

Using MAINVIEW®

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 - product name
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- 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

Contents

Chapter 1	What Is MAINVIEW?	
	Coordinating Address Space (CAS)	1-3
	Product Address Space (PAS)	1-3
	User Address Space (UAS)	1-5
	User Interfaces	1-5
	MAINVIEW Explorer	1-5
	Windows Mode	1-7
	Full-Screen Mode	1-8
Chapter 2	Starting a MAINVIEW Terminal Session	
	Starting a MAINVIEW Explorer Session	2-1
	Running MAINVIEW Explorer as an Applet	2-2
	Running MAINVIEW Explorer as an Application	2-3
	Starting a TSO Session	2-4
Chapter 3	The Basics of MAINVIEW Explorer	
	Understanding the Navigation Frame	3-2
	Using the Plex Map	3-5
	Setting a Context	3-5
	Setting Personal Configurations	3-6
	Understanding the View Frame	3-7
	View Tabs	3-8
	Buttons	3-9
	Header Buttons	3-11
	Command and Status Line	3-12
	Getting Help	3-12
Chapter 4	Working with MAINVIEW Explorer Views	
	Locating a View	4-1
	Opening a View	4-2
	Autolaunching a View	4-2
	Detaching a View	4-3
	Refreshing View Data	4-3
	Sorting View Data	4-4

Exporting a View	4-4
Importing a View	4-5
Copying View Data to the Clipboard	4-5
Printing a View	4-6
Hyperlinking to Other Views.	4-6
Performing Host Actions from a View	4-7
Filtering Data in a View	4-7
Viewing Historical Data	4-8
Showing Hidden Fields in a View	4-10
Changing View Colors	4-10
Changing the Font Used in a View	4-11
Saving View Preferences	4-11
Using Charts	4-12
Displaying Exceptions	4-15
Displaying Client and Host Server Information	4-16
Executing MAINVIEW Commands	4-16

Chapter 5

Customizing Views in MAINVIEW Explorer

Moving Fields	5-2
Formatting Data	5-2
Editing Thresholds	5-5
Editing Hyperlinks	5-6
Specifying a Hyperlink Command	5-7
Editing Filters	5-8
Showing Header Info.	5-9
Adding to Groupby List	5-9
Adding to Sort List	5-10
Adding to Parameter list	5-10
Setting Chart Items (X or Y axis)	5-11
Duplicating Fields	5-11
Excluding and Including Fields	5-12
Saving Customized Views.	5-12
Specifying a Condition	5-14
Defining a WHERE Clause.	5-15

Chapter 6

Working in Windows and Full-Screen Mode

Transferring between Windows and Full-Screen Mode	6-1
Full-Screen Mode to Windows Mode	6-1
Windows Mode to Windows Mode	6-3
Windows Mode to Full-Screen Mode.	6-3
Full-Screen Mode to Full-Screen Mode	6-5
Viewing Messages and Codes Online	6-7

Chapter 7

The Basics of Windows Mode

Understanding MAINVIEW Windows	7-1
What the Window Information Line Shows	7-2
Working with the Window Control Area	7-3
Creating a Window	7-7

Maximizing a Window	7-13
Closing a Window	7-15
Creating and Saving Screens	7-15
Creating Screens	7-16
Displaying Screens	7-17
Managing Screen Windows	7-17
Setting an Initial Screen	7-18
Getting Help	7-19

Chapter 8

Working with Windows Mode Views

Displaying Data in a View	8-1
How Data Is Arranged in a View	8-2
Locking and Updating Data in Views	8-5
Sorting View Data	8-5
Locating View Data	8-6
Refreshing View Data	8-8
Displaying Data from Multiple Systems	8-9
Displaying Target Systems	8-9
Displaying SSI Contexts	8-13
Using Hyperlinks and Menus to Access Views	8-16
Using Hyperlinks	8-16
Using Menus	8-17
MAIN Views	8-20

Chapter 9

Working with Historical Data in Windows Mode

Displaying Historical Data Online	9-1
Using the TIME Command	9-1
TIME Command Examples	9-5
Viewing Date and Time Fields for Historical Data	9-7
Generating Historical Batch Reports	9-9
Initiating Report JCL Generation	9-10
Setting Up the MAINVIEW Batch Environment	9-11
Generating Batch Report JCL	9-13
Managing Batch Report JCL Members	9-15
Browsing Batch Report Output Members	9-16

Chapter 10

Customizing Views in Windows Mode

Creating a New View	10-2
Including Additional Fields	10-2
Setting Hyperlinks between Views	10-7
Changing the Headings of Fields	10-8
Setting Thresholds and Assigning Colors	10-9
Summarizing Data in a View	10-11
Filtering Data in a View	10-14
Using the L Customization Option	10-15
Using the P Customization Option	10-17
Using Qwhere or Where Commands	10-20
Deleting a Customized View	10-21

Chapter 11	Working with Full-Screen Mode Displays	
	Primary Option Menu	11-1
	Performance Data Display	11-2
	Specifying the Target System	11-4
	Program Function (PF) Key Definitions	11-5
	Assigning Commands to PF Keys	11-7
	Assigning Labels to PF Keys	11-8
	Splitting the Screen	11-9
	Exiting a Display	11-9
	Printing a Screen	11-9
	Refreshing a Display	11-10
	Scrolling a Display	11-10
	Qualifying Requests	11-11
	Expanding a Display	11-12
	MVCICS Field Expand.	11-12
	EXPAND Line	11-13
	Getting Help	11-15
	Using the HELP Key	11-15
	Using the H Line Command	11-15
	Selecting the Tutorial	11-15
Chapter 12	Using General Services in Full-Screen Mode	
	Service Refresh Cycle	12-2
	Cycle Setup Application	12-2
	BBPROF Predefined Refresh Cycle Member	12-9
	Starting and Stopping Service Refresh Cycle	12-12
	Display Logs	12-13
	Log Display Application	12-13
	Scroll Commands for Log Display	12-16
	Primary Commands for Log Display	12-17
Chapter 13	Transferring Applications in Full-Screen Mode	
Glossary		
Index		

Figures

Figure 1-1	BBI Architecture	1-2
Figure 1-2	Example of Windows Mode	1-7
Figure 1-3	Example of Full-Screen Mode	1-8
Figure 2-1	MAINVIEW Selection Menu	2-5
Figure 2-2	Sample Product Area Menu - Network Management	2-7
Figure 2-3	Session Control Parameters Panel	2-8
Figure 6-1	Example of Transfer between Products in Full-Screen Mode	6-6
Figure 6-2	Messages and Codes Display	6-7
Figure 7-1	MAINVIEW Window	7-1
Figure 7-2	Save Screen Definition Dialog	7-16
Figure 9-1	Viewing Data in Two Different Time Periods	9-7
Figure 9-2	Utilities, Tools, and Messages Menu	9-10
Figure 9-3	MAINVIEW Batch Reports Panel	9-10
Figure 9-4	MAINVIEW Batch Environment Setup Panel	9-12
Figure 9-5	Generate MAINVIEW Batch Reports JCL Panel	9-13
Figure 9-6	MAINVIEW Batch JCL Member List	9-15
Figure 9-7	MAINVIEW Batch Report List	9-17
Figure 9-8	MAINVIEW Batch Report List - BSLARD.X	9-18
Figure 11-1	Sample Performance Data Display	11-2
Figure 11-2	Program Function Keys Input Panel	11-5
Figure 11-3	PF Keys Label Displayed	11-8
Figure 11-4	Sample EXPAND Line	11-13
Figure 12-1	Service Refresh Cycle Data Entry Panel	12-2
Figure 12-2	Sample Cycle Setup Member	12-11
Figure 12-3	Log Display Application	12-13
Figure 12-4	Defining a Subset of Messages with the PROFILE Command	12-19
Figure 12-5	Including Messages from the Current Target	12-19
Figure 12-6	Viewing Messages from the Current Target	12-20
Figure 13-1	Example of Application Transfer to Another Product Line	13-1

Tables

Table 6-1	Transfer to Windows Mode	6-2
Table 6-2	Transfer to Full-Screen Mode	6-4
Table 7-1	Window Information Line Elements	7-2
Table 7-2	How to Get Help	7-20
Table 8-1	Commands for Forms and Queries	8-4
Table 11-1	Program Function Key Definitions	11-6
Table 12-1	Service Select Codes for Refresh Cycle SERVICE Field	12-4
Table 13-1	Transfer Commands for Full-Screen Applications	13-2
Table 13-2	Application Transfer Commands	13-2

About This Book

This book provides general information about how to use MAINVIEW products. Its intent is to familiarize you with the MAINVIEW Infrastructure and help you understand how all your MAINVIEW products work together. This book should be read before the rest of the books in your MAINVIEW product document library.

How This Book Is Organized

This book is organized as follows. In addition, a glossary of terms and an index appear at the end of the book.

Chapter/Appendix	Description
Chapter 1, "What Is MAINVIEW?"	Introduces the MAINVIEW environment and user interfaces
Chapter 2, "Starting a MAINVIEW Terminal Session"	Explains how to start the two types of MAINVIEW terminal sessions: MAINVIEW Explorer and TSO
Chapter 3, "The Basics of MAINVIEW Explorer"	Explains the basic features of MAINVIEW Explorer and how to use them
Chapter 4, "Working with MAINVIEW Explorer Views"	Provides detailed information about working with MAINVIEW Explorer views
Chapter 5, "Customizing Views in MAINVIEW Explorer"	Explains how to customize MAINVIEW Explorer views to meet your needs
Chapter 6, "Working in Windows and Full-Screen Mode"	Provides tips on working with windows and full-screen mode products in the same TSO session
Chapter 7, "The Basics of Windows Mode"	Explains the basic features of windows mode and how to use them
Chapter 8, "Working with Windows Mode Views"	Provides detailed information about working with windows mode views
Chapter 9, "Working with Historical Data in Windows Mode"	Explains how to display historical data both online and in batch reports

Chapter/Appendix	Description
Chapter 10, "Customizing Views in Windows Mode"	Explains how to customize windows mode views to meet your needs
Chapter 11, "Working with Full-Screen Mode Displays"	Provides detailed information about working with full-screen mode displays
Chapter 12, "Using General Services in Full-Screen Mode"	Describes the General Services options that are available in full-screen mode
Chapter 13, "Transferring Applications in Full-Screen Mode"	Describes the application transfer commands that are available in full-screen mode

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 uppercase 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 any system and with the TIME command specifies the current time frame:

```
TIME * * *
```

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

```
TIME 15APR2001 = =
```

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

MAINVIEW Library

The MAINVIEW product family includes the following products:

CMF[®] MONITOR
MAINVIEW AutoOPERATOR[™]
MAINVIEW Explorer
MAINVIEW FOCAL POINT
MAINVIEW for CICS
MAINVIEW for DB2[®]
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[™]

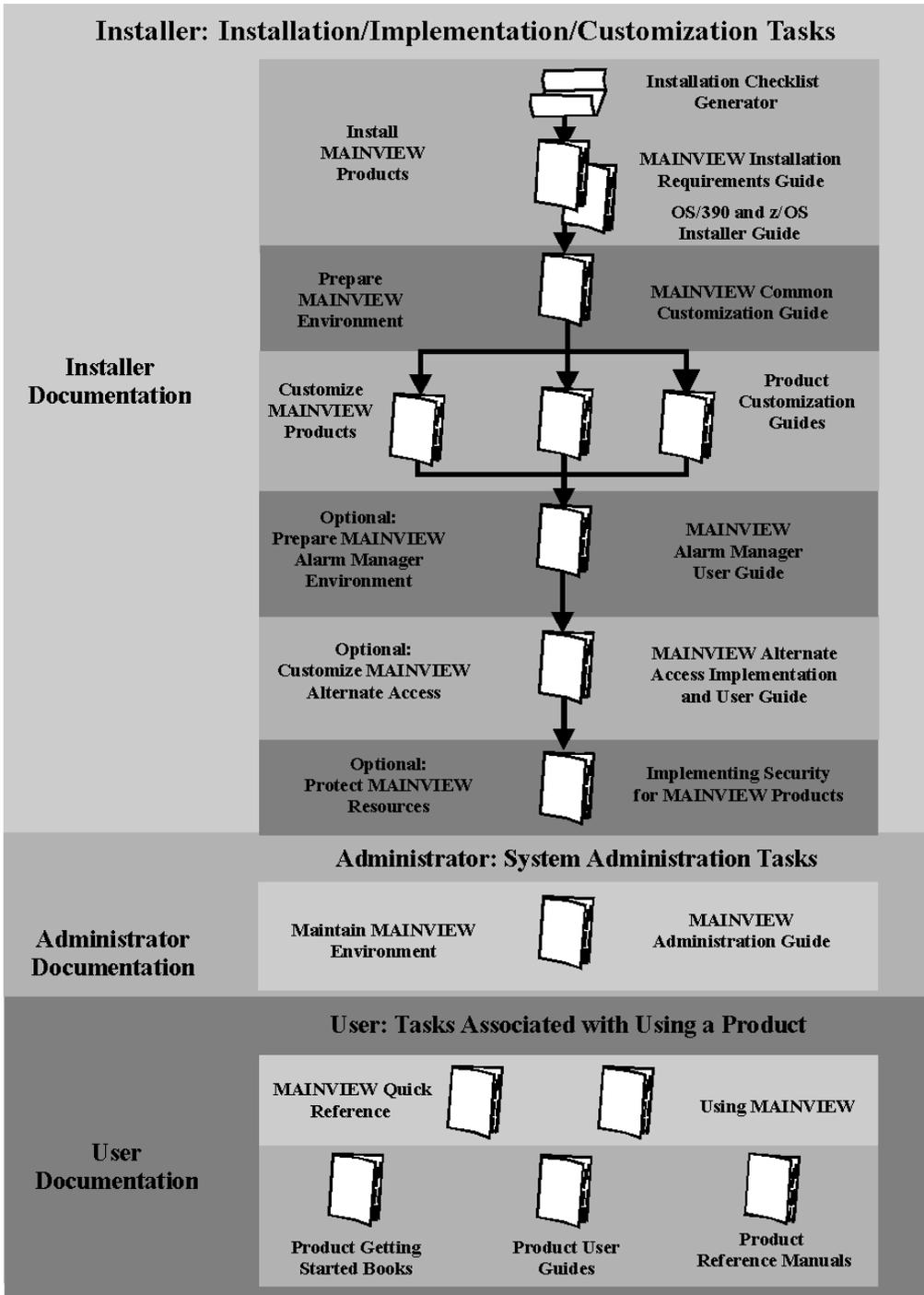
Each of these products provides a product-specific library that typically includes getting started, customization, user, and reference books.

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 about 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 about 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** on the **COMMAND** line of any MAINVIEW display.

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



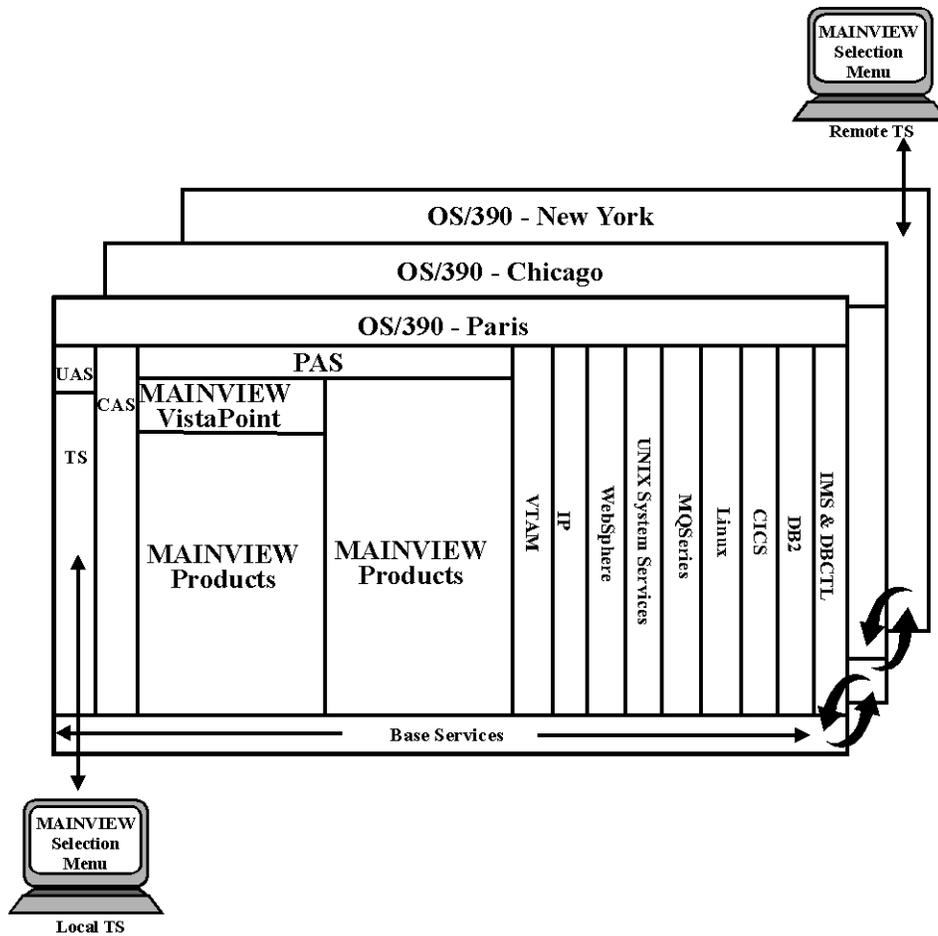
Chapter 1 What Is MAINVIEW?

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 environment 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

- Summarize data on a single system or across multiple MVS images
- View historical or real-time 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 to the architecture 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:

- MAINVIEW Host Gateway using MAINVIEW Explorer

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

- 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.

User Interfaces

The system performance data provided by MAINVIEW products can be displayed in a variety of user interfaces.

MAINVIEW Explorer

MAINVIEW Explorer is a client/server application that lets you access MAINVIEW products from your desktop using a Web browser. Using MAINVIEW Explorer, you can

- display data in various chart types, including histograms and three-dimensional bar charts
- use tree navigation to access all views
- use EZExplorer menus to access other views quickly and conveniently
- create and save personal configurations
- execute MAINVIEW product action commands
- customize views
- display context sensitive help for every view and every field in a view

MAINVIEW Explorer uses active icons that change appearance to indicate the status of an object. Newly added or active mainframes, systems, subsystems, and workloads are displayed in the navigation tree automatically.

MAINVIEW Explorer consists of the following components:

Client

Runs as a signed Java applet under a Web browser. When you click on a MAINVIEW Explorer icon or hyperlink, the Java applet sends a request for information to the host server. The requested information includes views, records, actions, and help.

Host Server

Runs as an address space on an OS/390 MVS system. The host server uses TCP/IP to communicate with one or more clients. The MVS system must be running a CAS. Multiple host servers can run in an MVS system and communicate with the same CAS or different CASs. When a client requests information, the host server sends the request to the connected CAS. The CAS collects the information from the appropriate PAS and sends it back to the host server, which sends it to the client, where it is displayed in the Web browser.

For more information about working with MAINVIEW products in MAINVIEW Explorer, see the following chapters in this book:

- Chapter 3, “The Basics of MAINVIEW Explorer”
- Chapter 4, “Working with MAINVIEW Explorer Views”
- Chapter 5, “Customizing Views in MAINVIEW Explorer”

Windows Mode

The MAINVIEW windows environment is an extension of the standard TSO/ISPF interface. When operating in windows mode, one or more windows can be displayed on your screen. A window information line defines the top border of each window. Figure 1-2 shows an example of windows mode:

Figure 1-2 Example of Windows Mode

```

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

```

Using windows mode, you can

- see views of system performance data displayed in as many as 20 windows
- display multiple systems as a single system image (SSI)
- summarize data for many resources into a single row
- display historical data that was collected over time
- navigate through views using hyperlinks and menus
- customize views and online help
- export view data to a data set or print it to SYSOUT

For more information about working with MAINVIEW products in windows mode, see the following chapters in this book:

- Chapter 6, “Working in Windows and Full-Screen Mode”
- Chapter 7, “The Basics of Windows Mode”
- Chapter 8, “Working with Windows Mode Views”
- Chapter 9, “Working with Historical Data in Windows Mode”
- Chapter 10, “Customizing Views in Windows Mode”

Full-Screen Mode

The MAINVIEW full-screen environment is a standard TSO/ISPF interface. Products that operate in full-screen mode offer data displays and application displays or menus. These displays follow ISPF conventions for selecting, scrolling, and splitting the screen.

When operating in full-screen mode, the product data or application is shown on the entire screen and there is no window information line. Figure 1-3 shows an example of an application in full-screen mode:

Figure 1-3 Example of Full-Screen Mode

```

----- Log Display ----- General services
COMMAND ==> TGT ==> DB2F
LINE= 12,340 LOG= #1 STATUS= INPUT TIME= 17:51:38 INTV==> 3
12:11:00 DS0560W (04) 12:11:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:12:00 DS0560W (05) 12:12:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:12:55 XS6311I BBI/SESSION FOR -CPS17 - TERMINATED
12:13:00 DS0560W (06) 12:13:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:14:00 DS0560W (07) 12:14:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:15:00 DS0560W (08) 12:15:00 ECSA % UTILIZATION(TOTAL) = 72 (>70) *****
12:16:00 DS0560W (09) 12:16:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:17:00 DS0560W (10) 12:17:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:22:11 XS6304I BBI/SESSION FOR -LAA1 - TO -D31X- INITIATED
13:12:00 DS0561I 13:12:00 ECSA % UTILIZATION(TOTAL) NO LONGER > 70
13:28:48 DSNW131I - STOP TRACE SUCCESSFUL FOR TRACE NUMBER(S) 05
13:28:49 DSN9022I - DSNWVCM1 '-STOP TRACE' NORMAL COMPLETION
13:53:02 DS0560W (01) 13:53:00 ECSA % UTILIZATION(TOTAL) = 72 (>70) *****
13:54:00 DS0560W (02) 13:54:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:55:01 DS0560W (03) 13:55:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:56:00 DS0560W (04) 13:56:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:57:01 DS0560W (05) 13:57:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:58:00 DS0560W (06) 13:58:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****

```

For more information about working with MAINVIEW products in full-screen mode, see the following chapters in this book:

- Chapter 6, “Working in Windows and Full-Screen Mode”
- Chapter 11, “Working with Full-Screen Mode Displays”
- Chapter 12, “Using General Services in Full-Screen Mode”
- Chapter 13, “Transferring Applications in Full-Screen Mode”

Chapter 2 Starting a MAINVIEW Terminal Session

When you access a MAINVIEW product, your session is known as a terminal session. There are two types of MAINVIEW terminal sessions:

- MAINVIEW Explorer session
- TSO session

This chapter explains how to start each type of terminal session.

Starting a MAINVIEW Explorer Session

Note: Before you can start a MAINVIEW Explorer session, the host server must be running. For information on starting and managing the host server, see the *MAINVIEW Administration Guide*.

You can start a MAINVIEW Explorer session for a MAINVIEW product as

- a signed Java applet within a Web browser
- a Java application from a local directory on your computer

MAINVIEW Explorer looks and functions exactly the same way whether it is running as an applet within a browser or as an application on your computer.

Running MAINVIEW Explorer as an Applet

To start a MAINVIEW Explorer session as a signed Java applet:

Step 1 Make sure the MAINVIEW Explorer host server is running, as described in the *MAINVIEW Administration Guide*.

Step 2 Open a Web browser.

Step 3 Enter the following URL:

http://host:port

In this URL entry:

- *host* is the IP address or name of the system on which the MAINVIEW Explorer host server is executing.
- *port* is the value that was specified for the PORT parameter in the host server procedure. The distributed procedure name is BBMXPJCL; however, it might have been renamed during installation at your site.

For example:

http://bmcsysc:3940

or

http://172.18.9.82:3940

Before MAINVIEW Explorer is displayed in your Web browser, a security prompt is displayed, requesting that you verify the use of software from BMC Software.

Step 4 On the security prompt, click **OK**.

Note: If you do not want to see the security prompt again, select the **Always trust** box.

You are prompted to supply your TSO user ID and password.

Step 5 Type your user ID and password and click **OK**. (You can already be logged on using the same TSO user ID.)

Note: After MAINVIEW Explorer is launched for the first time, you can record the URL to make it easier to access in the future.

Running MAINVIEW Explorer as an Application

To run MAINVIEW Explorer as a Java application from a local directory, you must have the Sun Java Runtime Environment (JRE) installed on your computer. BMC Software provides an automated installation wizard that installs MAINVIEW Explorer into a directory of your choice. The installation wizard also

- checks for the presence of the JRE on your computer and installs it from the MAINVIEW Explorer host server, if necessary
- updates your computer registry for future installations
- updates your Start menu with an entry for launching MAINVIEW Explorer and, optionally, creates a shortcut on your desktop

Installing MAINVIEW Explorer as an Application

Note: The MAINVIEW Explorer installation wizard is a signed Java applet. If your site has a restriction against running signed Java applets, you can install MAINVIEW Explorer manually by invoking the following URL and following the instructions:
`http://host:port/download.ehtm`

To launch the installation wizard:

Step 1 Make sure the MAINVIEW Explorer host server is running, as described in the *MAINVIEW Administration Guide*.

Step 2 Open a Web browser.

Step 3 Enter the following URL:

`http://host:port/install.ehtm`

In this URL entry:

- *host* is the IP address or name of the system on which the MAINVIEW Explorer host server is executing.
- *port* is the value that was specified for the PORT parameter in the host server procedure. The distributed procedure name is BBMXPJCL, however, it might have been renamed during installation at your site.

Step 4 Follow the instructions in the installation wizard.

Launching MAINVIEW Explorer as an Application

To launch MAINVIEW Explorer after it is installed as an application on your computer:

- Step 1** Make sure the MAINVIEW Explorer host server is running, as described in the *MAINVIEW Administration Guide*.
- Step 2** Use the **Start** menu or click the MAINVIEW Explorer desktop icon.

If a more current version of MAINVIEW Explorer is detected on the host server, the application prompts you to invoke the installation applet and install the new version.

Starting a TSO Session

To start a TSO session for a MAINVIEW product:

- Step 1** Ensure that the CAS and PAS are active (if necessary for the applications that you want to access).

If you need to start them, see the *MAINVIEW Administration Guide* for CAS and PAS startup instructions.

- Step 2** Display the MAINVIEW Selection Menu by executing the MAINVIEW CLIST in one of the following ways:

- Select the appropriate ISPF menu or panel option.
- On the **COMMAND** line, issue the following TSO command to execute the MAINVIEW CLIST:

TSO EX 'hilevel.UBBSAMP(MAINVIEW)'

- Start a VTAM or EXCP MAINVIEW Alternate Access terminal session that executes the MAINVIEW CLIST (see the *MAINVIEW Alternate Access Implementation and User Guide* for more information).

When the CLIST is executed, the MAINVIEW Selection Menu appears as shown in Figure 2-1.

Figure 2-1 MAINVIEW Selection Menu

```

----- MAINVIEW Selection Menu -----
OPTION  ===>                                DATE   -- mm/dd/yy
                                           TIME   -- hh:mm
      0  Parameters and Options              USERID -- tsoid
      E  Alerts and Alarms                  MODE   -- ISPF v.r
      P  PLEX Management (PLEXMGR)
      U  Utilities, Tools, and Messages

Solutions for:
  A  Automated Operations
  C  CICS
  D  DB2
  I  IMS
  L  Linux
  N  Network Management
  S  Storage Management
  T  Application Management and Performance Tuning
  W  WebSphere and MQSeries
  Z  OS/390, z/OS, and USS

Enter X to Terminate

                                           Copyright BMC Software, Inc. 2003

```

Step 3 Select a MAINVIEW product area or other option by typing the appropriate value in the **OPTION** field:

Note: An **INVALID OPTION** message is displayed if you select a product that is not installed at your site.

Product/Utility	Option	Description
Parameters and Options	0	MAINVIEW Parameter Editors menu is displayed. This menu is not part of a product, but is a utility for customizing your MAINVIEW session parameters. This menu provides access to session control parameters for all MAINVIEW products. For more information about the MAINVIEW Parameter Editors menu or an individual session parameter, access the online help facility for the desired option. The KEYS and MVParms commands are available for quick-path access to the MAINVIEW Parameter Editors menu, so you do not have to exit your product to access this session parameters utility.
Alerts and Alarms	E	Alerts and Alarms menu is displayed. This menu provides access to MAINVIEW Alarm Manager.
PLEX Management (PLEXMGR)	P	Plex Manager EZPLEX easy menu is displayed. Plex Manager, which is shipped with all products that run in windows mode, is activated as soon as a system's CAS is started. Plex Manager allows you to monitor and manage targets and the connections between all products that run in windows mode on all systems.

Product/Utility	Option	Description
Utilities, Tools, and Messages	U	Utilities, Tools, and Messages menu is displayed. This menu provides access to <ul style="list-style-type: none"> the journal logs used by some MAINVIEW products the MAINVIEW batch reporting facility (MVBATCH) the Messages and Codes display
Automated Operations	A	MAINVIEW AutoOPERATOR menu is displayed. This menu provides access to MAINVIEW AutoOPERATOR products.
CICS	C	CICS Solutions menu is displayed. This menu provides access to <ul style="list-style-type: none"> MAINVIEW for CICS Energizer for CICS
DB2	D	DB2 Solutions menu is displayed. This menu provides access to MAINVIEW for DB2. Note: To access Rx2, you can type RX on the COMMAND line or in the OPTION field of any full-screen MAINVIEW application.
IMS	I	IMS Solutions menu is displayed. This menu provides access to <ul style="list-style-type: none"> MAINVIEW for IMS MAINVIEW for DBCTL
Linux	L	Linux Solutions menu is displayed. This menu provides access to MAINVIEW for Linux – Servers.
Network Management	N	Network Management Solutions menu is displayed. This menu provides access to <ul style="list-style-type: none"> MAINVIEW for IP MAINVIEW for VTAM
Storage Management	S	Storage Management Solutions menu is displayed. This menu provides access to MAINVIEW Storage Resource Manager (SRM) products.
Application Management and Performance Tuning	T	Application Management and Performance Tuning menu is displayed. This menu provides access to <ul style="list-style-type: none"> InTune MAINVIEW Batch Optimizer MAINVIEW VistaPoint MAINVIEW FOCAL POINT
WebSphere and MQSeries	W	WebSphere and MQSeries Solutions menu is displayed. This menu provides access to <ul style="list-style-type: none"> MAINVIEW for WebSphere Application Server MAINVIEW for WebSphere MQ MAINVIEW for WebSphere MQ Integrator
OS/390, z/OS, and USS	Z	OS/390, z/OS, and USS Solutions menu is displayed. This menu provides access to <ul style="list-style-type: none"> CMF MONITOR MAINVIEW for OS/390 MAINVIEW for UNIX System Services MAINVIEW SYSPROG Services

After you select a MAINVIEW product area, the menu for that product or products is displayed. For example, if you select option N (Network Management), the Network Management Solutions menu is displayed, as shown in Figure 2-2.

Figure 2-2 Sample Product Area Menu - Network Management

```

----- Network Management Solutions -----
OPTION  ==>                                DATE   -- dd/mm/yy
                                           TIME   -- hh:mm
Management                                USERID -- tsoid
  1  MVIP      MAINVIEW for IP              MODE   -- ISPF v.r
  2  MVVTAM    MAINVIEW for VTAM

Operations
  E  ALERTS    Alert Management

General Services
  M  MESSAGES  Messages and Codes
  P  PARS      Parameters and Options

```

All MAINVIEW product areas have a menu similar to this one. From a product area menu you can typically access

- one or more MAINVIEW products
- the Alert Management component of MAINVIEW Alarm Manager
- the Messages and Codes online display
- the MAINVIEW Parameter Editors menu

Some product area menus have additional, product-specific options.

Connecting to a Different CAS

To connect to a CAS other than the default CAS for your session:

- Step 1** From the MAINVIEW Selection Menu, select option **0** (Parameters and Options).

The MAINVIEW Parameter Editors menu is displayed.

- Step 2** Select **CONTROL** to display the MAINVIEW Session Control Parameters panel, as shown in Figure 2-3 on page 2-8.

This panel gives you the opportunity to specify a different CAS connection before a MAINVIEW product starts.

Figure 2-3 Session Control Parameters Panel

```

----- Default Session Control Parameters -----
COMMAND ==>
Subsystem ID    ==> BBCS      (CAS Subsystem ID, ? for list of active SSIDs)

Confirm CAS    ==> NO       (Display CAS Connect Session Control, Yes/No)
XDM mode       ==> NO       (Execute session in diagnostic mode, Yes/No)

Press END to save updates or HELP for more information.

```

If you know the ID of the CAS that you want to connect to, specify it in the **Subsystem ID** field, and then press **Enter**.

If you do not know the ID of the CAS that you want to connect to, you can do the following:

- 2.A** In the **Subsystem ID** field, type a question mark (?) or leave the field blank, and then press **Enter**.

A list of active CASs—called the SSID Selection Table—is displayed. The SSID Selection Table lists each subsystem ID and identifies what release of MAINVIEW Infrastructure the CAS is running.

- 2.B** Type an **S** or **/** next to the subsystem ID of the CAS to which you want to connect, and then press **Enter**.

Note: The CAS that you connect to must be running the same release as the MAINVIEW CLIST that you used to start your terminal session.

The CAS connection process continues. The subsystem ID that you selected is saved in your profile and appears in the Subsystem ID field the next time that you log on.

Stopping a TSO Session

To stop a TSO session:

- Step 1** Exit all active products using one of the following methods:

- On the **COMMAND** line, enter **=X**.
- Press the **End** key until you reach the MAINVIEW Selection Menu.

- From a Primary Option Menu (full-screen mode only), select option X.
- Use the Quit command.

Note: You may be returned to a product's initial menu when you issue the Quit command. From there, you can press the End key to reach the MAINVIEW Selection Menu.

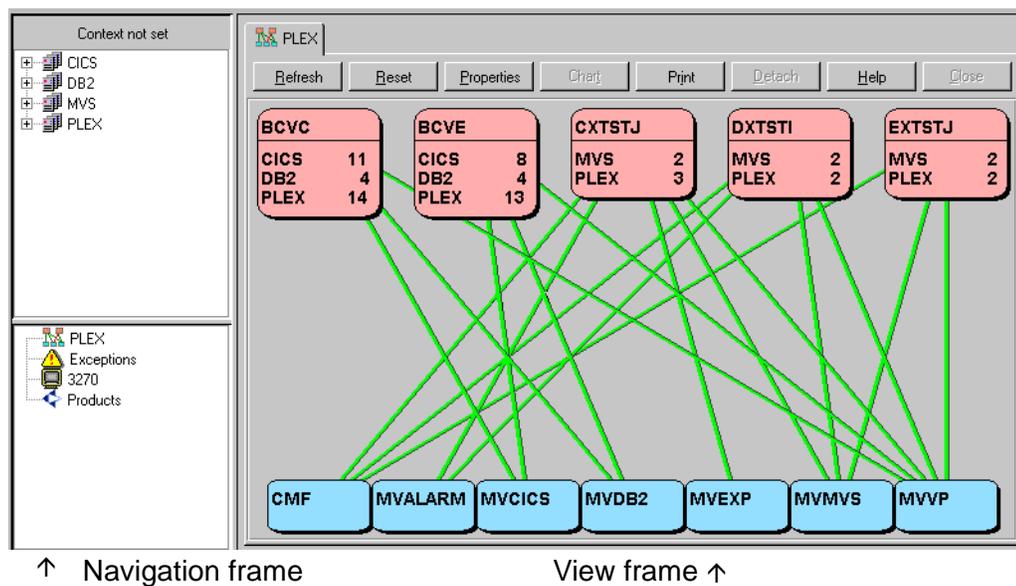
Step 2 From the MAINVIEW Selection Menu, select option X or press the **End** key.

Chapter 3 The Basics of MAINVIEW Explorer

This chapter explains how to

- access MAINVIEW Explorer
- use the navigation frame
- set a target or SSI context
- set personal configurations
- use the view frame
- get help while using MAINVIEW Explorer

The MAINVIEW Explorer window consists of a navigation frame and a view frame, as shown in the following figure.



The navigation and view frames are discussed in the following sections.

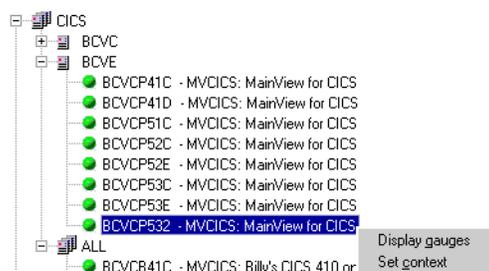
Understanding the Navigation Frame

The navigation frame is displayed on the left side of the MAINVIEW Explorer window. The upper portion of the navigation frame contains the Systems tree. The lower portion contains the Products tree. Subsystems, MVS images, MAINVIEW products, and views are represented by icons or *nodes* on branches of the trees. The final node on any branch represents a view.

To display a brief description of a node, select it, right-click, and choose the **Help** option from the pop-up menu. To expand a branch in the tree, click the + icon or double-click the node. To collapse a branch, click the - icon or double-click the node.

Systems Tree

The Systems tree displays major nodes for which there are subsystems monitored by MAINVIEW products. For example, a CICS node is displayed in the Systems tree if MAINVIEW for CICS is installed on the host. Each subsystem node contains a node for every MVS image that runs that subsystem and every single system image (SSI) defined for that subsystem. Each MVS image node contains a node for every CICS system running on that MVS image. Each SSI node contains a node for every CICS system defined in that SSI.



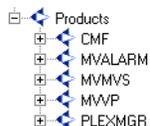
To use the Systems tree, you can right-click a system icon which will bring up a box with the following choices:

- Display gauges offer a view of gauges that indicate the general health of a system. You can hyperlink to other views from these gauges and attempt to correct any problems with the system.
- Set a target context or single system image (SSI) context for all subsequently opened views. For details, see “Setting a Context” on page 3-5.

You can also double-click a system icon to automatically set the context and display gauges for that system.

Products Tree

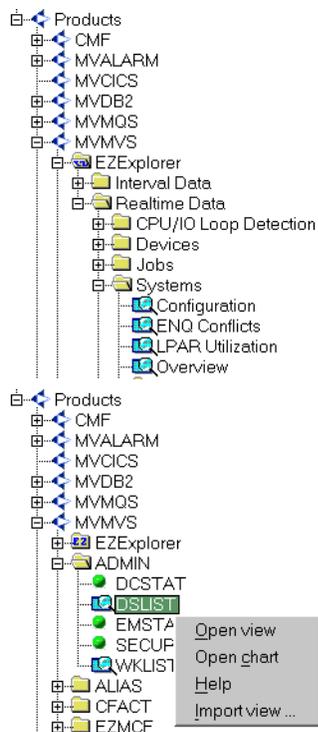
When you set a target or SSI context using the Systems tree, the Products tree expands automatically to include a node for each MAINVIEW product available in that context; product nodes are not displayed until you set a context. For example, if an SSI context of ALL is specified, the expanded Products tree might look like this:



Double-click a product icon to display the views for that product. The products are:

CMF	CMF MONITOR
MVALARM	MAINVIEW Alarm Manager
MVEXP	MAINVIEW Explorer
MVCICS	MAINVIEW for CICS
MVDB2	MAINVIEW for DB2
MVIMS	MAINVIEW for IMS
MVIP	MAINVIEW for IP
MVLNX	MAINVIEW for Linux – Servers
MVMQS	MAINVIEW for WebSphere MQ
MVMVS	MAINVIEW for OS/390
MVVTAM	MAINVIEW for VTAM
MVWEB	MAINVIEW for WebSphere Application Server
MVSRM	MAINVIEW SRM (Storage Resource Manager)
MVUSS	MAINVIEW UNIX System Services
MVVP	MAINVIEW VistaPoint

When you expand a product node, the EZExplorer node and view folder nodes are displayed. If you know what information you want to display about a resource, but you do not know which view displays that information, double-click the EZExplorer node. The EZExplorer node contains folders of views grouped by functionality. These views have descriptive titles, rather than view names, as shown here:



For example, the Jobs folder lists some key job activity views. Most EZExplorer nodes contain folders for devices, jobs, systems, workloads, and utilities.

Alternatively, you can use the view folders listed beneath the EZExplorer node to list the views by name. For example, the ADMIN folder contains administrative views.

To open a view, double-click its icon or right-click the icon to display a pop-up menu, as shown above. To locate a view in a product node or folder node, right-click the node's icon and choose the **Locate view** option from the pop-up menu. For more information on working with views, see “Working with MAINVIEW Explorer Views” on page 4-1.

Plex Node The Plex node displays the Plex Map. For more information, see “Using the Plex Map” on page 3-5.

Exceptions Node The Exceptions node displays a view of exception messages indicating that threshold conditions have been met. Double-click the Exceptions icon to display alerts from all systems in the view frame. For more information on exceptions, see “Displaying Exceptions” on page 4-15.

3270 Node The 3270 node displays the 3270 emulator window. Some views contain hyperlinks to ISPF-only views. When you activate such a hyperlink, the emulator window is opened automatically to provide access to those views. To open the emulator window manually, double-click the 3270 icon. For more information on the emulator window, see “Hyperlinking to Other Views” on page 4-6.

Sizing the Navigation Frame:

To size the navigation frame horizontally:

- Step 1** Position the mouse pointer on the right border of the navigation frame until the pointer becomes a double-arrow ⇔.
- Step 2** Hold down the left mouse button.
- Step 3** Drag the border to the left or right.

To size the upper or lower portions of the frame vertically, point to the middle border, hold down the left mouse button, and drag the border up or down. Scroll bars are automatically displayed when data does not fit in the navigation frame.

Using the Plex Map

As shown in the figure on page 3-1, the Plex Map shows the active MAINVIEW products, the systems on which they are active, and the connections between them. Green lines indicate active connections. Red lines indicate inactive connections. Using the Plex Map, you can see at a glance which systems are active and running MAINVIEW products.

To rearrange the objects in the Plex Map, point to an object with the mouse, hold down either mouse button, and drag the object to the desired location. To display the default arrangement, click the **Reset** button at the top of the view frame.

The default arrangement displays MVS image boxes at the top of the Plex Map. Each box lists the subsystems and the number of targets being monitored. If you click on a subsystem name (for example, CICS 4 under SYSA), the cursor is positioned on that subsystem (CICS) in the Systems tree, and the system node (SYSA) is expanded to show the four CICS target regions.

Setting a Context

Before you can access product views in the Products tree, you must set a context. The Products tree will not contain any products until you set a context. A context can be a single target system or a predefined single system image (SSI) that includes multiple target systems. ALL is a predefined SSI context that includes all active systems. Any view opened after you set the context will display data for that context.

To set a target context:

- Step 1** In the Systems tree, expand a subsystem node.
- Step 2** Expand an MVS image node to display target contexts defined for that image.
- Step 3** Double-click on the node.

Alternatively, right-click on the target and choose the **Set context** option from the pop-up menu.

To set an SSI context:

- Step 1** Right-click on the SSI context.
- Step 2** From the pop-up menu, choose the **Set SSI context** option.

After you set a context, the **Context** indicator at the top of the navigation frame indicates the target or SSI context. Additionally, the Products tree is expanded to display the MAINVIEW product nodes for which that context is valid.

To change the context of a view that is already open, use the **Context** page in the view's properties notebook.

Setting Personal Configurations

From the File menu above the navigation frame, you can open, close, save, or delete your personal or system configuration. You can also choose to specify no default configuration, import a 3270 screen, or import data from a file.

This feature allows you to specify one or more complete configurations of system state. You can open several views (from one or more contexts or products), set one or more views in auto-refresh mode, detach and arrange them with a certain size and location (along with any accompanying charts, detached or not). Then, if this is a configuration you like, you can save it in a personal user library, or a site library (SBBCDEF) to be shared among all users.

You can save several configurations and specify which one you want automatically opened when you start MAINVIEW Explorer. Because these configurations are saved in mainframe data sets, you can access them from any Web-connected computer, not just your own personal computer.

- Open configuration** From the **File** menu, choose **Open configuration**. In the Open configuration dialogue box, set your library by selecting the site or user radio button, then from the drop-down list on the right, select the configuration you want to open.
- Close configuration** From the **File** menu, choose **Close configuration**. This action closes all currently open windows for this configuration.

- Save configuration** From the **File** menu, choose **Save configuration**. In the Save configuration dialogue box, set your library by selecting the site or user radio button, then from the drop-down list on the right, select the configuration you want to replace or type in the name of a new configuration in the **File** field. You can also add an optional description.
- Set initial context:** Use this option to automatically set the initial context to the one specified when you start a MAINVIEW Explorer session.
- Set as default configuration:** Use this option to open this configuration as the default whenever you start a MAINVIEW Explorer session.
- Replace member:** The default is to replace an existing member unless this option is unchecked.
- Delete configuration** From the **File** menu, choose **Delete configuration** to delete a configuration from your personal library or from the site library.
- Import screen** From the **File** menu, choose **Import screen (3270)**. In the Import screen (3270) dialogue box, select the screen definition that you want from the drop-down list.
- As a convenience, you can import a 3270 screen definition (created in windows mode with the SAVESCR command) and it will open the views as if it were a configuration file. You can then tailor the display and save it as a MAINVIEW Explorer configuration.
- Import data from file** To import a view that was previously exported to a data file:
- Step 1** From the **File** menu, choose **Import data from file**. The Import data from file dialog is displayed.
 - Step 2** Select the directory that contains the file to import.
 - Step 3** Select the file to be imported and click the **Open** button.
- The view is displayed in the view frame. The status line at the bottom of the view frame displays the context and time for the imported view.

Understanding the View Frame

Open views are displayed as tabbed pages in the view frame, to the right of the navigation frame. Each view page has several common components: a view tab, buttons, a command line, and a status line, as shown in the following figure. These components are discussed in the following sections.

Note: The command line is available only on tabular and detail views.

View tabs →
Buttons →

The screenshot shows a window titled 'JDELAY' with a menu bar (Refresh, Synchroni..., Properties, Chart, Print, Detach, Help, Close) and a data table. The table has columns: Jobname, T, SrvClass, Step Data, Total Delay %, %Dly CPU, %Dly DEV, and %Dly Stor. The data is as follows:

Jobname	T	SrvClass	Step Data	Total Delay %	%Dly CPU	%Dly DEV	%Dly Stor
DC\$SWTHC	S	STCNRM	YES	100.00			
BCVCS33C	B	BATNRM	YES	37.14			
BCVCS41C	B	BATNRM	YES	27.14			
BCVCS51C	B	BATNRM	YES	24.63			
IMSFP19X	B	BATNRM	YES	16.77			
DC\$HSMC	S	STCNRM	YES	6.40	0.47	6.40	
DC\$BBI	S	STCNRM	YES	3.22	0.47	0.11	
LLA	S	SYSSTC	YES	1.95			
DC\$TCPIP	S	SYSSTC	YES	1.54	1.54		
IMS41Y	B	BATNRM	YES	1.15	0.19		
IMS61X	B	BATNRM	YES	1.15	0.19		
DC\$SYSC	S	STCNRM	YES	0.56	0.28		
CATALOG	S	SYSTEM	YES	0.53		0.35	
BCVSPASC	S	STCNRM	YES	0.38	0.38		
BMVEEW2	T	TSONRM	YES	0.38	0.19		
XCFAS	S	SYSTEM	YES	0.32	0.32		
CNMNETC	S	SYSSTC	YES	0.31	0.31		
DUMPSRV	S	SYSTEM	YES	0.19			
SLS0	S	SYSSTC	YES	0.19			
CNMPROCC	S	STCLOW	YES	0.19	0.19		
BCVJWB2	T	TSONRM	YES	0.19	0.19		
BOLGBG2	T	TSONRM	YES	0.19		0.19	
CMRSSTA	S	STCPAS	YES	0.19	0.19		
BMVJOJ1	T	TSONRM	YES	0.19			0.19
ENGKPAS	S	STCNRM	YES	0.18		0.18	
BOLWHB4	T	TSONRM	YES	0.09		0.09	

At the bottom, there is a Command line with a 'Send' button and a status line showing: 'JDELAY Product: MVMVS Context: CXTSTJ System: CXTSTJ 09-Nov-99 1:09:02 PM'.

Command line →
Status line →

View Tabs

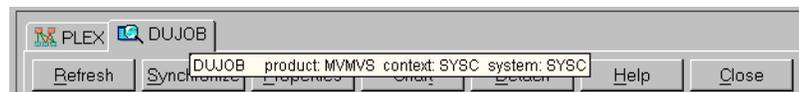
The view tabs in the view frame provide an easy way to display any view in the view frame; just click the tab to bring the view to the forefront of the view frame. Each tab contains the name of the view and an icon that indicates the type of view. The tabs are displayed at the top of the window, as shown here:



Generally, the tab for a newly opened view is positioned to the right of the right-most tab in the view frame. However, alternate forms of a view, such as tabular, detail and chart views, are grouped together.

Tab Icon	Indicates the following type of view
	HTML view
	Tabular view
	Alternate form of a view, for example, a detail
	Chart
	Plex Map
	3270 emulator
	Exceptions

To display help for a view tab, position the mouse pointer on the tab. The resulting tool-tip contains the name of the view, the MAINVIEW product to which it belongs, and the context, as shown here.



The status line at the bottom of the view frame provides this information for the current view. However, you can display a tool-tip for any view tab in the view frame by hovering your mouse over that view tab.

Buttons

Each tabbed page in the view frame contains a row of buttons which perform functions on the currently displayed view. A brief description of a button appears when you position the mouse pointer on the button



Refresh Refreshes the data displayed in the current view by retrieving new data from the host. Refreshing a view or any alternate form of the view, such as a chart or detail view, automatically refreshes all forms of the view.

If the **Export data to file** or **Copy data to clipboard** option is checked on the view's **View** property page, the view is also exported or copied to the clipboard, respectively.

Synchronize Locates and highlights the current view in the Systems or Products tree.

Properties Displays the properties notebook for the current view, allowing you to change characteristics such as the font, color, refresh rate, chart type, filters, timeframes, and items displayed in the view.

Chart Displays a chart of the data in the current view. Several chart types are available; see "Using Charts" on page 4-12 for details.

The **Chart** button is grayed and unavailable when displaying a chart view or any other view that does not support a chart view, for example, the Plex Map view.

Print Prints the current view at your default printer.

Detach/Attach Detaches the current view from the view frame and creates a separate window. The detached window can be moved and sized independently of the MAINVIEW Explorer window. In a detached window, the **Detach** button is replaced with the **Attach** button, which re-attaches the view as a tabbed page in the MAINVIEW Explorer view frame. This is grayed and unavailable for the Plex Map view.

Close Closes the current view and removes it from the view frame. When you close a primary view, any alternate forms of the view, such as a chart or detail view, are also closed. The **Close** button is grayed and unavailable for the Plex Map view.

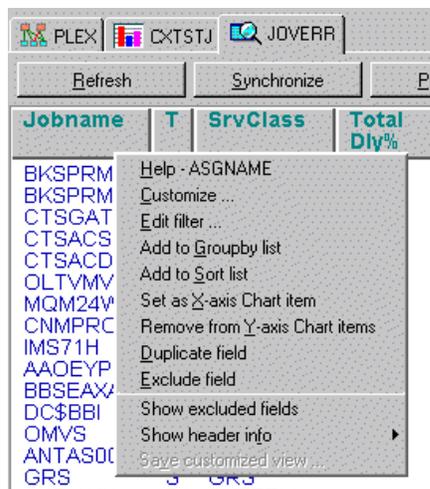
Note: The HTML view tab replaces the Synchronize and Chart buttons with Back (<-) and Forward (->) Navigation buttons

Header Buttons

The information in the header buttons represents your current settings.

Left click on a column to sort the view by that column, ascending for alpha fields and descending for numeric fields. A second click will reverse the sort direction.

Right-click on any column to display a pop-up menu that offers customization options for that column (See “Customizing Views in MAINVIEW Explorer” on page 5-1.). Below the menu separator are options that apply to the entire view.



Show excluded fields

Certain fields (or columns) in a view may be defined in the view definition as excluded fields. The data for these fields is retrieved from the host but not displayed in the view. Check this option to display the excluded fields in the view. Uncheck it to hide them.

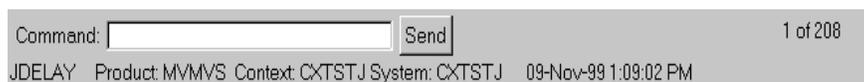
Show header info

You can display information directly in the header buttons regarding which columns are being used for grouping, sorting, summarization, charting, and positional parameters. You can also display the current form filters in use.

Save customized view If you have customized the view in any way, you can choose this option to save the customized view definition without closing the view. It will be grayed out if no customizations have been made.

Command and Status Line

Below each view page is a command and status line, as shown here.



```
Command:  Send 1 of 208
JDELAY Product: MVMVS Context: CXTSTJ System: CXTSTJ 09-Nov-99 1:09:02 PM
```

Use the command area to enter MAINVIEW commands to perform a task that you cannot otherwise perform with MAINVIEW Explorer. See “Executing MAINVIEW Commands” on page 4-16 for more information.

The status line shows the

- name of the current view
- MAINVIEW product to which the view belongs
- context (when the context is a single system image (SSI), the **SSI context** is displayed)
- system
- date and time the data was collected from the host
- refresh rate, when automatic refresh is active
- row position, for tabular views

Getting Help

MAINVIEW Explorer provides comprehensive online Help to explain basic concepts, icons, buttons, dialog boxes, views, and fields within views.

To display the general Help for MAINVIEW Explorer, click the **Help** menu above the navigation frame and choose **Help topics** from the drop-down menu.

To display Help for a node in the navigation frame or a field in a view:

- Step 1** Point to the desired node or field and right-click.
- Step 2** From the object’s pop-up menu, choose the **Help** option.

Chapter 4 Working with MAINVIEW Explorer Views

This chapter explains how to work with MAINVIEW Explorer views, including how to

- locate, open, and detach a view
- refresh, sort, and filter view data
- export and import a view
- copy view data to the clipboard
- print a view
- hyperlink to other views
- view historical data
- show excluded data fields
- change the color and font used in a view
- change chart properties

Locating a View

To locate a specific view in a product node, EZExplorer node, or view folder node, point to the node, right-click, and choose **Locate view** from the pop-up menu. The following window is displayed:



To locate a view, select a view from the list and click **OK**. The Products tree expands as necessary and the view node is highlighted. To locate and open the view in the view frame, check the **Launch view when located** option and click **OK**.

Opening a View

The final node in any branch is a view. To open a view, double-click its icon or right-click the icon and choose the **Open view** option from the pop-up menu. To open the chart form of a view, click the **Chart** button on an open view.

The view is displayed in the view frame, to the right of the navigation frame.

Autolaunching a View

To see a particular view open automatically when you open MAINVIEW Explorer:

- Step 1** Open the desired view
- Step 2** Click the **Properties** button.
- Step 3** Select the **View** tab of the notebook.
- Step 4** Check the **Launch this view...** option on the **View** page.

Next time you open MAINVIEW Explorer, this view will be opened automatically, using the settings on the view's **Context**, **Filters**, and **Refresh** pages. If the view is detached when you close the view or close MAINVIEW Explorer, it will be launched as a detached view at its previous desktop location. If a chart for the view is open when you close the view or close MAINVIEW Explorer, both the view and the chart are launched when you open MAINVIEW Explorer.

If an automatically launched view fails to open because the previously specified context no longer exists, the **Launch this view...** option is automatically unchecked, giving you an opportunity to reset the context.

Detaching a View

To detach a view from the MAINVIEW Explorer window, click the **Detach** button. The view is displayed in a separate window and can be manipulated independently of the MAINVIEW Explorer window; you can resize and close it as desired. When you close MAINVIEW Explorer, any detached views are also closed.

To attach a detached window, click the **Attach** button on the detached view window.

Refreshing View Data

You can manually refresh the data in a view by clicking the **Refresh** button on the view page. New view data is then retrieved from the host and displayed in the view. Refreshing data in a view automatically refreshes the data in any alternate form of the view, such as a chart or detail view.

You can set an automatic data refresh cycle by using the following procedure:

- Step 1** Click the **Properties** button for the desired view.
- Step 2** Select the **Refresh** tab of the notebook.
- Step 3** Drag the slider to set the number of seconds between data refreshes. The minimum time between automatic refreshes is 10 seconds.
- Step 4** Click the **Start** button to start the refresh cycle.

To stop the automatic refresh cycle, click the **Stop** button on the **Refresh** page of the notebook.

Note: You cannot set a refresh rate for the Plex Map or for a chart.

Sorting View Data

In a tabular view, rows of data are sorted by a particular column, as specified in the host view definition. By default, numerical data is sorted in descending order, high to low. The default for character data is ascending order, A through Z. To reorder the data, click the column heading you wish to sort. Click again to sort the data in the opposite order. The sort order is retained until you resort the data or close the view.

Exporting a View

Exporting a view is a good way to take a snapshot of data. The view data is exported in comma-separated values (CSV) format, which can be opened in a spreadsheet application or imported into MAINVIEW Explorer. All of the fields in the view, even those defined as hidden in the view definition, are exported to the file.

To export tabular view data to a file:

- Step 1** Click the **Properties** button for the desired view.
- Step 2** Select the **View** tab of the notebook.
- Step 3** Check the **Export data to file** option. The **Choose a directory to export to** dialog box is displayed.
- Step 4** Select the folder in which you want to save the exported file and click the **Open** button. To export the file, click the **Save** button.

The view name is used as the exported file name, regardless of what you type for the file name. The first time the file is exported to a particular folder, the number 1 is used as the file extension. For example, when exporting the JOVER view, the exported file is named JOVER.1.

Each time you click the **Refresh** button while the Export data to file option is checked, a new file is created using the newly refreshed view data. The file is exported to the previously specified folder using the view name as the file name, however, the file extension is incremented by one. For example, if the first file is JOVER.1, the next is JOVER.2, and then JOVER.3, and so on. This is a good way to create a series of views to demonstrate a performance pattern or other interesting condition.

Additionally, a file with an extension of .CSV is created. When the **Refresh** button is clicked, the data in the .CSV file is replaced. The .CSV file can be opened in a spreadsheet application.

To change the previously specified export folder, clear the **Export data to file option**, and then check it again to display the **Choose a directory to export to** dialog box. Select another folder and click the **Open** button.

Importing a View

To import a view that was previously exported to a data file:

- Step 1** Right-click on any icon in the Products tree.
- Step 2** From the pop-up menu, choose the **Import view** option. The **Import view** dialog box is displayed.
- Step 3** Select the directory that contains the file to import.
- Step 4** Select the file to be imported and click the **Open** button.

The view is displayed in the view frame. The status line at the bottom of the view frame displays the context and time for the imported view.

Copying View Data to the Clipboard

To copy the current view data to the clipboard:

- Step 1** Right-click on a column header button (in tabular views) or a field (in detail views).
- Step 2** From the pop-up menu, choose the **Copy data to clipboard** option.

The view data is copied to the clipboard in tab-separated format, which can be pasted into a word processor or spreadsheet application. All of the fields in the view, even those defined as hidden in the view definition, are copied to the clipboard.

Each time you click the **Refresh** button while the Copy data to clipboard option is checked, the clipboard content is replaced with the newly refreshed view data.

The Copy data to clipboard option remains active until you clear it. To end the clipboard copy function, right-click and choose Copy data to clipboard again.

Printing a View

To print a view, click the **Print** button. The view is automatically sized to fit the page size and print orientation for the selected printer.

Hyperlinking to Other Views

Most views contain hyperlinks to other views to display additional information about a particular system resource. In a tabular view, a turquoise column heading indicates that a hyperlink is defined for that column. To activate a hyperlink, double-click a field in a column that has a turquoise column heading. The target view is displayed in the view frame.

You can also hyperlink from a gauge on a chart by double-clicking the gauge.

To display the actual hyperlink request that is sent to the host for a particular field:

- Step 1** Right-click the field or gauge.
- Step 2** From the pop-up menu, choose the **Hyperlink** option to display the hyperlink command, as shown below. You can activate the hyperlink by selecting the command.



If the **Hyperlink** option is **none**, there is no hyperlink defined for the field or the data in the field does not satisfy the hyperlink criteria.

When the hyperlink is a **TRANSFER** to an ISPF-only view, MAINVIEW Explorer uses the 3270 emulator to provide access to the view. The 3270 emulator is distributed and installed with MAINVIEW Explorer.

The 3270 emulator is invoked automatically when you hyperlink to an ISPF-only view. Before the view is displayed, a dialog box prompts you to log on to the host if you are not already logged on, and to navigate to the MAINVIEW Selection Menu. When the MAINVIEW Selection Menu is displayed, MAINVIEW Explorer enters the **TRANSFER** command and displays the target view to fulfill your hyperlink request.

You can also invoke the 3270 emulator manually by double-clicking on the 3270 icon  in the Products tree.

To display the keyboard map for the 3270 emulator, click the **Properties** button in the emulator window and select the **Keyboard Map** tab of the notebook. Drag the edge of the box with your mouse to resize the keyboard map

Performing Host Actions from a View

To perform an action against a host resource:

- Step 1** Display the view from which the action is to be performed.
- Step 2** Using the mouse, point to a cell in the view and right-click.
- Step 3** From the pop-up menu, choose the **Action** option to display a list of actions for the selected cell.
- Step 4** Select the desired action from the menu.

The action is performed immediately, unless the action name is followed by an ellipsis, for example, **Add...** . Selecting such an action displays a window in which you can overwrite the value of the field.

If the action is unsuccessful, a window containing MAINVIEW host messages is displayed. These messages are documented in the MAINVIEW online message system.

Filtering Data in a View

You can set conditions to show only the view data that meets your condition criteria. Conditions are defined with filters. A filter condition is one or more expressions used to define criteria for the data elements in one or more fields. For example, in a view that displays jobs, you might display only those jobs having names beginning with the letters CICS, or with a status of INACTIVE.

To set filters conditions for a view:

- Step 1** Click the **Properties** button for the view.
- Step 2** Select the **Filters** tab of the notebook.
- Step 3** Specify a filter value, as described below, for one or more element names (column headings).

Step 4 Click the **Apply** button to display the filtered data in the view.

A filter condition consists of

- The field's internal element name (the field's column heading is shown in parentheses beneath the element name on the Filters page)
- A relational operator (>, >=, <, <=, or =)
- A filter value, which must be valid for the field. If the field accepts character data, this value can include one of the following wildcard characters:
 - * Represents any number of characters, including zero. The asterisk must be the last or only character in the value, for example, `JOBNAME=CICS*` or `JOBNAME=*`.
 - ? Represents a single character. A ? can appear in one or more positions in the value, for example, `JOBNAME=CICS?2?`.

The filter conditions are temporary and are discarded when the view is closed.

If the **Filters** page does not list the element name that you want to use as a filter, consider executing the WHERE command on the view's **Command** page. See "Executing MAINVIEW Commands" on page 4-16 for details.

Viewing Historical Data

System data from the past, such as an hour ago, yesterday, or last month can be stored in historical data sets on the host. If you are unsure whether data has been recorded in historical data sets, use the DSLIST view. DSLIST lists the historical data sets and shows the date and time the data was recorded. If the time period you want is not shown by DSLIST, perhaps the data was archived, overwritten, or never collected. See your system administrator if you need access to this data.

To display past data in a view:

Step 1 Click the **Properties** button for the view.

Step 2 Select the **Time** tab of the notebook.

Step 3 Specify a past time frame using the date and time pull-down list.

- Step 4** Specify a duration using the **Duration** field. Specify the length of the timeframe that ends at the requested date and time. This is the number of intervals, minutes, hours, days, or weeks. The default duration is 1 interval. An interval is specified in the host product and is by default 15 minutes. For example if you select a duration of 3 intervals for the current time, you get three rows for each object, each one representing a 15-minute interval back from the current time.
- Step 5** Optionally, select a value from the **Select days** pull-down list to limit the intervals within the specified timeframe to those that end on the desired day or days of the week.
- Step 6** Optionally, select a value from the **Select shift** pull-down list to limit the intervals within the specified timeframe to those that end within the selected time-of-day range. The shifts are
- | | |
|------------|----------------------|
| Allday | All hours of the day |
| Primeshift | 08:01 through 16:00 |
| Swingshif | 16:01 through 00:00 |
| Graveyard | 00:01 through 08:00 |
- Step 7** Click the **Apply** button to display the historical data in the view.

The status bar in the view frame indicates the specified timeframe. If no historical data exists, the current time is displayed.

This timeframe remains in effect until reset or until the view is closed. All views opened by hyperlinking from this window use the same timeframe.

In a tabular view, the data from the most recent interval specified and preceding intervals is presented in the view. In a detail view, only the last interval in a timeframe is displayed.

Showing Hidden Fields in a View

Certain fields (or columns in tabular views) are defined in the host view definition as hidden fields. The data for these fields is retrieved from the host but not shown in the view. To include these fields in the view:

Step 1 Click the **Properties** button for the view.

Step 2 Select the **View** tab of the notebook.

Step 3 Check the **Show hidden fields** option.

The view is redisplayed with all of the fields defined in the view. To remove the previously hidden fields, clear the **Show hidden fields** option.

Changing View Colors

MAINVIEW uses different colors in a view to indicate that a threshold condition has been met. The threshold and default color indicators are defined in the host view definition. However, you can change the colors associated with thresholds within MAINVIEW Explorer.

To change the colors used in a view:

Step 1 Click the **Properties** button for the view.

Step 2 Select the **Color** tab of the notebook.

Step 3 In the scrollable list, select the part of the view you want to change.

The current color for that part of the view is displayed in the color box to the right of the list.

Step 4 Click a color from the palette.

The selected color is displayed in the color box and in the view.

Step 5 Repeat Steps 3 and 4 as necessary for other parts of the view.

The view is redisplayed with the newly selected colors.

To use the current color settings for all views of this type (query, gauge, 2D or 3D charts), click the **Use these colors for all** button.

To restore the colors distributed with MAINVIEW Explorer, click the **Factory defaults for all** button.

To restore the colors that were last saved as defaults (either user-defined or distributed defaults), click the **Defaults** button.

Note: If you have saved color settings in a configuration and want to restore the distributed defaults, you must resave the configuration. See “Setting Personal Configurations” on page 3-6.

Changing the Font Used in a View

To change the font and point size of text in a view:

- Step 1** Click the **Properties** button on the chart view.
- Step 2** Select the **Font** tab of the notebook.
- Step 3** Select a font and point size on the **Font** page.

The view is redisplayed with the newly selected font. The font setting is temporary and is discarded when the view is closed.

The settings on the **Font** page can be saved. See “Saving View Preferences” for details.

Note: If you have saved font settings in a configuration and want to restore the distributed defaults, you must resave the configuration. See “Setting Personal Configurations” on page 3-6.

Saving View Preferences

To save the settings on the **Chart**, **Items**, and **Font** property pages for all views with the current view’s name:

- Step 1** Click the **Properties** button on the view.
- Step 2** Select the **View** tab of the notebook.
- Step 3** Check the **Use as defaults for every...** option.

For example, if you check this option for a JOVER view, every time you open any JOVER view for any MAINVIEW product, the settings on the **Chart**, **Items**, and **Font** property pages will be used.

Using Charts

To display the data in a view in a chart, click the **Chart** button on the view page. This button is grayed if the chart format is not available for the view (for example, the Plex Map or ALARM view). The chart view is displayed in the view frame.

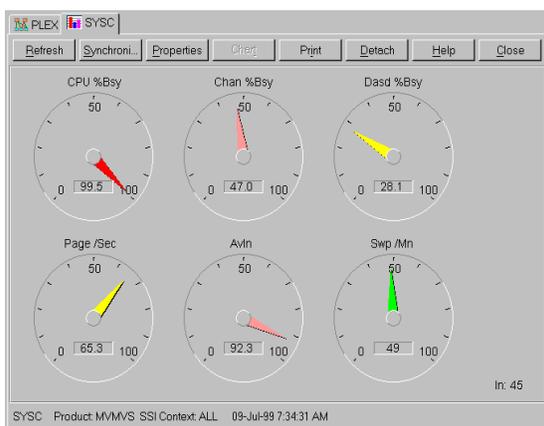
The default chart type is the 3D bar chart, but you can specify other chart types. You can customize the font, background color, and the items displayed on the chart; the default data is determined by the host view definition.

Changing the Chart Type

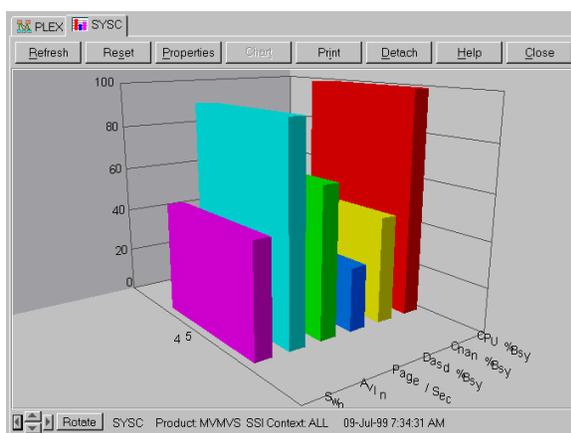
The following chart types are available:

- Two-dimensional line, area, column, and bar charts
- Three-dimensional line, area, column, and pie charts
- Gauge charts

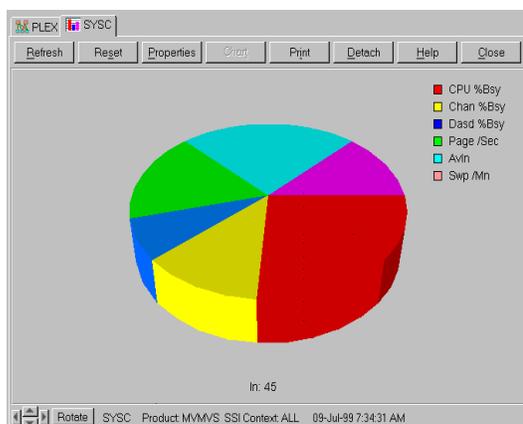
Some sample charts are shown in the following figures:



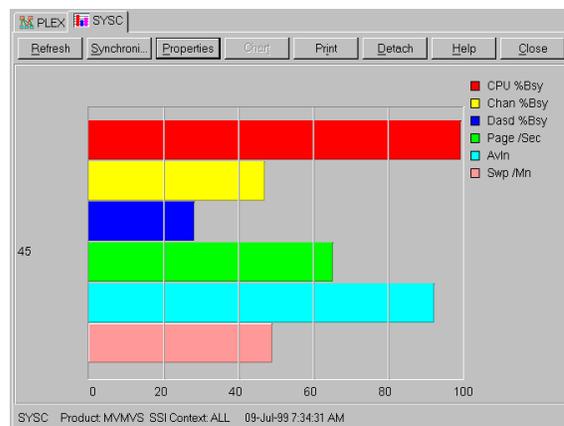
Gauge Chart



3D Bar Chart



3D Pie Chart



2D Bar Chart

To change the type of chart:

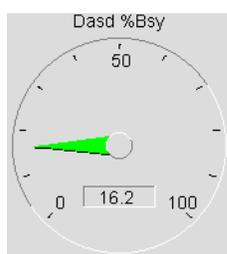
- Step 1** Click the **Properties** button on the view or on the chart.
- Step 2** Select a chart type from the **Chart** page. If the chart view is open, the chart is redisplayed with the newly selected chart type.

The selected chart type remains in effect until you change it or close the view.

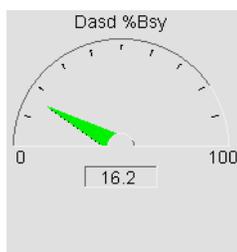
The settings on the **Chart** page can be saved. See “Saving View Preferences” on page 4-11 for details.

Changing the Type of Gauge

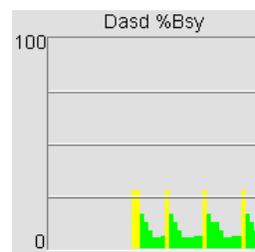
You can use any of the following chart types:



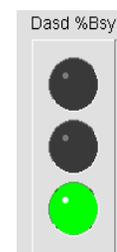
Full circle



Half circle



Histogram



Stoplight

To change the types of all the gauges on the gauge display page:

- Step 1** Click the **Properties** button on the chart display.
- Step 2** Select either **Full circle**, **Half circle**, **Histogram**, or **Stoplight** on the gauge properties tab.

To change the type of a single chart on the gauge display page:

- Step 1** Put your mouse on the gauge and right-click.
- Step 2** From the pop-up menu, choose the **Gauge type** option and then select the desired gauge type.

A chart can include any combination of gauge types. Your gauge selections remain in effect until you change them or close the chart.

Rotating a 3D Bar Chart

To rotate a 3D bar chart, click one of the four rotation arrows in the bottom left corner of the chart view. Click the **Rotate** button to rotate the chart continually in the direction of the most recently selected rotation arrow. Click the **Stop** button to stop the rotation.

Changing the Items Displayed in a Chart

By default, the items displayed in a chart are determined by the view definition. To change the items displayed on the chart:

- Step 1** Click the **Properties** button on the view or chart view.
- Step 2** Select the **Items** tab of the notebook.
- Step 3** Using the list of items, select the items to be displayed in the chart. To select multiple items, hold down the **Ctrl** key while selecting them with the mouse.

To deselect an item, hold down the **Ctrl** key and click the item.

The settings on the **Items** page can be saved. See “Saving View Preferences” on page 4-11 for details.

The **Items** page displays only those items eligible for charting (the key field and numeric fields). The first item is the key field and is used as the X-axis in the chart. The other fields are graphed on the Y-axis. When the pull-down list is initially displayed, the default chart items are highlighted.

By default, a pie chart represents the selected items for the key field. A gauge chart represents a single, selected item for the key field. To chart all of the rows in the view for the first non-key item selected in the pull-down list, check the **Graph all rows using first column** box.

Displaying Exceptions

The Exceptions node in the Systems tree displays a view of exception messages indicating that threshold conditions have been met. Double-click the Exceptions icon to display alerts from all systems in the view frame, as shown below.

The screenshot shows a window titled 'PLEX Exceptions' with a toolbar containing buttons for Refresh, Synchroni..., Properties, Chart, Print, Detach, Help, and Close. Below the toolbar is a table with the following columns: Received, Severity, Message Id, and Message Text. The table contains 11 rows of data, with the 'Message Id' column highlighted in turquoise, indicating it is a hyperlink. The status bar at the bottom shows 'Exceptions Product: MVALARM SSI Context: ALL 09-Jul-99 7:26:39 AM 1 of 11'.

Received	Severity	Message Id	Message Text
07/30/97	MAJOR	MVMVS	CPU Busv >= 99.5%
07/30/97	MAJOR	MVMVS	Channel Busv >= 47.0%
07/30/97	WARNING	MVMVS	DASD Busv >= 28.1%
07/30/97	WARNING	MVMVS	Paging rate >= 65.3 per second
07/30/97	CRITICAL	MQSERIES	Backlog on BMVPCC.QUEUE3 Local Q
07/30/97	CRITICAL	MQSERIES	Backlog on JOHNB.QUEUE7 Local Q
07/30/97	CRITICAL	MQSERIES	Backlog on SYSTEM.ADMIN.CHANNI
07/30/97	MAJOR	MQSERIES	PageSet usage is too high (>= 76%)
07/30/97	MAJOR	MQSERIES	Buffer pool usage is too high (>= 85%
07/30/97	CRITICAL	MQSERIES	Queue Manager CSQ3 is down
07/30/97	CRITICAL	MQSERIES	Queue Depth on CSQX.TO.CSQ1.XI

A turquoise column heading indicates that a hyperlink is defined for that column. To activate a hyperlink, double-click a field in the column. The target view is displayed in the view frame.

To display the actual hyperlink request that is sent to the host for a particular field:

- Step 1** Right-click the field or gauge.
- Step 2** From the pop-up menu, choose the **Hyperlink** option to display the hyperlink command. You can activate the hyperlink by selecting the command.

Displaying Client and Host Server Information

MAINVIEW Explorer is displayed as a product (MVEXP) in the **Products** tree and on the mainframe MAINVIEW Selection Menu. Selecting the MVEXP product displays the following views:

Host Server Summary (HSINFO)

Displays the following information for the host server: system, job name, version, IP address, port number, number of connected clients, maximum clients allowed, and expiration date.

Client Sessions Overview (CLIENTS)

Lists the client user IDs that are currently connected to the host server and the IP address, connection date and time, and number of open views for each user.

Executing MAINVIEW Commands

Occasionally, you might need to use a MAINVIEW command to perform a task that you cannot otherwise perform with MAINVIEW Explorer. For example, you might use the WHERE command to specify filter conditions that are not listed on the **Filters** page.

To execute a MAINVIEW command from MAINVIEW Explorer:

- Step 1** Type the command in the **Command** entry box at the bottom of the view. Delimit multiple commands with a semicolon (;)
- Step 2** Click the **Send** button or press **Enter** to send the command to the host for execution.

Generally, the current view is replaced by the results of the command. However, if you enter the FORM command, the requested form is displayed as a new tab in the view frame.

Notes:

- The command syntax is not validated prior to sending the command to the host. If the command is syntactically incorrect or incomplete, an error message is displayed.
- Commands must be valid for the current view.
- The **Command** entry box is not displayed on charts or HTML views.
- Commands that control MAINVIEW windows or display a dialog panel when used on the mainframe are not supported.

Chapter 5 Customizing Views in MAINVIEW Explorer

This chapter explains how to

- format data
- move fields
- edit thresholds
- edit hyperlinks
- edit filters
- add to Groupby list
- add to sort list
- set chart items (X or Y axis)
- add to parameter list
- duplicate fields
- exclude / include fields
- show header information
- save customized views

View customization allows you to change the current view and save the changes as needed. Views customized in MAINVIEW Explorer (or windows mode) will be saved in one of two folders: Cust User and Cust Site under the appropriate product in the products tree. Customized views can also be deleted from the mainframe using the Delete menu selection.

If you close a view after making changes, but do not explicitly save your customized view, you will be prompted to save your changes.

Customization generally happens at the field level. Right-click on the column header button (in tabular views) or on a field (in detail views) to choose options from the pop-up menu: editing the current filter, adding it to a Groupby list for summarization, or to the sort, parameter, or charting lists. You can also duplicate the field or exclude (or include) it. You can call dialogues to completely format the column, specify decimal precision, change heading text, or add any number of thresholds and hyperlinks.

Moving Fields

Use drag-and-drop to rearrange the order of columns in a tabular view or to move individual fields around in a detail view.

On a tabular chart, select the column you want to move and drag the column header to the column you want it to follow and drop it. If the column you want your selection to follow is not visible, drag your selection to the far left or right and the view will scroll until you find the column.

Formatting Data

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Format data** from the pop-up menu. Use the Format data dialogue to specify how a field and its data are displayed.

You can specify the following display attributes:

Width

Use the **Width** field to specify the display width of a field in number of column spaces. The width does not include the spaces between fields.

For numeric data, # characters appear in the column rather than the data if a number is larger than the width of a field.

For field headings, you must allow room for the values specified in the Headings fields or the values are truncated. The value for any one field cannot exceed 66 characters.

You must allow room for bar graph or hexadecimal data if either As graph or As hex is selected for the Display Mode.

Precision

Use the **Precision** field to specify the number of decimal places to show for numeric data. This value is ignored for fields of other data types.

The number of decimal places displayed for numeric data is affected by the value defined in the Width field. The decimal places are rounded to accommodate the width of a field. Insignificant decimal places are truncated to show as much useful data as possible.

For example, in a numeric field that has a Width value of 6 spaces and a Decimal value of 5 digits, the following example shows how numbers would be formatted for display in a view:

Number:	Format:	
.123456	.12346	
123.45	123.45	(value is rounded)
12345.6	12345.	(value is truncated)
123456.1	123456	(value is truncated)
1234567.	*****	(value is too big for width)

For hex data, use the Precision field to specify the number of significant digits to display. This value is ignored for fields of other data types.

Show zero

Use the **Show zero** check box to specify whether a 0 in a numeric field is displayed as a 0 or a blank. If checked, a 0 in a numeric field is displayed as a 0; otherwise it is displayed as a blank.

Headings

Use the **Header 1** and **Header 2** fields to define the field name that is displayed for a field in a view. If either of the values defined in these fields is longer than the value defined in the width field, the heading text is truncated when it is displayed in the view.

You can use curly braces to indicate that the heading should be padded with periods to fill the column (usually for repeated fields that show data graphically).

Example: 0{ }100 will show in the column header as 0100

Display Mode

Use the **Display Mode** radio buttons to specify the method of display for a field. Valid display modes are:

- as is:** Format is unchanged from the basic data type.
- as graph:** For numeric data types only, displays the data as a bar graph. For this display mode, you may specify a Graph upper limit.
- as hex:** Any data type can be displayed in hexadecimal; however, any field that has a default hexadecimal format cannot be changed to another data format.

You may need to adjust the width value to allow room in your view to display bar graph data or hexadecimal data.

Graph upper limit

Use the **Graph upper limit** field to select the upper limit that determines the range of the bar graph for a field. It can only be used when the data field has the Display Mode set to as graph. This field is also used to set the upper limit for all gauge charts.

Summarization type

Use the **Summarization type** radio buttons to specify how data in any field summary view is formatted. A summary view is one in which at least one column has been added to the Groupby list. This setting is ignored if the view is not a summary view.

The summarization types are sum, average, percent, count, minimum, maximum, and last. The default for numeric fields is average and the default for alpha fields is last.

Condition (for count)

When the Summarization type of count is set, you may optionally specify a condition for the count that will affect only the current column.

You can use this condition to count only rows that meet the specified condition or to exclude certain rows from summarization; for example, any fields having a zero value.

A condition can consist of

- Any relational operator (>, >=, <, <=, or =) or an additional BETWEEN operator defined with a greater than sign (> character) or a less than sign (< character)
- A numeric value or alphanumeric value (with optional wildcards) or for the BETWEEN operator, a parenthetical phrase

You cannot define the column ID value of another field in the Condition for count field.

Editing Thresholds

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Edit thresholds** from the pop-up menu. Use the Edit thresholds dialogue to specify as many threshold conditions as you need and their display attributes for a data field. When the data in a field meets a threshold condition, its appearance changes as defined.

Alternately, you can check the **Inherit from** box and select a field from the drop-down list to copy threshold settings from another field to this field.

The threshold condition and display attributes that you can specify are:

Condition See “Specifying a Condition” on page 5-14.

Attr Use the **Attr** field to assign a color to a condition by specifying a numeric value from the drop-down list.

Note: Colors can be changed globally using the Colors page from Properties.

Substitute Use the **Substitute** field to substitute an output character or character string for field values that meet the specified threshold condition.

For example, you might want the word **CRITICAL** to appear instead of actual data when the threshold condition is met for resources exceeding acceptable performance standards.

Note: The Substitute field is optional.

Use the **Insert** button to insert a new threshold template after the currently selected row or to create the first row if there are none present.

Use the **Move up** and **Move down** buttons to rearrange the positions of the thresholds.

Use the **Remove** button to remove a threshold.

When you save your customized view, you can specify a location where you want your threshold conditions to be saved. This allows a threshold to be available to all instances of this same element in other views or only for the view where the threshold is defined.

Editing Hyperlinks

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Edit hyperlinks** from the pop-up menu. Use the Edit hyperlinks dialogue to create, change, or delete hyperlinks between fields and views, commands, or other applications.

A hyperlink is one or more commands associated with a particular field and the conditions under which these commands are issued. When you activate a hyperlink, the underlying command is issued against the resource where the cursor is positioned.

You can customize any command and the conditions when it is issued for any field in a view. Any number of fields in a view can be defined with hyperlinks. Any number of hyperlinks can be defined per field.

You can customize different commands to be issued under varying data conditions occurring in a field. Depending on the state of a resource, the action that is taken could be different. When a hyperlink is activated, the conditions are evaluated from top to bottom and the action associated with the first true condition is executed.

Use the **Insert** button to insert a new hyperlink template after the currently selected row or to create the first row if there are none present.

Use the **Move up** and **Move down** buttons to rearrange the positions of the hyperlinks.

Use the **Remove** button to remove a hyperlink.

A hyperlink usually connects a field in a source view (the view where the hyperlink is activated) to a target view (the view displayed after the hyperlink is activated). Both the source view and the target view commonly share similar types of information, such as a job name or a service class. In the views distributed with your product, hyperlink fields are defined to display forms with more detailed information or to filter the data in the existing view.

When you establish a hyperlink between views, you can pass a keyword parameter from the source view to the target view. This parameter acts as a filter for the data displayed in the target view.

Specifying a Hyperlink Command

A command can be:

- a view name with optional parameters
- a valid action or actions separated by semicolons
- the EXPAND command for a summarized field

Optional parameters can be used only with a view command. Before you can pass parameters from a source to a target view, you must:

- Determine the element value that you want to pass from the source view.
- Ensure that the target view contains an element of similar data (for example, job name could be similar data that appears in both views).
- Ensure that the element to be passed is defined as a parameter to the target view.

Hyperlink Command Examples

To display JDELAY when a hyperlink is activated, enter **JDELAY**.

To pass the parameter ASGNAME to the target view, JDELAY, enter **JDELAY ASGNAME(A)**.

To use the FORM command to display JOVER and pass the parameter ASGASCT to JOVER, enter **FORM JOVER ASGASCT(Q)**.

To use the FORM command to display JOVER and pass the parameter ASGASCT to JOVER and then sort the data in column C in ascending order, enter **FORM JOVER ASGASCT(Q);SO C.A.**

Keyword Parameter Hyperlinks

A keyword parameter consists of the element name of a field in the source view you want to pass to the target view and a value in parentheses; anything other than a column ID may be placed in single quotes

Note: Typically you would pass the key field from the source view to the target view, as this field usually uniquely identifies a resource. If the field you want to pass is not defined as a keyword parameter, use the **Edit Filter** option to make it a keyword parameter.

The **Condition** and **Command** fields are displayed in the dynamic area.

In the **Condition** field, specify the condition that must be met before the hyperlink command is issued.

In the **Command (with parameters)** field, specify the target view, the element name of the JDELAY Jobname field, and the column ID of the Jobname field in the JFLOW view. For example, the command **JDELAY ASGNAME(A)** indicates that the information from column A in JFLOW is sent to the ASGNAME column in JDELAY.

Use the **Save view** option to save your new hyperlink.

Editing Filters

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Edit filter** from the pop-up menu. Use the Edit filter dialogue to define a filter for a field. You can define up to eight filters for a view.

If you save a complex filter condition using the WHERE command, the complex filter overrides any simple filter set for an element.

To define a filter condition, specify a relational operator and

- a numeric value for numeric fields
- an alphanumeric value (with optional wildcard characters)
- another column ID

Any field in a view that has a filter condition defined to it can be used as a

- positional parameter if you add it to the parameter list
- keyword parameter

A filter defined for a field can be overridden using the **Filters** page of the view properties. To remove an existing filter from a field, select **Edit filter** and clear the entry field.

To see the current form filters, use the **Show header info** option.

Showing Header Info

You can display information regarding which columns are being used for grouping, sorting, summarization, charting, and positional parameters directly in the header buttons. You can also view the form filters in use.

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Show header info** from the pop-up menu. This will display a cascaded menu from which you can select only one of the following items:

- Show headings only
- Show fields grouped by
- Show fields sorted by
- Show fields for charting
- Show positional parameters
- Show form filters

Adding to Groupby List

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Add to Groupby list** from the pop-up menu. Use this option to select one to four fields as summary fields for creating a summary view.

When you turn a tabular view into a summary view, you often want to exclude some fields, change the formatting of others, and modify titles.

Use the **Format** page to specify the summarization type or change the title of any field in a summary view.

Use the **Exclude field** option on the pop-up menu to exclude fields made meaningless by summarization.

Add to Groupby list toggles to Remove from Groupby list after a field has been added to the Groupby list. Use this option to remove a previously added field.

To see the fields that are currently selected, use the **Show header info** option.

Adding to Sort List

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Add to Sort list** from the pop-up menu. Use this option to select from one to four fields of a tabular or summary view to specify the sort order for data. The data in a field can be sorted in either ascending or descending order.

By default, all numeric fields are sorted in descending order and all other data types are sorted in ascending order.

When you specify the sort order for multiple fields, priority is given to the field in the highest position in the sort list. Lower level sort orders are used to further sort fields where identical values exist.

Add to Sort list toggles to Remove from Sort list after a field has been added to the Sort list. Use this option to remove a previously added field.

Note: If you left-click the header button, that column becomes the primary sort field.

To see the fields that are currently selected, use the **Show header info** option.

Adding to Parameter list

If you provided a filter for a field with **Edit filter**, you can set that field as a positional parameter. Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Add to Parameter list** from the pop-up menu.

If you do not add this field to the parameter list, but have defined a filter, the field automatically becomes a keyword parameter.

Add to Parameter list toggles to Remove from Parameter list after a field has been added to the Parameter list. Use this option to remove a previously added field.

To see the fields that are currently selected, use the **Show header info** option.

Setting Chart Items (X or Y axis)

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Set as X-axis Chart item** or **Add to Y-axis Chart items** from the pop-up menu. Use this option to select one X-axis item and up to eight Y-axis components.

Set as X-axis Chart item

Specify the X-axis data field for a graph. The X-axis appears at the left or bottom of a graph when displayed. On a pie or gauge chart, the X-axis value is used as a title.

Adding to Y-axis Chart items

Specify your Y-axis values for a graph. Each Y-axis value is plotted against the X-axis value. If a pie or gauge chart is selected, multiple Y-axis values are charted as segments of a pie or dials for a gauge chart and the X-axis is used as a label.

Add to Y-axis Chart items toggles to Remove from Y-axis Chart items after a field has been added to the Y-axis Chart items list. Use this option to remove a previously added field.

To see the fields that are currently selected, use the **Show header info** option.

Duplicating Fields

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Duplicate field** from the pop-up menu. This will duplicate a data field. You can use this option to add a graphical representation of a numeric field to your view.

Use the Width and Graph upper limit on the Format page to control the appearance of new graphical displays.

The Duplicate field is also useful when you want to create a Count field in a summary view. If you duplicate a field and assign a summarization type of count to the new field using the Format page, the new field displays a count of the number of objects in the summarized field.

Excluding and Including Fields

Excluded fields are those fields that belong to a view definition but are not displayed by default. Initially, when you first access view customization, excluded fields are not displayed.

Right-click on the column header button (in tabular views) or on a field (in detail views) and choose **Exclude field** from the pop-up menu to hide a field from the view. To see fields that have been excluded, choose **Show excluded fields**.

An excluded field does not appear in the view, but any filters assigned to the field are still used as selection criteria for the data displayed in the view.

Exclude toggles to Include after a field has been excluded from the view. Use the Include option to include an excluded field so the field will display by default in the view.

Saving Customized Views

Customized views are saved in common data sets on the mainframe that can be used by MAINVIEW Explorer or a TSO/ISPF session. Views can be saved in the individual's user BBVDEF data set or directly in the site library (SBBVDEF).

Views customized in MAINVIEW Explorer (or windows mode) will be placed in one of two folders: Cust User and Cust Site under the appropriate product in the Products tree.

You can also delete customized views from the mainframe by right-clicking on a view in the Products tree and choosing **Delete view** from the pop-up menu.

When you close a view that you have customized, you will be prompted to save the changes. Use the Save view dialogue to save the changes you make to a view. The changed view is saved under the same name or a view name you supply.

You can also save the view while it is open, even if you give it a new name, by right-clicking on any header button and choosing **Save customized view** from the pop-up menu.

The Save view definition fields are as follows:

View name

Use **View name** to save your changed view under a new name or under the existing view name. View names can be from one to eight characters long. When you save your changed view under its original name, the distributed view is not altered but only the modified version of the view is accessible. If you then delete your customized view, the original view will be used.

Description

Use **Description** to specify a description of the view. The description is displayed in the Products tree of the Navigation frame and can be up to 30 alphanumeric characters long.

Summary View Name

Use **Summary View name** to define a summary view to a tabular view. The summary view that you specify must be an alternate form for the tabular view. If you need to create a summary view, use the add to Groupby list. This field can be specified for tabular views only.

Library

Set your **Library** by selecting the site or user radio button.

Save Dynamic Fields

The following dynamic fields are created on demand by MAINVIEW data management components:

- Interval date
- Interval time
- Interval hour
- SSI target
- SSI system

Saving these with a view allows them to be included or excluded from display or used as a hyperlink. They are saved by checking Save dynamic fields with the view definition. This is the default setting.

Global thresholds

If the **Make changed thresholds global to all views** check box is selected, all changed thresholds are saved in the PAS parameter library. The same threshold and display attributes specified for the changed field apply to all instances of the same field element in other views.

If this check box is cleared, all thresholds are saved with the customized view in the BBVDEF view library. The threshold and display attributes defined for a field apply only to this customized view. This is the default setting.

Replace existing member

Use **Replace** to confirm that you want to save your changed view under the same name as an existing view. The default is to replace an existing member unless this option is not checked.

If you changed filters or displayed the view with a filter, these filters are saved with the view by default. You can change where the thresholds are saved by using the **Global thresholds** field. When you save your customized view, you can specify a location where you want your threshold conditions to be saved. Then a threshold can be available to all instances of this same element in other views or only for the view where the threshold is defined.

Specifying a Condition

Conditions are used in thresholds, hyperlinks, filters, and the count summarization type.

A condition consists of:

- the column ID of the field for which you want to set a condition
- a relational operator
- the numeric value, an alphanumeric value (with optional wildcards), or a column ID for a different field

Valid relational operators are:

>	Greater than value
>=	Greater than or equal to
<	Less than value
<=	Less than or equal to
<>	Not equal to value
=	Equal to value

To specify a condition that will always evaluate to true:

column ID = * for character fields
column ID >= 0 for numeric fields

Condition Examples:

To define a condition of any value in column A, enter **A = ***.

To define a condition of all values in column G exceeding 25, enter **G > 25**.

To define a condition of all values in column I that are greater than or equal to the corresponding value in column K, enter **I >= K**.

To define a condition of any value in column A that begins with "SYS", enter **A = SYS***.

Defining a WHERE Clause

Click the **Properties** button on a view and select the **WHERE** tab of the notebook.

Use a WHERE clause to specify a complex filter condition that is applied to the form and saved with the view.

The filter conditions are applied against the form and replace any existing filters. It is possible to save a WHERE clause in the view definition. When you close the view, you will be prompted to save the changes.

Examples of the WHERE clause

To define a filter condition that displays only the values beginning with J or M in the field with an element of ASGNAME, enter

ASGNAME IN (j*,m*)

To define a filter condition that displays only the values between 5.0 and 60.5 in the field with an element of ASIDLYP, enter

ASIDLYP BETWEEN 5.0 AND 60.5

To define a filter condition that displays only the values with T in the field with an element of ASREYFLC and only have the values between 2 and 25 in the field with an element of ASGDMN, enter

(ASREYFLC = T) AND (ASGDMN BETWEEN 2 AND 25)

To define a filter condition that displays the values with an average greater than 60 in the field with an element of ASIDLYP, enter

ASIDLYP:AVG > 60

The average filter works only in summarized views.

Chapter 6 Working in Windows and Full-Screen Mode

All of your MAINVIEW products are designed to work together within the same TSO/ISPF terminal session. This chapter gives you several tips to make it easier to use windows mode and full-screen mode products with each other.

Transferring between Windows and Full-Screen Mode

You can switch between products in either windows mode or full-screen mode without exiting your current terminal session. You can transfer

- from full-screen mode to windows mode
- from windows mode to windows mode
- from windows mode to full-screen mode
- from full-screen mode to full-screen mode

Full-Screen Mode to Windows Mode

The TRANSFER command allows you to switch from products in full-screen mode to those in windows mode and back again. To use this command, type

TRANSFER *target product;;viewname*

where

target Is the system or subsystem being monitored.

product Can be one of those listed in the first column of Table 6-1.

viewname Is the name of the view you want to see.

Table 6-1 Transfer to Windows Mode

Product	To access
CMF	CMF MONITOR Online
MVALARM	MAINVIEW Alarm Manager
MVCICS	MAINVIEW for CICS
MVDB2	MAINVIEW for DB2
MVIMS	MAINVIEW for IMS Online and MAINVIEW for DBCTL
MVIP	MAINVIEW for IP
MVLNX	MAINVIEW for Linux – Servers
MVMQS	MAINVIEW for WebSphere MQ and MAINVIEW for WebSphere MQ Integrator
MVMVS	MAINVIEW for OS/390
MVSRM	MAINVIEW Storage Resource Manager (SRM)
MVUSS	MAINVIEW for UNIX System Services
MVVP	MAINVIEW VistaPoint
MVVTAM	MAINVIEW for VTAM
MVWEB	MAINVIEW for WebSphere Application Server
PLEXMGR	Plex Manager

For example, type

TRANSFER * PLEXMGR;;PLEXOVER

to access the PLEXOVER view in Plex Manager.

Windows Mode to Windows Mode

The CONtext command allows you to switch from a product in windows mode to another product running in windows mode. To use this command, type

```
CONtext target product;view
```

where

target Is the system or subsystem being monitored.

product Can be one of those listed in the first column of Table 6-1 on page 6-2.

view Is the name of the view you want to see.

For example, to access the PLEXOVER view in Plex Manager, type

```
CONtext * PLEXMGR;PLEXOVER
```

Windows Mode to Full-Screen Mode

You can switch from windows mode to full-screen mode with either of these methods:

- using the TRANSfer command
- defining a hyperlink

Note: The PMGLAUTH program is required for transferring from windows mode to full-screen mode. See the *MAINVIEW Common Customization Guide* for implementation instructions.

TRANSfer Command

The TRANSfer command allows you to switch from products in windows mode to those in full-screen mode and back again. To use this command, type

```
TRANSfer target product
```

where

target Is the system or subsystem being monitored.

product Is one of those listed in the first column of Table 6-2 on page 6-4.

Table 6-2 Transfer to Full-Screen Mode

Product	To access
AO	MAINVIEW AutoOPERATOR
CAO	MAINVIEW AutoOPERATOR for CICS
CICS	MAINVIEW for CICS
DB2	MAINVIEW for DB2
IAO	MAINVIEW AutoOPERATOR for IMS
IMS	MAINVIEW for IMS
MAO	MAINVIEW AutoOPERATOR for OS/390 (MVS)

For example, to access the MAINVIEW AutoOPERATOR for OS/390 menu on system A, type

```
TRANsfer SYSA MAO
```

To transfer to a specific full-screen application, use

```
TRANsfer target product;command
```

where

target Is the system or subsystem being monitored.

product Is one of those listed in the first column of Table 6-2 on page 6-4.

command See Table 13-1 on page 13-2 for a list of all transfer commands to full-screen applications.

For example, to access the System Status application for MAINVIEW AutoOPERATOR for OS/390 on system A, type

```
TRANsfer SYSA MAO;STATUS
```

Hyperlinks

From windows mode, you can directly access a full-screen application by customizing a hyperlink as follows:

- Step 1** Go to the product and view where you want to enter the hyperlink.
- Step 2** Use the CUSTom primary command to display view customization.
- Step 3** Select the Hyperlink option by specifying **H**, positioning the cursor on the field where you want the hyperlink defined, and pressing **Enter**.
- Step 4** Enter a command string that stacks the appropriate commands you would enter to leave the windows environment and select the full-screen product and service.

Make sure you separate each command with a semicolon (;) or with your ISPF command delimiter; for example:

TRANSfer *target product;command*

where

target Is the system or subsystem being monitored.

product Is one of those listed in the first column of Table 6-2 on page 6-4.

command See Table 13-1 on page 13-2 for a list of all transfer commands to full-screen applications.

- Step 5** Save the view using the **S** option in view customization.
- Step 6** Test your new hyperlink to ensure that the command string executes properly.

Full-Screen Mode to Full-Screen Mode

To transfer from a product in full-screen mode to the Primary Option Menu of another product that runs in full-screen mode, enter *product* on the **COMMAND** line, where *product* is one of those listed in the first column of Table 6-2 on page 6-4.

For example, you can transfer from the MAINVIEW for DB2 History Traces application to MAINVIEW AutoOPERATOR for OS/390 by entering MAO on the COMMAND line of this application, as shown in Figure 6-1.

Figure 6-1 Example of Transfer between Products in Full-Screen Mode

```

----- HISTORY TRACES ----- PERFORMANCE MGMT
COMMAND ===> MAO                                TGT ===> DB2X
                                               TIME-- 15:21:17   SCROLL ===>
CSR
COMMANDS: SORT, LOCATE, NEW, STOP, START, TYPE
LC CMDS:  S (SELECT), W (SHOW), P (PRINT),  D (DELETE), E (RESET)
          V (VERIFY), N (NEW),  A (ARCHIVE), F (FREE)

DIRECTORY: SYSO.BAB.CPOPROD.SYSA.TRACEDIR
ENTRIES USED: 39          FREE: 8153

                                               SCROLL RIGHT
>>>
LC  DATE-----TIME TRACEID  TITLE                USERID  TGT  STAT
ACTV
    01-06-17 07.42 THRDHIST  THREAD HISTORY          BTSSSED  DB2X  USED
    01-06-14 13.50 SCANS     DB2 APPLICATION TRACE  BBSDDL5  DB2X  USED
    01-06-14 13.20 IODETAIL  DB2 APPLICATION TRACE  BBSDDL5  DB2X  USED

```

You can make more than one transfer request. However, you are usually limited to a maximum of four transfers. Each preceding request is maintained. Pressing the END (PF3/15) key displays the previous application where the transfer request was made.

Table 13-1 on page 13-2 lists all transfer commands for all full-screen applications.

Note: The PMGLAUTH program is required for operating in full-screen mode on both sides of an ISPF split screen. See the *MAINVIEW Common Customization Guide* for implementation instructions.

Viewing Messages and Codes Online

You can view a description of any message issued by a MAINVIEW product in windows or full-screen mode by using the Messages and Codes display. The message description includes

- the reason the message was issued
- the system action that will be taken
- a user action that should be taken
- the name of the module of origin

To use the Messages and Codes display, perform one of the following actions:

- Enter **MSG** on the **COMMAND** line of any MAINVIEW display, including the initial MAINVIEW Selection Menu.

This method allows you to access all MAINVIEW messages online whether or not a product is running.

- Select the M option for Messages from
 - any MAINVIEW product area menu
 - the General Services option of the Primary Option Menu (in full-screen mode)

A scrollable list of all MAINVIEW product service or application error messages and abend codes is displayed, as shown in Figure 6-2.

Figure 6-2 Messages and Codes Display

```

----- Messages & Codes ----- Row 1316 of 4302
COMMAND ==>                               SCROLL ==> HALF

Primary commands: S string - selects a message, L string - locates a message
Line commands:   S - Select

LC Msg ID      Message Text
-----
__ BBCQA103    Error adding to tree
__ BBCQA104    System delete failed for system
__ BBCQA105    System halt failed for system
__ BBCQA106    System quiesce failed for system
__ BBCQA107    System start failed for system
__ BBCQA108    System refresh failed
__ BBCQA109    System add failed for system
__ BBCQA110    System change failed for system
__ BBCQA111    Processing error during add

```

All messages and codes for all MAINVIEW-installed products, including offline products, are in this list. Short messages are listed in alphabetic order before the numbered messages and codes. The messages are obtained from the BBMLIB data set. This data set can be browsed if a terminal session is not available. If user messages are added to the BBMLIB data set, they must be prefixed with an @ sign

Note: When messages are written to the MVS console, such as WTOs, the BBI-SS PAS ID is appended whenever appropriate.

From the Messages and Codes display, you can enter the following primary commands on the **COMMAND** line:

Select Enter an S followed by the entire message ID to display the description of that message.

Locate Enter an L followed by a partial message ID to position the message list to the first message that matches the partial ID.

For example, L IM locates the first message beginning with the characters IM and moves it to the top of the display. If the Locate command finds an exact match, it shows the description of that message.

You can enter the following line command in the Line Command (LC) column:

S Enter an S next to a message ID and press Enter to display the description of that message or abend code.

Note: You can display a specific message description directly by entering the MSG command followed by the message ID (**MSG msgid**). After viewing the description, press the **End** key. The list of messages is displayed.

Table 7-1 Window Information Line Elements (Part 2 of 2)

Element	Description
<i>time</i>	Indicates the time (06:13:59 shown in Figure 7-1 on page 7-1) that view data in the window was last updated or the end of the interval that it represents if the data is historical.
<i>nnnu</i>	Is a length of time and <i>u</i> is a unit of time expressed in intervals (I), minutes (M), hours (H), days (D), or weeks (W). It appears only when the duration parameter is specified with the TIME command for historical data. For more information about historical data: See Chapter 9, "Working with Historical Data in Windows Mode." Enter HELP TIME on the COMMAND line of a window.
<i>mode</i>	Where <i>mode</i> indicates BROWSE or EDIT mode, which are used for system administration views and replace date and time status when either one is in effect. BROWSE is shown when you are viewing existing system administrative definitions; for example, a list of workloads or sampler definitions. EDIT is shown when you have an edit lock on the definitions to change them or create new ones.
<i>prodid</i>	Is the name of the MAINVIEW product you are using; for example, PLEXMGR.
<i>l</i>	Identifies the location of the form that is being displayed. A value of D (as shown in Figure 7-1 on page 7-1) indicates the form is in a distributed library; this means the form is as originally distributed with the product. A value of U means the form is in a user library and is a customized version of the form.
<i>n</i>	Is the number of rows of data (or records) displayed in the view, up to a maximum of 99999 (the value is 1 in Figure 7-1 on page 7-1). If the number of records being displayed exceeds 99999, the number is rounded down and scaled; thousands are shown as <i>nnnK</i> and millions as <i>nM</i> .

Online help also provides information about these elements. Place the cursor on any element in the window information line and press the HELP key.

Working with the Window Control Area

The window control area comprises **COMMAND**, **SCROLL**, **CURR WIN** (current window), and **ALT WIN** (alternate window) fields. This area is used to enter commands, scroll view data, and activate and manage more than one window. By default, a single window is opened when you initially enter a product. To see data from multiple views simultaneously you can split the display area into multiple windows, as described in "Creating a Window" on page 7-7. **CURR WIN** and **ALT WIN** identify and indicate which window is active when you have multiple windows open.

You can receive online help for any of these elements by selecting one with your cursor and pressing the HELP key.

Entering Commands

You can use the **COMMAND** line to enter

- names of views that you want to see
- alternate form commands
- data access commands
- data control commands
- informational commands, such as **HELP**
- session commands
- window management commands

These commands are listed and described in the *MAINVIEW Quick Reference*. For an online description, type **HELP COMMANDS** on the **COMMAND** line.

Types of View Parameters

View parameters allow you to filter information to see only the data that is important to you, such as restricting view data to a specific status. You can filter information with the following methods:

PARm Command

The **PARm** command does not update existing data, which saves system resources because a query is not issued. To refresh the data, you can use the **QPARm** command to reissue a query.

PARM can be entered on the **COMMAND** line of a current view with positional parameters or the internal name for the element you want to filter as follows:

```
PARM {value1/keyword(value)}
```

where

value1 Is a filter condition applied as a positional parameter (see page 7-5 for a description of this parameter) for that view. It can be used only for positional parameters valid for the view you want to filter. To see a list of these parameters, place your cursor on the view name and press the HELP key.

keyword Is a filter condition applied as a keyword parameter. The keyword parameter is the internal name for an element. The filter condition is used with the element name and must be enclosed in parentheses as *elemname(value)*. To see the valid keywords for a view, you can use the SHOWfilt command. This command shows you all filters currently in effect.

For example, the default positional and keyword parameters for the PLEX view are PRODUCT and CONTEXT. PRODUCT is the first positional parameter and CONTEXT is the second positional parameter. If you want to see the status for a specific context, you could enter the following command while in the PLEX view:

```
PARM * SSIC*
```

For more information about the PARM command, type **HELP PARM** on the **COMMAND** line.

Positional Parameters

Positional parameters are entered on the **COMMAND** line in a specific order with a view name; for example:

```
viewname parm1 parm2 parm3
```

For a list of the positional parameters that can be used in a view, see online help by performing one of the following actions:

- enter **HELP** with the view name, and then select the positional parameters topic
- select the view name from the window information line with your cursor and press the **HELP** key, and then select the positional parameters topic

The parameters must be entered in the sequence shown in online help. You must use an * as a placeholder for each parameter you are not using. For example, if you want to filter status information to INACTIVE only and it is the third parameter for a view, it would be entered on the COMMAND line as follows:

```
viewname * * INACTIVE
```

Keyword Parameters

Keyword parameters are internal element names entered on the COMMAND line with the view name as follows:

```
viewname elemname(value)
```

where *elemname* is the internal name for an element shown in online help with the SHOWFilt command for that view and *value* is the filter condition.

View data can also be filtered using the commands and customization options described in “Filtering Data in a View” on page 10-14

Scrolling

If there are more rows or columns to be seen within a window, you can scroll up and down through the rows or left and right through the columns. You can use

- commands to scroll a numerical amount indicated by the command or by an amount specified in the SCROLL field
- your PF keys to scroll a numerical amount specified in the SCROLL field

For scrolling up and down, the scroll amount is the number of rows to be scrolled. For scrolling left and right, it is the number of fields to be scrolled, not the number of characters. For example, the command RIGHT 3 scrolls the view data three whole fields to the right.

A scroll amount entered with a command takes precedence over any amount specified in the SCROLL field. Placing your cursor on the SCROLL field in a window and pressing the HELP key provides a description of how to use this field. You can [hyperlink from here](#) for a description of the commands you can use to scroll view data.

PF key assignments can be seen and changed with the KEYS command. For more information about this command, type **HELP KEYS** on the **COMMAND** line.

Creating a Window

By default, your MAINVIEW terminal session starts with a single window. You can create multiple windows, horizontally and vertically, which allow you to

- monitor and manage several systems from a single point of control
- see varying levels of detail from a single display

A maximum of 20 windows can be opened simultaneously in each ISPF session.

When you split the display area to create another window, the number of the active window is shown in the CURR WIN field in the window control area at the top of the display. The new window is empty and has a window status of T in its window information line, which means it is available to receive view or window commands. For more information, select this status with your cursor and press your HELP key.

You can change the active window by entering the following command on the **COMMAND** line:

Wn

where *n* specifies the number of the window that you want to be the active window, from 1 to 20. For more information on this command, type **HELP Wn** on the **COMMAND** line.

You can hyperlink from the active window to a related view in another window by using the ALT WIN field in the window control area. To do so, type the number of the window where you want the view from a hyperlink to be displayed in the ALT WIN field. For example, if the active window is window 1 and you want to see more detail in a window you just created, such as window 2:

Step 1 In the **ALT WIN** field, type a **2**.

This directs the hyperlink to window 2.

Step 2 Place your cursor on a highlighted element in window 1 and press **Enter**.

The hyperlink to the more detailed view is shown in window 2 (as demonstrated in the “Example of Creating Windows” on page 7-8).

You can use an & character and the window number, such as &2, to retain the alternate window between actions so that you do not have to retype the number every time you want to hyperlink to a view in that window.

Splitting Windows Horizontally

To split a window horizontally:

- Step 1** On the **COMMAND** line, type **HS**.
- Step 2** Place the cursor where you want the new window to begin and press **Enter**.

The HS command splits the display at the cursor position and creates another window.

Splitting Windows Vertically

To split a window vertically:

- Step 1** On the **COMMAND** line, type **VS**.
- Step 2** Place the cursor where you want the new window to begin and press **Enter**.

The VS command splits the display at the cursor position and creates another window.

Example of Creating Windows

This example demonstrates how to create windows using Plex Manager. Plex Manager is a MAINVIEW system administration product that manages the connections between systems and MAINVIEW products. It is shipped with all MAINVIEW products.

- Step 1** Use the following **CONTEXT** command to access the Plex Manager product and the PLEX view:

```
CON * PLEXMGR;PLEX
```

The * character specifies the local CAS where your terminal session is connected. For more information about this command, type **HELP CON** on the **COMMAND** line or see “Displaying Data from Multiple Systems” on page 8-9

```

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==17
C Product  Context  System  Description                               Status
-----
MVDB2     DB2L     SYSB   PRODUCTION DB2                           Active
MVIMS     IMSCTL  SYSA   IMS                                         Active
MVIMS     IMSM    SYSA   IMS                                         Active
MVMVS     SYSB    SYSB   MAINVIEW for OS/390                       Active
MVMVS     SYSC    SYSC   MAINVIEW for OS/390                       InActive
MVMVS     SYSA    SYSA   MAINVIEW for OS/390                       Active
MVVP      SSICICS SYSA   SPECIALIZED SOFTWARE V                   Active
MVVP      PUBCICS SYSA   BCS PUBLIC CICS                          Active
MVVP      GUPCIC4 SYSA   GUPTA CICS V4.10                         Active
MVVP      GUPCICS SYSA   GUPTA CICS V5.10                         Active
MVVP      TERXCICS SYSA   TENERA                                    Active
MVVP      SYSB    SYSB   MAINVIEW VistaPoint                      Active
MVVP      SSICIC3 SYSA   SPECIALIZED SOFTWARE V                   Active
MVVP      SYSC    SYSC   MAINVIEW VistaPoint                      InActive
MVVP      SYSA    SYSA   MAINVIEW VistaPoint                      Active
MVVP      SYGYCICS SYSA   SYZYGY CICS                              Active
MVVP      IMSM    SYSA   IMS                                         Active

```

PLEX is the Plex Manager view that lists all active MAINVIEW products, their targets, and their target status. You can use this view to

- verify that a product or target system is available before trying to display that product's views
- access any available system or product by hyperlinking to it from here

Step 2 On the **COMMAND** line type **HS**, move the cursor down the screen to a position where you want the top of the second window to appear, and press the **Enter** key.

The second window you created should be displayed as the active window in the CURR WIN field as follows:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>>                                SCROLL ==>> CSR
CURR WIN ==>> 2          ALT WIN ==>>
>W1 -PLEX-----SYSB-----*-----ddmmmyyyy--hh:mm:ss---PLEXMGR--D---17
C Product  Context  System  Description                               Status
-----
MVDB2     DB2L     SYSB   PRODUCTION DB2                           Active
MVIMS     IMSCTL   SYSA   IMS                                         Active
MVIMS     IMSM     SYSA   IMS                                         Active
MVMVS     SYSB     SYSB   MAINVIEW for OS/390                       Active
MVMVS     SYSC     SYSC   MAINVIEW for OS/390                       InActive
MVMVS     SYSA     SYSA   MAINVIEW for OS/390                       Active
T2 =====

```

Step 3 In the ALT WIN field type 2, but *do not* press **Enter**.

This action sets the second window you just created as a destination for a hyperlink from the first window.

Step 4 Select a product from the list in the first window and press **Enter**.

For example, if MVDB2 is selected from the first window (W1), that product's main menu is displayed in the second window (W2):

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>>                                     SCROLL ==>> CSR
CURR WIN ==>> 2           ALT WIN ==>>
>W1- PLEX-----SYSB-----*-----ddmmmyyyy--hh:mm:ss----PLEXMGR--D----17
C Product  Context  System  Description                               Status
-----
MVDB2     DB2L     SYSB    PRODUCTION DB2                           Active
MVIMS     IMSCTL  SYSA    IMS                                         Active
MVIMS     IMSM    SYSA    IMS                                         Active
MVMVS     SYSB    SYSB    MAINVIEW for OS/390                       Active
MVMVS     SYSC    SYSC    MAINVIEW for OS/390                       InActive
MVMVS     SYSA    SYSA    MAINVIEW for OS/390                       Active
W2 =MAIN=====DB2L=====*=====ddmmmyyyy==hh:mm:ss====MVDB2==D=====18
CMD View Name  Description
-----
ADMIN          Administrative Views
DMON           Monitors by Target - Interval
DMONC         Monitors by Target - Cluster
DMONR         Monitors by Target - Realtime
DMONS         Monitors by Target - Session
DOBJ          Objectives Review - Interval
DOBJR         Objectives Review - Realtime
DOBJS         Objectives Review - Session

```

Notice that window 2 (W2) is now the active window as indicated by the 2 in the CURR WIN field.

Step 5 On the **COMMAND** line type **VS**, move your cursor in the second window to a place where you want to split the window in half vertically and press **Enter**.

After performing the previous steps, you should have a display similar to the following example:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>>                                SCROLL ==>> CSR
CURR WIN ==>> 3          ALT WIN ==>>
>W1- PLEX-----SYSB-----*-----ddmmmyyyy--hh:mm:ss----PLEXMGR--D---17
C Product  Context  System  Description                               Status
-----
MVDB2     DB2L     SYSB   PRODUCTION DB2                            Active
MVIMS     IMSCTL  SYSA   IMS                                          Active
MVIMS     IMSM    SYSA   IMS                                          Active
MVMVS     SYSB    SYSB   MAINVIEW for OS/390                        Active
MVMVS     SYSC    SYSC   MAINVIEW for OS/390                        InActive
MVMVS     SYSA    SYSA   MAINVIEW for OS/390                        Active
>W2 -MAIN-----DB2L-----*   T3 =====
CMD View Name  Description
-----
ADMIN         Administrative View
DMON          Monitors by Target
DMONC         Monitors by Target
DMONR         Monitors by Target
DMONS         Monitors by Target
DOBJ          Objectives Review -
DOBJR         Objectives Review -
DOBJS         Objectives Review -
    
```

Note: Placing your cursor in the window control area at the top of the display and pressing Enter splits the entire view either vertically or horizontally.

Step 6 In the **ALT WIN** field type **3**, which makes it the destination for a hyperlink from any window.

Step 7 Select another active product from the first window to hyperlink to that product's main window in window 3, as shown in the following example:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ====>                                     SCROLL ====> CSR
CURR WIN ====> 1           ALT WIN ====> 3
>W1 -PLEX-----SYSB-----*-----ddmmmyyyy--hh:mm:ss---PLEXMGR--D---17
C Product  Context  System  Description                               Status
-----
MVDB2     DB2L     SYSB   PRODUCTION DB2                           Active
MVIMS     IMSCTL  SYSA   IMS                                         Active
MVIMS     IMSM    SYSA   IMS                                         Active
MVMVS     SYSB    SYSB   MAINVIEW for OS/390                       Active
MVMVS     SYSC    SYSC   MAINVIEW for OS/390                       InActive
MVMVS     SYSA    SYSA   MAINVIEW for OS/390                       Active
>W2 -MAIN-----DB2L-----*->W3 =MAIN=====SYSB=====*=====ddm
CMD View Name  Description | C View Name  Description
-----
ADMIN         Administrative View | ADMIN        Administrative views
DMON          Monitors by Target | CFMON       Coupling Facility views
DMONC        Monitors by Target | EZMENU      Easy access menu
DMONR        Monitors by Target | JOBACT      Job activity views
DMONS        Monitors by Target | SYSACT      System activity views
DOBJ         Objectives Review - | USER       User-created views
DOBJR        Objectives Review - | UTILITY     System utilities
DOBJS        Objectives Review - | VIEWS       All Views

```

The main menu shown in the third window of this example is the result of a hyperlink from the active MVMVS product in window 1 (W1). You now have multiple windows open with a different product in each. This allows you to track multiple targets from a single display. You can also use multiple windows to select views that allow you to hyperlink to progressive detail in each window.

Maximizing a Window

When several windows are open, you might want to see all the data from only one of them. To expand a window to its maximum size, either

- Specify the MAXimize command with the number of the window as follows:

W2.MAX

- Put the number of the window you want maximized in the CURR WIN field and type MAX on the COMMAND line.

The window you specified fills the display area. To see other views, you can scroll through each one in sequence by entering NEXT or PREVIOUS in the COMMAND line.

To return all the windows that you created to the display area, enter the **REStore** command on the **COMMAND** line.

NEXt or **PREVious** can also be used to specify a timed cycle for refreshing view data if you have more than one window open. **NEXt** or **PREVious** scrolls cyclically by the amount of seconds you specify, refreshing view data displayed in maximized windows.

To specify a timed, data refresh cycle for views displayed in multiple windows:

Step 1 Issue the **MAX** command, as described above.

Step 2 Enter **NEXt** or **PREVious** as follows:

To scroll forward in a timed, data refresh cycle through each view, type:

NEXt nnn

where *nnn* is the number of seconds from 3 to 999.

To scroll backward in a timed, data refresh cycle through each view, type:

PREV nnn

where *nnn* is the number of seconds from 3 to 999.

For example if you have four windows open, have a view in each one, and have maximized one of them, and then enter

PREV 15

The data in each view is displayed and refreshed every 15 seconds, starting with the view in the maximized window where **PREV 15** was entered and scrolling backward through all four views in a 15-second data-refresh cycle.

To cancel the data refresh cycle, use the attention interrupt key:

- For SNA terminals, use the **ATTN** key.
- For non-SNA terminals, use the **PA1** key.

On some keyboards, the **RESet** key must be pressed to unlock the attention interrupt key. The attention interrupt procedure is defined by IBM and MAINVIEW uses the keys assigned by this procedure. The same keys are used by TSO.

Closing a Window

You can close any open window. To close a window:

Step 1 In the **CURR WIN** field type the number of the window that you want to close.

Step 2 On the **COMMAND** line type the **CLOse** command and press **Enter**.

Note: If you used the **MAXimize** command to maximize a window, you must use the **RESTore** command to restore all the windows before closing them. The **CLOSE** command does not work when windows are maximized.

When you close a window, its display space is given to any adjoining windows.

To close all open windows at once, use the **RESet** command. **RESet** leaves a single empty window. The empty window has a status of **T** in the window information line, indicating it is available to receive view or window commands. This command also deletes all entries in any view or form stacks.

You can clear a window of its contents, but not close it, by using the **CLear** command. A status of **T** appears in its window information line; it is ready to receive view or window commands.

Creating and Saving Screens

A screen comprises one or more windows and can be saved in your own personal screen data set or a site data set shared by everyone. Screens are useful when you frequently display the same combination of views, always in the same windows. For example, you might want to save a screen of windows showing the performance of three different systems.

Note: If you are looking at multiple views and request a screen as described in this chapter, all of the open windows containing your views are closed.

Creating Screens

Creating screen definitions allows you to build an assortment of specialized screens that display views you typically need to troubleshoot repetitive performance problems.

To create a screen:

- Step 1** Allocate a standard partitioned data set for your screen definitions called *userid.BBSDEF*, where *userid* is your TSO ID.

Your personal screen definition is displayed before a sitewide screen definition by the same name. If you want to contribute to the site library, see your system administrator.

- Step 2** Open multiple windows with the views you want, as described in “Creating a Window” on page 7-7.

- Step 3** On the **COMMAND** line type **SAVESCR** and press **Enter**.

The following dialog is displayed, which lets you save multiple windows you create in one screen under a single name:

Figure 7-2 Save Screen Definition Dialog

```

----- SAVE SCREEN DEFINITION -----
COMMAND ===>                                SCROLL ===> PAGE

Please confirm Screen Definition Parameters:

Name      ===> SYSOVER3
Description ===> Multisystem overview

Replace   ===> N          (Y/N)

Type END to save screen definition
        CANCEL to quit without saving

```

Note: If you create a screen definition on a large display monitor, and then try to display that screen definition on a smaller monitor, you will receive an error message. Screens created on a smaller monitor, however, always expand to fill the area afforded by a larger display.

- Step 4** In the **Name** field type a unique name for your screen.

A description of the screen is optional.

Displaying Screens

To display a screen you created, you can

- enter the SCReen command like this:

SCReen *name*

where *name* is the name you specified in the Save Screen dialog.

- use the SCREENS view to display a list of all the screen definitions that have been saved for your user session plus those shared by your site

Note: A screen definition can be displayed only on a monitor of equal or greater size than the one on which it was created. If you try to display a screen definition that was created on a large display monitor on a smaller monitor, you receive an error message.

Each MAINVIEW product contains a SCREENS view. If your MAINVIEW products are all installed on the same system, screen definitions for all of them appear in one SCREENS view. To see what screens your site has, enter the **SCREENS** command on the **COMMAND** line.

These screen definitions comprise specific views that reflect current time and contain refreshable data. They give you ideas for creating your own screen definitions and provide a starting point from where you can begin using hyperlinks to explore system performance.

Managing Screen Windows

You can manage your screen windows by using the commands described in “Creating a Window” on page 7-7. With these commands, you can:

- change the active window in your screen by entering the number of the window you want on the COMMAND line or by entering the number in the CURR WIN field
- designate a window as a destination for a hyperlink by using the ALT WIN field
- change the size and number of your windows with the HS and VS commands
- expand a window to its full size with the MAXIMIZE command and reestablish the screen's original windows with the RESTORE command

- scroll maximized windows with the NEXT and PREV commands
- close a window with the CLOSE command or just empty it without closing it with the CLEAR command

To save any changes you make, use the SAVESCR command.

Setting an Initial Screen

When you start a MAINVIEW product, you can display a screen containing a set of views customized to your site's needs. To do this:

- Step 1** Create the screen you want, as described in “Creating Screens” on page 7-16.
- Step 2** Type **MVParms** on the **COMMAND** line and press **Enter**.
- Step 3** From the MAINVIEW Parameter Editors menu select the **DISPLAY** option.

The Information Display Parameters dialog is displayed:

```

----- Information Display Parameters -----
COMMAND ==>

Initial screen ==>          (Name of initial screen to be displayed)
ASU interval   ==> 30      (Auto screen update interval, 15-999
seconds)

Graphic fill   ==> *      (Fill character used for graphics fields)
Show graphic   ==> N      (Show fill character on graphics terminals)

Show Target    ==> N      (In SSI mode, include target column)
Show System    ==> N      (In SSI mode, include system column)

Show Time      ==> N      (In time duration mode, include time column)
Show Date      ==> N      (In time duration mode, include date column)

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

For a description of these fields, select one and press the HELP key.

- Step 4** In the **Initial screen** field type the name of your screen.

Only screen names can be used. If you want a view for your initial screen, select the view then save it with a unique name with the SAVEScr command. Enter the screen name you used for that view.

Note: This initial screen is shared by all MAINVIEW products. If you use a screen you created with views from one product, and then access a different product initially, you will still get the initial screen you created.

Getting Help

You can get help in windows mode about

- views
- view elements
- window information line elements
- commands
- MAINVIEW

Help is in the form of an online tutorial about how the MAINVIEW window interface works. The help text is displayed as pop-up windows that overlay only part of your screen or it may fill the entire screen depending upon which version of ISPF you have. If you have ISPF 3.1 or later, help is displayed in pop-up windows.

Table 7-2 on page 7-20 lists the type of help you can get and how to access it.

Table 7-2 How to Get Help

Type of help	What to do
Views	<p>Place the cursor on the view name in the window information line and press PF1 (see page 7-2 for details on the window information line). Or type HELP and the name of the view on the COMMAND line for the product that is currently active, as shown below:</p> <pre>COMMAND ===> HELP PLEXOVER</pre> <p>The PLEXOVER view is part of Plex Manager, which is a common service utility that is distributed with all MAINVIEW products. It is used to manage MAINVIEW product communication. Plex Manager help and “Displaying Data from Multiple Systems” on page 8-9 describe its use in more detail.</p> <p>View help for the active product shown in the window information line describes</p> <ul style="list-style-type: none"> • parameters you can use for that view • elements included and excluded within the view • elements that hyperlink and to where
View elements	Place the cursor on an element (field) in a view and press PF1.
Window information line elements	Place the cursor on an element in the window information line and press PF1 (see page 7-2 for details on the window information line).
Commands	<p>Enter the following command as shown:</p> <pre>COMMAND ===> HELP cmdname</pre> <p>where <i>cmdname</i> is the name of the command. For a list of all the available MAINVIEW window commands you can use, see the <i>MAINVIEW Quick Reference</i>.</p>
MAINVIEW tutorial	Place the cursor on the COMMAND line and press PF1 to display a list of MAINVIEW beginning and advanced help topics.
<p>You can type INDEX on the COMMAND line of any view help to display an index to the online help for that view. Highlighted hyperlinks let you link to additional help information.</p>	

Note: You can either use the distributed help or customize it to meet your site’s needs. Customized help text works just like distributed help text. You can create help for views, view elements, or any topic and create hyperlinks within your own help text. For information about how to create your own help text, see Chapter 10, “Customizing Views in Windows Mode.”

Chapter 8 Working with Windows Mode Views

This chapter explains how to work with windows mode views, including how to

- display and manipulate data in a view
- display data from multiple systems in a single view
- navigate to views using hyperlinks and menus

Displaying Data in a View

MAINVIEW products that operate in windows mode present their system performance information in a view. Views can be requested by entering a view name on the COMMAND line or selecting an option from a menu.

When a view is requested, a query is executed against the data collected for that view. The data is then arranged into a form for the view according to the set of instructions associated with the view.

How Data Is Arranged in a View

Views present tabular, summarized, or detailed information. You can change the form of the information as described in the following sections.

View Types

There are four kinds of views available:

- Tabular views

Rows and columns of data. Each element in a row provides information about the same job, workload, transaction, or resource; for example:

```

ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>> SCROLL ==>> PAGE
CURR WIN ==>> 1 ALT WIN ==>>
>W1 =CONACT===== (ALL=====*)=====ddmmmyyy==hh:mm:ss====PLEXMGR==D==16=
CMD SSI Product Target Status Description
--- Context- ----- Context- of_Target--- -----
ALL MVCICS CICSPDA1 ACTIVE CICS PRODUCTION 1 ON MVSA
ALL MVCICS CICSQRY ACTIVE CICS QUERY REGION ON MVSA
ALL MVCICS CICSADB1 ACTIVE CICS PRODUCTION 1 ON MVSB
ALL MVCICS CICSADB2 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
ALL PLEXMGR MVSB ACTIVE TARGET MANAGER ON MVSB
    
```

- Detail views

Detailed information about a particular resource or element selected from another view; for example:

```

ddmmmyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>> SCROLL ==>> PAGE
CURR WIN ==>> 1 ALT WIN ==>>
W1 =CONACT==CONACTD==(ALL=====*)=====ddmmmyyy==hh:mm:ss====PLEXMGR==D====1
SSI... ALL
Product MVCICS
Target. CICSPDB2
Server. SSA1
System. MVSB
Status. ACTIVE
    
```

- Summary tabular views

Multiple data rows combined into a single row based on specific criteria; for example:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
>W1 =CONACTZ=====ALL=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====7
CMD SSI      Product  Description                                Num  Num
--- Context- -----                                Targ Act
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
    
```

- Summary detail views

Detailed information about a single row of summarized data

Forms and Queries

Every view comprises one query and one form. When you request a view, a query is issued against the data collected by the MAINVIEW product. Data for the view is extracted by the structured query and processed through a form template that configures the appearance of the elements displayed in the view. Every time you press Enter, the data formatted in the view is refreshed.

You can change the form of the data presented in a view without refreshing the data by entering the following command on the **COMMAND** line:

FORM *formname*

where *formname* is the view form you want to use.

This command is helpful when you spot a potential problem in one view and want to investigate it using the same information in another view without refreshing the data; for example, issuing the FORM command to view the information for a detailed view from a summary view. To find out what alternate forms are available for a view, select the view name and press the HELP key; then look for the topic, Forms that are valid for this view.

If you request multiple forms, they are stacked in the order they are requested. You can move forward or backward through the stack, return to a form, change formed data, and end a query using the commands described in Table 8-1 on page 8-4.

If you need more information about a command, type **HELP** on the **COMMAND** line like this:

HELP *cmdname*

where *cmdname* is the name of the command; for example, **HELP DATAR**.

Table 8-1 **Commands for Forms and Queries**

To do this	Use this command
Cycle forward to the next form in the stack.	FNEXt
Cycle back to the prior form in the stack.	FPREV
Return to the last form. If there are no more forms in the stack, return to the last query.	END
Delete the current query and all its forms; return to the previous view.	ENDQuery
<p>Change the parameters of a form without refreshing data. Displays only those elements for viewing that meet specified parameter criteria and does not change existing data.</p> <p>Allows you to view elements exceeding what you consider to be a normal condition. For example, if a view shows a delay percentage, you could enter:</p> <p>COMMAND ==> PARM * 5</p> <p>to see all delays greater than 5% (qualifier for positional parameters).</p> <p>Online help for a view describes the parameters available for that view and how to use them.</p>	PARm
<p>Change the parameters of a query and refresh data. Allows you to view only those elements exceeding a normal condition, as shown for the PARM command described previously, and presents new data meeting parameter criteria.</p>	QPARm
<p>Display a list of the filters currently in effect for both the query and the form.</p> <p>Helps you when you have entered several FORM and QPARm commands but no longer have any data displayed because you accidentally filtered out all possible values.</p>	SHOWFilt
Refresh query data. The underlying data is updated (even if the view is locked) and all subsequent forms reflect the new data.	DATAR

Locking and Updating Data in Views

The data in a view is usually refreshed when you press Enter. To prevent this from happening, you can use the **FORM** command described previously or you can lock the view. The **LOCK** command keeps the current data displayed by a view when you press Enter. In fact, most commands are ignored for a view that is locked.

Locking a view allows you to look for trends by comparing data locked in a view against current, real-time data shown in another window (see “Creating a Window” on page 7-7) of the same, unlocked view. A locked view is indicated by an **L** in the window information line (described on page 7-2) at the top of the display.

You can keep the lock on a view and update its data by typing **DATAR** on the **COMMAND** line. **DATAR** is the data refresh command. It refreshes the data even though the view is locked.

To remove a lock from a view and refresh the data, type **UNLOCK** on the **COMMAND** line.

Sorting View Data

Sorting allows you to order rows of data shown in tabular and summary views in numerical or alphabetical order, ascending or descending. By default, numerical data is in descending order, high to low. The default for character data is ascending order, A through Z.

To sort data in a view, you can use either the **Sort** or the **Order** command. Either command is used by

- typing the command on the **COMMAND** line, moving your cursor to the column containing the elements you want to sort, and then pressing the **Enter** key

Entering the command without parameters sorts numerical elements in descending order by default and alphabetical elements in ascending order by default.

- typing the command on the **COMMAND** line with an **A** for ascending order or **D** for descending order and selecting the column to be sorted with your cursor before pressing **Enter**
- typing the command with the element name as a parameter on the **COMMAND** line, for example:

```
Sort [nameA|nameD] [A|D]
```

where *name* is the internal name of the column to be sorted. To find out what the internal name of a column is, move your cursor to the column label and press the **HELP** key. If you use an internal name instead of selecting a column with your cursor, you must insert a period (.) between the name and the A or D parameter.

Note: To sort the data in a view by more than one column, you must use view customization, as described in Chapter 10, “Customizing Views in Windows Mode.”

The following examples show using the **Sort** command to order elements by their defaults and using the **Order** command with a parameter.

To sort a column by its default:

- Step 1** On the **COMMAND** line type **Sort**, but *do not* press **Enter**:
- Step 2** Move your cursor to the label of the column that you want to sort by default and then press **Enter**.

To arrange a column by using the descending parameter:

- Step 1** On the **COMMAND** line type **Order D**, but *do not* press **Enter**:
- Step 2** Move your cursor to the label of the column that you want to arrange in descending order and then press **Enter**.

Locating View Data

If you want to find specific information in a view, you can use the **Locate** command. It searches view data until it finds an alphanumeric character string matching one you specify. That data is then displayed as the first row of the view. You can use the **RFind** command to find the next occurrence of your request.

Locate can be entered on the **COMMAND** line as follows:

```
L string [FIRST|LAST|PREV|NEXT|elemname]
```

where

L is the Locate command to find the alphanumeric string specified by *string*

If the information you are looking for is in

- the first column, specify the *string* you want and press Enter
- a column other than the first one, specify a *string*, place your cursor on the column that you want, and press Enter

string is an alphanumeric string

Generic qualifiers of * (any character), ?, and + (any character in that position) can be used for character fields.

FIRST requests a search for the first occurrence of *string*, for example:

```
L MVI* FIRST
```

LAST requests a search for the last occurrence of *string*, for example:

```
L MVI* LAST
```

PREV requests a search for the previous occurrence of *string*, for example:

```
L MVI* PREV
```

NEXT requests a search for the next occurrence of *string*, for example:

```
L MVI* NEXT
```

elemname is the internal name for a field in a view

To determine the internal name of a field, place your cursor on a field and press the HELP key.

For more information about the Locate command, type **HELP L** on the **COMMAND** line.

Refreshing View Data

You can automatically refresh the data in one or more views by using one of the following methods:

- To refresh the data for all views in unlocked windows, on the **COMMAND** line type

ASU *nnn*

where *nnn* is the number of seconds and can be from 3 (or a greater, site-defined value) to 999.

The number specified temporarily overrides the default refresh rate defined in your MAINVIEW profile; for example:

ASU 30

requests automatic screen update (ASU) mode every 30 seconds for the view where the command is entered.

For more information about this command, type **HELP ASU** on the **COMMAND** line.

- To refresh data for several views in a timed cycle, open multiple windows, maximize one, and then specify a refresh cycle with the NEXt and PREV commands, as described in “Maximizing a Window” on page 7-13.

To cancel automatic refresh, use the attention interrupt key:

- For SNA terminals, use the ATTN key.
- For non-SNA terminals, use the PA1 key.

On some keyboards, the RESET key must be pressed to unlock the attention interrupt key. The attention interrupt procedure is defined by IBM and MAINVIEW uses the keys assigned by this procedure. The same keys are used by TSO.

Displaying Data from Multiple Systems

From a single MAINVIEW terminal session, you can control local and remote systems, access different products on those systems, and compare and contrast data from different time periods, all from the same display, and all at the same time. Plex Manager, a common service utility that is shipped with all MAINVIEW windows products, allows you to define, administer, and access local and cross-system communications between MAINVIEW products in your sysplex or multisystem environment.

Using Plex Manager, you can see

- multiple MAINVIEW products running across several MVS images in a single view and you can work with the information as a single system image (SSI) context

Any combination of targets can be named as an SSI context or you can use the predefined SSI context ALL.

- data provided by a single MAINVIEW product running in one or more systems and you can work with the information as a single entity called a target context

Displaying Target Systems

To display target systems, you can select the Plex Manager common service utility from the MAINVIEW Selection menu or use the CONtext command. The CONtext command provides access to

- multiple occurrences of a product monitoring an SSI context
- a product monitoring a target
- the same product monitoring a different target
- a different product monitoring the same target
- a different product monitoring a different target

You can display specific target data within an SSI context by using the SCOpe command. For more information about CONtext and SCOpe, enter one of the following commands on the COMMAND line:

HELP CON

HELP SCO

As an alternative to the CONtext command, you can use the SET or SETD command. These commands display an ISPF dialog where you can change products, contexts, and targets by changing field values in the dialog:

```

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

Window Parameters:

Context      ==>> SYSB
Product      ==>> PLEXMGR
Server       ==>> *
Scope       ==>> *
View        ==>> EZPLEX

Type END to set window parameters
          CAnCel to quit without setting
    
```

SETD changes the default settings of new windows, but does not affect the context of the current window. SET is similar to the CONtext and SCOpe commands; it changes what is displayed in the current window.

The fastest way to access Plex Manager is to use the CONtext command:

CON * PLEXMGR

where * represents the default target system where Plex Manager is running. This command displays the Plex Manager EZPLEX easy menu:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND  ==>>                                     SCROLL ==>> CSR
CURR WIN ==>> 1           ALT WIN ==>>
W1 =EZPLEX=====SJSC=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D====1
          -----EZPLEX-----

---Target Activity---                               -----Diagnostics---
.--Sum by Area..... +-----+                      .Sessions.....
.--Sum by Product.... | Place cursor on | .Systems.....
.--Sum by System/Prod.. | choice and press | .Messages.....
. Not Summarized..... | ENTER | .CAS Activity.....
          +-----+

-SSI Context Activity--  ---Administration---  -----Utility-----
.--Sum by Context..... .CAS Definition..... .List of Views.....
.--Sum by Product..... .Context Defn List.... .List of User Views.
. Not Summarized..... .Context Definition.... .List of Screens...
                    .Target Defn List..... .Quit/Disconnect...
                    .Target Definition..... .Quit.....
                    .Security.....
    
```

EZPLEX is a good starting point for using Plex Manager. It provides a function-oriented, hierarchical menu of Plex Manager services. EZPLEX is designed to help users

- access information that is common to all MAINVIEW products
- customize your plex of MAINVIEW products
- define security
- perform other general Plex Manager functions

From the EZPLEX easy menu you can access the major categories of Plex Manager views. If you position the cursor on Sum by System/Prod and press Enter, the PLEXOVER view is displayed:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> CSR
CURR WIN ==> 1           ALT WIN ==>
>W1 =PLEXOVER=====SYSB=====*=====ddmmmyyyy==15:46:13===PLEXMGR==D====8
C Context  Product  Description                               Status  Server
-----
IMSCTL    MVIMS    IMS                                     Active  SSA6
IMSCTL    MVVP     IMS                                     Active  SSA6
IMSM      MVIMS    IMS                                     Inactive SSA6
IMSM      MVVP     IMS                                     Inactive SSA6
PUBCICS   MVCICS   BCS PUBLIC CICS V2.12                    Inactive SSA1
PUBCICS   MVVP     BCS PUBLIC CICS V2.12                    Inactive SSA1
PUBCIC2   MVCICS   BCS PUBLIC CICS V3.21                    Active  CCIS
PUBCIC2   MVVP     BCS PUBLIC CICS V3.21                    Active  CCIS
    
```

PLEXOVER summarizes the status of local and remote MAINVIEW products and allows you to select active products. When more than one copy of a MAINVIEW product runs on a single system, PLEXOVER summarizes the status of all the copies in one row.

Entering the following command allows you to view a list of all the available systems and products:

CON * PLEXMGR;PLEX

where * represents the default target system where Plex Manager is running. This command displays the PLEX view:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ====>                                SCROLL ====> PAGE
CURR WIN ====> 1          ALT WIN ====>
>W1 =PLEX=====MVSA=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D===19
C Product  Context  System  Description                               Status
-----
CMF        MVSA      MVSA    CMF MONITOR Online                       Active
CMF        MVSB      MVSB    CMF MONITOR Online                       InActive
MMR        MVSA      MVSA    MAINVIEW for MVS                         Active
MMR        MVSB      MVXB    MAINVIEW for MVS                         Active
MVVP      CICSPO1  MVSA    CICS Production region 1                 Active
MVVP      CICSPO2  MVSA    CICS Production region 2                 Active
MVVP      CICSQ03  MVSB    CICS Query region 3                     Active
MVVP      DB2P     MVSA    DB2 production                           Active
MVVP      CICSPO1  MVSA    CICS development region                  Active
MVCICS    CICSPO1  MVSA    MAINVIEW for CICS                       Active
MVCICS    CICSQ02  MVSB    MAINVIEW for CICS                       Active
MVDB2     DB2P     MVSA    MAINVIEW for DB2                        Active
MVDB2     DB2D     MVSA    MAINVIEW for DB2                        InActive
MVDB2     DB2Q     MVSB    MAINVIEW for DB2                        InActive
MVIMS     IMSQA    MVSB    MAINVIEW for IMS                        Active
PLEXMGR   MVSA     MVSA    Target Manager                           Active
PLEXMGR   MVSB     MVSB    Target Manager                           Active

```

You can use the PLEX view to verify that a product or system is available before you try to request a product view. Variations of the PLEX view include the following:

- PLEXAREA A summary view grouped by area that shows the total number of MAINVIEW products defined for each area.

- PLEXPROD A summary view grouped by area that shows the number of instances of a particular product on any connected system.

You can select an active product from any of the PLEX views (PLEX, PLEXOVER, PLEXAREA, or PLEXPROD) by placing your cursor on the product you want and pressing Enter. That product's easy menu (or MAIN view) is then displayed.

Displaying SSI Contexts

Plex Manager also provides views that show you what targets in each SSI context are active. You can use these views to determine the status of targets being monitored by MAINVIEW products defined within an SSI context. These views are as follows:

CONACTZ	Summarizes all the SSI contexts known to Plex Manager and shows the target status of each product by number of targets and number active.
CONACTP	Summarizes all the SSI contexts known to Plex Manager and shows the overall status of each product or group of products of the same type.
CONACT	Lists all the SSI contexts known to Plex Manager, showing the name of the SSI context, the targets in that context, and the target status.
CONACTD	Displays the status of a single MAINVIEW product that is monitoring a target in an SSI context known to Plex Manager.

Another SSI context view, called CONASEL, can be selected as a context hyperlink from a MAINVIEW product easy menu. CONASEL provides the same function as CONACTZ only for a specific MAINVIEW product instead of Plex Manager. It summarizes all SSI contexts known to that product.

CONACTZ - SSI Context Status Summary for All Targets

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> SCROLL ==> HALF
CURR WIN ==> 1 ALT WIN ==>
W1 =CONACTZ=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D===59
CMD SSI Product Description Num Num
--- Context- ----- Targ Act
ALL PLEXMGR all 8 8
ALL MVMVS all 11 11
ALL MVDB2 all 14 14
ALL CMF all 2 2
ALP1 PLEXMGR Alpharetta Production Complex 1 1 1
ALP1 MVVP Alpharetta Production Complex 1 1 1
ALP1 CMF Alpharetta Production Complex 1 1 1
ALP1 MVMVS Alpharetta Production Complex 1 1 1
BBE PLEXMGR BBE cust training 1 1
BBE MVDB2 BBE cust training 1 1
BBE MVMVS BBE cust training 1 1
BBE MVVP BBE cust training 2 2
BBE CMF BBE cust training 1 1
CMG MVMVS cmg test context 1 1
CMG CMF cmg test context 1 1
CMG PLEXMGR cmg test context 1 1
CMG MVVP cmg test context 1 1
    
```

You can access this view by

- selecting **SSI Context Activity .--Sum by Context** from the Plex Manager EZPLEX menu
- entering **CONACTZ** on the **COMMAND** line while using the Plex Manager product
- entering the following command on the **COMMAND** line, if you are not using Plex Manager:

```
CON * PLEXMGR;CONACTZ
```

where * represents the default target system where Plex Manager is running.

This view lists all SSI contexts known to the current Plex Manager by the MAINVIEW products monitoring the target systems. It provides a count of the number of products by product type and shows a count of the number of products active within each product group.

To obtain specific status information for a product group defined to a context, place your cursor on the product group you want in the **SSI Context** column and press **Enter**. This displays the **CONACT** view for that context.

CONACT - SSI Context Status for All Targets

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> HALF
CURR WIN ==> 1           ALT WIN ==>
>W1 =CONACT=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR==D===17
CMD SSI      Product  Target  Status  Description
--- Context- ----- Context- of Target--- -----
ALL    CMF    SYSB    ACTIVE   CMF MONITOR Online (5.2.0)
ALL    MVDB2  DB2L    ACTIVE   PRODUCTION DB2
ALL    MVIMS   IMSM    ACTIVE   MAINVIEW for IMS
ALL    PLEXMGR SYSB    ACTIVE   Target Manager
ALP1   CMF    SYSB    ACTIVE   CMF MONITOR Online (5.2.0)
ALP1   MVMVS   SYSB    ACTIVE   MAINVIEW for MVS (2.4.0)
ALP1   MVVP    SYSB    ACTIVE   MAINVIEW VistaPoint (1.1.0)
ALP1   PLEXMGR SYSB    ACTIVE   Target Manager
BBE    CMF    SYSB    ACTIVE   CMF MONITOR Online (5.2.0)
BBE    MVDB2  DB2L    ACTIVE   PRODUCTION DB2
BBE    MVMVS   SYSB    ACTIVE   MAINVIEW for MVS (2.4.0)
BBE    MVVP    DB2L    ACTIVE   PRODUCTION DB2
BBE    MVVP    SYSB    ACTIVE   MAINVIEW VistaPoint (1.1.0)
BBE    PLEXMGR SYSB    ACTIVE   Target Manager
CMG    CMF    SYSB    ACTIVE   CMF MONITOR Online (5.2.0)
CMG    MVMVS   SYSB    ACTIVE   MAINVIEW for MVS (2.4.0)
CMG    MVVP    SYSB    ACTIVE   MAINVIEW VistaPoint (1.1.0)

```

You can access this view by

- selecting a product with your cursor from the **SSI Context** column in the Plex Manager CONACTZ view and pressing **Enter**
- selecting **SSI Context Activity .Not Summarized** from the Plex Manager EZPLEX menu
- entering **CONACT** on the **COMMAND** line while using the Plex Manager product
- entering the following command on the **COMMAND** line, if you are not using Plex Manager:

```
CON * PLEXMGR;CONACT
```

where * represents the default target system where Plex Manager is running.

This view shows the status of each product monitoring a target within an SSI context. For more information about an SSI context, select a name in the **SSI Context** column and press **Enter**. This displays the CONACTD view for that context.

CONACTD - SSI Context Status for a Single Target

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> HALF
CURR WIN ==> 1           ALT WIN ==>
W1 =CONACT==CONACTD==SYSB=====ddmmmyyyy==hh:mm:ss==PLEXMGR==D==1
SSI...      ALL Description - All target systems (predefined)
Product     MVIMS
Target.     IMSM
Server.     SSA6
System.     SYSA
Status.     ACTIVE

```

You can access this view by selecting a product with your cursor from the **SSI Context** column in the Plex Manager CONACTZ or CONACT view and pressing **Enter**.

This detail view shows activity for a specific product monitoring a single target in an SSI context.

Using Hyperlinks and Menus to Access Views

Using Hyperlinks

MAINVIEW products make it easy for you to display views by establishing hyperlinks between them. You can use predefined hyperlinks to other MAINVIEW products, views, or services.

Hyperlinking to Other MAINVIEW Products

Enter the following command on the **COMMAND** line:

```
CONTEXT * PLEXMGR;PLEX
```

This command allows you to view all the MAINVIEW products installed at your site, their associated targets, and their status. You can use the PLEX view to hyperlink to other MAINVIEW products. For more information about the CONTEXT command, type **HELP CON** on the **COMMAND** line.

Selecting a product from this view hyperlinks to a menu for that product.

Hyperlinking between Views

Hyperlinks to other related views appear in different colors or are highlighted if you have a monochrome monitor. To display a view, you simply select one of these elements. A hyperlink is preset to provide you more information about the element you selected. You can also add your own hyperlinks, as described in “Setting Hyperlinks between Views” on page 10-7.

Using Menus

Menus are views that provide a quick, convenient way to other views by a list of selectable options. You can select an option by placing your cursor on an option and pressing the Enter key. You can create your own menu views to meet your site's specific needs.

There are several kinds of menus you can use to help you

- get anywhere quickly from a single place

These are called easy menus. Easy menus are named *EZpxxxxx*, where *p* identifies the product family as shown in the following table:

Menu name	Product family
EZAxxxxx	MAINVIEW Alarm Manager
EZCxxxxx	MAINVIEW for CICS
EZDxxxxx	MAINVIEW for DB2
EZIxxxxx	MAINVIEW for IMS Online and MAINVIEW for DBCTL
EZIPxxxxx	MAINVIEW for IP
EZLxxxxx	MAINVIEW for Linux – Servers
EZMxxxxx	CMF MONITOR and MAINVIEW for OS/390
EZMQIxxx	MAINVIEW for WebSphere MQ Integrator
EZQxxxxx	MAINVIEW for WebSphere MQ
EZUxxxxx	MAINVIEW for UNIX System Services
EZVxxxxx	MAINVIEW VistaPoint
EZVTAMxx	MAINVIEW for VTAM
EZWEBxxx	MAINVIEW for WebSphere Application Server
EZpSSI	MAINVIEW product menu for viewing multiple targets (Single System Image context)
EZPLEX	Plex Manager

There are primary easy menus that are displayed as MAIN menu options when a product initializes in a window. You also can access easy menus by one of these methods:

- display a list of views with the VIEWS command and select an easy menu from the list.
- enter the name of the easy menu on the COMMAND line.
- find information related to a specific resource, job, or workload

These are object easy menus that appear as a result of a hyperlink from a related resource, job, or workload object in a view.

- select a group of views by function

These are called product MAIN views. You can request this view by entering its name on the COMMAND line or by selecting it from a list of views with the VIEWS command.

Easy Menus

As mentioned previously, there are primary and object easy menus. Primary and object easy menus look alike. Primary easy menus provide easy access to views by options with descriptive names. Object easy menus are related to objects (such as a resource, job, or workload) shown in other views and are displayed with a hyperlink from an object in a view.

When you request a primary easy menu either by name or from a view list, a view similar to the following example is displayed:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> _                               SCROLL ==> PAGE
CURR WIN ==> 1           ALT WIN ==>
W1 =EZMxxx=====SYSB=====*=====ddmmmyyyy==hh:mm:ss===MVMVS==D=====1
                                menu title

  group 1 - title                +-----+                group 3 - title
  . item 1                       | Place cursor on | . item 6
  . item 2                       | menu item and  | . item 7
  . item 3                       | press ENTER   | > item 8
                                +-----+                . item 9

  group 2 - title
  . item 4
  . item 5                        . Return...

```

Menu options are represented by `item` in the preceding example. You can change this menu view to suit your site's needs. If you have a color monitor, the default colors for a 3270 monitor are as follows:

Menu title Yellow

Hyperlinks White

Items preceded by a `.` character hyperlink to view data. Items preceded by a `>` character hyperlink to a pop-up window or another menu. Selecting Return shows the previous view.

Group title Blue

An asterisk (*) preceding an item indicates it is not an available option. This situation can occur when a menu applies to more than one product but not all products are installed. There may be an option that is applicable only to a specific product and that product is not available.

An object easy menu view similar to the following is displayed by hyperlinking from a view object, such as a job, resource, or workload:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> PAGE
CURR WIN ==> 1          ALT WIN ==>
W1 =EZMxxx=====SYSB=====*=====ddmmmyyyy==hh:mm:ss===MVMVS==D=====1
                                menu title

                                timeframe - interval
                                title -> object

    group 1 - title          +-----+          group 2 - title
    . item 1                 | Place cursor on | . item 6
    . item 2                 | menu item and  | . item 7
    > item 3                 | press ENTER  | > item 8
    > item 4                 +-----+          . item 9
    . item 5

                                . Return...

```

You can change this menu view to suit your site's needs. Selections specific to the object (represented by item 1 through 5 in the preceding example) are grouped on the left side of the menu. Selections related to the object as a whole (represented by item 6 through 9 in the preceding example) are grouped on the right side of the menu. If you have a color monitor, the default colors for a 3270 monitor are as follows:

Menu title	Yellow
Object	Green
	Name of the object and its title indicating the type of object.
Hyperlinks	White
	Items preceded by a . character hyperlink to view data. Items preceded by a > character hyperlink to a pop-up window or another menu. Selecting Return shows the previous view.
Group title	Blue

An asterisk (*) preceding an item indicates it is not an available option. This situation can occur when a menu applies to more than one product, but not all products are installed. There may be an option that is applicable only to a specific product and that product is not available.

MAIN Views

All products have MAIN views that list groups of views by function. The following is a sample MAIN view for the MAINVIEW VistaPoint product:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                     SCROLL ==> HALF
CURR WIN ==> 1          ALT WIN ==>
W1 =MAIN===== (ALL=====*)===== ddmmmyyyy==hh:mm:ss====MVVP==D=====7
CMD View Name  Description
-----
ADMIN          Administrative Views
CLUSTER        Trend Application views
EZVISTA        VistaPoint Easy Menu
INTERVAL       Interval Application views
REALTIME       Realtime Application views
SESSION        Session Application views
TRANSACT       CICS, DB2, IMS Monitor Summary

```

The MAIN view for all products categorizes each product's views by function. If you think you are getting lost, you can always return to this view by typing **MAIN** on the **COMMAND** line.

From the MAIN view, you can select a view category by

- positioning your cursor on the category you want and pressing Enter
- using a line command

A list of view choices for the category you selected is displayed. You can also select a category by entering its name on the COMMAND line. For a description of the actions and commands for this view, place your cursor on the MAIN view name in the window information line and press the HELP key.

Chapter 9 Working with Historical Data in Windows Mode

This chapter explains how to

- display historical data online with the TIME command
- display historical batch reports by using a MAINVIEW utility

Displaying Historical Data Online

System data from the past, such as an hour ago, yesterday, or last month can be stored in historical data sets and viewed online with the TIME command. To see if data has been recorded to historical data sets, enter DSLIST or VIEW DSLIST on the COMMAND line. A list of currently allocated historical data sets is displayed.

DSLIST shows the date and time data was recorded. If you use the TIME command to request a date or time that data was not recorded, a message is issued. If the time period you want is not shown by DSLIST, the data might have archived, overwritten by new data, or never collected during that time. See your system administrator if you need access to this data.

Using the TIME Command

When you request historical data with the TIME command, data from the most recent interval specified and preceding intervals is presented in a view. A detail view displays only the last interval in a time frame.

When you enter the TIME command on the COMMAND line, a SET TIME FRAME window prompting you for parameters is displayed.

The syntax for the TIME command is

```
TIME date time [{duration|NEXT|PREV} dowmask todmask]
```

where

date

(Required) Is the ending date of the data you want to look at and can be:

<i>ddmmmyyyy</i>	a date in the same format as the current date, which always appears in the upper left corner of the screen, for example 15APR2001. Note: You can change the format of the date by entering MVParms on the COMMAND line and selecting the date option.
*	current date
*- <i>nnn</i>	<i>nnn</i> days prior to today, up to 365 days
=	the date specified with a preceding TIME request
TODAY or TDAY	today's date (same as specifying *)
YESTERDAY or YDAY	yesterday's date
LASTSUNDAY or LSUN	last Sunday's date
LASTMONDAY or LMON	last Monday's date
LASTTUESDAY or LTUE	last Tuesday's date
LASTWEDNESDAY or LWED	last Wednesday's date
LASTTHURSDAY or LTHU	last Thursday's date
LASTFRIDAY or LFRI	last Friday's date
LASTSATURDAY or LSAT	last Saturday's date
ENDOF MONTH or EOM	last day of the previous month
ENDOFYEAR or EOY	last day of the previous year
LASTWEEKDAY or LWKD	most recent weekday prior to today
LASTWEEKENDDAY or LWKED	most recent weekend day prior to today
FIRSTOFMONTH or FOM	first day of the current month
FIRSTOFWEEK or FOW	first day of the current week (Monday)
FIRSTOFYEAR or FOY	first day of the current year
FIRSTWEEKDAY or FWKD	first day of the current week (same as specifying FIRSTOFWEEK)
FIRSTWEEKENDDAY or FWKED	first day of the most recent weekend (Saturday)

<i>time</i>	<p>(Required) Is a time value and can be:</p> <p><i>hh:mm</i> the ending time of the data you want to look at</p> <p>*</p> <p> current time</p> <p>=</p> <p> time specified with a preceding TIME request</p>
<i>duration</i>	<p>(Optional) Is the time period over which you want your data summarized. The default is one recording interval (usually 15 or 30 minutes).</p> <p>Specify the duration as follows:</p> <p><i>nnnnH</i> where <i>nnnn</i> is the number of hours in the duration, up to 9999.</p> <p><i>nnnnM</i> where <i>nnnn</i> is the number of minutes in the duration, up to 9999.</p> <p><i>nnnnI</i> where <i>nnnn</i> is the number of recording intervals in the duration, up to 9999.</p> <p><i>nnnD</i> where <i>nnn</i> is the number of days in the duration, up to 416.</p> <p><i>nnW</i> where <i>nn</i> is the number of weeks in the duration, up to 59.</p> <p>*</p> <p> is one recording interval.</p> <p>=</p> <p> is the duration specified with a preceding TIME request.</p> <p>TODAY or TDAY</p> <p> today's intervals back to midnight. This keyword can be specified only when a <i>date</i> of TODAY is also specified.</p> <p>MONTH</p> <p> one month back from the end date</p>
NEXT	<p>(Optional) Can be specified instead of the duration parameter. NEXT uses the duration value currently in effect to cycle forward by the duration amount.</p>
PREV	<p>(Optional) Can be specified instead of the duration parameter. PREV uses the duration value currently in effect to cycle backward by the duration amount.</p>
<i>downmask</i>	<p>(Optional) Is a day-of-week mask that limits the selected intervals within the specified time to those that end on specific days of the week. If <i>downmask</i> is specified, <i>todmask</i> must also be specified. Specify one of the following values:</p> <p>= (retains the current day-of-week mask)</p> <p>*, EVERYDAY or EVDAY</p> <p>MONDAYS or MONS</p> <p>TUESDAYS or TUES</p>

WEDNESDAYS or WEDS
 THURSDAYS or THUS
 FRIDAYS or FRIS
 SATURDAYS or SATS
 SUNDAYS or SUNS
 WEEKDAYS or WKDAYS
 WEEKENDS or WKENDS

You can abbreviate these keywords to the shortest recognizable form (for example, SA for SATURDAYS or SU for SUNDAYS, but not S).

Alternatively, you can specify multiple days by providing a seven-character string of N or Y indicators. The first character represents Sunday, the second Monday, the third Tuesday, and so on. N indicates the day is not selected. Y indicates the day is selected. For example:

NYNYNYN

specifies Mondays, Wednesdays, and Fridays.

todmask

(Optional) Is a time-of-day mask that limits the selected intervals within the specified time to those that end within a time-of-day range. If *todmask* is specified, *dowmask* must also be specified. Specify one of the following values:

=	Retains the current time-of-day mask
*, ALLDAY or AD	All hours of the day
PRIMESHIFT or PS	08:01 through 16:00
SWINGSHIFT or SS	16:01 through 00:00
GRAVEYARDSHIFT or GS00:01	through 08:00

You can abbreviate these keywords to the shortest recognizable form (for example, P for PRIMESHIFT).

Alternatively, you can specify an eleven-character string consisting of the start and end times in 24-hour clock notation separated by a dash. For example, 10:01-14:00 specifies intervals ending between 10:01 A.M. and 2:00 P.M.

TIME Command Examples

The following examples demonstrate several different uses of the TIME command:

Example 1: Assume that today is April 15, 2002. To retrieve data from one week ago at 9:25 A.M., enter

```
TIME 08APR2002 09:25
```

This command displays data from the previous week at the end of the interval that contains 9:25; that is, the interval between 9:15 and 9:30.

Example 2: To display data from the next interval starting on the same date and time as the last interval specified, enter

```
TIME = = NEXT
```

This command is a request for one interval (the default) from the date and time last specified. Using the previous example, data from April 8, during the interval from 9:30 to 9:45, is displayed.

Example 3: To display data from the three-hour period ending on April 15, 2002 at 12 noon, enter

```
TIME 15APR2002 12:00 3H
```

Example 4: To display data from the next day during the same time period, enter

```
TIME 16APR2002 = =
```

The equal signs request the last specified time and duration. Using the previous example, this would be 12:00 and 3H.

Example 5: To display data for 30 minutes ending at 8:00 on April 15, enter

```
TIME 15APR2002 08:00 30M
```

Example 6: To display data from today at 9:00, enter

```
TIME * 9:00
```

The asterisk in this position indicates the current date.

Example 7: To re-establish the current time, enter

```
TIME * * *
```

Example 8: Sometimes the window information line does not look the way you might expect after entering the TIME command. Suppose you enter:

```
TIME * 11:00 4I
```

You would expect the window information line to look like this:

```
=====SYSB=====*=====15APR2002===11:00====60M=MVMVP===2
```

However, it might look something like this:

```
=====SYSB=====*=====15APR2002===10:45====45M=MVMVP===2
```

When the time field contains an earlier time and the duration field contains a lower duration than you expect, that means that data was not available during one or more of the intervals you requested. In this example, data was not recorded between 10:45 and 11:00, so the time field says 10:45.

Example 9: Suppose today is April 15; you want to find out what system performance was like yesterday at 4:00 P.M. and compare it to what the system is doing now.

To do this comparison:

Step 1 Request the view you want.

The following example uses a MAINVIEW VistaPoint view requested by way of hyperlinks from the MVVP element in the Product column of the Plex Manager PLEX view.

Step 2 Create a second window.

2.A Enter the HSplit or VSplit command.

2.B Move the cursor to where you want the new window to begin.

2.C Press **Enter**.

The CURR WIN field shows a 2, indicating that the second window you just created is now active.

Step 3 Set the time for window 2 by specifying yesterday's date and 4:00 P.M. as follows:

```
TIME 14APR2002 16:00
```

Step 4 Now request the same view for window 2, which is still active.

Your screen should look something like this:

Figure 9-1 Viewing Data in Two Different Time Periods

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>
CURR WIN ==> 2          ALT WIN ==>
>W1 -APOVERC-----SYSB-----*-----ddmmmyyyy--hh:mm:ss---MVVP--D-----9
CMD Appl          Realtime %Obj      Interval %Obj      Session %Obj      Total
---             0...50...100          0...50...100      0...50...100      Wklds
  APBATCH -----                138.5 *****+  142.0 *****+    1
  APPROD -----                69.0 *****+  105.5 *****+    1
  BBPHONE 155.5 *****+          26.5 ***          27.0 ****          1
  GL       75.0 *****+          87.5 *****+    92.5 *****+    1
  LAURAAP1 -----                87.0 *****+    93.0 *****+    1
  OLTPWORK -----                -----          103.5 *****+    1
  PAYROLL 116.5 *****+          19.5 ***          20.0 ***          1
  SAMPLE  108.0 *****+          66.0 *****+    76.0 *****+    1
  TEST0620 -----                43.5 *****+    46.0 *****+    1
>H2 =APOVERC=====SYSB=====*=====ddmmmyyyy==hh:mm:ss===MVVP==D=====9
CMD Appl          Realtime %Obj      Interval %Obj      Session %Obj      Total
---             0...50...100          0...50...100      0...50...100      Wklds
  APBATCH 155.5 *****+          136.5 *****+  134.0 *****+    1
  APPROD -----                68.0 *****+  114.5 *****+    1
  BBPHONE 155.5 *****+          23.5 ***          34.5 ****          1
  GL       150.0 *****+          90.0 *****+   92.5 *****+    1
  LAURAAP1 77.5 *****+          99.0 *****+   89.5 *****+    1

```

You can now compare today's system performance with yesterday's.

Note that the window status indicator for the second window shows H2. The H stands for historical data.

If you need more information about the TIME command, type **HELP TIME** on the **COMMAND** line.

Viewing Date and Time Fields for Historical Data

The following fields show the time, date, and hour historical data was collected:

Field Name	Displays
Interval Date	date data was collected
Intvl Time	ending time of the interval during which data was collected
Hr (hour)	hour of day data was collected

For example, if the time shows as 8:30, Hr shows as 8.

For these fields to appear in a view

- historical data must be displayed
- MAINVIEW parameters must be set to show them
- they must be allowed and shown for the view

To control the default display of the date and time fields:

- Step 1** Enter **MVParms** on the **COMMAND** line.
- Step 2** Select the display option.
- Step 3** Enter **Y** (Yes) or **N** (No) in the **Show Time** and **Show Date** fields for the Information Display Parameters dialog.

Note: You can temporarily see the date and time fields (if available for a view) by issuing these commands:

```
INCLUDE TIME  
INCLUDE DATE
```

Generating Historical Batch Reports

MAINVIEW can obtain historical performance reports through the submission of batch jobs. An ISPF dialog panel will assist you in generating the JCL to produce MAINVIEW batch reports of your historical data.

You might want to submit a job each day to report on some of the key elements of performance for the previous day. The TIME command has several parameters that enable you to specify time frames relative to today. This allows you to submit the same job on a periodic basis without having to change the JCL. For example, `TIME yday 15:00 4h` produces a report for every four hours starting at 3 P.M. yesterday.

To produce a report, you enter commands in an ISPF dialog panel much as you would if you were in an online session. The resulting data is temporarily kept in virtual storage in the PAS. The tabular or detail report that you requested is then directed to a data set or SYSOUT. The report output is in nearly the same format as the online tabular and detail displays; however, it displays all rows from the query and as many columns as your data set allows.

Note: Because the historical data is passed through the PAS before being written to a data set, you should be selective about the data that you request. You can use the QWHERE and WHERE commands to filter data in a query, as described in “Using Qwhere or Where Commands” on page 10-20

This chapter contains the information that you need to

- Set up the MAINVIEW batch environment
- Generate the MAINVIEW batch report JCL
- Manage the MAINVIEW batch report JCL members

Initiating Report JCL Generation

The ISPF dialog panel helps generate the JCL for reports you wish to run periodically, and keeps track of previously generated report JCL members. Each report can have up to 16 queries.

To set up JCL for reports:

- Step 1** From the MAINVIEW Selection Menu, select option U, **Utilities, Tools and Messages**.

The Utilities, Tools, and Messages menu is displayed, as shown in Figure 9-2.

Figure 9-2 Utilities, Tools, and Messages Menu

```

----- Utilities, Tools, and Messages -----
OPTION  ===>                                DATE  -- mm/dd/yy
                                           TIME  -- hh:mm
      1  JOURNAL      Display Journal Log      USERID -- tsoid
      2  MVBATCH      Generate MAINVIEW batch reports  MODE  -- ISPF v.r
                                          
      M  MESSAGES      Display Messages and Codes
    
```

- Step 2** Select option 2, **MVBATCH**.

The MAINVIEW Batch Reports panel is displayed, as shown in Figure 9-3.

Figure 9-3 MAINVIEW Batch Reports Panel

```

----- MAINVIEW Batch Reports -----
Option  ===>
      0  Setup          Set up MAINVIEW Batch Environment
      1  Generate       Generate MAINVIEW Batch Reports JCL
      2  Edit/Submit    Edit/Submit existing MAINVIEW Batch Reports JCL
      3  Browse         Browse MAINVIEW Reports
                                          
      X  Exit           Terminate
    
```

The MAINVIEW Batch Reports panel provides the following options

- Setup** Displays the MAINVIEW Batch Environment Setup panel where job and report information are recorded. This information is unlikely to change much.

Generate

Displays the Generate MAINVIEW Batch Reports JCL panel where information specific to each report is recorded, saved, and submitted to generate the JCL.

Edit/Submit

Displays the MAINVIEW Batch JCL Member List panel where JCL members are stored. The stored members can be browsed, deleted, edited, and resubmitted.

Browse

Displays the MAINVIEW Batch Reports list where batch reports are stored. The list shows that the report is either stored in a sequential data set or in a member of a partitioned data set (PDS). The stored reports can be browsed.

Setting Up the MAINVIEW Batch Environment

You will want to set up the MAINVIEW batch environment for your reports. Once you select the setup information, little change will be made from one report to another.

To set up the MAINVIEW Batch JCL:

- Step 1** From the MAINVIEW Batch Reports panel, select option 0, **Setup**.

The MAINVIEW Batch Environment Setup panel is displayed, as shown in Figure 9-4 on page 9-12.

Figure 9-4 MAINVIEW Batch Environment Setup Panel

```

----- MAINVIEW Batch Environment Setup -----
Command ==>

Job Statement Information:
==> //USERID JOB (ACCOUNT), 'NAME'
==> /*
==> /*
==> /*
==> /*

Report Title ==>

MAINVIEW Clist Library..... ==> hilevel.BBCLIB
MAINVIEW Clist Name..... ==> MAINVIEW
MAINVIEW BBLINK Library.... ==> hilevel.BBLINK
CAS SSID..... ==> BBCS

Library to save JCL..... ==> 'userid.export.cntl'
Temporary Workfile Unit.... ==> VIO

Press END to save changes and return to the previous panel
Type CANCEL to return to the previous panel without saving changes

```

- Step 2** Edit this panel to specify the job and report information that you want for the JCL to generate your report:
- 2.A** Under **Job Statement Information**, type a job card that conforms to your installation standards.
 - 2.B** In the **Report Title** field, type the title you want printed at the top of your reports.
 - 2.C** In the **MAINVIEW Clist Library** field, type the name of the library containing the MAINVIEW CLIST.
 - 2.D** In the **MAINVIEW Clist Name** field, type the name of the MAINVIEW CLIST.
 - 2.E** In the **MAINVIEW BBLINK Library** field, type the name of the MAINVIEW BBLINK library.
 - 2.F** In the **CAS SSID** field, type the four-character CAS Subsystem ID.
 - 2.G** In the **Library to save JCL** field, type an ISPF library name for the saved JCL.
 - 2.H** In the **Temporary Workfile Unit** field, type a unit name for the temporary data sets.

- Step 3** Press End to save your changes and return to the MAINVIEW Batch Environment Setup panel.

To return to the MAINVIEW Batch Environment Setup panel without making or saving changes, on the **COMMAND** line, type **CANCEL**.

Generating Batch Report JCL

Before you can generate your batch report JCL, you must supply some additional information.

To add the required information:

- Step 1** From the MAINVIEW Batch Reports panel, select option 1, **Generate**.

The Generate MAINVIEW Batch Reports JCL panel is displayed, as shown in Figure 9-5.

Figure 9-5 Generate MAINVIEW Batch Reports JCL Panel

```

----- Generate MAINVIEW Batch Reports JCL -----
Command ==>

JCL Member name      ==> JOBNAME  Replace (Y/N)?  YES
JCL Member Description ==> Description                                <===
Report format:       ==> ASIS      (ASIS or CSV)
Lines/Page:         ==> 60        (ASIS format only)

Sysout Class ==>
Or
Output data set ==> EXPORT.LST
                   Volume ==>      (If data set uncatalogued)

Enter Queries on the lines below.  Each line will write a separate
report to the output data set.

Press END to save changes and generate the JCL
Type CANCEL to return to the previous panel without saving changes

                                     More:      +
==> TIME LASTWEEKDAY 23:59 1D;JSRM
==> TIME *-7;JCPU
==> JOVER
==> SYSOVER
==>

```

The Generate MAINVIEW Batch Reports JCL panel displays fields for recording the information and the queries necessary for your JCL.

Step 2 Type the input information, output information, and queries that you need for your report, as follows:

JCL Member Name

Name for this JCL member. Each JCL report can be given a member name and a description.

JCL Member Description

Description of the report (optional).

Report format

ASIS or CSV format. Enter ASIS to print reports that look like the screens. Enter CSV for comma-separated fields to download the record to a spreadsheet program.

Lines/Page

For ASIS reports, the heading will be printed on each page. For a continuous report with the heading on the first page only, enter 0.

Sysout Class

Report SYSOUT class.

Output data set

A sequential data set or a partitioned data set with a member name for report output. If the data set is not catalogued, supply the volser. Entering a SYSOUT class overrides the data set specification.

Queries

Kinds of data you want to see. Enter queries exactly as you would on the COMMAND line in an online session. For example:

- JOVER prints the JOVER view.
- JOVER;FORM JSRM prints JOVER with the JSRM FORM.
- JOVER on the first line followed by FORM JSRM on the second line prints the JOVER report first followed by the JOVER report under the JSRM FORM.

To establish a timeframe and duration different from the current time, combine that different timeframe and duration with the first command, like this:

```
TIME LASTWEEKDAY 23:59 1D;JOVER
```

Note: This time period remains in effect until it is changed by a subsequent query.

Through the use of one-per-line commands, additional reports of data can be created from the same timeframe.

Tip: The generated JCL executes the MAINVIEW CLIST. The CAS and PAS *must* be started before the JCL is executed.

Step 3 Press the End key to save changes and generate the JCL.

The JCL will be presented in an edit session. You are not expected to need to make changes.

Step 4 To submit the job, on the **COMMAND** line, type **SUB** and press **Enter**.

To cancel and return to the MAINVIEW Batch Reports panel without saving changes, type **CANCEL**.

Managing Batch Report JCL Members

The Edit/Submit option in the MAINVIEW Batch Reports panel opens the JCL member list of generated records. This list provides options to browse, delete, edit, and submit the JCL.

To display the MAINVIEW Batch JCL Member List from the MAINVIEW Batch Reports panel, select option 2, **Edit/Submit**.

The MAINVIEW Batch JCL Member List is displayed with a table of stored JCL members, as shown in Figure 9-6.

Figure 9-6 MAINVIEW Batch JCL Member List

```

----- MAINVIEW Batch JCL Member List ----- Row 1 to 6 of 6
Command ==>                                     Scroll ==> PAGE

Line Commands: B - Browse JCL  DEL - Delete JCL  E - Edit JCL
                SUB - Submit JCL

Press END to return to main menu

LC  Member      Description                               Time      Date
-----
WCPU  Weekly CPU Report                               hh:mm:ss  yyyy/mm/dd
DCPU  Daily CPU Report                               hh:mm:ss  yyyy/mm/dd
WDEVICE Weekly Device Report                           hh:mm:ss  yyyy/mm/dd
DDEVICE Daily Device Report                             hh:mm:ss  yyyy/mm/dd
***** Bottom of data *****

```

The table is two panels wide. The directional arrows (>>> or <<<), above the list and on the right, indicate that additional JCL member information is available. Use the right scroll key to see information on the right and use the left scroll key to return to the information on the left.

To edit, browse, delete, and submit the JCL in this member list, type

E to edit a member

B to browse the JCL

DEL to delete a member

SUB to submit the job

Note: When a specific JCL member is deleted, the corresponding report dataset or member is also deleted.

Browsing Batch Report Output Members

The Browse option in the MAINVIEW Batch Reports panel opens the MAINVIEW Batch Report List. This panel provides a list of generated online batch members, which can be browsed.

To display the MAINVIEW Batch Report List from the MAINVIEW Batch Reports panel, select option 3, **Browse**.

The MAINVIEW Batch Report List is displayed, as shown in Figure 9-7 on page 9-17.

Figure 9-7 MAINVIEW Batch Report List

```

----- MAINVIEW Batch Report List ----- Row 1 of 20
Command ==>                               Scroll ==> PAGE

  S Select member to view report online

Press END to return to MAINVIEW Batch Reports Menu

LC Member Reports Data Set UserID
-----
BPA0583A BMVDID.BPA0583.JCL(BPA0583L) BMVDID3
BPA0583B BMVDID.BPA0583.JCL(BPA0583M) BMVDID3
CACHE BMVJOJ.TESTPO.LST(CACHE) BMVJOJ2
COUPLING BMVJOJ.TESTPO.LST(COUPLING) BMVJOJ2
DEVICES BBSECH8.JCL.CNTL(DEVZ) BBSECH8
JDELAYS BMVJOJ.TESTPO.LST(DELAGS) BMVJOJ2
JONJMV BMVJOJ.ZYYXXX.LST(JONJMV) BMVJOJ2
JOVER BMVJOJ.COOL BMVJOJ2
LOST BMVJOJ.TESTPO.LST(A9) BMVJOJ2
MVBATCH SYSOUT(*) BBGST09
MVBATCH1 BMVJOJ.A3DLIB(MVBATCH1) BMVJOJ2
s MVBATCH2 BSLARD.X BSLARD1
MYBATCH SYSOUT(R) BMVJOJ2
TERRY1 SYSOUT(A) BBGST06
TESTJN BMVJOJ.TESTPO.LST(TESTJ2) BBGST12
TEST2 BBGST05.PRNT.TEST(DATA2) BBGST05
TST1 BMVJOJ.TDSTPO.LST BMVJOJ2
WAYNE1 BBGST10.JUSE.EXPORT BBGST10
WORK BMVJOJ.TESTPO.LST(WDELAYS) BMVJOJ2
XTSTJMV BMVJOJ.TESTPO.LST(XTSTJMV) BMVJOJ2
***** Bottom of data *****

```

To browse a report, in the LC column on the left side of the report member, type **S** and press **Enter**.

In Figure 9-7, member MVBATCH2 in the BSLARD.X reports data set is selected. The MAINVIEW Batch Report list for BSLARD.X is displayed, as shown in Figure 9-8 on page 9-18.

Figure 9-8 MAINVIEW Batch Report List - BSLARD.X

```

BROWSE      BSLARD.X                               Line 00000000 Col 001 080
Command ==>                                       Scroll ==> PAGE
***** Top of Data *****
1
CMD> JOVER

                                REPORT PAGE 1
ddmmyyyy hh:mm:ss          MAINVIEW Batch Report          PAGE 1
JOVER=====DXTSTJ===*=====ddmmyyyy==hh:mm:ss====MVMVS=====165

Jobname  T SrvClass Total Total  %Dly  %Dly %CPU  EXCP DmdP SwpP  Avg
-----  - - - - -  Dly%  Use%  Idle Unknown Util  /Sec /Sec /Sec  Frame
DC$BBIRR S STCNRM  100.0  100.0  0.0  0.0  0.0  0.3  0.0  354
AAOSFS41 S STCNRM  100.0  100.0  0.1  0.1  0.1  0.1  0.0  434
AAOMH41  S STCNRM  100.0  100.0  0.1  0.1  0.1  0.1  0.0  448
OLTE     S STCNRM  100.0  100.0  0.5  0.5  0.5  0.5  0.0 2022 1
CATALOG  S SYSTEM  66.67 33.33  0.3  0.3  0.3  0.3  0.0  422
OLTGMVA  S STCNRM  50.00  50.00  50.00 0.1  50.00 0.1  0.0 1442
AAORMB5  S STCNRM  50.00  50.00  50.00 0.1  50.00 0.1  0.0  910
BSLARD1Z B BATNRM  50.00  50.00  50.00 5.6  68.7 0.5 0.1 1265 9
SMS      S STCNRM  50.00  50.00  50.00 0.0  50.00 0.0 0.5 0.1  133
DC$BBI   S STCNRM  50.00  50.00  50.00 0.0  50.00 0.0 0.0  504
BOLDBS3  T TSONRM  50.00 50.00  50.00 0.1  50.00 0.1 1.3  217
    
```

Chapter 10 Customizing Views in Windows Mode

Windows mode views can be customized so that a site can manage the performance of its own systems more effectively by

- changing view elements and hyperlinks between views
- using color to highlight a threshold
- filtering and summarizing data presented in a view

Views customized to a site's own environment help isolate problems unique to that site. To access view customization, enter the following command on the **COMMAND** line of any view:

```
COMMAND ==> CUST
```

For a list of all the available customization options, enter the following command on the **COMMAND** line:

```
COMMAND ==> HELP CUST
```

Note: Once you are in view customization, type **HELP** to find out about the customization options.

Creating a New View

You can build your own assortment of views that you typically need to troubleshoot performance problems unique to your site. To create a new view customized to your needs, you must allocate a standard partitioned data set for your views called *userid.BBVDEF* where *userid* is your TSO ID.

The site administrator can customize the site view library (*hilevel.SBBVDEF*) and users can customize their own view library (*userid.BBVDEF*). The USER view lists all the user-defined views in a *userid.BBVDEF* library. User-defined views are displayed before a sitewide view of the same name. The system administrator can move customized views from a user library to the site library.

Note: Users can be kept out of view customization through security (see *Implementing Security for MAINVIEW Products*).

When you customize a view and save it, it is saved in your own user view library as a new view. A view that has been customized is identified by the letter U on the window information line. The views that are distributed with MAINVIEW products are identified by the letter D.

The examples in this chapter show you how to create a new view using the show and include options of customization.

Including Additional Fields

To provide you with more flexibility, some views have more elements than can be displayed. Customization allows you to see all the view elements and include or exclude those as you see fit. The example in this section uses the include option to customize a Plex Manager view to show you how easy it is to create a new view. Subsequent sections show you how to use some of the other customization options.

Online help describes all of the available options. You can browse the option descriptions by typing **HELP CUST** on the **COMMAND** line (or **HELP** if you are already in view customization).

- Step 1** Display the view you want to customize by selecting it from a list of views with the **VIEWS** command or enter its name on the **COMMAND** line.

The view used in this example (DIAGMSG) was selected from the Plex Manager MAIN selection views.

Step 2 On the **COMMAND** line of the view you want to change, type **CUSTom** and press **Enter**.

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==> cust                                     SCROLL ==> CSR
CURR WIN ==> 1           ALT WIN ==>
W1 =DIAGMSG=====SYSB=====*=====ddmmmyyyy==hh:mm:ss====PLEXMGR=====11
CMD Option  Status Scope   Description / Diagnostic Activity
-----
      GXDM    OFF   Global   Extended Diagnostic Mode
      LXDM    OFF   Local    Extended Diagnostic Mode
      GEMM    OFF   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
      WSXASTR OFF   Window  Extended Authorization Simple Trace

```

This command displays the customization options and a working copy of the view as follows:

```

----- VIEW CUSTOMIZATION - DIAGMSG -----
OPTION ==>                                     SCROLL ==> CSR
Options: (that require column selection)      Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat      X - Exclude      P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink   Z - Summarize  K - Show template
-----
Some options ask you to select a target column. To do so, either type the
option with the column id on the OPTION line (as in: f e to format column E),
or type just the option, move the cursor to the target column and press ENTER.
Your changes are implemented every time you press ENTER. You may save the
modified view definition with any name you choose. Enter END (PF3) to exit.
-----
      A      B      C      D
CMD Option  Status Scope   Description / Diagnostic Activity
-----
      GXDM    OFF   Global   Extended Diagnostic Mode
      LXDM    OFF   Local    Extended Diagnostic Mode
      GEMM    OFF   Global   Extended Message Mode
      LEMM    OFF   Local    Extended Message Mode
      LSEMM   OFF   Local    Security Extended Message Mode

```

Step 3 In the **OPTION** field, type **E** and press **Enter** to see any excluded elements.

In this view, the E option displays the Security Area column (column E), as shown below. Other views could have several excluded elements. You can scroll to the right to see them.

```

----- VIEW CUSTOMIZATION - DIAGMSG -----
OPTION ==> e                                SCROLL ==> CSR
Options: (that require column selection)      Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat      X - Exclude      P - Parameters E - Hide excluded
L - Filter      T - Threshold H - Hyperlink      Z - Summarize K - Show template
-----< Show excluded columns >-----
The view is now displaying all the excluded (or hidden) columns. Excluded
columns are marked with highlighted column letters. You can customize an
excluded column (for instance, place a filter on it). You may also make the
column permanently displayable by using the Include option.
If you select E - Hide excluded, the excluded columns will again be hidden.
-----

```

A	B	C	D	E
CMD Option	Status	Scope	Description / Diagnostic Activity	Security Area
GXDM	OFF	Global	Extended Diagnostic Mode	SYSOPTG
LXDM	OFF	Local	Extended Diagnostic Mode	SYSOPTL
GEMM	OFF	Global	Extended Message Mode	SYSOPTG
LEMM	OFF	Local	Extended Message Mode	SYSOPTL
LSEMM	OFF	Local	Security Extended Message Mode	SYSOPTL

Step 4 To include the Security Area column in your new view, type **I** in the **OPTION** field, select column E with your cursor, and press **Enter**:

```

----- VIEW CUSTOMIZATION - DIAGMSG -----
OPTION ==> i                                SCROLL ==> CSR
Options: (that require column selection)      Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat      X - Exclude      P - Parameters E - Hide excluded
L - Filter      T - Threshold H - Hyperlink      Z - Summarize K - Show template
-----< Include - column: E element: MSGSSECA >-----
The column has been included in the view. Use the Exclude option if you want
to hide the column again.
-----

```

A	B	C	D	E
CMD Option	Status	Scope	Description / Diagnostic Activity	Security Area
GXDM	OFF	Global	Extended Diagnostic Mode	SYSOPTG
LXDM	OFF	Local	Extended Diagnostic Mode	SYSOPTL
GEMM	OFF	Global	Extended Message Mode	SYSOPTG
LEMM	OFF	Local	Extended Message Mode	SYSOPTL
LSEMM	OFF	Local	Security Extended Message Mode	SYSOPTL

A status message confirms that your column is included in the working copy of the view, as shown above.

Notice that each column in this example is assigned a unique letter. This allows you to select a column you want to change with one of the customization options. You can enter just the character for the option and select the column you want with your cursor. Or, enter the option character and the column letter. The customization option must precede the column letter; for example:

```
OPTION ===> i e
```

where I is the customization option to include a column and E is the internal letter assigned to a column.

Step 5 Press the **END** key to finish customizing the view:

```

----- VIEW CUSTOMIZATION - DIAGMSG -----
OPTION ===>
Options: (that require column selection)
F - Format      M - Move      I - Include
O - Order      R - Repeat     X - Exclude
L - Filter     T - Threshold H - Hyperlink
Other options:
G - Graph      S - Save view
P - Parameters E - Hide excluded
Z - Summarize K - Show template
-----< Exit View Customization >-----
View: DIAGMSG has been modified. Do you wish to save your changes?

Save changes ==> yrs If you reply YES , you will be prompted for a view name.
                    If you reply NO , the view will appear in its original
                    state the next time you request the view by name.
-----
      A      B      C      D
CMD Option  Status Scope  Description / Diagnostic Activity
-----
      GXDM   OFF   Global  Extended Diagnostic Mode
      LXDM   OFF   Local   Extended Diagnostic Mode
      GEMM   OFF   Global  Extended Message Mode
      LEMM   OFF   Local   Extended Message Mode
      LSEMM  OFF   Local   Security Extended Message Mode
-----
      E
Security
Area----
```

A confirmation message prompts you to save your changes.

Step 6 In the **Save changes** field, type **YES** to save your changes.

The dialog shown in the following example is displayed:

```

----- VIEW CUSTOMIZATION - DIAGMSG -----
OPTION ==>
Options: (that require column selection)          Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat     X - Exclude     P - Parameters E - Hide excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template
-----< Save View definition >-----
View name ==> fvdiags          This view definition will be saved as a member in
Replace ==> no (Yes/No)       the data set allocated to DD statement BBVDEF .
Description ==> Diag Msg Status and Security   Dynamic fields ==> YES (Yes/No)
Summary View ==>              (for tabular view only)
Press ENTER to save the view; enter END (PF3) to end without saving.
-----
      A      B      C      D      E
CMD Option  Status Scope  Description / Diagnostic Activity  Security
-----
      GXDM   OFF   Global  Extended Diagnostic Mode          SYSOPTG
      LXDM   OFF   Local   Extended Diagnostic Mode          SYSOPTL
      GEMM   OFF   Global  Extended Message Mode             SYSOPTG
      LEMM   OFF   Local   Extended Message Mode             SYSOPTL
      LSEMM  OFF   Local   Security Extended Message Mode    SYSOPTL

```

Step 7 Enter a unique name for the view in the **View name** field and press **Enter**.

This action saves the customized view as a new view in your user view library. From now on, you can display this new view by selecting it from a list of views with the USER command or enter its name on the COMMAND line.

Note: A view with an = character in the Product column means the view is available from any MAINVIEW product that runs in windows mode.

Setting Hyperlinks between Views

Elements highlighted in views have hyperlinks. A hyperlink has a command associated with it. When you position your cursor on a view resource within a highlighted element and press the Enter key, the associated command is executed. You can customize how hyperlink element names are displayed, the hyperlink command, and the conditions against which the command is issued.

To create, change, or delete a hyperlink in a view:

- Step 1** On the **COMMAND** line of the view you want to change, type **CUSTom** and press **Enter**.
- Step 2** In the **OPTION** field, type **H** but *do not* press **Enter** yet.
- Step 3** Place your cursor on the field where you want to change or set a hyperlink and press **Enter**.

The dialog shown in the following example is displayed:

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==> h                                SCROLL ==> HALF
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template
-----< Hyperlink - column: E  element: TGTSTAT  >-----
Condition:      Command: (with parameters)
E = 'Not in*'     PLEXOVER
-----

      A      B      C      D      E
CMD CAS   Target  Product  Description  Install
--- Name--- Name-----
SYSA  DB2P   MVVP   BBCS TEST DB2 V3   Modified
SYSA  ETCCIC4 MVCICS  EMPRISE TECH CICS V4.1  Not Installed
SYSA  SSICICS MVCICS  SPECIALIZED SOFTWARE V  Modified
SYSA  ETCDSL0T MVCICS  EMPRISE TECH CICS V3.3  Not Installed

```

In this dialog, use the **Condition** field to specify the criteria that the data must meet in order to activate the hyperlink specified in the **Command** field.

You can use relational operators and numeric values to establish a filtering condition. For a description of what can be specified for the condition and the hyperlink, press the Help key from the customization view and navigate through the view customization help for the hyperlink option.

Changing the Headings of Fields

Views contain data fields that show a single element of information about a resource in your enterprise. You can change the format of how a field and its data are displayed. To do this:

- Step 1** On the **COMMAND** line of the view you want to change, type **CUSTOM** and press **Enter**.
- Step 2** In the **OPTION** field, type **F** but *do not* press **Enter** yet.
- Step 3** Place your cursor on the field you want to change and press **Enter**:

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==> f                                SCROLL ==> HALF
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template
-----< Format - column: D element: TGTDESC >-----
Data type: Character      Display Mode => 1 ( 1 as is 2 as graph 3 as hex )
Width => 32                Graph range (for 2): Low => 0      High => 0
Decimals => 0 (for numeric data)      Display zero values => N (Yes/No)
Heading1 => Description          Summarization type => L (A/S/M/X/C/L/P)
Heading2 => -----            Condition (for C) =>
-----
      A      B      C      D      E
CMD CAS   Target  Product  Description  Install
--- Name--- Name--- -----
      SYSA   SYSA   PLEXMGR  Target Manager  Modified
      SYSA   SYSA   MVMVS   MAINVIEW for MVS (2.2.1)  Modified
      SYSB   SYSB   PLEXMGR  Target Manager  Modified
      SYSB   SYSB   MVVP    MAINVIEW VistaPoint (1.1.0)  Modified
      SYSB   DB2L   MVVP    PRODUCTION DB2  Not Installed
      SYSB   SYSB   MVMVS   MAINVIEW for MVS (2.2.1)  Modified
      SYSB   DB2L   MVDB2   PRODUCTION DB2  Not Installed
      SYSB   SYSB   CMF     CMF MONITOR Online (5.2.0)  Modified
    
```

Use the **Heading1** and **Heading2** fields in this dialog to rename the heading of the field you selected. You can also use the other fields in this dialog to change the way the data element is displayed. For a description of what can be specified for the display attributes, press the Help key from the customization view and navigate through the view customization help for the format option.

Setting Thresholds and Assigning Colors

A data field in a view can be set to a threshold condition. Then when an element of information meets that condition, it is highlighted in color if your monitor supports colors. If your monitor does not support colors, high and low intensity are used.

To set a threshold to a data field and assign it a color:

Step 1 On the **COMMAND** line of the view you want to change, type **CUSTom**.

Step 2 In the **OPTION** field, type **T** but *do not* press **Enter** yet.

Step 3 Put your cursor on the field you want to change and press **Enter**.

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==> t                                SCROLL ==> HALF
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template

-----< Threshold - column: E   element: TGTSTAT   >-----
Condition:          Attr: Sub:   Inherit from =>  0: GREEN  5: GREEN
1st => E = 'NOT INSTALLED' => 4 =>          1: BLUE   6: BLUE
2nd => E = INSTALLED      => 5 =>          2: YELLOW 7: YELLOW
3rd =>                    =>   =>          3: PINK   8: PINK
4th =>                    =>   =>          4: RED    9: RED
5th =>                    =>   =>
6th =>                    =>   =>
7th =>                    =>   =>
8th =>                    =>   =>

-----
      A      B      C      D      E
CMD CAS   Target  Product  Description  Install
--- Name--- Name--- Name--- Name--- Name---
      SYSD   SYSD   PLEXMGR Target Definition  Modified

```

Using the **Condition** and **Attr** fields in this dialog, you can specify

- up to 8 threshold conditions in the Condition column

To define a condition, use the internal letter of the field shown in the working copy of the view, a relational operator, and a value. For a list of the valid operators and values, press the **Help** key from the customization view and hyperlink through the view customization help for the threshold option.

- a color for each condition using the Attr column and a numeric value from the color list shown on the far right

To change the colors shown, enter **MVParms** on the **COMMAND** line and select the **ATTRIBUTES** option.

When you save your customized view, you can name it what you like and specify where you want the threshold saved. Then you can use this same threshold for other views containing this field. Specify where you want the threshold condition to be saved by using the **Threshold Location** field in the **Save View Definition** area.

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==>
Options: (that require column selection)      Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat     X - Exclude     P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template

-----< Save View definition >-----
View name ==> TGTDEF      This view definition will be saved as a member in
Replace ==> YES (Yes/No)  the data set allocated to DD statement BBVDEF .
Description ==> List of all Target Definitions Dynamic fields ==> YES (Yes/No)
Summary View ==> (for tabular view only)
Threshold Location ==> VIEW      (View/Central)
Press ENTER to save the view; enter END (PF3) to end without saving.

-----
      A          B          C          D          E
CMD CAS      Target  Product  Description  Install
--- Name----- Name-----
      SYSD      SYSD      PLEXMGR  Target Definition  Modified
    
```

For **Threshold Location** you can enter one of the following values:

CENTRAL Saves the threshold and its attributes as a member in the PAS parameter library, **BBPARM**. The member name is **BBpArrrr**, where *p* is the product identifier and *rrrr* is the internal record identifier. If you create another threshold for the same data field, the member is replaced automatically. Do not rename these members.

If you want to use the same thresholds on multiple PASs, you can copy these members to the PAS parameter libraries, provided the PASs are the same release. Restart each PAS to activate the thresholds. If the PASs are not the same release, you must logon to each PAS and define the thresholds using the **CUSTOM** command.

The same threshold and display attributes defined for a field apply to all instances of the same field element in other views.

VIEW Saves the threshold and its attributes with the customized view in the **BBVDEF** view library.

The threshold and display attributes defined for a field apply only to this customized view. **VIEW** is the default.

Summarizing Data in a View

A summary view is created by summarizing numerous rows of data from a tabular view into a single row based on the values in a selected column. Statistical information can then be calculated from another column of the view.

The column that you select to base the summary view on should contain a limited number of known (or anticipated) values, not just random data. In other words, multiple rows should be expected to contain each of the possible values for that column.

The following example creates a summary view from a tabular view of data set information. The view that is used in this example comes from the MAINVIEW SRM StorageGUARD VTOC Scan Facility. The goal of the summary view will be to determine the amount of DASD used by data sets based on their catalog status.

Step 1 On the **COMMAND** line of the view you want to change, type **CUSTOM** and press **Enter**.

Step 2 In the **OPTION** field, type **Z** followed by the letter of the column to be summarized and press **Enter**.

For this example, use **D** for the **Cat** (catalog) column:

```

----- VIEW CUSTOMIZATION - WBVTOCD -----
OPTION ===> z d                                SCROLL ===> HALF
Options: (that require column selection)      Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template

-----
Some options ask you to select a target column. To do so, either type the
option with the column id on the OPTION line (as in: f e to format column E),
or type just the option, move the cursor to the target column and press ENTER.
Your changes are implemented every time you press ENTER. You can save the
modified view definition with any name you choose and specify where thresholds
are to be saved with the Threshold Location field. Enter END (PF3) to exit.
-----

```

A	B	C	D	E	F	G
CMD Data Set	Volume	Vol	Cat	UCB	Record	Bl
--- Name	-----	Seq	---	----	Length	Si
RDGTMS.IMS61.DBDHD01P	SYSB17	1	D	5347	8906	8
RDGTMS.IMS61.DBDHD01P.SHADOW	SYSB10	1	N	535E	8906	8
RDGTMS.IMS61.DBDHD02A.DATA	SYSB08	1	C	4D1	40	4
RDGTMS.IMS61.DBDHD02A.INDEX	SYSB08	1	C	4D1	1529	1

The dialog shown in the following example is displayed:

```

----- VIEW CUSTOMIZATION - WBVTOCD -----
OPTION ==> Z                                SCROLL ==> PAGE
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template

-----< Summarize - Specify columns for summarization >-----
If you want to summarize rows of data, specify at least one column to group by:
Group by 1=> A      To further customize a summarized view:
                2=>      Use option X to exclude a column from the summarized view.
                3=>      Use option F to modify the type of summarization for a column
                4=>      ( S sum, A avg, M min, X max, C count, L any, P percent)
-----
      A  B                                C      D  E  F      G
CMD Cat Data Set                        Volume Vol UCB Record Bl
--- --- Name                            ----- Seq ---- Length Si
C  RDG*****                          ***** 1 53B2      0
D  RDGTMS.*****                       SYSB** 1 25A6      0
N  RDG*****                          SYSB** 1 615C      0

```

Notice that the Catalog status column was moved to the first position, column A. The column that a summary view is based upon is always moved to the first position so that it can be easily identified.

Also notice that the view has been reduced to three lines:

- C for data sets that are cataloged
- N for data sets that are not cataloged
- D for data sets that are miscataloged (that is, a data set resides on a volume but the catalog points to a data set of the same name on a different volume)

One other possible catalog status is not shown: U for unknown catalog status.

Step 3 In the **OPTION** field, type **F** followed by the letter of the column whose data you want to calculate and press **Enter**.

For this example, use **L** for the **Tracks Allocated** column. The dialog shown in the following example is displayed:

```

----- VIEW CUSTOMIZATION - WBVTOCD ----- PAGE
OPTION ==> f                                SCROLL ==> PAGE
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template

-----< Format - column: L element: W21TRKSA >-----
Data type: Numeric      Display Mode => 1 (1 as is 2 as graph 3 as hex)
Width => 9              Graph range (for 2): Low => 0      High => 0
Decimals => 0 (for numeric data)      Display zero values => Y (Yes/No)
Heading1 => Tracks      Summarization type => A (A/S/M/X/C/L/P)
Heading2 => Allocated   Condition (for C) =>
-----
      A  G   H     I   J   K       L       M       N       O       P
CMD Cat Block Percent Blks Exts   Size Tracks   Tracks Tracks Percent CA
--- --- Size Eff /Trk ---- (kb) Allocated Used Free Used Split
C      0      81.4  0   1     781      15      4      10      35.8   *
D      0      31.4  0   1     830      15      1      14      4.4    N
N      0      38.3  0   1    1372     26      2      25     14.2   N

```

The summarized view now shows the formatting and calculation (Summarization type) options that can be performed on the selected column.

Step 4 In the **Summarization type** field, specify the type of calculation to be performed by entering one of these characters:

A Average
S Sum
M Minimum
X Maximum
C Count
L Any
P Percentage.

For this example, specify **S** to calculate the sum, or total amount, of tracks allocated, and then press **Enter**.

The result of the calculation is displayed:

```

----- VIEW CUSTOMIZATION - WBVTOCD -----
OPTION ==> f                                SCROLL ==> PAGE
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude     P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink   Z - Summarize  K - Show template

-----< Format - column: L element: W21TRKSA -----
Data type: Numeric      Display Mode => 1 (1 as is 2 as graph 3 as hex)
Width => 9              Graph range (for 2): Low => 0 High => 0
Decimals => 0 (for numeric data)      Display zero values => Y (Yes/No)
Heading1 => Tracks      Summarization type => S (A/S/M/X/C/L/P)
Heading2 => Allocated   Condition (for C) =>

-----
      A  G  H      I  J  K      L      M      N      O      P
CMD Cat Block Percent Blks Exts      Size Tracks Tracks Tracks Percent CA
--- --- Size Eff /Trk ---- (kb) Allocated Used Free Used Split
C      0  81.4  0  1      781      2106  4  10  35.8  *
D      0  31.4  0  1      830      45   1  14  4.4   N
N      0  38.3  0  1     1372     8976  2  25  14.2  N

```

The Tracks Allocated column now shows the total amounts for the data sets based on their catalog status (column A).

Filtering Data in a View

You can establish conditions to show only the view data that meets your condition criteria. These conditions are defined with filters. A filter condition is one or more SQL-like expressions used to define criteria for the data elements in one or more fields. Simple filters define a condition for an element in a view column. Complex filters can affect multiple elements and apply to more than one condition. Filters can be set by using the

- CUSTom command

The L option can be used to set simple filter conditions against tabular, detail, or group-by views using a column's data element to select data rows. The P option can be used to set more complex filter conditions against any view data element using the Where or QWhere commands presented with this option. Your filter conditions can then be saved with the view by using option S.

- Where or QWhere commands

These commands can be entered on the COMMAND line of a view to set complex filters. To save them, you must enter view customization with the CUSTom command and use option S.

- **PARm** command

This command can be entered on the **COMMAND** line to set temporary filters for the current view. These filters are not be saved with the view. For more information, see “Types of View Parameters” on page 7-4.

Note: Any previously specified filter is replaced when another filter is specified using view customization, or the **Where**, **QWhere**, **PARm**, or **QPARm** commands.

Using the L Customization Option

To set a filter condition for a data element in a view column, use the **L** option in view customization. A filter comprises the internal letter assigned to a column as its column ID, an operator, and a numeric or mask value. The filter criteria is applied against the data elements for that column.

For example, if you want to see a specific install status in the Plex Manager TGTDEF view:

- Step 1** On the **COMMAND** line of the view you want to change, type **CUSTom** and press **Enter**.
- Step 2** In the **OPTION** field, type **L** followed by the letter of the column to be summarized and press **Enter**.

For this example, use **E** for the **Install Status** column:

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==> 1 e                                SCROLL ==> HALF
Options: (that require column selection)      Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat     X - Exclude     P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template
-----< Filter - column: E element: TGTSTAT >-----
Filter condition =>
Parameter position => (optional: 1 to 8; blank means not used positionally)
A condition consists of the column id, an operator, and a value. This value
can be overridden by requesting this view with a keyword parameter (using the
element name as keyword) or a positional parameter (if you assign a position).
-----
      A      B      C      D      E
CMD CAS  Target  Product  Description  Install
--- Name--- Name-----
SYSA  DB2P  MVVP  BBBS TEST DB2 V3  Modified
SYSA  ETCCIC4 MVCICS  EMPRISE TECH CICS V4.1  Not Installed
SYSA  SSICICS MVCICS  SPECIALIZED SOFTWARE V  Modified
SYSA  ETCDSLST MVCICS  EMPRISE TECH CICS V3.3  Not Installed
SYSA  GUPCIC4 MVCICS  GUPTA CICS V4.10  Not Installed
SYSA  PUBCICS MVCICS  BBBS PUBLIC CICS V2.12  Modified
SYSA  PUBCIC3 MVCICS  BBBS PUBLIC CICS V3.30  Modified
SYSA  ETCCICS MVVP  EMPRISE TECH CICS V3.3  Modified

```

Step 3 In the **Filter condition** field, type **E = N*** and press **Enter**.

This filter requests only those targets that have a status of Not Installed, as shown in the following example:

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==> L                                SCROLL ==> HALF
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold H - Hyperlink    Z - Summarize K - Show template
-----< Filter - column: E element: TGTSTAT >-----
Filter condition => E = N*
Parameter position => (optional: 1 to 8; blank means not used positionally)
A condition consists of the column id, an operator, and a value. This value
can be overridden by requesting this view with a keyword parameter (using the
element name as keyword) or a positional parameter (if you assign a position).
-----
      A      B      C      D
CMD CAS  Target  Product  Product Description
--- Name--- Name-----
SYSA  ETCCIC4  MVCICS  EMPRISE TECH CICS V4.1  Not Installed
SYSA  ETCCIC4  MVVP    EMPRISE TECH CICS V4.1  Not Installed
SYSA  TERXCICS MVCICS  TENERA                  Not Installed
SYSA  ETCDSL0T MVCICS  EMPRISE TECH CICS V3.3  Not Installed
SYSA  GUPCIC4  MVCICS  GUPTA CICS V4.10        Not Installed
SYSA  ETCDSL0T MVVP    EMPRISE TECH CICS V3.3  Not Installed
SYSA  GUPCIC4  MVVP    GUPTA CICS V4.10        Not Installed
SYSA  IMSCTL   MVVP    IMS                      Not Installed

```

Pressing the END key displays a prompt asking you if you want to save the filter with the view.

For more information about using the L option in customization, press the Help key from the customization view.

Using the P Customization Option

To set a complex filter applying several conditions against more than one data element in a view and to save these conditions with the view, use the P option in customization. This option shows you positional parameters in effect and provides Qwhere and Where commands where you can specify complex filter conditions. Any previously specified filter will be replaced with the new filter.

Before you can customize a view using Qwhere and Where from the P option, you need to know the name of the element you want to filter. To determine the element name and set a complex filter:

Step 1 On the **COMMAND** line of the view you want to filter, type **WHATis** and press **Enter**.

Step 2 Place your cursor on the data field for the elements to be filtered and press **Enter**.

For example, entering **WHATis** from the Plex Manager **TGTDEF** view and selecting the **Product** field with your cursor displays a **Field Information** window with an **Element Name** of **TGTDPROD** for **Product** data elements.

The remainder of this example uses the **TGTDEF** view to filter data to only those products with names that start with **MVI** or **MVV**.

Step 3 On the **COMMAND** line of the view you want to change, type **CUSTom** and press **Enter**.

Step 4 In the **OPTION** field, type **P** and press **Enter**.

The following customization dialog is displayed:

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==> p                                SCROLL ==> HALF
Options: (that require column selection)      Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat    X - Exclude    P - Parameters E - Show excluded
L - Filter     T - Threshold H - Hyperlink    Z - Summarize K - Show template
-----< Positional Parameters for TGTDEF >-----
# Col Element      Filter      # Col Element      Filter
1                   5
2                   6
3                   7
4                   8
-----
This data displays filters, when QWHERE and/or WHERE commands were issued.
QWHERE

WHERE

-----
      A      B      C      D      E
CMD CAS      Target  Product  Description  Install
--- Name---- Name---- -----  Status--

```

Step 5 After **WHERE**, enter the following string to construct a **Where** command:

(TGTDPROD = MVI*) OR (TGTDPROD = MVV*)

The **Where** command applies the filter conditions against the data. The view is updated with data that meets the filter conditions.

TGTDPROD is the element name for the Product data field. The condition is to show only those products with names that start with MVI or MVV. Conditional expressions must be enclosed in parentheses.

```

----- VIEW CUSTOMIZATION - TGTDEF -----
OPTION ==> P                                SCROLL ==> HALF
Options: (that require column selection)    Other options:
F - Format      M - Move      I - Include      G - Graph      S - Save view
O - Order      R - Repeat     X - Exclude     P - Parameters E - Show excluded
L - Filter     T - Threshold  H - Hyperlink  Z - Summarize  K - Show template
-----< Positional Parameters for TGTDEF >-----
# Col Element      Filter                # Col Element      Filter
1                   5
2                   6
3                   7
4                   8
-----
This data displays filters, when QWHERE and/or WHERE commands were issued.
QWHERE

WHERE (TGTDPROD = MVI*) OR (TGTDPROD = MVV*)
-----

      A      B      C      D      E
CMD CAS    Target  Product  Description  Install
--- Name--- Name---- -----
SYSA      IMSM    MVIMS   IMS          Installed
SYSA      DB2P    MVVP    BCS TEST DB2 V3  Installed
SYSA      DB2X    MVVP    BCS PROD DB2 V3  Installed
SYSA      IMSM    MVVP    IMS          Installed
SYSA      ETCCIC4 MVVP    EMPRISE TECH CICS V4.1  Not Installed

```

Step 6 Scroll down and press **Enter** to see the results of the filter you set:

```

ddmmmyyyy hh:mm:ss ----- MAINVIEW WINDOW INTERFACE (Rv.r.mm) -----
COMMAND ==>                                SCROLL ==> HALF
CURR WIN ==> 1          ALT WIN ==>
>W1 =TGTDEF=====SYSB=====*(===== (99 BROWSE          )====PLEXMGR==U===22
CMD CAS    Target  Product  Description  Install
--- Name--- Name---- -----
SYSA      IMSM    MVIMS   IMS          Installed
SYSA      DB2P    MVVP    BCS TEST DB2 V3  Installed
SYSA      DB2X    MVVP    BCS PROD DB2 V3  Installed
SYSA      IMSM    MVVP    IMS          Installed
SYSA      ETCCIC4 MVVP    EMPRISE TECH CICS V4.1  Not Installed

```

Pressing the END key displays a prompt asking you if you want to save the filter with the view.

For more information about using Qwhere and Where with the P option in customization, press the Help key from the customization view.

Using Qwhere or Where Commands

The Qwhere and Where commands can be entered on the COMMAND line of a view instead of using customization. When you use either of these commands, the following dialog for the command is displayed:

```

----- SET WHERE FILTER -----
COMMAND  ===>

Where Condition:

Type END to update the form filter
  CANCEL to quit without updating

```

Note: As with Where and Qwhere for the P option in customization, you must know the names of the elements against which the filters are to be applied. To display the name of an element use the WHATIS command and position your cursor to select the field.

Enter your filter conditions as shown below:

```

----- SET WHERE FILTER -----
COMMAND  ===>

Where Condition:
(TGTDPROD = MVI*) OR (TGTDPROD = MVV*)

Type END to update the form filter
  CANCEL to quit without updating

```

Any previously specified filter will be replaced with the new filter.

When you finish establishing filter conditions for the view, enter view customization with the CUSTOM command and use the S option to save them.

Press the Help key from the SET WHERE FILTER dialog to learn more about the Qwhere and Where commands.

Deleting a Customized View

To delete any view that you have defined with view customization:

Step 1 On the **COMMAND** line, type **USER** and press **Enter**.

A list of user-defined views is displayed.

Step 2 In the line command field, type **D** next to the view you want to delete and press **Enter**.

Note: You can delete any user-defined view, but you cannot delete a view distributed with the product. User-defined views are identified by a U on the window information line; distributed views are identified by a D.

Chapter 11 Working with Full-Screen Mode Displays

MAINVIEW products that operate in full-screen mode present their system performance information in standard ISPF displays. This chapter discusses how to work with these full-screen displays.

Primary Option Menu

Each MAINVIEW product that operates in full-screen mode has a Primary Option Menu. This menu is first displayed when you assess the product from the appropriate product area menu (see Figure 2-2 on page 2-7).

The first group of selections from these menus consists of specific product options that help you manage performance. These options vary greatly from product to product. See your individual product manuals for more specific information.

The general services options are available from the Primary Option Menu of each MAINVIEW product that runs in full-screen mode. This group of options allows you to

- display refreshable applications in a continuous timed cycle
- display MAINVIEW service messages and monitor warnings, terminal session commands, and target (MVS, CICS, IMS, DB2) messages
- display descriptions of messages generated by MAINVIEW products running in full-screen mode
- display supported terminals and the functions assigned to PF keys by MAINVIEW

- display online help
- terminate the product session

For more information, see Chapter 12, “Using General Services in Full-Screen Mode.”

You can return to the Primary Option Menu from any full-screen display by entering one of the following commands on the COMMAND line:

INITIAL	Returns to the first menu displayed when the terminal session was invoked or transferred to from windows mode.
RETURN	Returns to the Primary Option Menu of the current product line when the request is made from a product application. All intermediate panels are bypassed. If the request is made on the Primary Option Menu within a nested product line transfer, the application from which the transfer was requested is displayed.

These commands can be assigned to PF keys.

Performance Data Display

Figure 11-1 shows the header fields for a sample performance data display when running in full-screen mode. This sample shows both input and output fields, which are available with most MAINVIEW products when running in full-screen mode. When the SERV and PARM fields are available (instead of the COMMAND field), this display also can be used to directly make requests for other display services.

Figure 11-1 Sample Performance Data Display

```

----- DB2 SYSTEM STATUS ----- PERFORMANCE MGMT
SERV ==> DB2ST          INPUT  hh:mm:ss INTVL=> 5  LOG=> N  TGT==> DB2G
PARM ==>                                ROW    1 OF    26 SCROLL=> CSR
EXPAND: DB2EX, DBTS, USERS, CICSC, LOCKU, LKOUT, MON(ALL), EDMPL, BFRPL,
ZPARAM

```

The input fields are as follows:

SERV	Enter a 2- to 5-character service select code for an analyzer display service as described in the product manuals (MAINVIEW for DB2, MAINVIEW for DBCTL, and MAINVIEW for IMS Online only). Application or product transfer commands also can be entered in this field as described in Chapter 13, “Transferring Applications in Full-Screen Mode.”
PARM	Enter optional parameters, up to 55 characters as described in the product manuals (MAINVIEW for DB2, MAINVIEW for DBCTL, and MAINVIEW for IMS Online only).
INTVL	Specify a screen refresh interval. (Default is 3 seconds.)
LOG	Specify whether the display is to be logged to the terminal session (TS) Image log. Valid entries are Y for yes and N for no.
TGT or CICS	Specify the target MVS system or subsystem (CICS, IMS, DB2) as described in “Specifying the Target System” on page 11-4.
SCROLL	Enter the scroll amount for scrollable services. (This amount can also be entered in the SERV field.) If the display cannot be scrolled, N/A appears in this field.

The output fields are as follows:

INPUT/RUNNING	Identifies the screen mode, either input or refresh (PF6). Input is accepted when INPUT is displayed. RUNNING indicates the screen is in refresh mode. Input is not accepted when RUNNING is displayed. (Press ATTN or PA1 to exit refresh mode.)
hh:mm:ss or TIME	Is the time stamp.
service title	Is the service description, up to 24 characters.
EXPAND	Indicates additional displays you can access from the current screen to view more information (see “EXPAND Line” on page 11-13).
lines 5 - nn	Are data lines (scrollable services adapt to terminal size).

Specifying the Target System

The name of an MVS system or subsystem (CICS, IMS, DB2) appears in either the TGT field or the CICS field in the upper right corner of the application panels. This identifier is the target system for all commands entered in the application. A default target system for your terminal session is set by the TARGET parameter in the BBITSP00 member of the BBPROF data set.

The target system can be changed so commands can be directed to another system. After you have changed the target name for a session, it remains at that name until changed again. This is also true for each window in split-screen mode, so you can maintain a different target system on each side of the split.

There are several ways to specify a different target system:

- Enter the new name over the old name in the TGT or CICS field. A valid entry is the subsystem ID of the target DB2 or IMS subsystem, region name of the target CICS region, or name of the target MVS system.

Note: The system name must be defined in the job name table in BBPARM member BBIJNT00.

- Use the CYCLE SETUP option on the Primary Option Menu. Up to 30 different services from 30 different target systems can be displayed simultaneously using the CYCLE service. Data is updated (refreshed) at specified time intervals.
- Use the SYSTEM command. The SYSTEM command changes the name of the target system from the COMMAND line. To use the SYSTEM command, type **SYSTEM *name*** on the **COMMAND** line; for example:

```
COMMAND ==> SYSTEM FIFT00
```

changes the name of the current target system to FIFT00.

Program Function (PF) Key Definitions

A set of program function key definitions is maintained for each MAINVIEW product family and the General Services LOG application as members of a site or a user's BBPROF data set as follows:

xxxxPFK

where xxxx can be

- CICS, DB2, AO, or IMS for the product applications
- BBI for PF key defaults if there are no product application PF key members
- LOG for log display defaults

These definitions make PF key usage unique to each product. The default PF key definitions are described in Table 11-1 on page 11-6.

Use the General Services KEYS option from the Primary Option Menu or the KEYS command to display an input panel, shown in Figure 11-2, to change the PF key definitions and assign a PF key label, if needed, as in ISPF.

Figure 11-2 Program Function Keys Input Panel

```

----- PROGRAM FUNCTION KEYS ----- GENERAL SERVICES
COMMAND ==>

The current PF Key assignments for BBI are as follows:
PF1 ==> HELP
PF2 ==> SPLIT
PF3 ==> END
PF4 ==> PRINT
PF5 ==> LOG
PF6 ==> GO
PF7 ==> UP
PF8 ==> DOWN
PF9 ==> SWAP
PF10 ==> LEFT
PF11 ==> RIGHT
PF12 ==> RETRIEVE

To save changes
into profile,
enter SAVE on
the command line.

When executing under ISPF, these labels may be displayed using PFSHOW
PF1 LABEL ==> PF2 LABEL ==> PF3 LABEL ==>
PF4 LABEL ==> PF5 LABEL ==> PF6 LABEL ==>
PF7 LABEL ==> PF8 LABEL ==> PF9 LABEL ==>
PF10 LABEL ==> PF11 LABEL ==> PF12 LABEL ==>

Press ENTER to display keys 13 - 24. Enter END command to EXIT.

```

When KEYS is specified, the definitions in xxxxPFK are displayed. If a PF key member has not been created for the product application, the BBIPFK definitions are displayed. Entering the SAVE command on the COMMAND line of the program function key input panel stores the PF key definitions as a member of the user's BBPROF data set.

Note: The BBIPFK member may contain the MASTER keyword for a shared BBPROF. If the MASTER keyword is specified, online PF key changes are temporary. They cannot be saved in the user's BBPROF data set.

Table 11-1 Program Function Key Definitions

PF Key	Function	Description
PF1 PF13	HELP	Displays HELP and tutorial information about the current application (see "Getting Help" on page 11-15).
PF2 PF14	SPLIT	Splits the screen at the cursor into two logical screens.
PF3 PF15	END	Returns to the previous application (exceptions at PF5/17 and PF6/18).
PF4 PF16	PRINT (SCREEN COPY)	Copies the current screen to the BBISPRNT data set, which can be printed later (see "Printing a Screen" on page 11-9).
PF5 PF17	LOG DISPLAY or EXPAND	In AO, MVDB2, MVDBC, and MVIMS Online, the PF5/17 key transfers to the Log Display general service. PF3/15 returns to the current application (see "Display Logs" on page 12-13 for more information). In MVCICS, the PF5/17 key expands to another service display to provide more information about, for example, the selected data set, file, or program (see "MVCICS Field Expand" on page 11-12 for more information).
PF6 PF18	GO	Refreshes an automatic service display. Displayed application data is dynamically updated (refreshed) at the user-defined interval specified in the INTVL field of the application display. Use the attention interrupt key to stop the refresh cycle.
PF7 PF19	UP	Scrolls up (back) the number of lines specified on the COMMAND field. The default varies with each application.
PF8 PF20	DOWN	Scrolls down (forward) the number of lines specified on the COMMAND field. The default varies with each application.
PF9 PF21	SWAP	Switches between the logical screens created with PF2/14.
PF10 PF22	LEFT	Scrolls to the left.
PF11 PF23	RIGHT	Scrolls to the right.
PF12 PF24	RETRIEVE	Retrieves the last command entered on the COMMAND line. The retrieved command can be reissued without changes or be modified and then reissued.

Assigning Commands to PF Keys

Each set of PF key definitions can be changed for a single terminal session or can be saved across multiple sessions. Any valid system or MAINVIEW product command can be assigned as a PF key value. Any input that can be entered in the first input field of a display, such as the COMMAND line or OPTION field, can also be assigned as a PF key value. PF keys also can be used with COMMAND line input. For example, entering a 5 on the COMMAND line and pressing PF8 (defined as DOWN) scrolls down five lines.

Twenty-four keys can be defined. The initial input panel displays the current values for the first 12 keys. Pressing Enter displays the current values for keys 13 through 24. When Enter is pressed, the display alternates between PF1 through PF12 and PF13 through PF24.

To change a PF key, select the KEYS option (K) or enter the KEYS command and perform one of the following actions:

- Enter the new value over the displayed value.
- Assign NOP to disable a PF key.
- Blank out the current value to restore the default definition.

The changes remain in effect until you end the terminal session. You can save the definitions in your BBPROF data set by entering the SAVE command on the COMMAND line.

Assigning Labels to PF Keys

Labels are assigned to PF keys by using the KEYS command or option K from the Primary Option Menu to display the input panel shown in Figure 11-3. Additionally, the ISPF command, PFSHOW, can be used to display labels assigned to the PF keys, as shown in Figure 11-3. If there is no label assignment, the first eight characters of the key value are displayed.

Figure 11-3 PF Keys Label Displayed

```

----- PRIMARY OPTION MENU ----- MAINVIEW for DB2 v.r.mm
OPTION ===>
                                     DATE -- yy/mm/dd
                                     TIME -- hh:mm:ss
Managing DB2 Performance:
 1 STATUS - DB2 Status (DB2ST)          MODE -- ISPF v.r
 2 ANALYZERS - Current Status/Activity Displays
 3 MONITORS - Early Warnings/Recent History (Active Timer Requests)
 4 TRACES - Current Application Traces
 5 HISTORY TRACES - Historical Trace Data Sets
 6 GRAPH - Recent Thread History
 7 I/O - DB2 I/O Analysis
 8 BBI INFO - BBI Subsystem Information

General Services:
 C CYCLE SETUP - Service Refresh Cycle Setup
 L LOG DISPLAY - Display Logs
 M MESSAGES - Display Messages and Codes
 K KEYS - Current PF Key Assignments
 T TUTORIAL - Tutorials/News/Getting Started
 X EXIT - Terminate
                                     PF1/13: HELP
                                     PF3/15: EXIT

PF1=HELP    2=SPLIT    3=END    4=PRINT    5=LOG    6=GO
PF7=UP      8=DOWN    9=SWAP   10=LEFT   11=RIGHT  12=RETRIEVE
    
```

To assign a label to a PF key, enter the value in the LABEL field of the input panel. Press Enter to alternate between the input panel for PF keys 1 through 12 and 13 through 24. Changes are in effect until the end of the terminal session or until they are saved in your BBPROF data set with the SAVE command.

Two labels, NOSHOW and BLANK, have special meaning:

- NOSHOW** Suppresses displaying the PF key completely
- BLANK** Suppresses displaying the PF key value only

Splitting the Screen

During terminal session operation, the physical terminal screen can be split into two logical screens by pressing the SPLIT PF2/14 key. The position of the cursor determines the position of the split. Two panels are displayed on one screen, which provides two application windows. Splitting an application or a tutorial puts the current application on one side of the split and the Primary Option Menu (or ISPF Primary Option Menu if the product was invoked under ISPF) on the other.

The active screen is indicated by the location of the cursor. Pressing the SWAP PF9/PF21 key switches the cursor to the other screen. That screen then becomes the active display.

In services with a SERV field, the SERV field value in the active display is erased when SWAP is used. Use the RETRIEVE command to obtain the SERV value.

The split screen is eliminated when one of the applications ends by pressing the END (PF3/15) key.

Exiting a Display

When you press END, you exit from the display you are currently viewing. Also, after you specify a product line or application transfer, you can press this key to return to the original application or product line from which you made the transfer request. For more information, refer to Chapter 13, “Transferring Applications in Full-Screen Mode.”

Printing a Screen

You can use the command PRINT (PF4/16) to copy the current screen display to BBISPRNT, a special data set allocated to the terminal session (TS). The TS CLIST parameter PRINT (YES) can be specified to create and allocate the print data set. The contents of the BBISPRNT data set can be printed later.

Note: A BBISPRNT DD statement must be included in the TS JCL for this feature to work. For more information, refer to the sample JCL in BBSAMP member SLOGJCL.

Refreshing a Display

You can refresh a single service display or you can set up a group of service displays to refresh cyclically.

To refresh a single current service display, perform one of the following actions:

- Press GO (PF6/18)
- Type **GO** on the **COMMAND** line and press **Enter**

The default screen refresh interval is set for the terminal session by the INTERVAL parameter in BBPROF member BBITSP00. The default interval may be overridden by specifying a new value in the INTV field or, on screens without this field, by entering **GO xx**, where *xx* specifies the new refresh interval.

To enable several services to refresh cyclically, use the CYCLE SETUP option on the Primary Option Menu. Refer to “Service Refresh Cycle” on page 12-2 for details.

To cancel refresh, use the attention interrupt key. For SNA terminals use the ATTN key. For non-SNA terminals, use the PA1 key.

Some keyboards require that RESET be pressed to unlock the attention interrupt key. The attention interrupt procedure is defined by IBM and MAINVIEW uses the keys assigned by this procedure. The same keys are used by TSO.

Note: The Enter key is not supported as a method for exiting screen refresh mode; however, some terminal types can use this method to cancel screen refresh.

Scrolling a Display

Scrollable applications include lists, service displays with CSR in the SCROLL field, and the General Services: LOG DISPLAY and MESSAGES. The end of scrollable data is shown by this line:

```
***** END OF DATA *****
```

The SCROLL field is always displayed; non-scrollable displays contain N/A in the SCROLL field.

The list applications can be scrolled up (PF7/PF19) or down (PF8/20). Service displays that show CSR in the SCROLL field can be scrolled up or down. A << or >> symbol in the display indicates that the information can be scrolled left (PF10/22) or right (PF11/23). Graph and LOG displays can be scrolled up or down and left or right.

A scroll amount can be specified. For the list applications, the amount is entered on the COMMAND line. For the scrollable service displays, the amount is entered in the SCROLL field or the SERV field.

The scroll amount can be one of the following values:

- M or MAX scrolls to the bottom or top of list
- 1 to 32,765 scrolls the corresponding number of lines
- H or HALF scrolls half of a display screen amount
- P or PAGE scrolls a full display screen amount
- CSR scrolls to the cursor position

Note: Image logging of a scrollable display logs all collected data, not just one screen. The MAINVIEW AutoOPERATOR IMFEXEC subcommand IMFC supports an option of SCROLL=YES. Reissue an IMFC analyzer display with SCROLL=YES to retrieve additional screens until the END OF DATA line is found. Each request retrieves 40 data lines.

Qualifying Requests

Requests for multiple resources or workloads with similar names can be made by using a plus (+) or an asterisk (*) character as a name qualifier.

When a + appears at the end of a string, it replaces all the characters that follow. When it appears in the middle of a string, it must be repeated for every character to be replaced. For example, the parameter:

```
S XYZ+
```

displays all databases beginning with the characters XYZ on the Database and Table Space Status panel.

To display all databases beginning with an A character, followed by any two characters, and ending with a D, enter

```
S A++D
```

An * can also be used to replace a group of characters. For example, to display trace entries for all PLAN names beginning with DSNTI on the DB2 Trace Entries (LTRAC) display, enter

```
PLAN=DSNTI*
```

These generic qualifiers can be used with

- parameters, for many analyzer and trace services
- selection criteria keywords, for workload monitor and summary trace data collection services

Expanding a Display

From many full-screen services, you can easily expand to additional related displays for more information. Two methods are provided with different MAINVIEW products:

- MVCICS field expand
- EXPAND line

This method is used by

- MVDB2 (all analyzer and trace displays)
- MVDBC and MVIMS Online (some analyzer and trace displays)
- MVCICS (most trace displays)

MVCICS Field Expand

From MVCICS, you can view additional statistics for a field or a displayed line of information by positioning your cursor on the field or line and pressing the Enter key. Additional information may be available by pressing the Enter key again while in an expanded display.

Use the END key (PF3/15) to return to the original display.

EXPAND Line

The EXPAND line on line four of many analyzer and trace displays indicates additional displays you can access from the current screen to view more information. For example, in Figure 11-4 on page 11-13, the sample EXPAND line indicates that you can access

- a selectable list of all the active user activity monitors
- the USERS analyzer display
- a more detailed description of any message displayed on the current screen.

Figure 11-4 Sample EXPAND Line

```

-----SAMPLE SERVICE-----PERFORMANCE MGMT
SERV ==>                                     TGT==>
XXXXXXXXX
PARM ==>                                     SCROLL=> CSR
EXPAND: MON(USER), USERS, LINESEL(MSG)

```

There are two methods of expanding to another display:

EXPAND Select

Use the **Tab** key to highlight a selection in the EXPAND line and press **Enter**. For example, in the sample service shown in Figure 11-4, tab to the word **USERS** and press Enter to see the **USERS** resource analyzer display.

There are three types of selections:

MON(XXXX) Accesses a list of all the active monitors related to area xxxx on the Active Timer Requests panel. You can select any listed monitor to view a PLOT of the historical monitor values.

For example, in the sample shown in Figure 11-4:

Move the cursor to **MON(USER)** and press Enter to view a list of all the active user activity monitors.

Use line command **S** and press Enter to view a PLOT of any listed monitor.

You can also access these monitors by typing a slash (/) as the first character in the PARM field.

xxxxx Invokes the selected analyzer service or a display in another installed product, such as RxD2. These selections are low-lighted and inactive when the product is not available.

LINESEL(xxxx) Accesses more detailed information about the first line in the current display. This action has the same result as moving the cursor to the first row of the display and pressing Enter.

For example, in the sample service shown in Figure 11-4, use the Tab key to move to the word LINESEL(MSG) and press Enter to see a more detailed description of the first message displayed on the current screen.

This selection is also a reminder that the line select method can be used.

Line Select

If LINESEL is listed in the EXPAND line, use the **Tab** key to move to any selected row of the current display and press **Enter** to view a more detailed display.

For example, in the USERS resource analyzer display, select a user ID with the Tab key and press Enter to see the DUSER detail display for that user.

As you expand from one display to another, the previous display is saved in a stack. To return from an expanded display, use one of these methods:

- To return to the previous display, press the **END** key.
- To return to the initial display when you are several levels deep in the stack:
 - From an analyzer service, type **CLEAR** in the **SERV** field and press **Enter**.
 - If you have selected one or more active monitor lists along your navigation path, press **END** until you reach an analyzer service.

Getting Help

When operating in full-screen mode you can get help with any of these methods:

- using the HELP key
- using the H line command
- selecting the tutorial

Using the HELP Key

You can get help at any time about the current full-screen application or service by pressing the HELP key. PF1/13 is the default HELP key. An ISPF panel with information about the current application or service is displayed. Sometimes, you will be presented with a menu from which you can select further information.

If you press the HELP key when an error message is displayed, a detailed description of the error message is usually generated. With some product services, you can move the cursor to any field and press the HELP key to get detailed information about that field.

Press the END key to exit help and return to your original application or service.

Using the H Line Command

From each of the following applications, you also can use the H line command to select help for a specific service:

- Current Traces
- Active Timer Requests
- Analyzer Display Services

Note: These applications are not available in all MAINVIEW products.

Selecting the Tutorial

From the Primary Option Menu of each product that operates in full-screen mode, you can select a tutorial option (option T). This option provides you with one or more of the following options:

- Full-screen tutorial

Information covering all products and services you have installed that operate in full-screen mode is provided. Menu options, applications, and commands are described in an extensive set of menus and panels.

- News

Information about what is new in the current product release is provided.

- Tutorial exercises

Step-by-step exercises to familiarize new users with the product are provided.

Chapter 12 Using General Services in Full-Screen Mode

The general services options are available from the Primary Option Menu of all MAINVIEW products that run in full-screen mode.

Note: The messages and log display options are available to all MAINVIEW products from the Utilities, Tools, and Messages option of the MAINVIEW Selection Menu.

The general services options are as follows:

Option/Application Purpose

C CYCLE SETUP Displays refreshable applications in a continuous timed cycle. (See “Service Refresh Cycle” on page 12-2.)

L LOG DISPLAY Displays MAINVIEW service messages and monitor warnings, terminal session commands, and target (MVS, CICS, IMS, DB2) messages. (See “Display Logs” on page 12-13.)

M MESSAGES Displays descriptions of messages generated by MAINVIEW products. (See “Viewing Messages and Codes Online” on page 6-7.)

K KEYS Displays supported terminals and the functions assigned to the PF keys by MAINVIEW. (See “Program Function (PF) Key Definitions” on page 11-5.)

T TUTORIAL Displays online help. (See “Getting Help” on page 11-15.)

Note: You must have a *userid.BBPROF* data set, which is your user profile data set, in order to use many of these functions.

Service Refresh Cycle

Option C, CYCLE SETUP, can be used to set up a timed, cyclic refresh for a maximum of 30 display services. Services and parameters can be defined for a refresh cycle with cycle setup, or they can be predefined in a BBPROF data set member and invoked as needed. The Log Display application (LOG) and other BBI product services can also be defined in CYCLE SETUP.

The member names can be unique or have a three-character prefix of CYC. See your individual product manuals for valid service names.

Figure 12-1 shows the use of the CYCLE SETUP application. Descriptions of this application and the use of the BBPROF member follow the sample application.

Figure 12-1 Service Refresh Cycle Data Entry Panel

```

----- SERVICE REFRESH CYCLE ----- GENERAL SERVICES
COMMAND ===>                                TGT ===> CICSPROD
                                           PAGE 1 OF 1
SERVICE ===> MFSUT      TARGET  TYPE   DTIME LOG  DESCRIPTION
                IMSPROD  IMS     3      LOG  MFS POOL UTILIZATION
PARMS ===>
SERVICE ===> DB2ST     DB2A   DB2    3      DB2 SYSTEM STATUS
PARMS ===>
SERVICE ===> DA        SYSA   MVS    3      DISPLAY ACTIVE
PARMS ===>
SERVICE ===> FILE      CICS   CICS   5      FILE DISPLAY
PARMS ===> * OPEN
SERVICE ===> CAOSTAT   CICS   CICS   3      SYSTEM STATUS
PARMS ===>
SERVICE ===>
PARMS ===>

```

Cycle Setup Application

Up to 30 services may be defined. Forward and backward scrolling can be used to define and display additional services.

The input fields are as follows:

SERVICE	The service select code. See Table 12-1 on page 12-4 for a list of valid service select codes. Note: If several MAINVIEW products are installed, services and target types (CICS, IMS, DB2, or MVS) can be intermixed.
PARMS	The applicable parameters for the specified service separated by spaces.
TARGET	A 1- to 8-character identifier of the target. If TARGET and TYPE are not specified, the target displayed in the TGT field is used. If TARGET is not specified but TYPE is, the current target for the specified product line is used.
TYPE	The type of product line to process the requested service. A product line type does not need to be entered when only one product line is installed. If a product line is not specified, the active product line is used. When multiple product lines are installed, a product line type must be specified if the service to be requested does not belong to the active product line.
DTIME	The number of seconds the specified service display is to be shown before the next display. If a time is not entered, the default specified by the INTERVAL parameter in the BBPROF data set member BBITSP00 is used and displayed in the DTIME field. The BMC Software-distributed value is 3 seconds. If the maximum of 30 services is specified, each with a display time (DTIME) of 3 seconds, the first service in the refresh cycle is displayed approximately every 90 seconds.
LOG	(For MVDB2, MVDBC, and MVIMS Online services) Enter a Y (YES) or N (NO) to log screen images to the terminal session (TS) Image log for offline printing. The default, N, is displayed if no entry is made. A dash (—) displayed in this field indicates Image logging is not supported for the requested service.

Pressing the Enter key validates the specified services and shows the values in the input fields of the Service Refresh Cycle application. Any of the input field values can be changed. Entering the GO command (PF6/18) starts the cycle, as described in “Starting and Stopping Service Refresh Cycle” on page 12-12. This definition can be saved for later reuse, as described in “SAVE Command” on page 12-12.

Table 12-1 Service Select Codes for Refresh Cycle SERVICE Field (Part 1 of 6)

Service Select Code	Application Description	Product Line (Type)
BBI (General) Applications		
JOU JOURNAL	LOG Display	
LOG	LOG Display	
CICS Operator Workstation (MAINVIEW AutoOPERATOR) Applications		
STA STATUS	CICS System Status	CAO
IMS Operator Workstation (MAINVIEW AutoOPERATOR) Applications		
EX	Status/Exception	IAO
REG REGION	IMS Regions	IAO
STA STATUS	Status/Exception	IAO
MVS Operator Workstation (MAINVIEW AutoOPERATOR) Applications		
DA	Address Spaces	MAO
DISP DISPLAY	Address Spaces	MAO
ENQ ENQUEUEES	Enqueue/Reserve	MAO
OPER OPERATOR	Operator Requests	MAO
OR	Operator Requests	MAO
REQ REQUESTS	Operator Requests	MAO
RES RESERVES	Enqueue/Reserve	MAO
STA STATUS	System Status	MAO
MAINVIEW AutoOPERATOR Base Applications		
ALE ALERTS	ALERTS Overview	AO
EMA	EXEC Management	AO
EXEC	EXEC Management	AO
RUL RULES	Automation Control	AO
XAL XALRTS	Alert Detail	AO
MAINVIEW for CICS Applications		
AB ABEND	ABEND Display	CICS
AI AID	AID Display	CICS
AL ALIAS	ALIAS Display	CICS
CLA CLASSES	CLASSES Display	CICS

Table 12-1 Service Select Codes for Refresh Cycle SERVICE Field (Part 2 of 6)

Service Select Code	Application Description	Product Line (Type)
C CONNECT	CONNECT Display	CICS
CONNX CONNXPND	CONNXPND Display	CICS
CONNXPN2	CONNXPN2 Display	CICS
CONS CONSOLES	CONSOLES Display	CICS
CST CSTATUS	CSTATUS Display	CICS
DA DATATABL	DATABL Display	CICS
DB2S DB2SYSP	DB2SYSP Display	CICS
DB2T DB2TASK	DB2TASK Display	CICS
DBC DBCTL	DBCTL Display	CICS
DBCTA DBCTASK	DBCTASK Display	CICS
DBCTT DBCTTASK	DBCTTASK Display	CICS
DD DDIR	DDIR Display	CICS
DDIRXPND	DDIRXPND Display	CICS
DDIRXPN2	DDIRXPN2 Display	CICS
DE DEST	DEST Display	CICS
DL DL/I	DL/I Display	CICS
DSA DSAS	DSAS Display	CICS
DS DSNAMES	DSNAMES Display	CICS
EN ENQUEUE	ENQUEUE Display	CICS
EXI EXITS	EXITS Display	CICS
F FILE	FILE Display	CICS
FILEX FILEXPND	FILEXPND Display	CICS
FILEXPN2	FILEXPN2 Display	CICS
G GRAPH	GRAPH Display	CICS
I ICE	ICE Display	CICS
J JOURNAL	JOURNAL Display	CICS
LP LPAS	LPAS Display	CICS
M MONITOR	MONITOR Display	CICS
NUC NUCLEUS	NUCLEUS Display	CICS
PL PLAN	PLAN Display	CICS
PLANX PLANXPND	PLANXPND Display	CICS
PPST	PPST Display	CICS
P PROBLEM	PROBLEM Display	CICS
PR PROGRAM	PROGRAM Display	CICS
PSB PSBNAME	PSBNAME Display	CICS

Table 12-1 Service Select Codes for Refresh Cycle SERVICE Field (Part 3 of 6)

Service Select Code	Application Description	Product Line (Type)
REG REGIONS	REGIONS Display	CICS
REM REMOTES	REMOTES Display	CICS
REV REVIEW	REVIEW Display	CICS
SE SESSIONS	SESSIONS Display	CICS
SH SHARE	SHARE Display	CICS
ST STATUS	STATUS Display	CICS
S SUBPOOL	SUBPOOL Display	CICS
SUF SUFFIXES	SUFFIXES Display	CICS
SUM SUMMARY	SUMMARY Display	CICS
T TASK	TASK Display	CICS
TC TCBS	TCBS Display	CICS
TEMP TEMPSTRG	TEMPSTRG Display	CICS
TEMPX TEMPXPND	TEMPXPND Display	CICS
TE TERMINAL	TERMINAL Display	CICS
TERMX TERMPND	TERMPND Display	CICS
TI TIOT	TIOT Display	CICS
TR TRAN	TRAN Display	CICS
TRANX TRANXPND	TRANXPND Display	CICS
TS TSUT	TSUT Display	CICS
VT VTAM	VTAM Display	CICS
MAINVIEW for DB2 Applications		
BFRPL	Buffer Pool Status	DB2
CICSC	CICS DB2 Connections	DB2
CICSE	CICS DB2 RCT Entry	DB2
CICSR	CICS DB2 RCT Summary	DB2
CLAIM	Claims and Drains for Table Space Partitions	DB2
DBIO	I/O Analysis by Database/Table Space (DB/TS)	DB2
DBIOA	I/O Analysis by Authorization ID (AUTHID)	DB2
DBIOB	I/O Analysis — BPOOL (Realtime)	DB2
DBIOC	I/O Analysis by Connection Name (CONNECT)	DB2
DBIOD	I/O Analysis — Dataset (Realtime)	DB2
DBIOF	I/O Analysis by Buffer Pool (BPOOL)	DB2

Table 12-1 Service Select Codes for Refresh Cycle SERVICE Field (Part 4 of 6)

Service Select Code	Application Description	Product Line (Type)
DBIOK	I/O Analysis by Package/Program (PKG/PGM)	DB2
DBIOL	I/O Analysis by Location (LOCATION)	DB2
DBIOP	I/O Analysis by Plan (PLAN)	DB2
DBIOR	I/O Analysis — DB/TS (Realtime)	DB2
DBIOS	I/O Analysis by SQL Statement (SQL STMT)	DB2
DBIOT	I/O Analysis by Time (INTERVAL START)	DB2
DBIOV	I/O Analysis — Volume (Realtime)	DB2
DBTS	DB/TS Status	DB2
DB2EX	DB2 Exceptions	DB2
DB2ST	DB2 System Status	DB2
DDFCV	DDF Conversations	DB2
DDFDT	DDF Statistics Detail	DB2
DDFSM	DDF Statistics Summary	DB2
DDFVT	DDF VTAM Status	DB2
DLOGS	DB2 LOG Status	DB2
DMON	Monitor Summary	DB2
DTRAC	Detail Trace Entry	DB2
DUSER	Detail User Status	DB2
DWARN	Warning Summary	DB2
EDMPL	EDM Pool Status	DB2
LKOUT	Lockout History	DB2
LOCKD	Lock Contention by DB/TS	DB2
LOCKE	Lock Contention, User Detail	DB2
LOCKU	Lock Contention by User	DB2
LTRAC	DB2 Trace Entries	DB2
PLOT	Monitor History	DB2
RIDPL	RID Pool Status	DB2
STRAC	Summary Trace Entry	DB2
TSTAT	Trace Statistics	DB2
TSUMA	Trace Summary by AUTHID	DB2
TSUMC	Trace Summary by CONNECT	DB2
TSUML	Trace Summary by LOCATION	DB2

Table 12-1 Service Select Codes for Refresh Cycle SERVICE Field (Part 5 of 6)

Service Select Code	Application Description	Product Line (Type)
TSUMP	Trace Summary by PLAN	DB2
TSUMT	Trace Summary by TIME	DB2
USERS	User Summary	DB2
UTRAC	User Detail Trace	DB2
ZPARAM	DB2 System Parameters	DB2
MAINVIEW for IMS Online and MAINVIEW for DBCTL Applications		
Unless indicated otherwise, the following applications are provided by both MAINVIEW for IMS Online and MAINVIEW for DBCTL.		
APPCA (MVIMS only)	APPC Activity Summary	IMS
APPCL (MVIMS only)	APPC LU Status	IMS
BALGQ (MVIMS only)	BALG Queuing	IMS
CLASQ (MVIMS only)	Class Queuing	IMS
DAPPC (MVIMS only)	Inbound Outbound Allocation	IMS
DBST	ISAM/OSAM Pools	IMS
DLIST	DL/I Call Status	IMS
DLTCH	Latch Detail	IMS
DMBUT	DMB Pool Utilization	IMS
DMON	Monitor Summary	IMS
DPOOL	Detail Pool	IMS
DREGN	Region Detail	IMS
DSPST	Dispatcher Statistics	IMS
DTRAC	Display Workload Trace	IMS
DWAIT	Display Workload Wait	IMS
DWARN	Warning Summary	IMS
FPBST	Fast Path Buffer Pool	IMS
IRLM	IRLM IMS Status	IMS
IRLMG	IRLM Global Status	IMS
ISTAT	Terminal Input Status	IMS
LATCH	Latch Summary	IMS
LCRES	IRLM Lock Contention by Resource	IMS
LCUSR	IRLM Lock Contention by User	IMS
LHRES	IRLM Locks Held by Resources	IMS
LHUSR	IRLM Locks Held by User	IMS
LOGST	Log Statistics	IMS
LUSRD	IRLM Lock User Detail	IMS

Table 12-1 Service Select Codes for Refresh Cycle SERVICE Field (Part 6 of 6)

Service Select Code	Application Description	Product Line (Type)
LTRAC	List of Trace Entries	IMS
MFSST (MVIMS only)	MFS Statistics	IMS
MFSUT (MVIMS only)	MFS Pool Utilization	IMS
OSTAT (MVIMS only)	Terminal Output Status	IMS
QUEST (MVIMS only)	Queue Statistics	IMS
PI	Program Isolation	IMS
PLOT	Monitor History	IMS
POOLC	Pool Summary (CBT)	IMS
POOLS	Pool Summary (non-CBT)	IMS
PSBUT	PSB Pool Utilization	IMS
REGNS	IMS Regions	IMS
REGND	Region Detail	IMS
RS	ESA Real Storage	IMS
SCHED (MVIMS only)	Scheduling Statistics	IMS
STAT / STATR	System Status	IMS
STRAC	Summary Trace Entry	IMS
TRANQ	Transaction Queue Status	IMS
USER (MVIMS only)	User Status Summary	IMS
VSST	VSAM GLOBAL or Subpool Statistics	IMS

BBPROF Predefined Refresh Cycle Member

A refresh cycle that is used repeatedly can be predefined in a member of the BBPROF data set. The member name is used to invoke it from the COMMAND line. The member can be named

- a meaningful 1- to 8-character member name such as MTODMIN or OPERATOR
- CYCxx

where xx is any two alphanumeric characters

The keywords to define a refresh cycle in the member are as follows:

SERV= Is the service select code; for example, **SERV=LOG** (see the **SERVICE** parameter values in “Cycle Setup Application” on page 12-2).

OPT= Specifies the service parameters. A valid statement:

- Can be written within single quotation marks

Multiple parameters (to a maximum of 60 characters) can be specified in a statement enclosed in single quotation marks. Statement parameters can be separated by blanks.

- Can be written without single quotation marks

If single quotation marks are not used, a statement terminates with the last parameter or a comma. Multiple parameters (maximum of 60 characters) can be specified in the statement. Each parameter can be separated by blanks.

TARGET= Is a 1- to 8-character identifier of the target. If **TARGET** and **TYPE** are not specified, the target displayed in the **TGT** field when the member is selected is used. If **TARGET** is not specified but **TYPE** is, the current target for the specified product line when the member is selected is used.

INTVL= Specifies the time in seconds (1 to 99) the service is to be displayed before the next one is shown.

LOG= Specifies either **Y (YES)** or **N (NO)** to log the display to the terminal session (TS) Image log. This parameter is applicable only to the **MVDB2**, **MVDBC**, and **MVIMS** Online product lines. Comments may be included by placing an asterisk in column 1.

For example, the services defined for a refresh cycle in Figure 12-1 on page 12-2 could be defined in a BBPROF member as shown in Figure 12-2:

Figure 12-2 Sample Cycle Setup Member

```
* SAMPLE CYCLE SETUP MEMBER
*
* IMS DISPLAY MFS UTILIZATION
*
SERV=MFSUT,TYPE=IMS,INTVL=3
*
* DB2 SYSTEM STATUS
*
SERV=DB2ST,TYPE=DB2,INTVL=3
*
* MVS ACTIVE DISPLAY
*
SERV=DA,TYPE=MVS,INTVL=5
*
* CICS OPEN FILE DISPLAY
*
SERV=FILE,OPT=* OPEN,TYPE=CICS,INTVL=3
*
```

The BBPROF member is selected by entering its name with a **Select** or **SET** command on the **COMMAND** line of the Service Refresh Cycle application. **Select** can be used to select a one- to eight-character BBPROF member name across product lines. **SET** can be used to specify the suffix of a **CYC** BBPROF member. **Select** allows meaningful names to be defined and is the recommended method for invoking a BBPROF member. The following examples show the syntax of the **Select** and **SET** commands.

Select Command

If the member name is one- to eight-characters, the member is invoked by the **SELECT** command. The syntax of the **SELECT** command is

```
Select member
```

where *member* is the BBPROF member name.

SET Command

If the member name is **CYCxx**, the member can be invoked by using the following **SET** command syntax:

```
SET xx
```

where *xx* is the **CYC** suffix.

Pressing Enter displays the Service Refresh Cycle application with the BBPROF member specifications. Any of the values shown in the input fields can be changed. Entering the GO command (PF6/18) starts the cycle.

SAVE Command

Once a group of services is defined using the CYCLE SETUP application, the definition can be saved in the BBPROF data set by issuing one of the following commands:

SAVE *xx*

where *xx* is an alphanumeric suffix for CYC

or

SAVE *memname*

where *memname* is any three- to eight-character alphanumeric member name.

Starting and Stopping Service Refresh Cycle

Entering the GO command (PF6/18) starts the cycle. The attention interrupt key (ATTN for SNA terminals and PA1 for non-SNA terminals) stops the cycle. When the cycle stops, the last display shown is reissued and returned to the screen in INPUT mode. The status can be analyzed and further requests made for other displays as usual. When PF3 is pressed, the display returns to the Service Refresh Cycle application and shows the service names, parameters, and any short messages. Press **PF6/18** or type **GO** to restart the cycle.

On some keyboards, the RESET key must be pressed to unlock the attention interrupt key. The attention interrupt procedure is defined by IBM. The same keys are used by TSO.

Note: The Enter key is not supported as a method for exiting screen refresh mode; however, some terminal types can use this method to cancel screen refresh.

Each refreshed service display is shown in the sequence and time (DTIME) specified. For the example in Figure 12-1 on page 12-2, the IMF MFSUT application will be displayed first, followed by the MAINVIEW for DB2 DB2ST application, the MAINVIEW AutoOPERATOR for MVS DA application, and the MAINVIEW for CICS FILE application. The cycle repeats again, starting with IMF MFSUT.

Display Logs

Option L, LOG DISPLAY, displays the BBI-SS PAS Journal log belonging to the

- BBI-SS PAS associated with the system identified in the target field
- BBI-SS PAS when the BBI-SS PAS ID is specified in the target field
- terminal session when LOCAL is specified in the target field

The identifier in the target field (TGT or CICS) can be changed to point to any valid DB2 or IMS subsystem, CICS region, MVS system, BBI-SS PAS, or to LOCAL.

Log Display Application

The Log Display application displays all messages and commands from MAINVIEW products running in full-screen mode and may include all target messages. It can be selected from any Primary Option Menu (option L) or by pressing the LOG key (PF5/17) while in any full-screen application.

Figure 12-3 Log Display Application

```

----- Log Display ----- General services
COMMAND ==> TGT ==> DB2F
LINE=      12,340 LOG= #1 STATUS= INPUT TIME= 17:51:38 INTV==> 3
12:11:00 DS0560W (04) 12:11:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:12:00 DS0560W (05) 12:12:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:12:55 XS6311I BBI/SESSION FOR -CPS17 - TERMINATED
12:13:00 DS0560W (06) 12:13:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:14:00 DS0560W (07) 12:14:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:15:00 DS0560W (08) 12:15:00 ECSA % UTILIZATION(TOTAL) = 72 (>70) *****
12:16:00 DS0560W (09) 12:16:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:17:00 DS0560W (10) 12:17:00 ECSA % UTILIZATION(TOTAL) = 71 (>70) *****
12:22:11 XS6304I BBI/SESSION FOR -LAA1 - TO -D31X- INITIATED
13:12:00 DS0561I 13:12:00 ECSA % UTILIZATION(TOTAL) NO LONGER > 70
13:28:48 DSNW131I - STOP TRACE SUCCESSFUL FOR TRACE NUMBER(S) 05
13:28:49 DSN9022I - DSNWVCM1 '-STOP TRACE' NORMAL COMPLETION
13:53:02 DS0560W (01) 13:53:00 ECSA % UTILIZATION(TOTAL) = 72 (>70) *****
13:54:00 DS0560W (02) 13:54:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:55:01 DS0560W (03) 13:55:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:56:00 DS0560W (04) 13:56:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:57:01 DS0560W (05) 13:57:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:58:00 DS0560W (06) 13:58:00 ECSA % UTILIZATION(TOTAL) = 74 (>70) *****
13:58:12 DSN3201I + ABNORMAL EOT IN PROGRESS FOR USER=LGS11
13:58:12 CONNECTION-ID=DB2CALL CORRELATION-ID=LGS11

```

The Log Display application is a 21-line window to the BBI-SS PAS Journal log data set. The application window template displays the following information:

LINE= n	Number of the first line of the log being displayed.
LOG #n	Number of the journal being displayed. There are two online BBI-SS PAS Journal log data sets.
STATUS=	Application mode can be INPUT to enter data or RUNNING for screen refresh.
INPUT	Data can be entered only when Log Display is in INPUT mode. Commands can be entered on the COMMAND line. A new target system can be entered in the TGT field. A refresh interval can be entered in the INTV field. Pressing the GO key (PF6/18) changes the application status mode from INPUT to RUNNING (refresh mode).
RUNNING	Screen refresh is indicated by the message, RUNNING. To exit refresh and enter input mode, press ATTN (SNA terminal) or PA1 (non-SNA terminal). On some keyboards, the RESET key must be pressed to unlock the attention interrupt key. The attention interrupt procedure is defined by IBM and MAINVIEW uses the keys assigned by this procedure. The same keys are used by TSO. Note: The Enter key is not supported as a method for exiting screen refresh mode; however, some terminal types can use this method to cancel screen refresh.
TIME=	Time Log Display was requested.
INTV====> n	Screen refresh interval in seconds. The value can be from 1 to 99 seconds. The default is the INTERVAL parameter value in the BMC Software-distributed BBPROF data set member BBITSP00. Start screen refresh by pressing the GO key (PF6/18) or by entering GO in the command input line.

When the application is entered, the window is positioned to show the most recent messages. The BBI-SS PAS Journal log data shown in the window includes the

- time stamp of the message or command, which is always displayed
- message origin identifier data
- message text, which includes
 - all BBI commands and responses issued on behalf of the terminal session users assigned to the BBI-SS PAS

-
- all commands and responses issued automatically by BBI EXECs, if MAINVIEW AutoOPERATOR is installed
 - time stamps for BBI-SS PAS start and stop and the target system start and stop
 - MAINVIEW monitor and exception warning messages
 - BBI informational and error messages
 - all DB2 messages issued to the system console from selected target DB2 subsystems, if they have been activated in BBPARM member DMRBEX00 (see the *MAINVIEW for DB2 Customization Guide*)
 - all IMS and DBCTL IMS messages issued to the system console from selected target IMS subsystems if MAINVIEW AutoOPERATOR for MVS is installed (a rule must be defined as described in the *MAINVIEW AutoOPERATOR Basic Automation Guide*)
 - all IMS messages that go to the AOI exit from selected target IMS subsystems if MAINVIEW AutoOPERATOR for IMS is installed (a rule must be defined as described in the *MAINVIEW AutoOPERATOR Basic Automation Guide*)

To view the origin identifier data and a date field, move the Log Display application window to the left with the PF10/22 key. This information is not displayed when Log Display is launched initially.

Log Display highlights every command recorded in the BBI-SS PAS Journal log.

Note: For any commands issued with a user password, a ? replaces the password in the logged command.

PF scroll keys or a Log Display primary command move the Log Display window through the BBI-SS PAS Journal.

Scroll Commands for Log Display

The scroll commands operate the same as similar IBM ISPF scroll commands as follows:

- Scroll amount

The number of lines of data to be moved is entered on the COMMAND line of the Log Display. The UP key (PF7/19) or the DOWN key (PF8/20) specifies the direction.

Type on the COMMAND line:	Press PF7/19 to scroll:	Press PF8/20 to scroll:
M or MAX (maximum)	to the top	to the bottom
1 to 9999 (a number)	<i>n</i> lines up	<i>n</i> lines down
H (half)	half page up	half page down
P (page)	full page up	full page down

Typing the TOP command or BOTTOM command on the COMMAND line and pressing Enter scrolls to the top or the bottom of the data.

- Left scrolling

Enter the number of columns to be scrolled on the COMMAND line. Press PF10/22 to scroll left the specified amount. The default is 21 columns.

Note: Left scrolling shows data that identifies the origin of the message and a date field.

- Right scrolling

Enter the number of columns to be scrolled on the COMMAND line. Press PF11/23 to scroll right the specified amount. The default is 21 columns.

Primary Commands for Log Display

Primary commands unique to the Log Display locate data anywhere in the BBI-SS PAS Journal log or refresh the Log Display data.

- L (LOCATE LINE)

The LOCATE command moves a specific line to the top of the display. When Log Display is initially requested, the most recent log entries fill the screen. The LINE= field shows the line number for the first of these entries. For example, L 13.

- F (FIND CHARACTERs)

The FIND command finds an alphanumeric character or string of characters in the Log Display. The search can be started backward from the first displayed line (PREV) or started forward from the first line of the Journal log (FIRST). Pressing the PF5/17 key repeats the FIND command for the Log Display only.

Syntax	Example
F c	F x
F 'c...c'	F 'LSNA'
F 'c...c'	PREVF 'LSNA' PREV
F 'c...c'	FIRSTF 'LSNA' FIRST

- T (FIND TIME)

The TIME command finds a specific time in the Journal log for the current date.

Syntax	Example
T hh:mm:ss	T 11:30:00
T hh:mm	T 11:30
T hhmm	T 1130
T hh	T 11

- GO (REFRESH LOG DISPLAY)

The GO command or use of the GO key (PF6/18) refreshes Log Display in the seconds specified in the INTV field. The ATTN (on an SNA terminal) or PA1 (on a non-SNA terminal) key can be used to return to INPUT mode to enter data.

On some keyboards, the RESET key must be pressed to unlock the attention interrupt key. The attention interrupt procedure is defined by IBM and MAINVIEW uses the keys assigned by this procedure. The same keys are used by TSO.

Note: The Enter key is not supported as a method for exiting screen refresh mode; however, some terminal types can use this method to cancel screen refresh.

- DB2 Commands

An authorized user can issue valid DB2 commands on the COMMAND line of any MAINVIEW application running in full-screen mode. The command results are shown by Log Display.

The command syntax is as follows:

Syntax	Example
--------	---------

<i>-db2cmd-</i>	DIS THD(*)
-----------------	------------

where *db2cmd* is the DB2 command. Each command must have a - character as a prefix.

The command is issued against the DB2 specified in the TGT field.

- PROFILE

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.

The PROFILE command displays an input panel where you can specify which messages from the Journal log you want to see. Up to six message origin patterns can be included or excluded from the Journal log 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, as shown in Figure 12-4:

Figure 12-4 Defining a Subset of Messages with the PROFILE Command

```

----- Log Display ----- General services
COMMAND ==>
Included Origins          Excluded Origins          Date --- yy/mm/dd
Time --- hh:mm:ss

CICS*___                CICSTEST
_____
_____
_____
_____
_____
_____
    
```

The PROFILE specifications are saved in *userid.BBPROF* member LDPARM00, which allows each user to have an individual application profile.

You also can include messages from the current target specified in the TGT field by specifying the variable, *&target*, in the Included Origins column, as shown in Figure 12-5:

Figure 12-5 Including Messages from the Current Target

```

----- Log Display ----- General services
COMMAND ==>
Included Origins          Excluded Origins          Date --- yy/mm/dd
Time --- hh:mm:ss

&TARGET_                _____
_____
_____
_____
_____
_____
    
```

Figure 12-6 shows a sample of the output produced from the profile specified in Figure 12-5. It displays only those messages from target, DB2F.

Figure 12-6 Viewing Messages from the Current Target

```

----- Log Display ----- General services
COMMAND ==>
                                TGT ==> DB2F
Line      3,913  Log #1  Status INPUT      Time 10:33:25 INTV==> 3
15:57:01 DW0120W (02) 15:57:00 AVG ELAPSED TIME(TRANS) = 99.882 (>5.000) ***
15:58:00 DW0121I 15:58:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
15:58:00 DS0541I 15:58:00 CSA PAGING(TOTAL) NO LONGER > 1800
15:59:00 DW0120W (01) 15:59:00 AVG ELAPSED TIME(TRANS) = 99.690 (>5.000) ***
16:00:08 DW0121I 16:00:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
17:01:02 DS0540W (01) 17:01:00 CSA PAGING(TOTAL) = 2599 IN 01:00 MIN (>1800)
17:02:00 DS0540W (02) 17:02:00 CSA PAGING(TOTAL) = 2530 IN 01:00 MIN (>1800)
17:03:00 DS0540W (03) 17:03:00 CSA PAGING(TOTAL) = 2341 IN 01:00 MIN (>1800)
17:04:00 DS0541I 17:04:00 CSA PAGING(TOTAL) NO LONGER > 1800
18:19:00 DS0540W (01) 18:19:00 CSA PAGING(TOTAL) = 2185 IN 01:00 MIN (>1800)
18:20:00 DS0541I 18:20:00 CSA PAGING(TOTAL) NO LONGER > 1800
19:18:00 DS0540W (01) 19:18:00 CSA PAGING(TOTAL) = 2251 IN 01:00 MIN (>1800)
19:19:00 DS0541I 19:19:00 CSA PAGING(TOTAL) NO LONGER > 1800
19:31:00 DW0120W (01) 19:31:00 AVG ELAPSED TIME(TRANS) = 101.138 (>5.000) **
19:32:00 DW0120W (02) 19:32:00 AVG ELAPSED TIME(TRANS) = 99.313 (>5.000) ***
19:33:00 DW0121I 19:33:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000
19:34:00 DW0120W (01) 19:34:00 AVG ELAPSED TIME(TRANS) = 99.200 (>5.000) ***
19:35:00 DW0121I 19:35:00 AVG ELAPSED TIME(TRANS) NO LONGER > 5.000

```

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

Chapter 13 Transferring Applications in Full-Screen Mode

Use application transfer commands to move temporarily from one full-screen application to another within the same product line. You can use application transfer commands for all the full-screen MAINVIEW applications.

If you want to transfer temporarily from one application in the current product line to another application in another product line, prefix the transfer command with the product line transfer commands and a semicolon (;). The example in Figure 13-1 shows a transfer from the CICS SYSTEM STATUS application (the CICS option of the MAINVIEW AutoOPERATOR product line) to the MAINVIEW for DB2 Active Timer Requests application.

Figure 13-1 Example of Application Transfer to Another Product Line

```
----- CICS SYSTEM STATUS -----  
AutoOPERATOR  
COMMAND ==> DB2;AT  
INTERVAL ==> 1  
STATUS --- INPUT  
TGT ==>CICSA  
DATE --- yy/mm/dd  
TIME --- hh:mm:ss
```

Table 13-1 and Table 13-2 on page 13-2 list valid transfer commands for application transfer.

The application transfer commands listed in Table 13-1 can be entered in any full-screen MAINVIEW application.

Note: These commands are not preceded by a product line transfer command.

Table 13-1 Transfer Commands for Full-Screen Applications

Application Transfer Command	Description
COD or CODES	Messages and Codes List
CYC or CYCLE	Service Refresh Cycle
FOC or FOCAL	FOCAL POINT Overview Display
JOU or JOURNAL	LOG Display
KEY or KEYS	Program Function Keys
LOG	LOG Display
MSG	Messages and Codes List
REF or REFRESH	Service Refresh Cycle
TI	Time-Initiated EXEC Requests

Using the information in Table 13-2, enter the product line transfer command listed in the first column, a semicolon, and an application transfer command from the second column on any COMMAND line. You will get the application listed in the third column if the product listed in the fourth column is installed.

Table 13-2 Application Transfer Commands (Part 1 of 4)

Product Line Transfer Command	Application Transfer Command	Application Description	Product
MAINVIEW AutoOPERATOR for CICS or MAINVIEW for CICS			
CAO or CICS	ALE or ALERTS	Alert Overview	AutoOPERATOR
CAO or CICS	AT	Active Timer Requests	MAINVIEW for CICS
CAO or CICS	BROA or BROADCAST	CICS Broadcast	AutoOPERATOR
CAO or CICS	CMRTOOLS	MAINVIEW for CICS Tools Menu	MAINVIEW for CICS
CAO or CICS	CT	Current Traces	MAINVIEW for CICS
CAO or CICS	DM	Display Monitors	MAINVIEW for CICS
CAO or CICS	DW	Display Warnings	MAINVIEW for CICS
CAO or CICS	EX or EXEC or VIEW svc parm1, parm2	Execute a MAINVIEW for CICS service with defaults or passed parameters	MAINVIEW for CICS
CAO or CICS	HIST or HISTORY	MAINVIEW for CICS History Selection	MAINVIEW for CICS
CAO or CICS	HT	History Traces	MAINVIEW for CICS
CAO or CICS	PUT	MAINVIEW for CICS PUT Level	MAINVIEW for CICS
CAO or CICS	SD	Statistics and Defaults	MAINVIEW for CICS
CAO or CICS	SM	Start Monitor	MAINVIEW for CICS

Table 13-2 Application Transfer Commands (Part 2 of 4)

Product Line Transfer Command	Application Transfer Command	Application Description	Product
CAO or CICS	ST	Start Trace	MAINVIEW for CICS
CAO or CICS	STA or STATUS	CICS System Status	AutoOPERATOR
CAO or CICS	UGR or UGRAPH	User Defined Graph Selection	MAINVIEW for CICS
CAO or CICS	XAL or XALRTS	Alert Detail	AutoOPERATOR
MAINVIEW AutoOPERATOR Base			
AO	ALE or ALERTS	ALERT Overview	AutoOPERATOR
AO	DPM	Dynamic Parameter Manager	AutoOPERATOR
AO	EMA	EXEC Management	AutoOPERATOR
AO	EAS	Event Activity Statistics	AutoOPERATOR
AO	EXEC	EXEC Management	AutoOPERATOR
AO	MAS	Event Activity Statistics	AutoOPERATOR
AO	MSGS or MSGSTAT	Event Activity Statistics	AutoOPERATOR
AO	OSPI	OSPI Script Development	AutoOPERATOR
AO	NV	NetView Operator Workstation	AutoOPERATOR
AO	RUL or RULES	Automation Control	AutoOPERATOR
AO	SOF	Shared Object Facility	AutoOPERATOR
AO	TI	Time-Initiated EXECs	AutoOPERATOR
AO	XAL or XALRTS	Alert Detail	AutoOPERATOR
MAINVIEW for DB2			
DB2	AN	Analyzer Display Services	MAINVIEW for DB2
DB2	AT	Active Timer Requests	MAINVIEW for DB2
DB2	CT	View Current Traces	MAINVIEW for DB2
DB2	DM	Display Monitors	MAINVIEW for DB2
DB2	DW	Display Warnings	MAINVIEW for DB2
DB2	GC	General Commands	MAINVIEW for DB2
DB2	GT	Graph Thread History	MAINVIEW for DB2
DB2	EX or EXEC svc parm1, parm2	Execute a MAINVIEW for DB2 service with defaults or passed parameters	MAINVIEW for DB2
DB2	HT	HISTORY Traces	MAINVIEW for DB2
DB2	IO	I/O Analysis Options	MAINVIEW for DB2
DB2	CTIO	Current I/O Traces	MAINVIEW for DB2
DB2	HTIO	History I/O Traces	MAINVIEW for DB2

Table 13-2 Application Transfer Commands (Part 3 of 4)

Product Line Transfer Command	Application Transfer Command	Application Description	Product
DB2	MN	Data Collection Monitors	MAINVIEW for DB2
DB2	PM	DB2 System Status	MAINVIEW for DB2
DB2	SD	Display Statistics and Defaults	MAINVIEW for DB2
DB2	SM	Start Monitors	MAINVIEW for DB2
DB2	ST	Start Application Trace	MAINVIEW for DB2
DB2	VT	View Current Traces	MAINVIEW for DB2
MAINVIEW AutoOPERATOR for IMS, MAINVIEW for IMS Online or MAINVIEW for DBCTL			
MAINVIEW for IMS applies to both MAINVIEW for IMS Online and MAINVIEW for DBCTL.			
IAO	ALE or ALERTS	ALERTS Overview	AutoOPERATOR
IAO or IMS	AN	Analyzer Display Services	MAINVIEW for IMS
IAO or IMS	AR	Data Entry Database Areas	AutoOPERATOR
IAO or IMS	AT	Active Timer Requests	MAINVIEW for IMS
IAO or IMS	CT	View Current Traces	MAINVIEW for IMS
IAO or IMS	DB, DAT or DATABASE	Database	AutoOPERATOR
IAO or IMS	DE	Data Entry Databases	AutoOPERATOR
IAO or IMS	DM	Display Monitor Requests	MAINVIEW for IMS
IAO or IMS	DW	Display Warnings	MAINVIEW for IMS
IAO or IMS	EXEC svc parm1, parm2	Execute a service with passed parameters	MAINVIEW for IMS
IAO or IMS	EX	Status/Exception	AutoOPERATOR
IAO or IMS	GC	General Commands	MAINVIEW for IMS
IAO or IMS	HT	HISTORY Traces	MAINVIEW for IMS
IAO or IMS	MAINVIEW for IMS	MAINVIEW for IMS Performance Management	MAINVIEW for IMS
IAO or IMS	ISC	ISC Links	AutoOPERATOR
IAO or IMS	LINE	BTAM Lines	AutoOPERATOR
IAO or IMS	LT or LTERM	LTERMS	AutoOPERATOR
IAO or IMS	MN	Data Collection Monitors	MAINVIEW for IMS
IAO or IMS	MS	Main Storage Databases	AutoOPERATOR
IAO or IMS	NO or NODE	VTAM nodes	AutoOPERATOR
IAO or IMS	PD	MAINVIEW for IMS Performance Management	MAINVIEW for IMS
IAO or IMS	PM	MAINVIEW for IMS Performance Management	MAINVIEW for IMS
IAO or IMS	PR or PROGRAM	Program	AutoOPERATOR

Table 13-2 Application Transfer Commands (Part 4 of 4)

Product Line Transfer Command	Application Transfer Command	Application Description	Product
IAO or IMS	RC	Fast Path Routing Codes	AutoOPERATOR
IAO or IMS	REG or REGION	IMS Regions	AutoOPERATOR
IAO or IMS	SD	Display Statistics and Defaults	MAINVIEW for IMS
IAO or IMS	SM	Start Monitors	MAINVIEW for IMS
IAO or IMS	ST	Start Trace	MAINVIEW for IMS
IAO	STA or STATUS	Status/Exception	AutoOPERATOR
IMS	STA or STAT	IMS SYSTEM STATUS	MAINVIEW for IMS
IAO or IMS	TR or TRANSACTION	Transaction	AutoOPERATOR
IAO or IMS	VT	View Current Traces	MAINVIEW for IMS
IAO	XAL or XALRTS	ALERTS Detail	AutoOPERATOR
MAINVIEW AutoOPERATOR for OS/390			
MAO	ALE or ALERTS	ALERTS Overview	AutoOPERATOR
MAO	DA	Address Spaces	AutoOPERATOR
MAO	DASD	DASD Status/Control	AutoOPERATOR
MAO	DISP or DISPLAY	Address Spaces	AutoOPERATOR
MAO	ENQ or ENQUEUEES	Enqueue/Reserve	AutoOPERATOR
MAO	OPE or OPERATOR	Operator Requests	AutoOPERATOR
MAO	OR	Operator Requests	AutoOPERATOR
MAO	REQ or REQUESTS	Operator Requests	AutoOPERATOR
MAO	RES or RESERVES	Enqueue/Reserve	AutoOPERATOR
MAO	STA or STATUS	System Status	AutoOPERATOR
MAO	TAP or TAPE	Tape Status/Control	AutoOPERATOR
MAO	MAJ or MAJNODE	VTAM Major Nodes	AutoOPERATOR
MAO	APPL	VTAM Applications	AutoOPERATOR
MAO	CDRM	VTAM CDRMs	AutoOPERATOR
MAO	CDRS or CDRSC	VTAM CDRSCs	AutoOPERATOR
MAO	LINE	VTAM Lines	AutoOPERATOR
MAO	CLS or CLSTR	VTAM Clusters	AutoOPERATOR
MAO	TERM or TERMINAL	VTAM Terminals	AutoOPERATOR
MAO	XAL or XALRTS	ALERTS Detail	AutoOPERATOR

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.

action	Defined operation, such as modifying a MAINVIEW window, that is performed in response to a command. <i>See</i> object.
active window	Any MAINVIEW window in which data can be refreshed. <i>See</i> alternate window, current window, window.
administrative view	Display from which a product's management tasks are performed, such as the DSLIST view for managing historical data sets. <i>See</i> view.
ALT WIN field	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.
Alternate Access	<i>See</i> MAINVIEW Alternate Access.
alternate form	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.

alternate window	(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.
analyzer	(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.
application	(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.
application trace	<i>See</i> trace.
ASCH workload	Workload comprising Advanced Program-to-Program Communication (APPC) address spaces.
AutoCustomization	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.
automatic screen update	Usage mode wherein the currently displayed screen is refreshed automatically with new data at an interval you specify. Invoked by the ASU command.
batch workload	Workload consisting of address spaces running batch jobs.
BBI	Basic architecture that distributes work between workstations and multiple OS/390 targets for BMC Software MAINVIEW products.
BBI-SS PAS	<i>See</i> BBI subsystem product address space.
BBI subsystem product address space (BBI-SS PAS)	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"> • MAINVIEW AutoOPERATOR • MAINVIEW for CICS • MAINVIEW for DB2 • MAINVIEW for DBCTL • MAINVIEW for IMS Online • MAINVIEW for WebSphere MQ • MAINVIEW for WebSphere MQ Integrator • MAINVIEW SRM • MAINVIEW VistaPoint (for CICS, DB2, DBCTL, and IMS workloads)

BBPARM	<i>See</i> parameter library.
BBPROC	<i>See</i> procedure library.
BBPROF	<i>See</i> profile library.
BBSAMP	<i>See</i> sample library.
BBV	<i>See</i> MAINVIEW Alternate Access.
BBXS	BMC Software Subsystem Services. Common set of service routines loaded into common storage and used by several BMC Software MAINVIEW products.
border	Visual indication of the boundaries of a window.
bottleneck analysis	Process of determining which resources have insufficient capacity to provide acceptable service levels and that therefore can cause performance problems.
CA-Disk	Data management system by Computer Associates that replaced the DMS product.
CAS	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.
CFMON	<i>See</i> coupling facility monitoring.
chart	Display format for graphical data. <i>See also</i> graph.
CICSplex	User-defined set of one or more CICS systems that are controlled and managed as a single functional entity.
CMF MONITOR	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.
CMF MONITOR Analyzer	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.

context	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.
CONTEXT command	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.
control statement	(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.
coupling facility monitoring (CFMON)	Coupling facility views that monitor the activity of your system's coupling facilities.
current data	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.
current window	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.
DASD	(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.
DASD ADVISOR	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.
data collector	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.

delta mode	(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.
DFSMS	(Data Facility Storage Management System) Data management, backup, and HSM software from IBM for OS/390 or z/OS mainframes.
DMR	<i>See</i> MAINVIEW for DB2.
DMS	(Data Management System) <i>See</i> CA-Disk.
DMS2HSM	<i>See</i> MAINVIEW SRM DMS2HSM.
DSO	(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.
EasyHSM	<i>See</i> MAINVIEW SRM EasyHSM.
EasyPOOL	<i>See</i> MAINVIEW SRM EasyPOOL.
EasySMS	<i>See</i> MAINVIEW SRM EasySMS.
element	(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.
element help	Online help for a field in a view. The preferred term is <i>field help</i> .
Enterprise Storage Automation	<i>See</i> MAINVIEW SRM Enterprise Storage Automation.
event	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.
Event Collector	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.
expand	Predefined link from one display to a related display. <i>See also</i> hyperlink.

extractor	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.
extractor interval	<i>See</i> collection interval.
fast path	Predefined link between one screen and another. To use the fast path, place the cursor on a single value in a field and press Enter . The resulting screen displays more detailed information about the selected value. <i>See also</i> hyperlink.
field	Group of character positions within a screen or report used to type or display specific information.
field help	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 PF1 (HELP). In some products, field help is accessible from the screen help that is displayed when you press PF1 .
filter	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.
fire	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.
fixed field	Field that remains stationary at the left margin of a screen that is scrolled either right or left.
FOCAL POINT	MAINVIEW product that displays a summary of key performance indicators across systems, sites, and applications from a single terminal.
form	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.
full-screen mode	Display of a MAINVIEW product application or service on the entire screen. There is no window information line. <i>Contrast with</i> windows mode.
global command	Any MAINVIEW window interface command that can affect all windows in the window area of a MAINVIEW display.

graph	Graphical display of data that you select from a MAINVIEW window environment view. <i>See also</i> chart.
hilevel	For MAINVIEW products, high-level data set qualifier required by a site's naming conventions.
historical data	(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.
historical database	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.
historical data set	In MAINVIEW products that display historical data, VSAM cluster file in which data is recorded at regular intervals.
HSM	(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.
hyperlink	<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"> • access cursor-sensitive help • issue commands • link to another view or display <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>
Image log	<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>
IMSplex System Manager (IPSM)	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.

interval data	<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>Note: 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>
InTune	<p>Product for improving application program performance. It monitors the program and provides information used to reduce bottlenecks and delays.</p>
IRUF	<p>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.</p>
job activity view	<p>Report about address space consumption of resources. <i>See</i> view.</p>
journal	<p>Special-purpose data set that stores the chronological records of operator and system actions.</p>
Journal log	<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>
line command	<p>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.</p>
line command column	<p>Command input column on the left side of a view or display. <i>Contrast with</i> COMMAND line.</p>
Log Edit	<p>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).</p>
MAINVIEW	<p>BMC Software integrated systems management architecture.</p>

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.

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.

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.

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.

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.

MVALARM	<i>See</i> MAINVIEW Alarm Manager.
MVAPI	<i>See</i> MAINVIEW Application Program Interface.
MVCICS	<i>See</i> MAINVIEW for CICS.
MVDB2	<i>See</i> MAINVIEW for DB2.
MVDBC	<i>See</i> MAINVIEW for DBCTL.
MVIMS	<i>See</i> MAINVIEW for IMS.
MVIP	<i>See</i> MAINVIEW for IP.
MVLNX	<i>See</i> MAINVIEW for Linux–Servers.
MVMQ	<i>See</i> MAINVIEW for WebSphere MQ or MAINVIEW for WebSphere MQ Integrator.
MVMVS	<i>See</i> MAINVIEW for OS/390.
MVScope	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.
MVSRM	<i>See</i> MAINVIEW Storage Resource Manager (SRM).
MVSRMHSM	<i>See</i> MAINVIEW SRM EasyHSM.
MVSRMSGC	<i>See</i> MAINVIEW SRM SG-Control.
MVSRMSGD	<i>See</i> MAINVIEW SRM StorageGUARD.
MVSRMSGP	<i>See</i> MAINVIEW SRM StorageGUARD.
MVUSS	<i>See</i> MAINVIEW for UNIX System Services.
MVVP	<i>See</i> MAINVIEW VistaPoint.
MVVTAM	<i>See</i> MAINVIEW for VTAM.
MVWEB	<i>See</i> MAINVIEW for WebSphere Application Server.

nested help	Multiple layers of help pop-up windows. Each successive layer is accessed by clicking a hyperlink from the previous layer.
object	<p>Anything you can manipulate as a single unit. MAINVIEW objects can be any of the following: product, secondary window, view, row, column, or field.</p> <p>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.</p>
OMVS workload	Workload consisting of OS/390 OpenEdition address spaces.
online help	Help information that is accessible online.
OS/390 and z/OS Installer	BMC Software common installation system for mainframe products.
OS/390 product address space (PAS)	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.
parameter library	<p>Data set consisting of members that contain parameters for specific MAINVIEW products or a support component There can be several versions:</p> <ul style="list-style-type: none"> • the distributed parameter library, called BBPARM • a site-specific parameter library or libraries <p>These can be</p> <ul style="list-style-type: none"> • a library created by AutoCustomization, called UBBPARM • a library created manually, with a unique name
PAS	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).
performance group workload	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.
PERFORMANCE MANAGER	MAINVIEW for CICS online service for monitoring and managing current performance of CICS regions.

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 IEAIPStt member.

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.

Resource Monitor	Online data collection services used to monitor IMS resources and issue warnings when defined utilization thresholds are exceeded.
row	(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.
RxD2	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.
sample cycle	Time between data samples. For the CMF MONITOR Extractor, this is the time specified in the extractor control statements (usually 1 to 5 seconds). For real-time data, the cycle is not fixed. Data is sampled each time you press Enter .
sample library	Data set consisting of members each of which contains one of the following items: <ul style="list-style-type: none"> • sample JCL that can be edited to perform specific functions • macro that is referenced in the assembly of user-written services • sample user exit routine <p>There can be several versions:</p> <ul style="list-style-type: none"> • the distributed sample library, called BBSAMP • a site-specific sample library or libraries <p>These can be</p> <ul style="list-style-type: none"> • a library created by AutoCustomization, called UBBSAMP • a library created manually, with a unique name
sampler	Program that monitors a specific aspect of system performance. Includes utilization thresholds used by the Exception Monitor. The CMF MONITOR Extractor contains samplers.
SBBPROF	<i>See</i> profile library.
scope	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.

screen definition	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.
selection view	In MAINVIEW products, view displaying a list of available views.
service class workload	<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>
service objective	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.
service point	<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>
service request block (SRB)	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.
service select code	Code entered to invoke analyzers, monitors, and general services. This code is also the name of the individual service.
session	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.
SG-Auto	<i>See</i> MAINVIEW SRM SG-Auto.
SG-Control	<i>See</i> MAINVIEW SRM SG-Control.

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.

SYSPROG services	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.
system resource	<i>See</i> object.
target	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.
target context	Single target/product combination. <i>See</i> context.
TASCOSTR	MAINVIEW for IMS Offline program that summarizes detail and summary IMS Resource Utilization Files (IRUFs) to be used as input to the offline components.
task control block (TCB)	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.
TCB	<i>See</i> task control block.
terminal session (TS)	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).
TDIR	<i>See</i> trace log directory.
threshold	Specified value used to determine whether the data in a field meets specific criteria.
TLDS	<i>See</i> trace log data set.
total mode	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.
trace	(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.

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.

view help	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 PF1 (HELP).
window	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.
window information line	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.
window number	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.
window status	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.
window status field	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.
windows mode	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.
WLM workload	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.
workflow	Measure of system activity that indicates how efficiently system resources are serving the jobs in a workload.
workload	(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.
workload activity view	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.

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- 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.

Index

Symbols

- * character
 - as qualifier 11-11
 - in scope 7-2
 - on menus 8-19
- + character
 - as qualifier 11-11
 - more data indicator 7-2
- . character 8-19
- > character 7-2, 8-19
- ? password indicator 12-15
- @ character in user messages 6-8

Numerics

- 3270 emulator
 - access 4-6
 - keyboard map 4-7
 - node 3-4
- 3270 screens, importing 3-7

A

- abend codes 6-7
- active products and targets 7-9
- address spaces, MAINVIEW 1-2 to 1-5
- Alarm Manager
 - See* MAINVIEW Alarm Manager
- ALARM view 4-15
- Alerts node 3-4
- ALT WIN field 7-7

- Alternate Access
 - See* MAINVIEW Alternate Access
- alternate window 7-3, 7-7
- AO transfer command 6-4
- application transfer
 - commands 13-2 to 13-5
 - description 13-1
- assigning commands to PF keys 11-7
- assigning labels to PF keys 11-8
- asterisk (*)
 - as qualifier 11-11
 - in scope 7-2
 - in window information line 7-2
 - on menus 8-19
- ASU command 8-8
- Attach button 3-10
- ATTN key
 - canceling refresh 11-10
 - terminating GO 12-12
- automatic data refresh 4-3
- automatic screen update 8-8
- AutoOPERATOR
 - See* MAINVIEW AutoOPERATOR

B

- batch reports, historical
 - accessing 2-6
 - initiating report JCL 9-10
 - managing JCL members 9-15
 - overview 9-9
 - setting up batch environment 9-11
- BBI architecture 1-2

BBIJNT00 member 11-4
BBISPRNT data set 11-9
BBI-SS PAS
 description 1-4
 Journal log 12-13
BBITSP00 member
 default target 11-4
 default time interval 11-10, 12-14
 refresh time interval 12-3
BBMLIB data set 6-8
BBPROF data set 12-9
BBSDEF data set 7-16
BBVDEF data set 10-2, 10-10
browse mode 7-3

C

CAO transfer command 6-4
CAS (coordinating address space) 1-3
changing background color 4-10
Chart button 3-10
charts, MAINVIEW Explorer 4-12 to 4-15
CICS transfer command 6-4
clearing a window 7-15
client, MAINVIEW Explorer
 description 1-6
 displaying information about 4-16
CLIENTS view 4-16
CLIST, MAINVIEW 2-4
Close button 3-10
CLOSE command 7-15
closing a window 7-15
CMF MONITOR
 accessing 2-6
 transfer command 6-2
CODES command 13-2
codes display 6-7
color
 assigning to thresholds 10-9
 changing in MAINVIEW Explorer 4-10
 in column headings 4-6
 in menus 8-19
command line
 MAINVIEW Explorer 3-12
 scroll amount 12-16
commands, MAINVIEW
 entering 7-4

 executing from MAINVIEW Explorer 4-16
 help 7-20
 line 7-3
 retrieving 11-6
CONACT view 8-13, 8-15
CONACTD view 8-13, 8-16
CONACTP view 8-13
CONACTZ view 8-13 to 8-14
CONASEL view 8-13
context
 current target 7-2
 description 8-9
 setting in MAINVIEW Explorer 3-5
 in window information line 7-2
CONTEXT command 7-8, 8-9
coordinating address space (CAS) 1-3
CSV files, creating 4-4
current window 7-3
CUSTOM command 6-5, 10-3
customization, MAINVIEW Explorer
 duplicating fields 5-11
 editing filters 5-8
 editing hyperlinks 5-6 to 5-8
 editing thresholds 5-5
 excluding fields 5-12
 formatting data 5-2
 Groupby List 5-9
 header information 5-9
 including fields 5-12
 moving fields 5-2
 overview 5-1
 Parameter list 5-10
 saving views 5-12 to 5-14
 setting chart items 5-11
 Sort list 5-10
 specifying conditions 5-14
 WHERE clauses 5-15
customization, windows mode
 F option 10-8
 filter options 10-14
 format option 10-8
 H option 10-7
 hyperlinks 10-7
 I option 10-4 to 10-5
 include option 10-4 to 10-5
 L option 10-15
 online help 7-20
 P option 10-14, 10-17

- S option 10-14
 - save option 10-14
 - show option 10-3
- CYCLE command 13-2
- cycle refresh
 - See* refresh cycle
- CYCLE SETUP option 12-2

D

- data files, importing 3-7
- data sets
 - historical 9-1
 - print (BBISPRNT) 11-9
 - screen (BBSDEF) 7-16
 - view (BBVDEF) 10-2
- DATAR command 8-5
- date
 - changing format 9-2
 - field for history data 9-7
 - including field 9-8
 - interval 9-7
 - in views 7-2
- DB2
 - accessing catalog information 2-6
 - commands 12-18
 - message logging 12-1, 12-15
 - transfer command 6-4
- Detach button 3-10
- detail views 8-2
- display
 - exiting 11-9
 - expanding 11-12
 - log 12-13
 - refreshing 11-10
 - scrolling 11-10
- DSLIST view
 - MAINVIEW Explorer 4-8
 - windows mode 9-1
- DTIME field 12-3, 12-12
- Duplicate field 5-11
- duration
 - TIME parameter 9-3
 - window information line 7-3

E

- Easy Menus 8-17 to 8-20
- edit mode 7-3
- element
 - changing field name 10-8
 - help 7-20
 - name 7-5
- emulator, 3270
 - access 4-6
 - keyboard map 4-7
 - node 3-4
- END key 2-9
- ENDQUERY command 8-4
- Energizer for CICS, accessing 2-6
- Enhanced Journal Facility 12-18
- error messages 6-7
- exception messages 4-15
- excluded fields, showing
 - MAINVIEW Explorer 4-10
 - windows mode 10-3
- EXEC
 - application transfer command 13-3 to 13-4
 - service select code 12-4
- exiting
 - full-screen display 11-9
 - refresh cycle 11-10
 - TSO session 2-8
- expand display 11-12
- exporting view data 4-4
- EZExplorer views 3-3
- EZPLEX menu 8-10

F

- F option, customization 10-8
- filtering data
 - customization options 10-14
 - in MAINVIEW Explorer 4-7
 - L option 10-15
 - P option 10-14, 10-17
 - view parameters 7-4
- filters
 - editing 5-8
 - specifying conditions 5-14
- finding view data 8-6
- FNEXT command 8-4

- font, changing 4-11
- form
 - command 8-3
 - name 7-2
- format option, customization 10-8
- formatting data in MAINVIEW Explorer 5-2
- FPREV command 8-4
- full-screen mode
 - application transfer commands 13-1 to 13-5
 - definition 1-8
 - general services 12-1
 - getting help 11-15
 - transfer commands 6-1 to 6-5
 - tutorial 11-15

G

- general services
 - CYCLE SETUP 12-2
 - LOG DISPLAY 12-13
 - MESSAGES 6-7
 - overview 12-1
- GO command
 - cancelling 12-12
 - description 12-18
 - refreshing service display 11-10
- Groupby list 5-9

H

- H option, customization 10-7
- H window status 9-7
- header buttons 3-11
- help
 - commands 7-20
 - customizing in windows mode 7-20
 - fields 7-20
 - full-screen mode 11-15
 - hyperlinks 7-20
 - MAINVIEW Explorer 3-12
 - views 7-20
 - window information line 7-20
 - windows mode 7-19
- hidden fields, showing
 - MAINVIEW Explorer 4-10
 - windows mode 10-3

- historical data
 - batch reports 9-9
 - date field 9-7
 - in MAINVIEW Explorer 4-8
 - in windows mode 9-1
 - TIME command 9-1
 - time field 9-7
- horizontal window 7-8
- host actions 4-7
- host server, MAINVIEW Explorer
 - description 1-6
 - displaying information about 4-16
- HS command 7-8
- HSINFO view 4-16
- hyperlinks, MAINVIEW Explorer
 - editing 5-6 to 5-8
 - removing 5-6
 - specifying conditions 5-14
 - using 4-6
- hyperlinks, windows mode
 - between windows 7-7
 - customizing 6-5, 10-7
 - help 7-20
 - in menus 8-19
 - in views 8-17
 - to other products 8-16
 - using 8-16

I

- I option, customization 10-4 to 10-5
- IAO transfer command 6-4
- importing views 4-5
- IMS transfer command 6-4
- include option, customization 10-4 to 10-5
- information line, window 7-2
- INITIAL command 11-2
- initial screen, setting 7-18
- interval
 - CYCLE SETUP application 12-3
 - date field 9-7
 - refresh 12-14
 - time field 9-7
- InTune, accessing 2-6
- INTVL field 12-10

J

JOURNAL command 12-4, 13-2

Journal log

- accessing 2-6
- customizing display 12-19
- Enhanced 12-18
- message display subset 12-19
- Option L 12-13

K

KEYS command 7-7, 11-8, 13-2

keyword parameters 7-6

L

L option, customization 10-15

left scrolling 12-16

local system 8-9

LOCATE command 8-6, 12-17

locating view data 8-6

locking view data 8-5

LOG command 12-4, 13-2

log display

- commands 12-17
- customizing 12-18
- scrolling 12-16
- viewing subsets 12-19

LOG DISPLAY option 12-13

log field 12-3, 12-10

log key (PF5/17) 12-13

logging DB2 messages 12-15

M

MAIN view 8-18, 8-20

MAINVIEW

- address spaces 1-2 to 1-5
- CLIST 2-4
- introduction 1-1
- Selection Menu 2-4
- terminal session 2-1
- user interfaces 1-5 to 1-8

MAINVIEW Alarm Manager

accessing 2-5

PAS 1-4

transfer command 6-2

MAINVIEW Alternate Access 1-5

MAINVIEW AutoOPERATOR

accessing 2-6

application transfer commands 13-3, 13-5

service select codes 12-4

transfer command 6-4

MAINVIEW Explorer

3270 emulator node 3-4

3270 keyboard map 4-7

Alerts node 3-4

autolaunching a view 4-2

buttons 3-9

client information 4-16

colored column headings 4-6

command line 3-12

copying view data 4-5

description 1-5

detaching a view 4-3

emulator access 4-6

executing MAINVIEW commands 4-16

exporting views 4-4

file menu 3-6 to 3-7

filtering data 4-7

getting help 3-12

header buttons 3-11

host actions 4-7

host server information 4-16

icons 3-2

importing views 4-5

locating a view 4-1

navigation 3-1

navigation frame 3-2

opening a view 4-2

personal configurations 3-6 to 3-7

Plex node 3-4

Products tree 3-3

refreshing view data 4-3

saving customized views 5-12 to 5-14

showing hidden fields 4-10

sorting view data 4-4

starting 2-1

status line 3-12

Systems tree 3-2

threshold colors 4-10

using charts 4-12 to 4-15

- using hyperlinks 4-6
- view frame 3-7
- view preferences 4-11
- view tabs 3-8
- viewing historical data 4-8
- MAINVIEW for CICS
 - accessing 2-6
 - application transfer commands 13-2 to 13-3
 - field expand 11-12
 - service select codes 12-4 to 12-6
 - transfer command 6-2, 6-4
- MAINVIEW for DB2
 - accessing 2-6
 - application transfer commands 13-3 to 13-4
 - service select codes 12-6 to 12-8
 - transfer command 6-2, 6-4
- MAINVIEW for DBCTL
 - accessing 2-6
 - application transfer commands 13-4 to 13-5
 - service select codes 12-8 to 12-9
 - transfer command 6-2
- MAINVIEW for IMS
 - accessing 2-6
 - application transfer commands 13-4 to 13-5
 - service select codes 12-8 to 12-9
 - transfer command 6-2, 6-4
- MAINVIEW for IP
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW for Linux - Servers
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW for OS/390
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW for UNIX System Services
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW for VTAM
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW for WebSphere Application Server
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW for WebSphere MQ
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW SRM
 - accessing 2-6
 - transfer command 6-2
- MAINVIEW SYSPROG Services, accessing 2-6
- MAINVIEW VistaPoint
 - accessing 2-6
 - transfer command 6-2
- MAO transfer command 6-4
- MAXIMIZE command 7-13
- maximizing a window 7-13
- maximum number of windows 7-7
- menus
 - color 8-19
 - description 8-17
 - easy 8-17 to 8-20
 - EZPLEX 8-10
 - MAIN 8-20
 - MAINVIEW Selection 2-4
 - object 8-18
 - Primary Option 11-1
- messages
 - display 6-7
 - error 6-7
 - Journal log 12-19
 - numbered 6-8
 - origin identifier 12-14
 - short 6-8
 - user 6-8
- MESSAGES option 6-7
- MSG command 6-7, 13-2
- multiple systems 8-9
- MVALARM transfer command 6-2
- MVCICS transfer command 6-2
- MVDB2 transfer command 6-2
- MVIMS transfer command 6-2
- MVIP transfer command 6-2
- MVLNX transfer command 6-2
- MVMQS transfer command 6-2
- MVMVS transfer command 6-2
- MVPARMS command
 - date format 9-2
 - threshold conditions 10-10
 - time and date fields 9-8
- MVS PAS 1-3
- MVSRM transfer command 6-2
- MVUSS transfer command 6-2
- MVVP transfer command 6-2
- MVVTAM transfer command 6-2
- MVWEB transfer command 6-2

N

- navigation, MAINVIEW Explorer 3-1
- NEXT command 7-14
- non-SNA terminals
 - cancelling automatic screen refresh 11-10
 - terminating GO 12-12
- numbered messages 6-8

O

- object menus 8-18
- online help
 - commands 7-20
 - customizing in windows mode 7-20
 - fields 7-20
 - full-screen mode 11-15
 - hyperlinks 7-20
 - MAINVIEW Explorer 3-12
 - views 7-20
 - window information line 7-20
 - windows mode 7-19
- opening a window 7-7
- ORDER command 8-5
- ordering view data
 - MAINVIEW Explorer 4-4
 - windows mode 8-5

P

- P option, customization 10-14, 10-17
- PA1 key 12-12
- Parameter Editors menu 2-5
- parameters
 - keyword 7-5
 - positional 7-5
 - view 7-4
- PARM command 7-4
- PAS (product address space)
 - BBI-SS 1-4
 - description 1-3
 - MAINVIEW Alarm Manager 1-4
 - MVS 1-3
 - product-specific 1-4
- password, ? indicator 12-15
- period character, in hyperlinks 8-19

- personal configurations
 - closing 3-6
 - deleting 3-7
 - importing 3270 screens 3-7
 - importing data files 3-7
 - opening 3-6
 - overview 3-6
 - saving 3-7
- PF keys
 - assigning commands to 11-7
 - assigning labels to 11-8
 - definitions 11-5
 - exiting the display 11-9
 - GO 12-12
 - Log Display 12-15
 - scrolling 7-6
 - splitting the screen 11-9
 - swapping screens 11-9
- PF10/22 (Log Display left scroll) 12-15
- PF11/23 (Log Display right scroll) 12-16
- PF3/15 (exit display) 11-9
- PF4/16 (screen copy) 11-9
- PF5/17 (Log Display transfer) 11-6
- PF6/18 (GO) 12-12
- PF9/21 (swap screen) 11-9
- Plex Manager
 - accessing 2-5
 - description 1-3
 - example 7-8
 - transfer command 6-2
 - views 8-9
- Plex Map 3-5
- Plex node 3-4
- PLEX view 8-12
- PLEXAREA view 8-12
- PLEXMGR transfer command 6-2
- PLEXOVER view 8-11
- PLEXPROD view 8-12
- plus character (+)
 - as qualifier 11-11
 - more data indicator 7-2
- PMGLAUTH program requirement 6-3, 6-6
- positional parameters 7-5
- predefined refresh cycle 12-9 to 12-12
- PREVIOUS command 7-14
- Primary Option Menu 11-1
- printing
 - MAINVIEW Explorer views 4-6

- screens 11-9
- product address space (PAS)
 - BBI-SS 1-4
 - description 1-3
 - MAINVIEW Alarm Manager 1-4
 - MVS 1-3
 - product-specific 1-4
- product transfer
 - full-screen mode 6-3
 - maximum transfers 6-6
 - overview 6-1
 - windows mode 6-1
- products
 - accessing 2-5
 - active 7-9
 - hyperlink between 8-16
 - transferring between 6-1
- Products tree 3-3
- product-specific PAS 1-4
- PROFILE command 12-19
- program function keys 11-5
- Properties button 3-10

Q

- QPARM command 7-4
- query 8-3
- QWHERE
 - command 10-20
 - customization 10-14

R

- Refresh button 3-10
- REFRESH command 13-2
- refresh cycle
 - cancelling 12-12
 - CYCLE command 13-2
 - NEXT/PREV commands 7-14
 - setup 12-2
 - stopping 12-12
 - using predefined member 12-9
- refresh display 11-10
- refreshing view data 8-8
- relational operator 5-15
- remote system 8-9

- reports, historical
 - accessing 2-6
 - initiating report JCL 9-10
 - managing JCL members 9-15
 - overview 9-9
 - setting up batch environment 9-11
- RESET command 7-15
- resetting windows 7-15
- RESTORE command 7-14
- restoring windows 7-14
- RETRIEVE command 11-6
- RETURN command 11-2
- RFINDE command 8-6
- right scrolling 12-16
- RxD2, accessing 2-6

S

- S option, customization 10-14
- SAVE command 12-12
- save option, customization 10-14
- SAVESCRC command 7-16
- SBBVDEF view library 10-2
- scope
 - command 8-9
 - display 7-2
- SCREEN command 7-17
- screens
 - creating 7-16
 - data set 7-16
 - displaying 7-17
 - exiting refresh mode 11-10
 - managing windows 7-17
 - printing 11-9
 - refresh methods 12-2, 12-9
 - SAVESCRC command 7-16
 - saving 7-16
 - SCREEN command 7-17
 - setting initial 7-18
 - splitting 11-9
- scrolling
 - display 11-10
 - Log Display 12-16
 - maximized windows 7-13
 - windows 7-6
- SELECT command 12-11
- service refresh cycle 12-2

- service select codes
 - MAINVIEW AutoOPERATOR 12-4
 - MAINVIEW for CICS 12-4 to 12-6
 - MAINVIEW for DB2 12-6 to 12-8
 - MAINVIEW for DBCTL 12-8 to 12-9
 - MAINVIEW for IMS 12-8 to 12-9
- services, general
 - CYCLE SETUP 12-2
 - LOG DISPLAY 12-13
 - MESSAGES 6-7
 - overview 12-1
- Session Control Parameters panel 2-7
- SET command
 - context 8-10
 - service refresh cycle 12-11
- SETD command 8-10
- short messages 6-8
- SHOWFILT command 7-5
- single system image context
 - description 8-9
 - displaying 8-13
 - in MAINVIEW Explorer 3-5
 - status 8-13 to 8-16
- SNA terminals
 - cancelling automatic refresh 11-10
 - terminating GO 12-12
- SORT command 8-5
- sorting view data
 - MAINVIEW Explorer 4-4
 - windows mode 8-5
- split-screen mode 6-6, 11-9
- splitting a window 7-7
- SSI context
 - description 8-9
 - displaying 8-13
 - in MAINVIEW Explorer 3-5
 - status 8-13 to 8-16
- stacked views 7-15
- starting
 - MAINVIEW Explorer session 2-1
 - TSO session 2-4
- status line, MAINVIEW Explorer 3-12
- stopping
 - refresh cycle 12-12
 - TSO session 2-8
- subsystem ID 2-8
- summary views 8-3
- Synchronize button 3-10

- sysplex views 8-9
- Systems tree 3-2
- systems, displaying multiple 8-9

T

- T window status 7-7, 7-15
- tabular views 8-2
- targets
 - active 7-2, 7-9
 - changing 11-4
 - context 3-5, 7-2
 - parameter 12-3, 12-10
 - selecting 11-4
 - status 7-9
 - views 8-9
- terminal session
 - definition 2-1
 - description 1-1, 1-5
 - exiting 11-9
 - expanding a display 11-12
 - Image log 12-3, 12-10
 - PF keys 11-5
 - printing a screen 11-9
 - qualifying requests 11-11
 - refreshing display 11-10
 - screen copy facility 11-9
 - scrolling display 11-10
 - splitting the screen 11-9
 - starting MAINVIEW Explorer 2-1
 - starting TSO 2-4
 - target system selection 11-4
- terminating
 - non-SNA terminals 12-12
 - refresh cycle 11-10
- TGT field
 - changing 11-4
 - CYCLE SETUP application 12-3
 - default target 11-4
 - Log Display 12-13 to 12-14
 - predefined refresh cycle 12-10
- thresholds
 - changing color 4-10
 - editing 5-5
 - specifying conditions 5-14
- TI command 13-2 to 13-3
- time

- examples 9-5
- field for history data 9-7
- including field 9-8
- interval 9-7
- in views 7-3
- TIME command
 - MAINVIEW Explorer 4-8
 - windows mode 9-1
- TRANSFER command
 - full-screen to windows mode 6-1
 - in MAINVIEW Explorer 4-6
 - windows to full-screen mode 6-3
- transferring between products
 - commands 13-1 to 13-5
 - maximum transfers 6-6
 - overview 6-1
- TSO session
 - edit session parameters 2-5
 - starting 2-4
 - stopping 2-8
- tutorial
 - full-screen mode 11-15
 - windows mode 7-20
- TYPE field 12-3
- types of views 8-2

U

- UAS (user address space)
 - description 1-5
 - starting 2-1
- UNLOCK command 8-5
- user
 - messages 6-8
 - screen library 7-16
 - view library 10-2
- user address space (UAS)
 - description 1-5
 - starting 2-1
- USER view 10-2, 10-21

V

- vertical window 7-8
- view frame 3-7
- view tabs 3-8

- views, MAINVIEW Explorer
 - autolaunching 4-2
 - changing colors 4-10
 - changing the font 4-11
 - copying data 4-5
 - detaching 4-3
 - exporting 4-4
 - filtering data 4-7
 - importing 4-5
 - locating 4-1
 - opening 4-2
 - preferences 4-11
 - printing 4-6
 - refreshing data 4-3
 - sorting data 4-4
 - using hyperlinks 4-6
- views, windows mode
 - adding fields 10-2
 - assigning color 10-9
 - changing field names 10-8
 - creating 10-2
 - customizing 10-1
 - data refresh 7-14
 - data set 10-2
 - date 7-2
 - deleting user-defined 10-21
 - description 8-1
 - detail 8-2
 - displaying data in 8-1
 - elements 10-2
 - filtering data 10-14
 - forms and queries 8-3
 - help 7-20
 - historical data 9-1
 - hyperlinks 8-17, 10-7
 - locating data 8-6
 - locking data 8-5
 - name 7-2
 - parameters 7-4
 - refreshing data 8-8
 - sorting data 8-5
 - stack 7-15
 - summary 8-3
 - sysplex 8-9
 - tabular 8-2
 - thresholds 10-10
 - time 7-3
 - types of 8-2

- user library 10-2
- VistaPoint
 - See* MAINVIEW VistaPoint
- VS command 7-8

W

- Web browser 1-5
- WHATis command 10-18
- WHERE
 - clauses 5-15
 - command 10-20
 - customization 10-14
- window information line
 - description 7-2
 - help 7-20
- windows
 - alternate 7-3, 7-7
 - clearing 7-15
 - closing 7-15
 - command 7-7
 - control area 7-3
 - creating 7-7
 - current 7-3
 - description 7-1
 - H status 9-7
 - horizontal 7-8
 - hyperlink between 7-7
 - information line 7-2
 - maximizing 7-13
 - opening 7-7
 - resetting 7-15
 - restoring 7-14
 - scrolling 7-6
 - scrolling maximized 7-13
 - splitting 7-7 to 7-8
 - T status 7-7, 7-15
 - vertical 7-8
- windows mode
 - definition 1-7
 - getting help 7-19
 - transfer commands 6-1 to 6-5
 - tutorial 7-20

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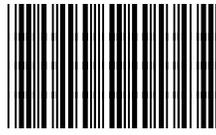
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