Libraries (MAINVIEW AutoOPERATOR Only)

Your site can have several procedure libraries available, a distributed version and one or more site-customized versions. Members in this data set contain executable procedures used by MAINVIEW AutoOPERATOR. These procedures are execute command lists (EXECs) that automate site functions. For more information about EXECs, see the manuals shipped with your MAINVIEW AutoOPERATOR product.

## BBPROC

BBPROC is a distributed target library that is available when MAINVIEW AutoOPERATOR is installed successfully. This version should never be modified. Subsequent SMP maintenance will overwrite any changes you make. The distributed name is used in this manual for reference only.

## UBBPROC

UBBPROC is used to contain new user-written EXECs or customized MAINVIEW AutoOPERATOR-supplied EXECs from the distributed BBPROC library. It can be created automatically by AutoCustomization or you can create it manually.

### AutoCustomization

If you used AutoCustomization when you installed MAINVIEW AutoOPERATOR as described in the *OS/390 and z/OS Installer Guide*, it created a UBBPROC data set for MAINVIEW AutoOPERATOR.

If you need to use a specific EXEC sample:

1. Verify that the member was not copied by AutoCustomization to UBBPROC.
2. Copy the sample member that you need to modify from the distributed BBPROC to UBBPROC.
3. Make the change in the copied member.

### Manual Customization

If you are customizing MAINVIEW AutoOPERATOR manually:

1. Create your own UBBPROC data set.
2. Copy the members that you need to modify from the distributed procedure library into the UBBPROC data set that you created.
3. Change the members that you copied in UBBPROC.

# View, Screen, and View Help Distribution Libraries

This section applies only to those MAINVIEW products operating in windows mode. The distribution libraries for those products are allocated as follows:

## Views

The SMP target view library is allocated in the CAS and PAS startup procedure. Site and user view libraries are allocated to the UAS, as described in “Site Libraries” on page 14-13 and “User Libraries” on page 14-14.

This library contains a uniquely named set of views for a product. View tables allow multiple products to have the same view names. For example, MAINVIEW for OS/390 has one version of VIEWS while CMF MONITOR has a completely different version of VIEWS; they are kept separate in the library by being stored in tables with unique names.

## Screen Definitions

A set of screen definitions is allocated by the MAINVIEW CLIST.

## Help text

Help text for views is distributed as a load module in the *hilevel.BBLINK* load library.

## Site Libraries

The following site libraries are created for you during AutoCustomization:

- a view library, allocated as *hilevel.SBBVDEF*
- a screen definition library, allocated as *hilevel.SBBSDEF*

The first S in SBBVDEF and SBBSDEF represents “site.”

When the MAINVIEW CLIST (created by AutoCustomization) is used to access the MAINVIEW Selection Menu, *hilevel.SBBVDEF* and *hilevel.SBBSDEF* data sets are allocated to a UAS using the DD names: *BBVDEF* and *BBSDEF*.

**Note:** A system administrator should retain sole authority for adding and deleting views, help text, or screen definitions from site libraries. Granting write authority to more than one user may result in confusion and subject valuable data to overwriting. Users who want to contribute to a site library should contact the system administrator.

If you have an external security system such as RACF, CA-ACF2, or CA-TOP SECRET, it can be used to restrict changes to site libraries from all user IDs except the system administrator's.

## User Libraries

User libraries contain customized views, screen definitions, or help text that are available to an individual user only.

**Note:** If a user does not have access to a user library, any changes made and saved by that user are stored in the site library by default unless the system administrator has prevented write access to the site library. A user library should be created for each user at your site.

1. Create standard partitioned data sets (fixed block, LRECL=80) for a user view, screen definition, and help text library.

Use the following naming convention:

*uprefix.userid.BBxDEF*

where:

*uprefix* Is a user's TSO prefix

**Note:** You can use the UPREFIX parameter in the MAINVIEW CLIST to specify any prefix you want. This is useful for those who have more than one TSO ID and want to use the same user *BBxDEF* data set with all their IDs. If UPREFIX is not specified, the default is *uprefix.userid.BBxDEF*.

*userid* Is a user's TSO ID

xIs one of the following:

V	View library
S	Screen definition library
H	Help text library

2. Change the user's allocations to contain user and site data sets. Ensure that the user library is searched before the site library.

**Note:** If the MAINVIEW CLIST is used to access the MAINVIEW Selection Menu, it concatenates the view and screen libraries. The user help text library must be added manually to the concatenation.

As many data sets as needed can be added to the concatenation within your site's restrictions. For example, you may want to create department- or group-specific libraries that only a select group of people may access. All of the people in that department or group, then, would name the same data sets on their BBxDEF concatenation.

## Shared Libraries

User libraries allocated to a UAS are shared by all products providing views. Therefore, if you have more than one of these products installed on your system, you must use caution when saving views and screen definitions.

For example, suppose you create a MAINVIEW for OS/390 view called MYVIEW and save it in your user view library. You then access CMF MONITOR and create another view, also called MYVIEW. When you try to save the second MYVIEW, a message warns you that MYVIEW already exists because you created MAINVIEW for OS/390 MYVIEW previously. If you save the second version anyway, the first version of MYVIEW is overwritten.

To avoid possible confusion, you should establish a naming convention at both the site and user levels; for example, Cxxxxxx for CMF MONITOR views, Mxxxxxx for MAINVIEW for OS/390 views.

## Library Concatenation

By default, when views, screen definitions, or help text are changed or new ones created and saved, they are saved in the libraries as follows:

1. User library first, if one exists
2. Site library, if one exists

If neither exist, an error message is displayed.

**Note:** The distributed view library cannot be overwritten because it is allocated to a PAS, not a UAS.

When views, screen definitions, or help are requested, the libraries are searched by default as follows:

1. Your user library first, if one exists
2. Your site library, if one exists
3. The distributed library (for views and help text only)

## Link Library

This data set must be authorized. Executable modules are obtained from this library if it is specified. If it is not specified, an error message is generated. This data set is concatenated in the target's STEPLIB DD statements for some MAINVIEW products.

## Product Support Data Sets

MAINVIEW AutoOPERATOR, MAINVIEW FOCAL POINT, MAINVIEW for CICS, MAINVIEW for DB2, MAINVIEW for DBCTL, MAINVIEW for IMS Online, MAINVIEW for WebSphere MQ, and MAINVIEW VistaPoint use:

- BBIBBCFG

This BBPARM member specifies which configuration members in the BBPARM library are used when a product starts and connects to the BBI-SS PAS. Configuration members control the way the BBI-SS PAS operates.

MAINVIEW AutoOPERATOR and MAINVIEW Alarm Manager use:

- **BBIDIV**

This data set is required for MAINVIEW AutoOPERATOR and MAINVIEW Alarm Manager. It is used to store binary large objects and data across product restarts. It is allocated in the PAS startup procedure.

MAINVIEW AutoOPERATOR uses:

- **BBIVARS**

A profile variable pool. Variables are written to this data set when an EXEC that issues a VPUT ... PROFILE ends or when the VCKP command is issued. It is allocated in the BBI-SS PAS log procedure.

MAINVIEW for OS/390 and products supporting the DSLIST view and the TIME command use:

- **PARMFILE**

This VSAM data set is for:

- user-defined workload definitions created by the MAINVIEW for OS/390 product
- products providing views of data from a time interval in the past

Data from the past is recorded in historical data sets. PARMFILE is used to contain a directory of the historical data set names, which is shown by a product having a DSLIST view. Data from a historical data set is shown in any of that product's views with the TIME command.

PARMFILE is allocated in the BBI-SS PAS and MVS PAS startup procedures.

## Image and Journal Logs

There are two image and two journal logs allocated in the BBI-SS PAS startup procedure that are used by the following products:

- MAINVIEW AutoOPERATOR (only uses the journal logs)
- MAINVIEW Alarm Manager (only uses the journal logs)
- MAINVIEW for CICS
- MAINVIEW for DB2
- MAINVIEW for DBCTL
- MAINVIEW for IMS Online
- MAINVIEW for WebSphere MQ (formerly known as MAINVIEW for MQSeries — only uses the journal logs)

The BBI-SS PAS image log records screen images that are produced automatically by timer-driven analyzer and monitor services. Image logging can be disabled by removing the appropriate statement from the BBI-SS PAS startup procedure.

The BBI-SS PAS journal log records:

- all commands and responses issued from a terminal session assigned to the BBI-SS PAS
- all commands and responses issued automatically by MAINVIEW AutoOPERATOR EXECs
- time stamps for BBI-SS PAS and target system start and stop
- BBI-SS PAS informational, error, and audit messages
- service commands and messages
- DB2 commands and messages

Although it is not recommended, because all operational and diagnostic messages are written to the BBI-SS PAS journal log, BBI-SS PAS journal logging can be disabled by removing appropriate DD statements from the BBI-SS PAS startup procedure JCL. BBI-SS PASs cannot share journal data sets.

**Note:** Image and journal logs and a screen print data set are allocated to a user's terminal session by the MAINVIEW CLIST.

# Product Library Customization Summary

The following table summarizes how the MAINVIEW product libraries should be configured.

**Table 14-1 MAINVIEW Product Library Configuration**

Distributed Target Library	Customized Library	Created by AutoCustomization?	Allocated to which Address Space?	Allocated to What DD Name?
BBLINK	BBLINK	No, AutoCustomization APF-authorizes the distributed BBLINK load library and adds it to your system link library. See "Notes" at the end of the table.	UAS, PAS, CICS target, IMS target	BBLOAD or BBILINK
BBSAMP	UBBSAMP	Yes, AutoCustomization creates a UBBSAMP sample library.	None	None
BBPARM	UBBPARM	Yes, AutoCustomization creates a UBBPARM parameter library. See "Notes" at the end of the table.	PAS, CICS target, IMS target	PARMLIB or BBIPARM
	ibbparm	No, <i>ibbparm</i> is a user-defined parameter library that must be created manually.	IMS target	IMFPARM
BBPARM member BBIBBCFG	UBBPARM member CFGssidA	Yes, AutoCustomization creates the UBBPARM member.	BBI-SS PAS	BBCFG
BBPROC	UBBPROC	Yes, AutoCustomization creates a UBBPROC procedure library but only for MAINVIEW AutoOPERATOR.	BBI-SS PAS	SYSPROC
None	BBIDIV data set	Yes, AutoCustomization creates this data set for MAINVIEW AutoOPERATOR and MAINVIEW Alarm Manager.	PAS	BBIDIV
None	BBIVARS data set	Yes, AutoCustomization creates this data set but only for MAINVIEW AutoOPERATOR.	BBI-SS PAS	BBIVARS

Table 14-1 MAINVIEW Product Library Configuration (continued)

Distributed Target Library	Customized Library	Created by AutoCustomization?	Allocated to which Address Space?	Allocated to What DD Name?
None	BBIIMAG1, BBIIMAG2	Yes, AutoCustomization creates dual image log data sets for: MAINVIEW for: CICS DB2 DBCTL IMS Online See "Notes" at the end of the table.	BBI-SS PAS	BBIIMAG1, BBIIMAG2
None	BBIIJRN1, BBIIJRN2	Yes, AutoCustomization creates dual journal log data sets for: MAINVIEW Alarm Manager MAINVIEW AutoOPERATOR MAINVIEW for: CICS DB2 DBCTL IMS Online WebSphere MQ	PAS	BBIIJRN1, BBIIJRN2
None	BBIIMAGL, BBIJRNLL	No, AutoCustomization does not create an Image or Journal log. They are created by the TSO MAINVIEW CLIST.	UAS	BBIIMAGL BBIJRNLL
BBPROF	<i>uprefix.userid</i> .BBPROF or SBBPROF (or both)	<i>uprefix.userid</i> .BBPROF: No, AutoCustomization does not create a user profile. It is created by the TSO MAINVIEW CLIST.  SBBPROF: Yes, AutoCustomization creates a site profile.	UAS	BBIPROF
BBVDEF	<i>uprefix.userid</i> .BBVDEF	No, <i>uprefix.userid</i> .BBVDEF is a user-defined view library that must be created manually. The TSO MAINVIEW CLIST allocates it.	UAS	BBVDEF
	<i>hilevel</i> .SBBVDEF	Yes, AutoCustomization creates a <i>hilevel</i> .SBBVDEF site view library. The TSO MAINVIEW CLIST allocates it.		
	<i>hilevel</i> .BBVDEF	No, AutoCustomization does not create or modify it. It is a distributed library.	PAS	

Table 14-1 MAINVIEW Product Library Configuration (continued)

Distributed Target Library	Customized Library	Created by AutoCustomization?	Allocated to which Address Space?	Allocated to What DD Name?
BBSDEF	<i>uprefix.userid.BBSDEF</i>	No, <i>uprefix.userid.BBSDEF</i> is a user-defined screen definition library that must be created manually. The TSO MAINVIEW CLIST allocates it.	UAS	BBSDEF
	<i>hilevel.SBBSDEF</i>	Yes, AutoCustomization creates a <i>hilevel.SBBSDEF</i> site screen definition library. The TSO MAINVIEW CLIST allocates it.		
	<i>hilevel.BBSDEF</i>	No, AutoCustomization does not create or modify it. It is a distributed library.		
View help text	<i>uprefix.userid.BBHDEF</i>	No, <i>uprefix.userid.BBHDEF</i> is a user-defined help library that must be created manually. Modify the user's TSO logon procedure to allocate it. See "Notes" below.	UAS	BBHDEF
	<i>hilevel.SBBHDEF</i>	No, AutoCustomization does not create a <i>hilevel.SBBHDEF</i> site help library. You must create it manually. The MAINVIEW CLIST allocates it.		
<p>Notes:</p> <ul style="list-style-type: none"> <li>• Concatenation User and site-customized libraries should be concatenated <i>before</i> the distributed libraries.</li> <li>• BBLINK IMS and CICS target allocation of the link library require IMS and CICS JCL modifications. UAS allocation of the link library uses a DD name of BBLOAD and BBILINK.</li> <li>• BBPARM IMS and CICS target allocation of the parameter library require IMS and CICS JCL modifications.</li> <li>• View Help text Help text for views is distributed as a BBLINK load module.</li> </ul>				



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# Chapter 15 Creating Online Help

The information in this chapter applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 2
- Group 3
- Group 4

You can create your own help information for any view, any field within a view, or any topic. Depending on your needs, you can create all new help topics or use the help text distributed with your MAINVIEW product as a template.

Customized help text looks and works just like distributed help text; both are displayed in scrollable pop-up windows.

## Writing Your Own Help Text

To create your own help text:

- Step 1** Create a partitioned data set (fixed block, LRECL=80) to serve as your private help text library. The preferred naming convention for this library is:

```
userid.BBHDEF
```

where:

*userid* Is your user ID

BBHDEF Is the *dname* you will use to allocate this data set

**Step 2** Allocate the data set to your TSO session using the *ddname*, BBHDEF. (If you want each user to have access to the site-wide library, modify the MAINVIEW CLIST you created during AutoCustomization to allocate this data set for each user.)

**Step 3** Create a member in the data set with the same name as the view for which you want to write your own help text.

To write your own help text for a field, create a member in the BBHDEF data set with the same name as the view that contains that field.

For example, to create help text for the JDELAY view or for a field contained within the JDELAY view, add a member called JDELAY to your help text library.

**Step 4** Edit the member and add this tag to begin a help topic:

```
:h1 id=xxxx.
```

where *xxxx* is the name of the view (if you are modifying view help), the field's element name (if you are modifying field help), or a topic ID value of 1 to 15 characters.

For example, to create help text for the JDELAY view, add this tag to the member called JDELAY:

```
:h1 id=jdelay.
```

To create help text for a field within the JDELAY view, add this tag to the JDELAY member:

```
:h1 id=xxxxxx.
```

where *xxxxxx* is the element name for that field.

To identify a field's element name, display the online help for that field. The element name is displayed at the bottom of the pop-up window.

**Step 5** Add the rest of the tags to create your help text, using the MAINVIEW tag language and control words.

For a description of the tag language and control words, see "Introduction to the MAINVIEW Tag Language" on page 15-4.

**Step 6** Save the member in your *userid.BBHDEF* library.

**Note:** The MAINVIEW tag language is a subset of the tags used by IBM's BookMaster, BookManager, and OS/2 Information Presentation Facility (IPF). If you are familiar with these products, you may want to turn now to "MAINVIEW Tags, Attributes, and Control Words" on page 15-13 and start building your help text immediately. If you need some background information, read "Introduction to the MAINVIEW Tag Language" on page 15-4 after you finish this section.

## How Does MAINVIEW Locate Your Help Text?

Once you create your help text, it is accessible to your TSO user ID during any MAINVIEW terminal session running in windows mode. When you issue the HELP command for a view or field:

- First, MAINVIEW checks to see if you have a data set allocated with the name *userid.BBHDEF*. If you do, MAINVIEW looks for a member within that data set with the same name as the view for which you have requested help. If the member is found, MAINVIEW searches the member's :h1 tags until it finds the id= attribute that matches the view or element name requested and displays the associated help text in a help pop-up window.
- Second, if MAINVIEW cannot find the appropriate member within your *userid.BBHDEF* data set, MAINVIEW checks to see if you have a site-wide library concatenated to your own user library and displays the associated help text there, if it exists. (See Chapter 14, "Using Product Libraries," for more information on how site-wide libraries are created.)
- Third, if the help text still has not been located, MAINVIEW displays the original help text distributed in the load library *hilevel.BBLINK*.

The next section introduces you to the MAINVIEW tag language and helps get you started on building your own help text.

## Introduction to the MAINVIEW Tag Language

The MAINVIEW tag language is a subset of the tags used by IBM's BookMaster, BookManager, and OS/2 Information Presentation Facility (IPF). This tag language controls how help text is formatted in the MAINVIEW environment.

The remainder of this chapter discusses some basic markup language concepts and describes the tags you will need. However, this chapter is not intended to provide a comprehensive discussion on tag languages, nor a sophisticated set of examples. For more detailed information on a MAINVIEW tag, refer to the *IBM BookMaster User's Guide*.

MAINVIEW also provides two *control words*, which are different from tags. Both the MAINVIEW tag language and the control words are discussed in this section. For a complete list of the tags and control words supported by MAINVIEW, see "MAINVIEW Tags, Attributes, and Control Words" on page 15-13.

## Using the MAINVIEW Tag Language

Figure 15-1 shows what the tags for a sample help topic might look like:

**Figure 15-1** Example Help Tags and Text

```
.*This is a comment.  
:h1 id=ASGDMN.Domain  
:p.  
The Domain field identifies the SRM domain of the active  
address space.  
:p.  
You can modify domain values by using the :hp2.SET DMN:ehp2.  
operator command.  
:p.  
The name of this element is ASGDMN.
```

This example shows:

- This topic is for the field with the element name ASGDMN, which is the **id=** attribute specified on the **:h1** tag.
- The title of the pop-up window appears after the final period on the **:h1** tag. In this case, the title is Domain.
- You know that this topic is contained in the *userid.BBHDEF* member called ASGDMN.

When you place the cursor on the Domain field and press the HELP PF key, the help tags shown in Figure 15-1 on page 15-4 are formatted to look like this:

**Figure 15-2 Formatted Help Text**

```

ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =JDELAY===SYSB=====*****ddmmmyyy==hh:mm:ss=MVMVS==D=====
C Jobname  T Dmn  Pg      Total Delay %  %Dly %Dly %Dly %Dly %Dly %Dly
-----
RYS1SO | Help                Domain                Help
MAK1   | Command ==>                Scroll ==> PAGE
CMR4X  | -----
PSW1   |
SSSMP1 | The Domain field identifies the SRM domain of the
CATALO | active address space.
JES2   |
SYSB   | You can modify domain values by using the
REC1   | SET DMN operator command.
CIR4   |
TAOFRA | The name of this element is ASGDMN.
AAOGGS |
CICSG3 |
CPS2   |
LCM1   |
CIR2   | -----
RBS1   | T  20  223  2  73                2  44  0  29
GEN1   | T  20  246  2  59                2  31  0  27

```

The name on the tag, Domain, appears as the title of this help topic. (You might have defined the abbreviated title, Dmn, to match the actual field title as it appears on JDELAY.)

The next section describes the rules that were used to code the example shown in Figure 15-1 on page 15-4.

## MAINVIEW Tag Language Rules

When using the MAINVIEW tag language, you must adhere to these rules:

- Begin each tag with a colon (:), and end it with a period (.).
- Use the paragraph tag (:p.) to place the text that follows on a new line.
- Add the title of the help pop-up after the period on the :h1 id= tag. The title "Domain" that appears on the panel in Figure 15-2, for example, was produced by the tag :h1 id=asgdmn.Domain.
- Enter tags in uppercase or lowercase, or as a combination of both. Tags are not case sensitive.

- Use end tags for the tags that require them. An end tag is exactly like its start tag partner, only the end tag adds the letter **e** immediately after the colon and before the tag name.

For example, in Figure 15-1 on page 15-4, the words SET DMN are enclosed by a pair of highlighting tags: `:hp2.`, which turns bold text on, and its end tag, `:ehp2.`, which turns the bold off.

Use the `:hp2./:ehp2` tag set to highlight information you want to emphasize. (All highlighting tags, `:hp1.`, `:hp3.`, `:hp4.`, and so on, have the same result online as the `:hp2.` tag.)

- Use both optional and required attributes exactly as specified. An *attribute* is a word that appears after the colon and the tag itself, but before the final period.

For example, in the first line in Figure 15-1 on page 15-4, `:h1` is the tag, and `id=` is an attribute for that tag.

Attributes are used to modify some aspect of the tag, in the same way that parameters modify a command.

- Separate attributes from their tags by a single blank space, but do not add space between the last attribute and the final period. As shown in Figure 15-1 on page 15-4, there is no space between the attribute `id=ASGNAME` and the final period.
- When two or more attributes are defined for a tag, include a single blank space before each attribute.

## Using Control Words

Control words are macros that perform a specialized function. Unlike tags, they do not control the format of text. Control words:

- Must begin in the first column of an input line
- Begin with a `.` (period)
- Do not require a terminating character

The valid control words for MAINVIEW are shown in the following table:

Control Word	Explanation
.*	<p>Indicates that the text that follows it is a comment. Comments do not appear in the help text pop-up windows.</p> <p>In the example of a help text member shown in Figure 15-1 on page 15-4, the comment "This is a comment" is shown, but it does not appear in the formatted help text shown in Figure 15-2 on page 15-5.</p> <p>If your comment exceeds one line, you must use the .* control word at the beginning of each line.</p>
.im	<p>Imbeds the text contained in the member name and immediately on the same line.</p> <p>Using the imbed control word (.im), you can imbed the same help text in more than one help member. For example, if you add .im ASGDMN to a new help text member, the text shown in Figure 15-2 on page 15-5 will appear at the exact location where you placed the .im tag.</p> <p>The imbed tag is especially useful when you want to add your own note to a help topic that was distributed with your MAINVIEW product. To do this:</p> <ol style="list-style-type: none"> <li>1. Create a member with an appropriate name.</li> <li>2. Add your own text to the member.</li> <li>3. Add an .im tag followed by the same id= value you specified on your :h1 tag.</li> </ol> <p>This inserts the distributed MAINVIEW help text wherever you placed the .im tag. (When you imbed a member into a member by the same name, MAINVIEW assumes that you mean to imbed the distributed help text, not your own member. This prevents recursive loops from occurring.)</p>

See “MAINVIEW Tags, Attributes, and Control Words” on page 15-13 for more information on the control words and their functions.

## Commonly Used Tags

The most commonly used tags are:

- The :h1 tag with its id= attribute. Use this tag to begin each new help topic within a BBHDEF member.
- The paragraph (:p.) tag, which leaves one line blank, then begins a new line. You can also use the paragraph tag to insert a blank line between the :h1 tag and the first paragraph that follows it.
- List tags, which are used to arrange discrete information units into one of four different list formats. The next section explains the different types of lists available and how to use them.

## Using Lists

Because you have a limited amount of room for text in a pop-up window, lists help you present information economically.

MAINVIEW provides tags for four kinds of lists:

- Unordered lists
- Ordered lists
- Simple lists
- Definition lists

### Unordered, Ordered, and Simple Lists

An *unordered list* is simply a list of items with a bullet or dash next to each item, like this:

- Item #1
- Item #2
- Item #N

An *ordered list* is the same as an unordered list, only numbers are used in place of bullets. The numbering is handled for you automatically.

1. Item #1
2. Item #2
3. Item #3

Ordered lists are generally used to present a list of steps that a user must follow in the order presented.

A *simple list* is a list that has neither bullets nor numbers. Here is an example of a simple list:

Item #1  
Item #2  
Item #N

The tagging for unordered, ordered, simple lists is similar. The following list describes the tags.

**:ul., :ol., or :sl.** Begins the list. The `:ul.` tag begins an unordered list, the `:ol.` tag begins an ordered list, and the `:sl.` tag begins a simple list. Place the tag on its own line.

**:li.** Marks a list item. Type the list item text on the same line immediately after the `:li.` tag.

**:eul., :esl., or :eol.** Ends the list. The `:eul.` tag ends an unordered list, the `:esl.` tag ends a simple list, and the `:eol.` tag ends an ordered list. Place the tag on its own line.

Figure 15-3 shows the tagging for each type of list.

**Figure 15-3 Tagging for Unordered, Ordered, and Simple Lists**

```
:h1 id=device.Device Name
:p.
Here are some sample lists:

.** This is an unordered list:

:ul.
:li.Jobname
:li.Jobtype
:eul.

.** This is an ordered list:

:ol.
:li.Jobname
:li.Jobtype
:eol.

.** This is a simple list:

:sl.
:li.Jobname
:li.Jobtype
:esl.
```

Figure 15-4 shows the text produced by the tags shown in Figure 15-3 on page 15-9.

**Figure 15-4 Text Produced by List Tags**

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 1          ALT WIN ==>
W1 =JDELAY==SYSB=====*=====ddmmmyyyy==hh:mm:ss=MVMVS==D=====
C Jobname  T Dmn  Pg          Total Delay %   %Dly %Dly %Dly %Dly %Dly %Dly
-----
RYS1SO | Help          Device Name          Help
MAK1   | Command ==>          Scroll ==> PAGE
CMR4X  | -----
PSW1   |
SSSMP1 | Here are some sample lists:
CATALO |
JES2   | o Jobname
SYSB   |
RECL   | o Jobtype
CIR4   |
TAOFRA | 1. Jobname
AAOGGS |
CICSG3 | 2. Jobtype
CPS2   |
LCM1   | Jobname
CIR2   |
RBS1   | Jobtype
GEN1   | -----
    
```

## Definition Lists

Use *definition lists* to present a list of definitions in a two column format. The term, listed in the left column, is highlighted. The definition, listed in the right column, appears in regular text.

The tags for definition lists are different from those for ordered, simple and unordered lists. The tags are:

- :dl.** Begins a list. Place the tag on its own line.
- :dt.** Denotes a term.
- :dl.** Marks the definition.
- :edl.** Ends the list. Place the tag on its own line.

**Figure 15-5 Tagging for a Definition List**

```

:dl.
:dt.Jobname
:dd.Is a one- to eight-character name for an address space.
:dt.Jobtype
:dd.Is the type of work an address space contains.
:edl.
    
```

The tags in Figure 15-5 produce the definition list in Figure 15-6.

**Figure 15-6 Output for Definition List Tags**

<b>Jobname</b>	Is a one- to eight-character name for an address space.
<b>Jobtype</b>	Is the type of work an address space contains.

## Creating Free-Form Help Topics

In addition to view and field help, MAINVIEW allows you to create free-form help topics—topics that are not tied to a particular view or field. Perhaps you want to document a condition that is specific to your site, for example, or add a topic that includes the names and telephone extensions of your site support personnel.

When creating your own help text:

- Supply any value you choose on the `id=` attribute of the `:h1` tag, up to 8 characters.
- Place the help topic in a `userid.BBHDEF` member of the same name as defined on the `id=` attribute.

To display the help topic, type `HELP xxxx` in any `COMMAND` field, where `xxxx` is the name of the member and the `id=` attribute value.

## Setting Up Hypertext Links between Topics

You can establish hypertext links to move between help text topics the same way you use hyperlinks to move between views. Hypertext links are created with the `:link` tag. When you use a link tag, the term you associate with it is highlighted on your screen, so you know the hypertext link has been created.

Before you establish a hypertext link, you need to know the `id=` value of the topic you want to access.

The link tag has a matching end tag, and is coded as follows:

```
:link reftype=hd refid=xxxxx.term:elink.
```

where:

**xxxxx** Is the id= of the topic you want to hyperlink to

**term** Is the title of that help topic

Look again at the following help topic.

**Figure 15-7 Sample Help Text Member**

```
.*This is a comment.
:h1 id=ASGDMN.Domain
:p.
The Domain field identifies the SRM domain of the active
address space.
:p.
You can modify domain values by using the SET DMN
operator command.
:p.
The name of this element is ASGDMN.
```

Suppose you decide to establish a hypertext link between this topic and the topic that addresses the SET DMN command. The **id=** for the SET DMN command is `setdmn`; therefore, you add the link tag to the help topic as shown:

**Figure 15-8 Sample Link Tag Coding**

```
.*This is a comment.
:h1 id=ASGDMN.Domain
:p.
The Domain field identifies the SRM domain of the active
address space.
:p.
You can modify domain values by using the
:link reftype=hd refid=setdmn.SET DMN:elink.
operator command.
:p.
The name of this element is ASGDMN.
```

When you display this help text on the screen, the link tag automatically displays the title, SET DMN, in bold or in reverse video, so there is no need to enclose the term in `:hp2.` tags.

Hypertext links work just like hyperlinks: when you place the cursor on the highlighted term SET DMN and press Enter, help on the SET DMN command is displayed.

## MAINVIEW Tags, Attributes, and Control Words

The MAINVIEW tags and control words are listed and described in the following sections. Each tag is described in the box labeled by the tag. For each tag, any end tags or attributes are also shown.

Any tag that is not supported is ignored by help text. In the help text pop-up window, the space occupied by an unsupported tag is compressed and does not appear.

The following sections show the syntax for the MAINVIEW tags, attributes, and control words. Each section contains:

- A tag with its related tags and attributes, if any.
- An explanation of what the tags do and how to use them.

Optional attributes are shown inside brackets ([ ]). Default values are underlined and variables are *italicized*. For example, *nn* means any integer of one or two digits. The vertical bar (|) indicates optional values for an attribute. You can use only one of the optional values for an attribute at a time.

## Definition List Tags

<pre>:dl [tsize=10 nn] [break=<u>none</u>  all   fit] [compact] [thilite=<u>y</u>  n].</pre>	<p>The Definition List tag begins a list of terms and their definitions. With every :dl. tag, a corresponding :edl. tag is required to end the definition list format.</p> <p>tsize=10 nn Specifies the space (where <i>nn</i> represents some number of characters) to be allocated for the term column. The default is tsize=10.</p> <p>break=<u>none</u> all fit Controls the placement of the description.</p> <p><u>none</u> Puts the description on the same line as the term even if the term is longer than the tsize value.</p> <p>fit Puts the description on the same line as the term unless the term is longer than the tsize value, in which case it puts the description on the line below.</p> <p>all Puts the description on the line below its term in all cases.</p> <p>compact Causes the list to format without a blank line between the list items. If this attribute is omitted, a blank line is inserted between items.</p> <p>thilite=<u>y</u> n Controls whether or not the terms in the description list are highlighted. If Y is specified, the terms are highlighted; if N is specified, the terms are displayed in the same manner as the description information. The default is thilite=Y.</p>
:dthd.	Optional. The Definition Term Head tag identifies the heading for the term column in a definition list (see :dl. tag). It precedes the :ddhd. tag, with which it is paired. Both tags are valid only within a definition list.
:ddhd.	Optional. The Definition Description Head tag identifies the heading for the description column in a definition list (see :dl. tag). It is paired with the :dthd. tag, which should come first. Both tags are valid only within a definition list.
:dt.	The Definition Term tag identifies the term being defined in a definition list (see :dl. tag). This tag precedes the :dd. tag with which it is paired. Both tags are valid only within a definition list.
:dd.	The Definition Description tag identifies the description for the term being defined in a definition list (see :dl. tag). It is paired with the :dt. tag, which should come first. Both tags are valid only within a definition list.
:edl.	The End Definition List tag is required to end formatting of the definition list.

## Caution and Warning Tags

:caution [text=word].	Alerts users to a risk of damage to equipment or data. When preceded by a Paragraph tag (:p.), it places the highlighted word CAUTION after a blank line, followed by all the text (also highlighted) until the :ecaution. tag is encountered. text=wordCan be used to substitute another word or phrase for CAUTION: for example, :caution text='DANGER'.Do not move:ecaution..
:ecaution.	Required to end formatting of a caution message.
:warning [text=word].	Alerts users to a possible error condition. When preceded by a Paragraph tag (:p.), it places the highlighted word Warning: after a blank line, followed by all the text (not highlighted) until the :ewarning. tag is encountered. text=wordCan be used to substitute another word or phrase for WARNING: for example, :warning text='DANGER'.Do not move:ewarning.
:ewarning.	Required to end formatting of a warning message.

## Figure, Example, and Lines Tags

:fig.	The Figure tag turns formatting off. Under TSO/ISPF, it behaves identically to the :xmp. tag.
:efig.	The End Figure tag is required to end formatting of a figure.
:xmp.	The Example tag turns formatting off. Text entered between the Example tag and an End Example tag is displayed exactly as it is entered, including leading blanks. Lines that are too long to fit in the window are clipped on the right margin. Example text is indented two spaces from the current left margin.
:exmp.	The End Example tag is required to end formatting of an example.
:lines.	The Lines tag turns formatting off. Under TSO/ISPF, it behaves identically to the :xmp. tag.
:elines.	Required to end formatting after a Lines tag.

## Heading Level Tags

:h1 [ <i>id=topicid</i> ].	<p>The Heading Level 1 tag identifies the name of the element containing the help text. All text on the line following the :h1. tag until the next :h1. tag or :euserdoc. tag is formatted into a single help pop-up window.</p> <p>The text on the same line as the :h1. tag is the title of the pop-up window, and it can be no longer than 38 characters. The title is fixed; the rest of the help text is scrollable. Therefore, no other tags are allowed on the same line as the :h1. tag. If an :h1. tag is found within an imbed member (see the .im control word), it is treated as an :h2. tag.</p> <p><i>id=topicID</i> Specifies the name of the view, element, or topic for which help is being defined. The value defined to <i>id=</i> must be the name of the view (when defining view help) or the name of the element (when defining element help), or, for specific topics, it can be a unique value 1 to 15 characters long.</p> <p>The <i>id</i> is used to identify the online information when help is requested and also can be used as the <i>refid=</i> value for hypertext links (see the :link. tag).</p>
:h2. through :h6.	<p>Heading Levels 2 through 6 tags insert a blank line followed by the heading text. The heading text of :h2. through :h6. tags must be followed with a :p. tag.</p>

## Highlight Phrase Tags

:hp1. through :hp9.	<p>The highlight phrase tags highlight words and phrases. For ISPF, the :hp2. highlight is high-intensity and is white on a color terminal. Everything else is low-intensity (blue) except for links (see the :link. tag). Therefore, :hp1. through :hp9. tags are allowed under ISPF but are treated as :hp2. tags.</p>
:ehp1. through :ehp9.	<p>Required to end formatting of a highlight phrase.</p>

## Link Tags

:link <i>refid=element</i> <i>reftype=hd</i> .	<p>The Link tag establishes a link to hypertext. The word or phrase following the link tag appears turquoise in reverse video on a color terminal or high-intensity on a monochrome terminal. In all cases, the cursor can be tabbed to the term.</p> <p><i>refid=element</i> Specifies the name of another help element to link to and display in another pop-up window. The ID specified in the <i>refid=</i> attribute must match the ID specified in the <i>id=</i> attribute of the :h1. tag for the element you want to link to.</p> <p><i>reftype=hd</i> Must be entered as <i>reftype=hd</i>.</p>
:elink.	<p>Required to end a link reference.</p>

## Margin Tags

:lm [margin= <i>nn</i> ].	The Left Margin tag sets the left margin for the window. All text that follows is indented by the amount specified in the margin= attribute until another :lm. tag is encountered. If a left margin is not specified, the default margin is used. margin= <i>nn</i> Determines the width of the indent. If omitted, the left margin is reset to the window width.
:rm [margin= <i>nn</i> ].	The Right Margin tag sets the right margin for the window. All text that follows is not formatted beyond the right margin column (which is calculated to be the window width minus the value specified in the margin= attribute) until another :rm. tag is encountered. margin= <i>nn</i> Determines the width of the indent. If omitted, the right margin is reset to the window width.

## General List Tags

:sl [compact].	The Simple List tag defines a nonsequential list of items. Each list item is indented without a preceding bullet or dash. compactSuppresses the blank line between the items.
:ul [compact].	The Unordered List tag defines a nonsequential list of items. Each list item is automatically preceded by a bullet, or by a dash if it is nested within another unordered list. compactSuppresses the blank line between the items.
:ol [compact].	The Ordered List tag defines a sequential list of items and is usually used to list the steps in a procedure. Each list item is preceded by a sequential number, or by a letter if it is nested within another ordered list. compactSuppresses the blank line between the items.
Any of the three list types may be nested or imbedded within other lists. Each list is indented from the indented element that precedes it. When nesting lists, you must end each list with the appropriate list end tag when you finish that list. You must end formatting for the inner-most list before ending formatting for a higher-level list. If you use the compact attribute with a list tag and you want a blank line above the list, you must precede the list tag with a :p. tag. If you do not use the compact attribute and you precede a list tag with a :p. tag, two blank lines will precede the list. To remove one of the two blank lines, delete the :p. tag. One blank line will follow a list, whether or not the compact attribute is used and whether or not a :p. tag follows the End List tag.	
:li.	The List Item tag identifies the following text as an item within a list. The list item text is preceded by a sequential number if the item is part of an ordered list, by a bullet if it is part of an unordered list, or by nothing if it is part of a simple list. All text in a list item is blocked with each line indented just to the right of the number or bullet character. All other tags used within a list item are supported.
:lp.	The List Part tag inserts a blank line and starts a new paragraph within a list item (:li.). It behaves exactly like the :p. tag. The formatted paragraph is flush with the list item text.
:esl:	Required to end a simple list.
:eol.	Required to end an ordered list.
:eul.	Required to end an unordered list.

## Note Tags

:nt [text=word].	<p>Inserts a note with indented text. It places the highlighted word Note: on the next line, followed by all text (not highlighted), including other tags, until the :ent. tag is encountered.</p> <p>text=wordSubstitutes another word or phrase for the word Note:, for example:</p> <p>:nt text='BEWARE'.Do not exclude this field from the view:ent..</p>
:ent.	Required to end formating of a note.
:note [text=word].	<p>Inserts a note as a single paragraph after a blank line. It places the highlighted word Note: on the next line, followed by all text (not highlighted) before the next tag is encountered. No end tag is required.</p> <p>text=wordSubstitutes another word or phrase for the word Note:, for example:</p> <p>:note text='BE CAREFUL'.If you exclude this field, the filter is still active.</p>

## Paragraph Tag

:p.	The Paragraph tag inserts a blank line in the output and starts a new paragraph. Two successive tags insert two blank lines, and so on.
-----	---

## Parameter List Tags

<p>:parml [tsize=10 nn] [break=none all fit] [compact].</p>	<p>The Parameter List tag identifies a list of parameters and their definitions. Within a list, the :pt. tag identifies the parameter and the :pd. tag identifies the description. A parameter list behaves like a definition list (the only difference being that if the break= attribute is not used, the default is break=all).</p> <p>tsize= Specifies the space (where nn=some number of characters) to be allocated for the term column. The default is tsize=10.</p> <p>break= Controls the placement of the description.</p> <p>break=none Puts the description on the same line as the term even if the term is longer than the tsize value.</p> <p>break=fit Puts the description on the same line as the term unless the term is longer than the tsize value, in which case it puts the description on the line below.</p> <p>break=all Puts the description on the line below its term in all cases.</p> <p>compact Suppresses the blank line between the list items. If this attribute is omitted, a blank line is inserted between items.</p>
<p>:pt.</p>	<p>The Parameter Term tag identifies the term being defined in a parameter list. It precedes the tag with which it is paired. Both tags are valid only within a parameter list.</p>
<p>:pd.</p>	<p>The Parameter Description tag identifies the description for the parameter being defined in a parameter list. This tag is paired with the tag, which should come first. Both tags are valid only within a parameter list.</p>
<p>:eparml.</p>	<p>Required to end formatting of a parameter list.</p>

## Control Words

<p>.* [comment text]</p>	<p>The Comment control word allows you to place comments in the input file. Comments are not formatted into the output window and are used merely to place informative notes within your source files. The comment control word (.* ) must begin each line that has comments.</p>
<p>.im filename</p>	<p>The Imbed control word allows you to include source input text that resides in another member of the same PDS or in the <i>hilevel</i>.BBSAMP data set, which contains MAINVIEW help text in its original form. The name of the member (or the element name) follows the imbed control word, separated by at least one blank. If the requested member is not found, a warning message is inserted in the formatted output. The imbed statement occupies the entire input line. The only limit to the nesting level of imbeds is the total size of the output buffer.</p>



---

---

# Appendix A Diagnostic Facilities

The information in this appendix applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 1
- Group 3

Because of the many environments in which BBI code executes, the BBI diagnostic facilities perform differently depending on the type of error and where it is encountered.

When an abend occurs in BBI or in a module of a product that uses a BBI module, recovery procedures gain control, collect the required information for problem analysis, write messages and diagnostics, and attempt recovery. Only if recovery fails or a specified recovery limit count is reached will the address space terminate and activate standard MVS or subsystem dumping facilities (SYSUDUMP, SYSABEND, SYSMDUMP).

The level of diagnostic information produced by default is that necessary to solve the majority of problems. Additional dump, trace, and display facilities are available if this information is not sufficient. In such a case, you might be asked by Customer Support personnel to collect more information.

Recovery procedures often limit the effect of errors occurring in BBI code. Since the temporary loss of data or function can be unnoticed or unimportant at the time, these errors are not always reported to the BBI system administrator. To prevent future errors, perhaps at a more critical point, operational procedures should be set up to check for such occurrences. Since a software log record (LOGREC) is usually produced for each BBI abend, a regularly scheduled job to print off BBI LOGRECs is the easiest method to use; see “LOGREC” on page A-2.

---

## Messages

If possible, messages are written documenting the error and the actions taken. Depending on where the error occurs and which functions are accessible, the messages can be written to one or more of these destinations:

- SYSLOG (WTO) (has the BBI-SS PAS subsystem ID appended)
- BBI-SS PAS Journal log
- TS Journal log
- Short message in the upper right corner of the screen

Typical messages for an abend condition are:

```
xxnnnnc  BBI/xx STAE EXIT ENTERED
xxnnnnc  BBI SOFTWARE RECORD LOGGED TO LOGREC
xxnnnnc  DUMP IS NOW BEING TAKEN
xxnnnnc  RETRY WILL BE ATTEMPTED
```

where xx varies by component.

All messages, including short messages, are documented in the MESSAGES application; use the MESSAGES option from the Primary Option Menu or browse the BBMLIB data set.

## LOGREC

A software record (LOGREC) is logged to SYS1.LOGREC when a BBI abend occurs, if conditions permit. Although this is a shorthand method of recording abends, it contains the location of the error, abend code, and registers. Often this is enough information to solve the problem. All LOGRECs written by BBI are identified with BBI so they can be selectively viewed.

To print BBI LOGRECs, run the job in BBSAMP member LOGRECS. The JCL stream is set up to print only LOGRECs produced by BBI. This job only reads; it does not reset the SYS1.LOGREC data set, so it does not interfere with any data center procedures. However, if you regularly clean out this data set, schedule your job to run before this occurs (preferably in the same job stream).

If you own the BMC Software product MAINVIEW SYSPROG Services, you can also browse these LOGRECs online. The command format is:

```
SOF , BBI , MAP
```

---

You can also use MAINVIEW SYSPROG Services to check for the presence of BBI LOGRECs before running the batch job to print them.

## Dumps

In most abend conditions, BBI writes a dump in addition to the LOGREC. Parameters in various BBPARM members control whether or not dumping is the default for the different environments (DUMPS=YES | NO). The type of dump also varies according to where the abend occurs.

## Types Produced

The types of dumps that can be produced are:

- **SNAP Dump**

This dump is usually produced as the first part of a BBI formatted dump. The SNAP is issued only in the BBI address spaces (BBI-SS PAS and UAS), not in the target system.

It is in the standard OS dump format, showing the PSW at abend, ASCB, TCB, CDEs, registers, RTM2WA, MVS trace table, and so forth. The most useful information is in the RTM2 Work Area (completion code, abending program name, PSW, registers at abend). It does not include any private storage.

Refer to the following section on the BBI-formatted dump for a description of where this dump is written.

- **BBI-Formatted Dump**

This dump is a short-form dump formatted to make the most important information easy to find and read. It is produced in BBI address spaces (BBI-SS PAS and UAS) as well as under the subtasks in the target regions.

The formatted dump displays the System Diagnostic Work Area (SDWA), failing program information (PSW, ILC, INTC, TEA, name of program), registers at abend (and at the next RB level if different), the storage around the PSW and register locations, and selected BBI control blocks.

---

This type of dump is written to a special DDNAME BBIDUMP rather than to the standard SYSUDUMP. The BBI dump data set is not defined in the JCL, but is dynamically allocated at startup with the SYSOUT class specified in BBISSP00 with the parameter DUMPCLAS. The default value is W.

When the data set is allocated, the BBI banner page identifying the dump is written to it, ready for the first dump. (This avoids loss of current data at abend while doing dump formatting.)

Once completed, the dump is spun off for immediate access and the dump data set is reallocated and primed.

- **SVC Dump**

An SVC dump is taken when the DUMPS option specifies SDUMP or ALL. DUMPS=SDUMP is the recommended setting to obtain all diagnostic information at the time of the first occurrence of a problem. A LOGREC record is always written and it is usually sufficient to identify the problem and sometimes resolve it.

The SVC dump request will dump all of CSA, private storage for the BBI-SS PAS, and any secondary address spaces if the abend occurred in cross-memory mode.

An SVC dump is written to a SYS1.DUMPxx data set, and a message is sent to the console operator. Copy the dump data set to another data set and clear the original SYS1.DUMPxx data set. Dump symptoms are set to prevent multiple dumps of the same problem being taken.

Contact BMC Software Customer Support for help in further analyzing the problem. They will request the dump, if required, or the LOGREC if it is sufficient to resolve the problem.

- **SYSUDUMP / SYSABEND**

Standard dumps to the regular SYSUDUMP or SYSABEND DDs are written only if BBI recovery fails (or the specified recovery limit count was reached with BACKOUT=NO), which causes the affected address space to be terminated.

---

## BBI Dump Parameters

BBI dumping procedures are controlled by various parameters specified in BBPARM for the different running environments. Refer to these members for additional information about the DUMPS parameter.

- **BBISSP00**

This member has a DUMPS parameter, with the default setting of SDUMP. This controls specific BBI routines in the BBI-SS PAS and in the product subtasks. DUMPS=YES specifies that a BBI-formatted dump should be taken. In the BBI-SS PAS, the formatted dump is preceded by a SNAP dump.

BBISSP00 has parameters to specify the SYSOUT class for the BBI dumps (DUMPCLAS).

- **BBITSP00 in BBPROF**

The DUMPS parameter controls BBI-formatted dumping in that user address space. The default is YES. The formatted dump is preceded by a SNAP dump.

- **BBIXSP00**

The DUMPS parameter in this BBPARM member controls SVC dumps under BBI SRB routines. The default is NO to avoid unnecessary overhead.

## Summary of BBI Abend Diagnostics

Abends in BBI address spaces produce the following diagnostics:

- WTO messages
- Messages to the BBI-SS PAS or TS Journal log
- A LOGREC
- A BBI formatted dump including SNAP information on DD BBIDUMP if BBISSP00 parameter DUMPS=YES (default)

Abends in routines that run in SRB mode to collect data from a target produce the following diagnostics:

- 
- A short message to terminal session user: SRB ABENDED
  - Messages on the BBI-SS PAS Journal log that a service failed
  - A LOGREC
  - SVC summary dump, if a special parameter is activated for additional diagnostics

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# Appendix B Journal Log Record Format

The information in this appendix applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 1
- Group 3

The table below defines the print record format for the Journal log as produced by the sample procedures DLOGJCL or PLOGJCL. The DCB attributes are:

DSORG=PS , LRECL=121 , RECFM=FBA

**Table B-1 Journal Log Print Record Format**

Column	Length	Record Description
001	1	Blank
002	6	Julian date, in the format yy.ddd
008	3	Blanks
011	8	Time stamp, in the format hh:mm:ss
019	1	Blank
020	8	System ID (SSID) or user identifier (TSID, jobname, and so on)
028	1	Blank
029	76	Message or command text
105	17	Blanks

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# Appendix C Image Log Record Format

The information in this appendix applies only to the following groups of MAINVIEW products (see Table 1-1 on page 1-6):

- Group 1
- Group 3 (except MAINVIEW for WebSphere MQ)

The BBI-SS PAS and TS Image logs in BBI record screen image format are shown in Table C-1. The records contain a complete screen layout and are 2360 bytes in length; their format is described in Table C-1 and in BBSAMP member IMFMSG.

**Table C-1 Screen Image Record Format**

Offset	Name	Length	Record Description
	RTOMSG	DSECT	
000000	MSGLLZZ	DS XL4	Message LLZZ field / log RDW
000004	MSGLOGCD	DS XL1	Log record code = X'FB'
	MSGCON	EQU X'FB'	
000005	MSGTYPE	DS XL1	Type of record
	MSGDSPY	EQU X'40'	Display (information/function)
	MSGWARN	EQU X'80'	Warning message
000006	MSGMODE	DS XL1	Mode of creation
	MSGSYNC	EQU X'40'	Sync request from terminal
	MSGASYNC	EQU X'80'	Async request from BBI-SS PAS
	MSGDM	EQU X'20'	RTO message created by Data Manager

**Table C-1 Screen Image Record Format (continued)**

Offset	Name	Length	Record Description
	MSGNOLOG	EQU X'01'	Do not log async request
000007	MSGRTOCD	DS XL1	Realtime service completion code
	MSGCCOK	EQU X'00'	Successful
	MSGCCNV	EQU X'01'	Invalid request
000008	MSGSELNR	DS H	Select number (used only in IMRPRINT) (initialized to zero)
00000A	MSGDATE	DS PL4	Date - packed decimal '00yyddd'
00000E	MSGTIME	DS PL4	Time - packed decimal 'hhmsstf'
000012	MSGLTERM	DS CL8	LTERM name of service requestor
00001A	MSGPLINE	DS XL2	Physical line number
00001C	MSGPTERM	DS XL2	Physical terminal number
00001E	MSGLINE2	DS 0CL33	Second line of request/response
00001E	MSGFNC	DS 0CL7	Function code MFLD
00001E	MSGFNCA	DS CL2	Dynamic attribute bytes
000020	MSGFNCDT	DS CL5	Service select code
000025	MSGTLE	DS 0CL26	Screen title MFLD
000025	MSGTLEAT	DS CL2	Dynamic attribute bytes
000027	MSGTLEDT	DS CL24	Service title
00003F	MSGLINE3	DS 0CL81	Third line of request/response
00003F	MSGSYS	DS 0CL81	System message field
00003F	MSGSYSAT	DS CL2	Dynamic attribute bytes
000041	MSGSYSDT	DS CL55	Input parm/msg/request-ID
	MSGSYSM	EQU MSGSYSDT +6,49,C'C'	Message area
000078		DS 0CL24	Reserved for Performance Management panel
		DS CL16	
000088	MSGIMSN	DS CL8	IMS name for IMRPRINT
000090	MSGPFKIN	DS 0CL84	PF key input area
	MSGPFKSC	DS CL5	Service select code
	MSGPFKSP	DS CL79	Service parm

**Table C-1 Screen Image Record Format (continued)**

Offset	Name	Length	Record Description
		ORG MSGPFKIN	Reset origin
000090	MSGWMSG	EQU *+2,79	Warning message
	MSGWLEN	EQU *-RTOMSG+84	Length of warning message log record
000090	MSGDATA	DS 0CL2112	Display area cleared to blanks
000090	MSGLINES	DS 21CL81	21 lines - 2 attr + 79 data
000735	MSGFREE	DS CL483	Work area for each service
	MSGLEN	EQU *-RTOMSG	Length of RTO message is X '918'
	MSGLNNUM	EQU 21	Specify 21 lines in display area
	MSGLNLEN	EQU 81	81 byte lines - 2 attr + 79 data

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# Appendix D    **BMC Software Subsystem Services**

The BMC Software Subsystem Services (BBXS) are a set of common service routines used by BMC Software products.

The following BMC Software products use BBXS:

- CMF MONITOR
- MAINVIEW AutoOPERATOR for OS/390
- MAINVIEW for IMS Online
- MAINVIEW for OS/390
- MAINVIEW VistaPoint

This appendix provides an overview of BBXS and describes installing and initializing the subsystem in an MVS system or in an MVS system running under VM. Understanding BBXS functions and initialization procedures is necessary because the subsystem resides in CSA (common service area) memory and can impact your system performance if not installed, initialized, and used properly.

This appendix also lists BBXS error messages and abend codes.

---

## Overview of BBXS

BBXS has three parts:

- A formal MVS subsystem
- Service routines that are dynamically loaded into extended CSA
- Extended CSA memory used for:
  - A control table (BBCT)
  - Subsystem service routines
  - Shared data areas

**Note:** Some of this storage is page-fixed.

From an external view, BBXS is a proper MVS subsystem. However, unlike subsystems such as JES2 and JES3, BBXS does not require its own address space. BBXS uses only the SSCTSUSE field of the subsystem's CVT or SSCVT to anchor the BMC Software Subsystem Services Control Table (BBCT). The BBCT is built during BBXS initialization, and primarily contains pointers to BBXS service routines. These routines return data in response to specific requests from BMC Software products.

## Using BBXS with Multiple BMC Software Products

Since many BMC Software products use BBXS, it is important that they all use the same version of BBXS. This avoids errors that can occur when a down-level version of the CSA-resident components of BBXS attempts to run with a more recent version of the dynamic BBXS components or vice versa. When maintenance is applied to BBXS or a product that requires BBXS, it can affect all products that use BBXS.

## Installing BBXS

Installing the subsystem is part of the installation process for any product that requires BBXS. The BBXS FMID, BBBBX $nn$ , where  $nn$  is the current BBXS version and release level, is included in the FMID set of every BMC Software product that requires BBXS. See the *MAINVIEW Installation Requirements Guide* for a list of product FMIDs and for detailed instructions about downloading product FMIDs from the product tape.

---

Place all BMC Software product load modules, including the BBXS load modules, in the *prefix.BBLINK* data set. The BBLINK data set must be APF authorized. If you use BBLINK from either STEPLIB or JOBLIB, all BMC Software products must specify the same data set.

BMC Software recommends that you place the BBLINK data set in the LINKLST library concatenation. Using LINKLST is important, but it is even more important to use only one initialization method and to control it carefully.

## Initializing BBXS

BMC Software ships a sample started task procedure for BBXS initialization in the *prefix.BBSAMP* data set. During customization, the @BBXINIT member is copied to a library you specify and renamed to BBXSINIT. This procedure runs the BBXSINIT program that initializes or reinitializes the BBXS subsystem.

BMC Software recommends that you use the BBXSINIT procedure early in the IPL process or after applying maintenance to BBXS.

**Note:** Except in places where the @BBXINIT procedure is specifically mentioned, the remainder of this appendix uses the term BBXSINIT interchangeably to refer to both the program and the procedure that executes the program. Once BBXS is initialized, routines and shared data areas loaded into CSA memory remain there until the next IPL.

The BBXSINIT program, as the name implies, creates new copies of the BBXS modules and data areas in CSA and initializes all ongoing BBXS processes, such as channel and device data collection. Any new product startups or product restarts use the new BBXS code and data areas. CSA used by a previous initialization of BBXS is not released until an IPL occurs.

Do not run the BBXSINIT program as part of another startup procedure. If the other procedure needs to run more than once between IPLs, BBXS is reinitialized and claims more valuable CSA space.

---

Reinitialization of BBXS is required so that changes to CSA-resident BBXS modules become effective and dynamically loaded modules match the version of the CSA-resident modules. The reinitialized version of BBXS works with all versions of BMC Software products because BBXS is downwardly compatible.

**Note:** BMC Software recommends that you recycle all products that use BBXS after the BBXS subsystem is reinitialized so that the new BBXS code is used by all applications.

BBXS is initialized using a different method for each of the following systems:

- An MVS system without the COMMON STORAGE MONITOR component of MAINVIEW for OS/390
- An MVS system with the COMMON STORAGE MONITOR component of MAINVIEW for OS/390
- An MVS system under VM

**Note:** MAINVIEW for OS/390 contains a component called COMMON STORAGE MONITOR that allows the user to collect data on the allocations and use of common storage (CSA). This component can be activated or not activated. It is recommended that this monitor is started as soon as possible in order to track all CSA allocations directly after IPL.

## Initializing BBXS in an MVS System without COMMON STORAGE MONITOR

Before you initialize BBXS in an MVS system without the COMMON STORAGE MONITOR component of MAINVIEW for OS/390, you should establish BBXS's MVS subsystem table entry.

The following statement creates the MVS subsystem control table (SSCVT) for BBXS but does not initialize BBXS data areas or service modules in CSA.

```
BBXS Causes MVS to reserve a subsystem ID
```

BMC Software recommends this initialization statement for all sites that do not run the COMMON STORAGE MONITOR component of MAINVIEW for OS/390 as a subsystem. Place this statement first in the IEFSSNxx list to ensure that a product using BBXS can locate the BBCT as soon as possible. It is valuable documentation for other systems programmers to see.

---

## Initializing BBXS in an MVS System with COMMON STORAGE MONITOR

If you start the COMMON STORAGE MONITOR component of MAINVIEW for OS/390 as a subsystem, BBXS is initialized at the same time.

To define an automatic subsystem start for the COMMON STORAGE MONITOR component of MAINVIEW for OS/390 and BBXS, modify an active IEFSSN $xx$  member in SYS1.PARMLIB as shown below, so that the statement is processed by MVS at IPL time. Place this statement first in the IEFSSN $xx$  list to ensure that a product using BBXS can locate the BBCT as soon as possible.

```
BBXS , BBXCSMON , ' START , ALL , BOTH , ANY '
```

Before this statement can be executed, the *prefix*.BBLINK data set must be in LINKLST because there is no opportunity to specify a STEPLIB. See the *COMMON STORAGE MONITOR User Guide* for an explanation of the parameters.

## Initializing BBXS in an MVS System under VM

When your MVS is a VM guest:

- BBXS cannot collect data about I/O queuing
- BBXS's ability to gather I/O configuration data may be limited

Without this information, some product functions are limited. Depending on your VM configuration, BBXS can be initialized to collect the I/O usage and configuration data, but only under certain circumstances.

If you run your MVS under VM in a non-ESCON environment, BBXS is unable to identify which IOCDS to use. To provide the IOCDS information, you must initialize BBXS by executing the BBXSINIT program with the IOCDSRES parameter. BBXS uses the IOCP data from your local IOCDS generation process to build the data areas in CSA that contain channel and device data.

---

## The IOCDS= Parameter

The IOCDSRES parameter identifies the resident IOCDS ID that BBXS will use during initialization. It has values Ax or Bx, where x is a number that may be as high as 7, depending upon your processor. The number refers to the IOCDS within the Processor Controller File. You must obtain and use the correct IOCDS ID. There may be separate IOCDSs for each LPAR in your system.

**Note:** BMC Software recommends that you contact the person responsible for IOCDS generations at your site to obtain the current IOCDS ID and notify that person that the IOCDSRES parameter in BBXSINIT must be kept up to date with any changes made to the IOCDS.

BMC Software recommends that you define the BBXSINIT program, using the IOCDSRES parameter, as an automatically started procedure so that you can provide the location of the IOCDS data.

You can make MVS automatically start BBXS initialization in an MVS system running under VM by defining the sample statement, as shown here, within a COMMNDxx member of SYS1.PARMLIB.

```
COM='S BBXSINIT,IOCDS=Ax'      Initialize BBXS for MVS under VM
```

**Note:** This statement assumes that you renamed the sample @BBXINIT procedure to BBXSINIT when you copied @BBXINIT from the BBSAMP data set to your SYS1.PROCLIB data set during customization.

**Warning!** If the IOCDSRES parameter is not supplied when BBXS is initialized, BBXS issues a WTOR message BBX017A, prompting you for the IOCDS data set ID. It is easy to miss this message and, if no response is made, BBXS continues without the I/O configuration data.

## VM Systems with ESCON

Although you must run the BBXSINIT procedure to initialize BBXS, VM systems with ESCON capabilities do not allow the retrieval of the configuration data by the BBXSINIT program, unless MVS is running under VM/ESA. To provide retrieval of I/O configuration data for VM/ESA systems with ESCON capabilities, you must specify RMCHINFO on the VM directory options statement. The RMCHINFO parameter tells VM/ESA that it should allow the guest MVS to request channel and I/O configuration data.

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# Glossary

This glossary defines BMC Software terminology. Other dictionaries and glossaries can be used in conjunction with this glossary.

Since this glossary pertains to BMC Software-related products, some of the terms defined might not appear in this book.

To help you find the information you need, this glossary uses the following cross-references:

*Contrast with* indicates a term that has a contrary or contradictory meaning.

*See* indicates an entry that is a synonym or contains expanded information.

*See also* indicates an entry that contains related information.

<b>action</b>	Defined operation, such as modifying a MAINVIEW window, that is performed in response to a command. <i>See</i> object.
<b>active window</b>	Any MAINVIEW window in which data can be refreshed. <i>See</i> alternate window, current window, window.
<b>administrative view</b>	Display from which a product's management tasks are performed, such as the DSLIST view for managing historical data sets. <i>See</i> view.
<b>ALT WIN field</b>	Input field that allows you to specify the window identifier for an alternate window where the results of a hyperlink are displayed. <i>See</i> alternate window.
<b>Alternate Access</b>	<i>See</i> MAINVIEW Alternate Access.
<b>alternate form</b>	View requested through the FORM command that changes the format of a previously displayed view to show related information. <i>See also</i> form, query.

---

<b>alternate window</b>	(1) Window that is specifically selected to display the results of a hyperlink. (2) Window whose identifier is defined to the ALT WIN field. <i>Contrast with</i> current window. <i>See</i> active window, window, ALT WIN field.
<b>analyzer</b>	(1) Online display that presents a snapshot of status and activity data and indicates problem areas. (2) Component of CMF MONITOR. <i>See</i> CMF MONITOR Analyzer.
<b>application</b>	(1) Program that performs a specific set of tasks within a MAINVIEW product. (2) In MAINVIEW VistaPoint, combination of workloads to enable display of their transaction performance data in a single view.
<b>application trace</b>	<i>See</i> trace.
<b>ASCH workload</b>	Workload comprising Advanced Program-to-Program Communication (APPC) address spaces.
<b>AutoCustomization</b>	Online facility for customizing the installation of products. AutoCustomization provides an ISPF panel interface that both presents customization steps in sequence and provides current status information about the progress of the installation.
<b>automatic screen update</b>	Usage mode wherein the currently displayed screen is refreshed automatically with new data at an interval you specify. Invoked by the ASU command.
<b>batch workload</b>	Workload consisting of address spaces running batch jobs.
<b>BBI</b>	Basic architecture that distributes work between workstations and multiple OS/390 targets for BMC Software MAINVIEW products.
<b>BBI-SS PAS</b>	<i>See</i> BBI subsystem product address space.
<b>BBI subsystem product address space (BBI-SS PAS)</b>	OS/390 subsystem address space that manages communication between local and remote systems and that contains one or more of the following products: <ul style="list-style-type: none"> <li>• MAINVIEW AutoOPERATOR</li> <li>• MAINVIEW for CICS</li> <li>• MAINVIEW for DB2</li> <li>• MAINVIEW for DBCTL</li> <li>• MAINVIEW for IMS Online</li> <li>• MAINVIEW for WebSphere MQ</li> <li>• MAINVIEW for WebSphere MQ Integrator</li> <li>• MAINVIEW SRM</li> <li>• MAINVIEW VistaPoint (for CICS, DB2, DBCTL, and IMS workloads)</li> </ul>

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<b>BBPARM</b>	<i>See</i> parameter library.
<b>BBPROC</b>	<i>See</i> procedure library.
<b>BBPROF</b>	<i>See</i> profile library.
<b>BBSAMP</b>	<i>See</i> sample library.
<b>BBV</b>	<i>See</i> MAINVIEW Alternate Access.
<b>BBXS</b>	BMC Software Subsystem Services. Common set of service routines loaded into common storage and used by several BMC Software MAINVIEW products.
<b>border</b>	Visual indication of the boundaries of a window.
<b>bottleneck analysis</b>	Process of determining which resources have insufficient capacity to provide acceptable service levels and that therefore can cause performance problems.
<b>CA-Disk</b>	Data management system by Computer Associates that replaced the DMS product.
<b>CAS</b>	Coordinating address space. One of the address spaces used by the MAINVIEW windows environment architecture. The CAS supplies common services and enables communication between linked systems. Each OS/390 or z/OS image requires a separate CAS. Cross-system communication is established through the CAS using VTAM and XCF communication links.
<b>CFMON</b>	<i>See</i> coupling facility monitoring.
<b>chart</b>	Display format for graphical data. <i>See also</i> graph.
<b>CICSplex</b>	User-defined set of one or more CICS systems that are controlled and managed as a single functional entity.
<b>CMF MONITOR</b>	Comprehensive Management Facility MONITOR. Product that measures and reports on all critical system resources, such as CPU, channel, and device usage; memory, paging, and swapping activity; and workload performance.
<b>CMF MONITOR Analyzer</b>	Batch component of CMF MONITOR that reads the SMF user and 70 series records created by the CMF MONITOR Extractor and/or the RMF Extractor and formats them into printed system performance reports.

---

**CMF MONITOR Extractor**

Component of CMF that collects performance statistics for CMF MONITOR Analyzer, CMF MONITOR Online, MAINVIEW for OS/390, and RMF postprocessor. *See* CMF MONITOR Analyzer, CMF MONITOR Online, MAINVIEW for OS/390.

**CMF MONITOR Online**

Component of CMF that uses the MAINVIEW window interface to present data on all address spaces, their use of various system resources, and the delays that each address space incurs while waiting for access to these resources. *See* CMF MONITOR, MAINVIEW for OS/390.

**CMF Type 79 API**

Application programming interface, provided by CMF, that provides access to MAINVIEW SMF-type 79 records.

**CMFMON**

Component of CMF MONITOR that simplifies online retrieval of information about system hardware and application performance and creates MAINVIEW SMF-type 79 records.

The CMFMON *online facility* can be used to view data in one or more formatted screens.

The CMFMON *write facility* can be used to write collected data as MAINVIEW SMF-type 79 records to an SMF or sequential data set.

**CMRDETL**

MAINVIEW for CICS data set that stores detail transaction records (type 6E) and abend records (type 6D). Detail records are logged for each successful transaction. Abend records are written when an abend occurs. Both records have the same format when stored on CMRDETL.

**CMRSTATS**

MAINVIEW for CICS data set that stores both CICS operational statistic records, at five-minute intervals, and other records, at intervals defined by parameters specified during customization (using CMRSOPT).

**column**

Vertical component of a view or display, typically containing fields of the same type of information, that varies by the objects associated in each row.

**collection interval**

Length of time data is collected. *See also* delta mode, total mode.

**command delimiter**

Special character, usually a ; (semicolon), used to stack commands typed concurrently on the COMMAND line for sequential execution.

**COMMAND line**

Line in the control area of the display screen where primary commands can be typed. *Contrast with* line command column.

---

## **Command MQ Automation D/S**

Command MQ agents, which provide local proactive monitoring for both MQSeries and MSMQ (Microsoft message queue manager). The Command MQ agents operate at the local node level where they continue to perform functions regardless of the availability of the MQM (message queue manager) network. Functionality includes automatic monitoring and restarts of channels, queue managers, queues and command servers. In cases where automated recovery is not possible, the agents transport critical alert information to a central console.

## **Command MQ Automation S/390**

Command MQ component, which monitors the MQM (message queue manager) networks and intercedes to perform corrective actions when problems arise. Solutions include:

- Dead-Letter Queue management
- System Queue Archival
- Service Interval Performance solutions
- Channel Availability

These solutions help ensure immediate relief to some of the most pressing MQM operations and performance problems.

## **Command MQ for D/S**

Command MQ for D/S utilizes a true client/server architecture and employs resident agents to provide configuration, administration, performance monitoring and operations management for the MQM (message queue manager) network.

## **Command MQ for S/390**

See MAINVIEW for WebSphere MQ.

## **COMMON STORAGE MONITOR**

Component of MAINVIEW for OS/390 that monitors usage and reconfigures OS/390 or z/OS common storage blocks.

## **composite workload**

Workload made up of a WLM workload or other workloads, which are called *constituent workloads*.

## **constituent workload**

Member of a composite workload. Constituent workloads in a composite usually belong to a single workload class, but sometimes are mixed.

## **contention**

Occurs when there are more requests for service than there are servers available.

---

<b>context</b>	In a Plex Manager view, field that contains the name of a target or group of targets specified with the CONTEXT command. <i>See</i> scope, service point, SSI context, target context.
<b>CONTEXT command</b>	Specifies either a MAINVIEW product and a specific target for that product ( <i>see</i> target context) or a MAINVIEW product and a name representing one or more targets ( <i>see</i> SSI context) for that product.
<b>control statement</b>	(1) Statement that interrupts a sequence of instructions and transfers control to another part of the program. (2) Statement that names samplers and other parameters that configure the MAINVIEW components to perform specified functions. (3) In CMF MONITOR, statement in a parameter library member used to identify a sampler in the extractor or a report in the analyzer, or to describe either component's processing requirements to the operating system.
<b>coupling facility monitoring (CFMON)</b>	Coupling facility views that monitor the activity of your system's coupling facilities.
<b>current data</b>	Data that reflects the system in its current state. The two types of current data are real-time data and interval data. <i>Contrast with</i> historical data. <i>See also</i> interval data, real-time data.
<b>current window</b>	In the MAINVIEW window environment, window where the main dialog with the application takes place. The current window is used as the default window destination for commands issued on the COMMAND line when no window number is specified. <i>Contrast with</i> alternate window. <i>See</i> active window, window.
<b>DASD</b>	(Direct Access Storage Device) (1) A device with rotating recording surfaces that provides immediate access to stored data. (2) Any device that responds to a DASD program.
<b>DASD ADVISOR</b>	An interactive software tool that diagnoses DASD performance problems and makes recommendations to reduce overall service time. This tool measures and reports on the operational performance of IBM and IBM-compatible devices.
<b>data collector</b>	Program that belongs to a MAINVIEW product and that collects data from various sources and stores the data in records used by views. For example, MAINVIEW for OS/390 data collectors obtain data from OS/390 or z/OS services, OS/390 or z/OS control blocks, CMF MONITOR Extractor control blocks, and other sources. <i>Contrast with</i> extractor.

---

<b>delta mode</b>	(1) In MAINVIEW for DB2 analyzer displays, difference between the value sampled at the start of the current statistics interval and the value sampled by the current analyzer request. <i>See also</i> statistics interval. (2) In CMFMON, usage mode wherein certain columns of data reflect the difference in values between one sample cycle and the next. Invoked by the DELta ON command. <i>See also</i> collection interval, sample cycle, total mode.
<b>DFSMS</b>	(Data Facility Storage Management System) Data management, backup, and HSM software from IBM for OS/390 or z/OS mainframes.
<b>DMR</b>	<i>See</i> MAINVIEW for DB2.
<b>DMS</b>	(Data Management System) <i>See</i> CA-Disk.
<b>DMS2HSM</b>	<i>See</i> MAINVIEW SRM DMS2HSM.
<b>DSO</b>	(Data Set Optimizer) CMF MONITOR Extractor component that uses CMF MONITOR Extractor data to produce reports specifying the optimal ordering of data sets on moveable head devices.
<b>EasyHSM</b>	<i>See</i> MAINVIEW SRM EasyHSM.
<b>EasyPOOL</b>	<i>See</i> MAINVIEW SRM EasyPOOL.
<b>EasySMS</b>	<i>See</i> MAINVIEW SRM EasySMS.
<b>element</b>	(1) Data component of a data collector record, shown in a view as a field. (2) Internal value of a field in a view, used in product functions.
<b>element help</b>	Online help for a field in a view. The preferred term is <i>field help</i> .
<b>Enterprise Storage Automation</b>	<i>See</i> MAINVIEW SRM Enterprise Storage Automation.
<b>event</b>	A message issued by Enterprise Storage Automation. User-defined storage occurrences generate events in the form of messages. These events provide an early warning system for storage problems and are routed to user-specified destinations for central viewing and management.
<b>Event Collector</b>	Component for MAINVIEW for IMS Online, MAINVIEW for IMS Offline, and MAINVIEW for DBCTL that collects data about events in the IMS environment. This data is required for Workload Monitor and optional for Workload Analyzer (except for the workload trace service). This data also is recorded as transaction records (X'FA') and program records (X'F9') on the IMS system log for later use by the MAINVIEW for IMS Offline components: Performance Reporter and Transaction Accountant.
<b>expand</b>	Predefined link from one display to a related display. <i>See also</i> hyperlink.

---

<b>extractor</b>	Program that collects data from various sources and keeps the data control blocks to be written as records. Extractors obtain data from services, control blocks, and other sources. <i>Contrast with</i> data collector.
<b>extractor interval</b>	<i>See</i> collection interval.
<b>fast path</b>	Predefined link between one screen and another. To use the fast path, place the cursor on a single value in a field and press <b>Enter</b> . The resulting screen displays more detailed information about the selected value. <i>See also</i> hyperlink.
<b>field</b>	Group of character positions within a screen or report used to type or display specific information.
<b>field help</b>	Online help describing the purpose or contents of a field on a screen. To display field help, place the cursor anywhere in a field and press <b>PF1</b> (HELP). In some products, field help is accessible from the screen help that is displayed when you press <b>PF1</b> .
<b>filter</b>	Selection criteria used to limit the number of rows displayed in a view. Data that does not meet the selection criteria is not displayed. A filter is composed of an element, an operator, and an operand (a number or character string). Filters can be implemented in view customization, through the PARM/QPARM commands, or through the Where/QWhere commands. Filters are established against elements of data.
<b>fire</b>	The term used to indicate that an event has triggered an action. In MAINVIEW AutoOPERATOR, when a rule selection criteria matches an incoming event and <i>fires</i> , the user-specified automation actions are performed. This process is also called <i>handling</i> the event.
<b>fixed field</b>	Field that remains stationary at the left margin of a screen that is scrolled either right or left.
<b>FOCAL POINT</b>	MAINVIEW product that displays a summary of key performance indicators across systems, sites, and applications from a single terminal.
<b>form</b>	One of two constituent parts of a view; the other is query. A form defines how the data is presented; a query identifies the data required for the view. <i>See also</i> query, view.
<b>full-screen mode</b>	Display of a MAINVIEW product application or service on the entire screen. There is no window information line. <i>Contrast with</i> windows mode.
<b>global command</b>	Any MAINVIEW window interface command that can affect all windows in the window area of a MAINVIEW display.

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<b>graph</b>	Graphical display of data that you select from a MAINVIEW window environment view. <i>See also</i> chart.
<b>hilevel</b>	For MAINVIEW products, high-level data set qualifier required by a site's naming conventions.
<b>historical data</b>	(1) Data that reflects the system as it existed at the end of a past recording interval or the duration of several intervals. (2) Any data stored in the historical database and retrieved using the TIME command. <i>Contrast with</i> current data, interval data and real-time data.
<b>historical database</b>	Collection of performance data written at the end of each installation-defined recording interval and containing up to 100 VSAM clusters. Data is extracted from the historical database with the TIME command. <i>See</i> historical data.
<b>historical data set</b>	In MAINVIEW products that display historical data, VSAM cluster file in which data is recorded at regular intervals.
<b>HSM</b>	(Hierarchical Storage Management) Automatic movement of files from hard disk to slower, less-expensive storage media. The typical hierarchy is from magnetic disk to optical disk to tape.
<b>hyperlink</b>	<p>(1) Preset field in a view or an EXPAND line on a display that permits you to</p> <ul style="list-style-type: none"> <li>• access cursor-sensitive help</li> <li>• issue commands</li> <li>• link to another view or display</li> </ul> <p>The transfer can be either within a single product or to a related display/view in a different BMC Software product. Generally, hyperlinked fields are highlighted. (2) Cursor-activated short path from a topic or term in online help to related information. <i>See also</i> fast path.</p>
<b>Image log</b>	<p>Collection of screen-display records. Image logs can be created for both the BBI-SS PAS and the BBI terminal session (TS).</p> <p>The BBI-SS PAS Image log consists of two data sets that are used alternately: as one fills up, the other is used. Logging to the BBI-SS PAS Image log stops when both data sets are filled and the first data set is not processed by the archive program.</p> <p>The TS Image log is a single data set that wraps around when full.</p>
<b>IMSplex System Manager (IPSM)</b>	MVIMS Online and MVDBC service that provides Single System Image views of resources and bottlenecks for applications across one or more IMS regions and systems.

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<b>interval data</b>	<p>Cumulative data collected during a collection interval. Intervals usually last from 15 to 30 minutes depending on how the recording interval is specified during product customization. <i>Contrast with</i> historical data.</p> <p><b>Note:</b> If change is made to the workloads, a new interval will be started.</p> <p><i>See also</i> current data and real-time data.</p>
<b>InTune</b>	Product for improving application program performance. It monitors the program and provides information used to reduce bottlenecks and delays.
<b>IRUF</b>	IMS Resource Utilization File (IRUF). IRUFs can be either detail (one event, one record) or summarized (more than one event, one record). A detail IRUF is created by processing the IMS system log through a program called IMFLEDIT. A summarized IRUF is created by processing one or more detail IRUFs, one or more summarized IRUFs, or a combination of both, through a sort program and the TASCOSTR program.
<b>job activity view</b>	Report about address space consumption of resources. <i>See</i> view.
<b>journal</b>	Special-purpose data set that stores the chronological records of operator and system actions.
<b>Journal log</b>	<p>Collection of messages. Journal logs are created for both the BBI-SS PAS and the BBI terminal session (TS).</p> <p>The BBI-SS PAS Journal log consists of two data sets that are used alternately: as one fills up, the other is used. Logging to the BBI-SS PAS Journal log stops when both data sets are filled and the first data set is not being processed by the archive program.</p> <p>The TS Journal log is a single data set that wraps around when full.</p>
<b>line command</b>	Command that you type in the line command column in a view or display. Line commands initiate actions that apply to the data displayed in that particular row.
<b>line command column</b>	Command input column on the left side of a view or display. <i>Contrast with</i> COMMAND line.
<b>Log Edit</b>	In the MAINVIEW for IMS Offline program named IMFLEDIT, function that extracts transaction (X'FA') and program (X'F9') records from the IMS system log. IMFLEDIT also extracts certain records that were recorded on the system log by IMS. IMFLEDIT then formats the records into a file called the IMS Resource Utilization File (IRUF).
<b>MAINVIEW</b>	BMC Software integrated systems management architecture.

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**MAINVIEW Alarm Manager (MV ALARM)**

In conjunction with other MAINVIEW products, notifies you when an exception occurs. MAINVIEW Alarm Manager is capable of monitoring multiple systems simultaneously, which means that MAINVIEW Alarm Manager installed on one system keeps track of your entire sysplex. You can then display a single view that shows exceptions for all MAINVIEW performance monitors within your OS/390 or z/OS enterprise.

**MAINVIEW Alternate Access**

Enables MAINVIEW products to be used without TSO by providing access through EXCP and VTAM interfaces.

**MAINVIEW Application Program Interface (MVAPI)**

A CLIST- or REXX-based, callable interface that allows MAINVIEW AutoOPERATOR EXECs to access MAINVIEW monitor product view data.

**MAINVIEW AutoOPERATOR**

Product that uses tools, techniques, and facilities to automate routine operator tasks and provide online performance monitoring, and that achieves high availability through error minimization, improved productivity, and problem prediction and prevention.

**MAINVIEW control area**

In the MAINVIEW window environment, first three lines at the top of the view containing the window information line and the COMMAND, SCROLL, CURR WIN, and ALT WIN lines. The control area cannot be customized and is part of the information display. *Contrast with* MAINVIEW display area, MAINVIEW window area.

**MAINVIEW Desktop** Version of the MAINVIEW window interface designed to run on OS/2 and Windows workstations.

**MAINVIEW display area**

*See* MAINVIEW window area.

**MAINVIEW Explorer** Product that provides access to MAINVIEW products from a Web browser running under Windows. MAINVIEW Explorer replaces MAINVIEW Desktop.

**MAINVIEW for CICS** Product (formerly MV MANAGER for CICS) that provides real-time application performance analysis and monitoring for CICS system management.

**MAINVIEW for DB2** Product (formerly MV MANAGER for DB2) that provides real-time and historical application performance analysis and monitoring for DB2 subsystem management.

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**MAINVIEW for DBCTL (MVDBC)**

Product that provides real-time application performance analysis and monitoring for DBCTL management.

**MAINVIEW for IMS (MVIMS) Offline**

Product with a Performance Reporter component that organizes data and prints reports used to analyze IMS performance and a Transaction Accountant component that produces cost accounting and user charge-back records and reports.

**MAINVIEW for IMS (MVIMS) Online**

Product that provides real-time application performance analysis and monitoring for IMS management.

**MAINVIEW for IP**

Product that monitors OS/390 and z/OS mission-critical application performance as it relates to TCP/IP stack usage. Collected data includes availability, connections, response times, routers, service levels, storage, traffic, Web cache, and so on.

**MAINVIEW for Linux–Servers**

Product that allows you to monitor the performance of your Linux systems from the MAINVIEW windows interface.

**MAINVIEW for MQSeries**

*See* MAINVIEW for WebSphere MQ.

**MAINVIEW for OS/390**

System management application (formerly known as MAINVIEW for MVS prior to version 2.5). Built upon the MAINVIEW window environment architecture, it uses the window interface to provide access to system performance data and other functions necessary in the overall management of an enterprise.

**MAINVIEW for UNIX System Services**

System management application that allows you to monitor the performance of the Unix System Services from a MAINVIEW window interface.

**MAINVIEW for VTAM**

Product that displays application performance data by application, transaction ID, and LU name. This collected data includes connections, response time statistics, application availability, and application throughput.

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## **MAINVIEW for WebSphere Application Server (formerly known as MAINVIEW for WebSphere)**

Product that provides extensive information for managing the IBM WebSphere Application Server for z/OS and OS/390 environment. At the user's option, information is displayed about multiple or single HTTP servers, WAS plug-ins, or J2EE/CORBA containers. The product also provides JVM profiling capability.

## **MAINVIEW for WebSphere MQ**

Delivers comprehensive capabilities for configuration, administration, performance monitoring and operations management for an entire MQM (message queue manager) network.

## **MAINVIEW for WebSphere MQ Integrator**

Licensed feature of MAINVIEW for WebSphere MQ that provides comprehensive configuration, administration, performance monitoring, and operations management capabilities for an IBM WebSphere MQ Integrator message broker network.

## **MAINVIEW Selection Menu**

ISPF selection panel that provides access to all MAINVIEW windows-mode and full-screen mode products.

**MAINVIEW SRM**     *See* MAINVIEW Storage Resource Manager (SRM).

## **MAINVIEW SRM DMS2HSM**

Product that facilitates the conversion of CA-Disk, formerly known as DMS, to HSM.

## **MAINVIEW SRM EasyHSM**

Product that provides online monitoring and reporting to help storage managers use DFHSM efficiently.

## **MAINVIEW SRM EasyPOOL**

Product that provides control over data set allocation and enforcement of allocation and naming standards. EasyPOOL functions operate at the operating system level to intercept normal job processing, thus providing services without any JCL changes.

## **MAINVIEW SRM EasySMS**

Product that provides tools that aid in the conversion to DFSMS and provides enhancement to the DFSMS environment after implementation. EasySMS consists of the EasyACS functions, the SMSACSTE function, and the Monitoring and Positioning Facility.

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## **MAINVIEW SRM Enterprise Storage Automation**

Product that delivers powerful event generation and storage automation technology across the storage enterprise. Used in conjunction with MAINVIEW AutoOPERATOR, automated solutions to perform pool, volume, application, or data set-level manipulation can be created and used in response to any condition or invoked to perform ad hoc requests.

## **MAINVIEW SRM SG-Auto**

Product that provides early warning notification of storage anomalies and automated responses to those anomalies based on conditions in the storage subsystem.

## **MAINVIEW SRM SG-Control**

Product that provides real-time monitoring, budgeting, and control of DASD space utilization.

## **MAINVIEW SRM StopX37/II**

Product that provides enhancements to OS/390 or z/OS space management, reducing the incidence of space-related processing problems. The StopX37/II functions operate at the system level to intercept abend conditions or standards violations, thus providing services without any JCL changes.

## **MAINVIEW SRM StorageGUARD**

Product that monitors and reports on DASD consumption and provides historical views to help control current and future DASD usage.

## **MAINVIEW Storage Resource Manager (SRM)**

Suite of products that assist in all phases of OS/390 or z/OS storage management. MAINVIEW SRM consists of products that perform automation, reporting, trend analysis, and error correction for storage management.

## **MAINVIEW SYSPROG Services**

*See SYSPROG services.*

## **MAINVIEW VistaPoint**

Product that provides enterprise-wide views of performance. Application and workload views are available for CICS, DB2, DBCTL, IMS, OS/390, or z/OS. Data is summarized at the level of detail needed; for example, views can be for a single target, an OS/390 or z/OS image, or an entire enterprise.

## **MAINVIEW window area**

Portion of the information display that is not the control area and in which views are displayed and windows opened. It includes all but the first three lines of the information display. *Contrast with* MAINVIEW control area.

## **monitor**

Online service that measures resources or workloads at user-defined intervals and issues warnings when user-defined thresholds are exceeded.

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## **Multi-Level Automation (MLA)**

The user-defined, multiple step process in Enterprise Storage Automation that implements solutions in a tiered approach, where solutions are invoked one after another until the condition is resolved.

<b>MVALARM</b>	<i>See</i> MAINVIEW Alarm Manager.
<b>MVAPI</b>	<i>See</i> MAINVIEW Application Program Interface.
<b>MVCICS</b>	<i>See</i> MAINVIEW for CICS.
<b>MVDB2</b>	<i>See</i> MAINVIEW for DB2.
<b>MVDBC</b>	<i>See</i> MAINVIEW for DBCTL.
<b>MVIMS</b>	<i>See</i> MAINVIEW for IMS.
<b>MVIP</b>	<i>See</i> MAINVIEW for IP.
<b>MVLNX</b>	<i>See</i> MAINVIEW for Linux–Servers.
<b>MVMQ</b>	<i>See</i> MAINVIEW for WebSphere MQ or MAINVIEW for WebSphere MQ Integrator.
<b>MVMVS</b>	<i>See</i> MAINVIEW for OS/390.
<b>MVScope</b>	MAINVIEW for OS/390 application that traces both CPU usage down to the CSECT level and I/O usage down to the channel program level.
<b>MVSRM</b>	<i>See</i> MAINVIEW Storage Resource Manager (SRM).
<b>MVSRMHSM</b>	<i>See</i> MAINVIEW SRM EasyHSM.
<b>MVSRMSGC</b>	<i>See</i> MAINVIEW SRM SG-Control.
<b>MVSRMSGD</b>	<i>See</i> MAINVIEW SRM StorageGUARD.
<b>MVSRMSGP</b>	<i>See</i> MAINVIEW SRM StorageGUARD.
<b>MVUSS</b>	<i>See</i> MAINVIEW for UNIX System Services.
<b>MVVP</b>	<i>See</i> MAINVIEW VistaPoint.
<b>MVVTAM</b>	<i>See</i> MAINVIEW for VTAM.
<b>MVWEB</b>	<i>See</i> MAINVIEW for WebSphere Application Server.

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<b>nested help</b>	Multiple layers of help pop-up windows. Each successive layer is accessed by clicking a hyperlink from the previous layer.
<b>object</b>	Anything you can manipulate as a single unit. MAINVIEW objects can be any of the following: product, secondary window, view, row, column, or field.  You can issue an action against an object by issuing a line command in the line command column to the left of the object. <i>See</i> action.
<b>OMVS workload</b>	Workload consisting of OS/390 OpenEdition address spaces.
<b>online help</b>	Help information that is accessible online.
<b>OS/390 and z/OS Installer</b>	BMC Software common installation system for mainframe products.
<b>OS/390 product address space (PAS)</b>	Address space containing OS/390 or z/OS data collectors, including the CMF MONITOR Extractor. Used by MAINVIEW for OS/390, MAINVIEW for UNIX System Services, and CMF MONITOR products. <i>See</i> PAS.
<b>parameter library</b>	Data set consisting of members that contain parameters for specific MAINVIEW products or a support component There can be several versions: <ul style="list-style-type: none"> <li>• the distributed parameter library, called BBPARM</li> <li>• a site-specific parameter library or libraries</li> </ul> <p>These can be</p> <ul style="list-style-type: none"> <li>• a library created by AutoCustomization, called UBBPARM</li> <li>• a library created manually, with a unique name</li> </ul>
<b>PAS</b>	Product address space. Used by the MAINVIEW products. Contains data collectors and other product functions. <i>See also</i> OS/390 product address space (PAS) <i>and</i> BBI subsystem product address space (BBI-SS PAS).
<b>performance group workload</b>	Collection of address spaces defined to OS/390 or z/OS. If you are running OS/390 or z/OS with WLM in compatibility mode, MAINVIEW for OS/390 creates a performance group workload instead of a service class.
<b>PERFORMANCE MANAGER</b>	MAINVIEW for CICS online service for monitoring and managing current performance of CICS regions.

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**Performance Reporter (MVIMS)**

MVIMS Offline component that organizes data and prints reports that can be used to analyze IMS performance.

**Performance Reporter**

Product component that generates offline batch reports. The following products can generate these reports:

- MAINVIEW for DB2
- MAINVIEW for CICS

**Plex Manager**

Product through which cross-system communication, MAINVIEW security, and an SSI context are established and controlled. Plex Manager is shipped with MAINVIEW window environment products as part of the coordinating address space (CAS) and is accessible as a menu option from the MAINVIEW Selection Menu.

**pop-up display**

Full-screen panel that displays additional information about a selected event in a detail trace.

**pop-up window**

Window containing help information that, when active, overlays part of the window area. A pop-up window is displayed when you issue the HELP command while working in windows-mode.

**PRGP workload**

In MVS/SP 5.0 or earlier, or in compatibility mode in MVS/SP 5.1 or later, composite of service classes. MAINVIEW for OS/390 creates a performance group workload for each performance group defined in the current IEAIPsxx member.

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**procedure library** Data set consisting of members that contain executable procedures used by MAINVIEW AutoOPERATOR. These procedures are execute command lists (EXECs) that automate site functions. There can be several versions:

- the distributed parameter library, called BBPROC
- a site-specific parameter library or libraries

These can be

- a library created by AutoCustomization, called UBBPROC
- a library created manually, with a unique name

The site-created EXECs can be either user-written or customized MAINVIEW AutoOPERATOR-supplied EXECs from BBPROC.

**product address space**

*See PAS.*

**profile library**

Data set consisting of members that contain profile information and cycle refresh definitions for a terminal session connected to a BBI-SS PAS. Other members are dynamically created by MAINVIEW applications. There can be several versions:

- the distributed profile library, called BBPROF
- a site-specific profile library or libraries

These can be

- a library created by AutoCustomization, called SBBPROF
- a library created manually, with a unique name

The site library is a common profile shared by all site users. The terminal session CLIST creates a user profile automatically if one does not exist; it is called `userid.BBPROF`, where `userid` is your logon ID. User profile libraries allow each user to specify unique PF keys, CYCLE commands, target system defaults, a Primary Option Menu, and a unique set of application profiles.

**query**

One of two constituent parts of a view; the other is form. A query defines the data for a view; a form defines the display format. *See also* form, view.

**real-time data**

Performance data as it exists at the moment of inquiry. Real-time data is recorded during the smallest unit of time for data collection. *Contrast with* historical data. *See also* current data and interval data.

**Resource Analyzer**

Online real-time displays used to analyze IMS resources and determine which are affected by specific workload problems.

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<b>Resource Monitor</b>	Online data collection services used to monitor IMS resources and issue warnings when defined utilization thresholds are exceeded.
<b>row</b>	(1) Horizontal component of a view or display comprising all the fields pertaining to a single device, address space, user, and so on. (2) Horizontal component of a DB2 table consisting of a sequence of values, one for each column of the table.
<b>RxD2</b>	Product that provides access to DB2 from REXX. It provides tools to query the DB2 catalog, issue dynamic SQL, test DB2 applications, analyze EXPLAIN data, generate DDL or DB2 utility JCL, edit DB2 table spaces, perform security administration, and much more.
<b>sample cycle</b>	<p>Time between data samples.</p> <p>For the CMF MONITOR Extractor, this is the time specified in the extractor control statements (usually 1 to 5 seconds).</p> <p>For real-time data, the cycle is not fixed. Data is sampled each time you press <b>Enter</b>.</p>
<b>sample library</b>	<p>Data set consisting of members each of which contains one of the following items:</p> <ul style="list-style-type: none"> <li>• sample JCL that can be edited to perform specific functions</li> <li>• macro that is referenced in the assembly of user-written services</li> <li>• sample user exit routine</li> </ul> <p>There can be several versions:</p> <ul style="list-style-type: none"> <li>• the distributed sample library, called BBSAMP</li> <li>• a site-specific sample library or libraries</li> </ul> <p>These can be</p> <ul style="list-style-type: none"> <li>• a library created by AutoCustomization, called UBBSAMP</li> <li>• a library created manually, with a unique name</li> </ul>
<b>sampler</b>	Program that monitors a specific aspect of system performance. Includes utilization thresholds used by the Exception Monitor. The CMF MONITOR Extractor contains samplers.
<b>SBBPROF</b>	<i>See</i> profile library.
<b>scope</b>	Subset of an SSI context. The scope could be all the data for the context or a subset of data within the context. It is user- or site-defined. <i>See</i> SSI context, target.

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<b>screen definition</b>	Configuration of one or more views that have been stored with the SAVEScr command and assigned a unique name. A screen includes the layout of the windows and the view, context, system, and product active in each window.
<b>selection view</b>	In MAINVIEW products, view displaying a list of available views.
<b>service class workload</b>	<p>Collection of address spaces defined to OS/390 or z/OS. If you are running Workload Manager (WLM) in goal mode, MAINVIEW for OS/390 creates a service class workload for each service class that you define through WLM definition dialogs.</p> <p>If you are running MVS 4.3 or earlier, or MVS/SP 5.1 or later with WLM in compatibility mode, OS/390 creates a performance group workload instead of a service class. <i>See</i> performance group workload.</p>
<b>service objective</b>	Workload performance goal, specified in terms of response time for TSO workloads or turnaround time for batch workloads. Performance group workloads can be measured by either objective. Composite workload service objectives consist of user-defined weighting factors assigned to each constituent workload. For compatibility mode, neither OS/390 nor z/OS provides any way to measure service.
<b>service point</b>	<p>Specification, to MAINVIEW, of the services required to enable a specific product. Services can be actions, selectors, or views. Each target (for example, CICS, DB2, or IMS) has its own service point.</p> <p>The PLEX view lists all the defined service points known to the CAS to which the terminal session is connected.</p>
<b>service request block (SRB)</b>	Control block that represents a routine to be dispatched. SRB mode routines generally perform work for the operating system at a high priority. An SRB is similar to a task control block (TCB) in that it identifies a unit of work to the system. <i>See also</i> task control block.
<b>service select code</b>	Code entered to invoke analyzers, monitors, and general services. This code is also the name of the individual service.
<b>session</b>	Total period of time an address space has been active. A session begins when monitoring can be performed. If the product address space (PAS) starts after the job, the session starts with the PAS.
<b>SG-Auto</b>	<i>See</i> MAINVIEW SRM SG-Auto.
<b>SG-Control</b>	<i>See</i> MAINVIEW SRM SG-Control.

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**single system image (SSI)**

Feature of the MAINVIEW window environment architecture where you can view and perform actions on multiple OS/390 or z/OS systems as though they were a single system. The rows of a single tabular view can contain rows from different OS/390 or z/OS images.

**Skeleton Tailoring Facility**

A facility in MAINVIEW AutoOPERATOR that allows skeleton JCL to be used during job submission. Skeleton JCL can contain variables within the JCL statements to be substituted with data values at job submission time. Directive statements can be used in the skeleton JCL to cause the repetition of a set of skeleton statements. This facility functions similar to the TSO skeleton tailoring facility.

**SRB** *See* service request block.

**SSI** *See* single system image.

**SSI context** Name created to represent one or more targets for a given product. *See* context, target.

**started task workload**

Address spaces running jobs that were initiated programmatically.

**statistics interval** For MAINVIEW for DB2, cumulative count within a predefined interval (30-minute default set by the DB2STATS parameter in the distributed BBPARM member BBIISP00) for an analyzer service DELTA or RATE display. Specifying the DELTA parameter displays the current value as the difference between the value sampled by the current analyzer request and the value sampled at the start of the current interval. Specifying the RATE parameter displays the current value by minute (DELTA divided by the number of elapsed minutes).

**stem variables** A REXX facility, supported in MAINVIEW AutoOPERATOR REXX EXECs and the Skeleton Tailoring Facility, where variable names end with a period followed by a number, such as &POOL.1. This configuration allows each variable to actually represent a table or array of data, with the zero variable containing the number of entries in the array. For example, &POOL.0 = 5 would indicate variables &POOL.1 through &POOL.5 exist.

**StopX37/II** *See* MAINVIEW SRM StopX37/II.

**StorageGUARD** *See* MAINVIEW SRM StorageGUARD.

**summary view** View created from a tabular view using the Summarize option in view customization. A summary view compresses several rows of data into a single row based on the summarize criteria.

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<b>SYSPROG services</b>	Component of MAINVIEW for OS/390. Over 100 services that detect, diagnose, and correct OS/390 or z/OS system problems as they occur. Accessible from the OS/390 Performance and Control Main Menu. Note that this component is also available as a stand-alone product MAINVIEW SYSPROG Services.
<b>system resource</b>	<i>See</i> object.
<b>target</b>	Entity monitored by one or more MAINVIEW products, such as an OS/390 or z/OS image, an IMS or DB2 subsystem, a CICS region, or related workloads across systems. <i>See</i> context, scope, SSI context.
<b>target context</b>	Single target/product combination. <i>See</i> context.
<b>TASCOSTR</b>	MAINVIEW for IMS Offline program that summarizes detail and summary IMS Resource Utilization Files (IRUFs) to be used as input to the offline components.
<b>task control block (TCB)</b>	Address space-specific control block that represents a unit of work that is dispatched in the address space in which it was created. <i>See also</i> service request block.
<b>TCB</b>	<i>See</i> task control block.
<b>terminal session (TS)</b>	Single point of control for MAINVIEW products, allowing data manipulation and data display and providing other terminal user services for MAINVIEW products. The terminal session runs in a user address space (either a TSO address space or a stand-alone address space for EXCP/VTAM access).
<b>TDIR</b>	<i>See</i> trace log directory.
<b>threshold</b>	Specified value used to determine whether the data in a field meets specific criteria.
<b>TLDS</b>	<i>See</i> trace log data set.
<b>total mode</b>	Usage mode in CMFMON wherein certain columns of data reflect the cumulative value between collection intervals. Invoked by the DELta OFF command. <i>See also</i> collection interval, delta mode.
<b>trace</b>	(1) Record of a series of events chronologically listed as they occur. (2) Online data collection and display services that track transaction activity through DB2, IMS, or CICS.

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**trace log data set (TLDS)**

Single or multiple external VSAM data sets containing summary or detail trace data for later viewing or printing. The trace log(s) can be defined as needed or dynamically allocated by the BBI-SS PAS. Each trace request is assigned its own trace log data set(s).

**trace log directory (TDIR)**

VSAM linear data set containing one entry for each trace log data set. Each entry indicates the date and time of data set creation, the current status of the data set, the trace target, and other related information.

**transaction**

Specific set of input data that initiates a predefined process or job.

**Transaction Accountant**

MVIMS Offline component that produces cost accounting and user charge-back records and reports.

**TS**

*See* terminal session.

**TSO workload**

Workload that consists of address spaces running TSO sessions.

**UAS**

*See* user address space.

**UBBPARM**

*See* parameter library.

**UBBPROC**

*See* procedure library.

**UBBSAMP**

*See* sample library.

**user address space**

Runs a MAINVIEW terminal session (TS) in TSO, VTAM, or EXCP mode.

**User BBPROF**

*See* profile library.

**view**

Formatted data within a MAINVIEW window, acquired from a product as a result of a view command or action. A view consists of two parts: query and form. *See also* form, job activity view, query.

**view definition**

Meaning of data that appears online, including source of data, selection criteria for data field inclusion and placement, data format, summarization, context, product, view name, hyperlink fields, and threshold conditions.

**view command**

Name of a view that you type on the COMMAND line to display that view.

**view command stack**

Internal stack of up to 10 queries. For each command, the stack contains the filter parameters, sort order, context, product, and time frame that accompany the view.

---

<b>view help</b>	Online help describing the purpose of a view. To display view help, place the cursor on the view name on the window information line and press <b>PF1</b> (HELP).
<b>window</b>	Area of the MAINVIEW screen in which views and resources are presented. A window has visible boundaries and can be smaller than or equal in size to the MAINVIEW window area. <i>See</i> active window, alternate window, current window, MAINVIEW window area.
<b>window information line</b>	Top border of a window. Shows the window identifier, the name of the view displayed in the window, the system, the scope, the product reflected by the window, and the tomfooleries for which the data in the window is relevant. <i>See also</i> window status field.
<b>window number</b>	Sequential number assigned by MAINVIEW to each window when it is opened. The window number is the second character in the window status field. <i>See also</i> window status field.
<b>window status</b>	One-character letter in the window status field that indicates when 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 is the first character in the window status field. <i>See also</i> window information line, window status field.
<b>window status field</b>	Field on the window information line that shows the current status and assigned number of the window. <i>See also</i> window number, window status.
<b>windows mode</b>	Display of one or more MAINVIEW product views on a screen that can be divided into a maximum of 20 windows. A window information line defines the top border of each window. <i>Contrast with</i> full-screen mode.
<b>WLM workload</b>	In goal mode in MVS/SP 5.1 and later, a composite of service classes. MAINVIEW for OS/390 creates a workload for each WLM workload defined in the active service policy.
<b>workflow</b>	Measure of system activity that indicates how efficiently system resources are serving the jobs in a workload.
<b>workload</b>	(1) Systematic grouping of units of work (for example, address spaces, CICS transactions, IMS transactions) according to classification criteria established by a system administrator. (2) In OS/390 or z/OS, a group of service classes within a service definition.
<b>workload activity view</b>	Tracks workload activity as the workload accesses system resources. A workload activity view measures workload activity in terms of resource consumption and how well the workload activity meets its service objectives.

- 
- Workload Analyzer** Online data collection and display services used to analyze IMS workloads and determine problem causes.
- workload definition** Workload created through the WKLIST view. Contains a unique name, a description, an initial status, a current status, and selection criteria by which address spaces are selected for inclusion in the workload. *See* Workload Definition Facility.
- Workload Definition Facility**  
In MAINVIEW for OS/390, WKLIST view and its associated dialogs through which workloads are defined and service objectives set.
- workload delay view**  
Tracks workload performance as the workload accesses system resources. A workload delay view measures any delay a workload experiences as it contends for those resources.
- Workload Monitor** Online data collection services used to monitor IMS workloads and issue warnings when defined thresholds are exceeded.
- workload objectives**  
Performance goals for a workload, defined in WKLIST. Objectives can include measures of performance such as response times and batch turnaround times.

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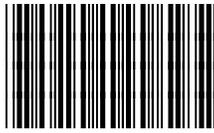
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