CMF MONITOR
Customization Guide

Supporting

Version 5.8 of CMF MONITOR

November 2010
Contacting BMC Software

You can access the BMC Software website at http://www.bmc.com. From this website, you can obtain information about the company, its products, corporate offices, special events, and career opportunities.

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Support website

You can obtain technical support from BMC 24 hours a day, 7 days a week at http://www.bmc.com/support. From this website, you can

- read overviews about support services and programs that BMC offers
- find the most current information about BMC products
- search a database for issues similar to yours and possible solutions
- order or download product documentation
- download products and maintenance
- report an issue or ask a question
- subscribe to receive proactive e-mail alerts when new product notices are released
- find worldwide BMC support center locations and contact information, including e-mail addresses, fax numbers, and telephone numbers

Support by telephone or e-mail

In the United States and Canada, if you need technical support and do not have access to the web, call 800 537 1813 or send an e-mail message to customer_support@bmc.com. (In the subject line, enter SupID:<yourSupportContractID>, such as SupID:12345). Outside the United States and Canada, contact your local support center for assistance.

Before contacting BMC

Have the following information available so that Customer Support can begin working on your issue immediately:

- product information
  - product name
  - product version (release number)
  - license number and password (trial or permanent)
- operating system and environment information
  - machine type
  - operating system type, version, and service pack or other maintenance level such as PUT or PTF
  - system hardware configuration
  - serial numbers
  - related software (database, application, and communication) including type, version, and service pack or maintenance level
- sequence of events leading to the issue
- 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
License key and password information

If you have questions about your license key or password, use one of the following methods to get assistance:

- Send an e-mail message to customer_support@bmc.com.
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About this book

This book discusses how to perform the installation procedures unique to CMF MONITOR. This book serves as a companion to the MainView Customization Reference and the MainView Administration Guide.

You should use this book if you are a system programmer, data center technician, or information systems manager responsible for planning the implementation or installation of CMF MONITOR, and configuring or changing the CMF MONITOR operating environment.

Like most BMC Software documentation, this book is available in printed and online formats. To request printed books or to view online books and notices (such as release notes and technical bulletins), see the Customer Support website at http://www.bmc.com/support_home. Most product shipments also include the books on a documentation CD.

NOTE

Online books are formatted as PDF or HTML files. To view, print, or copy PDF books, use the free Adobe Reader from Adobe Systems. If your product installation does not install the reader, you can obtain the reader at http://www.adobe.com.

Related publications

The following related publications supplement this book and the online Help:

<table>
<thead>
<tr>
<th>Category</th>
<th>Document</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>installation</td>
<td>MainView Installation Guide</td>
<td>provides information about the installation of MainView products</td>
</tr>
<tr>
<td>documents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>core</td>
<td>CMF MONITOR User Guide and Reference</td>
<td>explains how to use the Extractor and Analyzer components, and how to interpret the report data</td>
</tr>
<tr>
<td></td>
<td>CMF MONITOR Online Getting Started</td>
<td>explains how to use the MainView window interface and the CMF MONITOR Online views, as well as how to interpret the information that is presented</td>
</tr>
<tr>
<td></td>
<td>CMF MONITOR Online User Guide</td>
<td></td>
</tr>
</tbody>
</table>
Online Help

The CMF MONITOR product includes online Help. In the CMF MONITOR ISPF interface, access Help by pressing PF1 from any ISPF panel.

To access the Messages & Codes application from any CMF MONITOR panel, type MSG on the COMMAND line.
Release notes and other notices

Printed release notes accompany each BMC product. Release notes provide current information such as

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

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

This section provides examples of the conventions used in this book.

General conventions

This book uses the following general conventions:

<table>
<thead>
<tr>
<th>Item</th>
<th>Format</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>information that you are instructed to type</td>
<td>bold</td>
<td>Type <strong>CMFMON</strong> and press <strong>Enter</strong>.</td>
</tr>
<tr>
<td>specific (standard) keyboard key names</td>
<td>bold</td>
<td>Press <strong>Enter</strong>.</td>
</tr>
<tr>
<td>field names, option names, directories, file names</td>
<td>bold</td>
<td>In the <strong>COMMAND</strong> field of the DEVV screen...</td>
</tr>
<tr>
<td>web addresses, e-mail addresses</td>
<td>underlined blue text</td>
<td>The BMC Software home page is at <a href="http://www.bmc.com">www.bmc.com</a>.</td>
</tr>
<tr>
<td>view names, command names, nonspecific key names, keywords</td>
<td>uppercase</td>
<td>Use the HELP function key. In the <strong>COMMAND</strong> field of the DEVV screen...</td>
</tr>
<tr>
<td>commands that can be shortened</td>
<td>required letters capitalized</td>
<td>To enter delta mode, type <strong>DElta</strong>.</td>
</tr>
<tr>
<td>code examples, syntax statements, system messages, screen text</td>
<td>code typeface</td>
<td><code>//STEPLIB DD</code></td>
</tr>
<tr>
<td>emphasized words, new terms, variables</td>
<td>italics</td>
<td>The instructions that you give to the software are called <em>commands</em>.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>In this message, the variable <em>fileName</em> represents the file that caused the error.</td>
</tr>
</tbody>
</table>

This book uses the following types of special text:

**NOTE**

Notes contain important information that you should consider.
**WARNING**

Warnings alert you to situations that could cause problems, such as loss of data, if you do not follow instructions carefully.

### Syntax conventions

Syntax statements appear in Courier. The following example shows a sample syntax statement:

```
COMMAND KEYWORD1 [KEYWORD2|KEYWORD3] KEYWORD4={YES|NO}
   fileName...
```

The following table explains conventions for syntax statements and provides examples:

<table>
<thead>
<tr>
<th>Item</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items in italic type represent variables that you must replace with a name or value.</td>
<td><code>dtsbackup controlDirectory</code></td>
</tr>
<tr>
<td>Brackets indicate a group of options. You can choose at least one of the items in the group, but none of them is required. Do not type the brackets when you enter the option.</td>
<td><code>[tableName, columnName, field]</code></td>
</tr>
<tr>
<td>A comma means that you can choose one or more of the listed options. You must use a comma to separate the options if you choose more than one option.</td>
<td></td>
</tr>
<tr>
<td>Braces enclose a list of required items. You must enter at least one of the items. Do not type the braces when you enter the item.</td>
<td>`{DBDName</td>
</tr>
<tr>
<td>Parentheses indicate that one or more values should be specified. The enclosing parentheses must be included along with the specified values.</td>
<td><code>(name1,name2,name3)</code></td>
</tr>
<tr>
<td>A vertical bar means that you can choose only one of the listed items. In the example, you would choose either <code>commit</code> or <code>cancel</code>.</td>
<td>`{commit</td>
</tr>
<tr>
<td>An ellipsis indicates that you can repeat the previous item or items as many times as necessary, subject to limitations documented under the individual parameter.</td>
<td><code>{name1,name2,name3,.....,nameN}</code></td>
</tr>
</tbody>
</table>
Manual customization

This chapter explains how to complete the final steps in the manual customization process that you began in the MainView Customization Reference.

NOTE
If you used Step by Step Customization (also known as AutoCustomization) to customize CMF MONITOR, you do not need to read this chapter. Go to Chapter 2, “Using CMF MONITOR components,” for information about what to do next.

This chapter includes the following topics:

Overview ................................................................. 16
Specifying Extractor operating environment.......................... 16
Copying sample parameter and JCL members ......................... 18
Copying sample online screen definitions ............................ 21
Creating CLIST for invoking CMFMON Online Facility ............ 21
Creating JCL for starting CMFMON Write Facility ................. 22
Assembling and linking the JES3 mapping CSECT .................. 23
Copying CMF API modules to the output load library .............. 24
Overview

The following steps are unique to CMF MONITOR:

- Specify the Extractor operating environment.
- Copy sample CMF MONITOR parameter and JCL members to UBBPARM and UBBSAMP.
- Copy sample CMF MONITOR Online screen definitions to SBBSDEF.
- Create CLIST for invoking the CMFMON online facility.
- Create JCL for starting the CMFMON write facility.
- Assemble and link the JES3 mapping CSECT.

**NOTE**

Be sure you complete each of these steps, even if you have already customized MainView for z/OS®. Although two of the steps (copying sample parameter and JCL members to UBBPARM and UBBSAMP, and copying sample screen definitions to SBBSDEF) look similar to two steps in the customization procedure for MainView for z/OS, the members and screens that are copied are actually quite different.

Specifying Extractor operating environment

You must specify the correct Extractor operating environment for the combination of BMC products that you have installed in your system. In this procedure you select a sample member containing the minimum set of Extractor control statements for the combination of products at your site.

The following BMC products use the Extractor:

- MainView for z/OS
- CMF MONITOR

**NOTE**

If you will not be recording Extractor data to SMF data sets, in this step you must also

- allocate CPM output data sets
- optionally allocate IPM output data sets
Each product or combination of products requires specific Extractor control statements to collect the necessary data for product views, displays, and reports. Samples of the different Extractor control statement sets for each product mix are shipped in BBSAMP.

**To specify the Extractor operating environment for your BMC Software product mix**

1. Create two members in `hilevel.UBBSAMP` with the names CMFCPM00 and CMFIPM00.
2. Go to Table 1 and locate the row that contains + (plus) marks for the combination of Extractor products you have. Note the BBSAMP member name on that row.
3. Copy the correct sample member from BBSAMP to the CMFCPM00 member in `hilevel.UBBSAMP`.
4. Go to Table 2 and locate the row that contains + (plus) marks for the combination of Extractor products you have. Note the BBSAMP member name on that row.
5. Copy the correct sample member from BBSAMP to the CMFIPM00 member in `hilevel.UBBSAMP`.
6. To allocate CPM output data sets and optionally allocate IPM output data sets for CMF MONITOR, use `hilevel.UBBSAMP` member:
   - CMFJBSAM for BSAM data sets
   - CMFJVSAM for VSAM data sets

**Table 1  Sample members to copy into CMFCPM00**

<table>
<thead>
<tr>
<th>If you are customizing CMF MONITOR</th>
<th>MainView for z/OS</th>
<th>Copy BBSAMP member</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td>CMFCC</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
<td>CMFCCR</td>
</tr>
<tr>
<td>+</td>
<td></td>
<td>CMFCR</td>
</tr>
</tbody>
</table>

**Table 2  Sample members to copy into CMFIPM00**

<table>
<thead>
<tr>
<th>If you are customizing CMF MONITOR</th>
<th>MainView for z/OS</th>
<th>Copy BBSAMP member</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td></td>
<td>CMFIC</td>
</tr>
<tr>
<td>+</td>
<td>+</td>
<td>CMFICR</td>
</tr>
<tr>
<td>+</td>
<td></td>
<td>CMFIR</td>
</tr>
</tbody>
</table>
Copying sample parameter and JCL members

All sample JCL members for use with CMF MONITOR are distributed in hilevel.BBSAMP. These members are then copied (and in some cases, renamed) to hilevel.UBBPARM. A description of each of these members is in Table 3 on page 19.

In this step, you copy sample JCL members for CMF MONITOR from BBSAMP to your own hilevel.UBBSAMP, and you copy default control statement members from BBPARM to your own hilevel.UBBPARM libraries. From then on, all modifications should be made in UBBSAMP and UBBPARM, leaving the originals untouched in BBSAMP and BBPARM. By performing this step, you prevent the modifications you make for your site from being overwritten when new product FMIDs are added or when maintenance is applied.

To create copies of the sample members in hilevel.UBBPARM and in hilevel.UBBSAMP

1 Copy hilevel.BBSAMP member CMFCPARM to your private JCL library.

2 Modify the JCL by following the directions at the top of the member.

3 Submit the JCL.

After the sample JCL members and control statement members have been copied, you can use them to begin executing CMF MONITOR. Instructions for using each of these samples is provided within the member itself.

You can also modify these samples to meet the specific needs of your site. For additional information about modifying either Analyzer or Extractor control statements, see the CMF MONITOR User Guide and Reference.

Table 3 on page 19 contains a description of all sample members copied from BBSAMP to UBBSAMP. Table 4 on page 20 contains sample control statements copied from BBPARM to UBBPARM.

NOTE

If a member has been renamed since the last release of CMF MONITOR, its former name is indicated in the description.
Table 3  Sample members available for customization in UBBSAMP

<table>
<thead>
<tr>
<th>Member name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>@BBXINIT</td>
<td>JCL to initialize BBXS</td>
</tr>
<tr>
<td>CMFJMONB</td>
<td>sample JCL for running CMFMON type 79 batch reports  See the CMF MONITOR CMFMON User Guide for information about using this member.</td>
</tr>
<tr>
<td>CMFJANL</td>
<td>JCL to run the CMF MONITOR Analyzer  See the CMF MONITOR User Guide and Reference for information about using this member.</td>
</tr>
<tr>
<td>CMFJSAM</td>
<td>JCL for creating BSAM Extractor output data sets</td>
</tr>
<tr>
<td>CMFJVSAM</td>
<td>JCL for creating VSAM Extractor output data sets</td>
</tr>
<tr>
<td>CMFJCLRB</td>
<td>JCL used for clearing CMF MONITOR output data sets as a batch job  If you record CMF MONITOR data to SMF, you do not need to use this member.</td>
</tr>
<tr>
<td>CMFJCLRS</td>
<td>JCL used for clearing CMF MONITOR output data sets as a Started Task  If you record CMF MONITOR data to SMF, you do not need to use this member.</td>
</tr>
<tr>
<td>CMFJCVBS</td>
<td>JCL to run the COPYVBS (CX10CVBS) utility</td>
</tr>
<tr>
<td>CMFJDSO</td>
<td>JCL to run the DSO Analyzer</td>
</tr>
<tr>
<td>CMFJDSOV</td>
<td>batch job to extract VSAM catalog information for DSO</td>
</tr>
<tr>
<td>CSMAPSAS</td>
<td>sample SAS routine to produce a common storage report that uses CMF type 29 records</td>
</tr>
<tr>
<td>CX10UMOD</td>
<td>sample user trace SRB routine, as described with the TRACE Extractor control statement in the CMF MONITOR User Guide and Reference</td>
</tr>
<tr>
<td>CX98REPG</td>
<td>JCL to create a sample report for testing the CMF MONITOR Analyzer Spreadsheet Converter  See the CMF MONITOR User Guide and Reference for more information about using the Spreadsheet Converter program.</td>
</tr>
<tr>
<td>CMFERBCP</td>
<td>JCL to copy CMF API modules and their RMF aliases to the output data set.</td>
</tr>
</tbody>
</table>
Table 4  Sample control statement members available for customization in UBBPARM

<table>
<thead>
<tr>
<th>Member name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANLYSAMP</td>
<td>CMF MONITOR Analyzer control statements to produce most of the batch reports</td>
</tr>
<tr>
<td>CMFANLTR</td>
<td>CMF MONITOR Analyzer control statements to produce trace reports from the SMF type 76 trace records</td>
</tr>
<tr>
<td>CMFMNB00</td>
<td>Sample control statements for producing CMFMON batch reports</td>
</tr>
<tr>
<td></td>
<td>See the CMF MONITOR CMFMON User Guide for information about using this member.</td>
</tr>
<tr>
<td>CMFCPM00</td>
<td>Sample Extractor CPM control statements as described in the CMF MONITOR User Guide and Reference</td>
</tr>
<tr>
<td>CMFIPM00</td>
<td>Sample Extractor IPM control statements as described in the CMF MONITOR User Guide and Reference</td>
</tr>
<tr>
<td>CMFMON00</td>
<td>Sample control statements for running the CMFMON component of CMF MONITOR, as described in the CMF MONITOR CMFMON User Guide</td>
</tr>
<tr>
<td>CMFCPM01, CMFCPM08, CMFCPM15</td>
<td>Sample Extractor control statements for each of the possible combinations of products that use the Extractor CPM mode</td>
</tr>
<tr>
<td>CMFIPM01, CMFIPM04, CMFIPM07</td>
<td>Sample Extractor control statements for each of the possible combinations of products that use the Extractor IPM mode</td>
</tr>
<tr>
<td>CMFXDS00</td>
<td>Sample XDS control statements for starting the collection of cross-system data for use by SDSF</td>
</tr>
<tr>
<td></td>
<td>The distributed MainView for z/OS PAS PROC points to this member. For more information about using this member, see the MainView Customization Reference.</td>
</tr>
<tr>
<td>CMFXDS01</td>
<td>Sample XDS control statements to start buffering CMF type records (excluding type 79)</td>
</tr>
<tr>
<td></td>
<td>For more information about using this member, see the MainView Administration Guide.</td>
</tr>
<tr>
<td>CMFXDS02</td>
<td>Sample XDS control statements to start buffering all CMF type records including type 79</td>
</tr>
<tr>
<td></td>
<td>Note: If your CMF type user record is not 240, you must change the RECORDS statement to reflect the correct subtype.</td>
</tr>
<tr>
<td></td>
<td>For more information about using this member, see the MainView Administration Guide.</td>
</tr>
</tbody>
</table>
Copying sample online screen definitions

The online component of CMF MONITOR presents information about your system through online views. You can display multiple views with one command by combining them into screen definitions. Four samples of screens definitions, each containing multiple views, have been created for your use. This step copies those sample screen definitions from BBSAMP to your own sitewide library, hilevel.SBSSDEF.

To copy the sample screen definitions

1. Copy hilevel.BBSAMP member CMFCSDEF to your private JCL library.

2. Modify the JCL by following the directions at the top of the member.

3. Submit the JCL.

For information about using the sample screen definitions or creating your own screen definitions, see the section entitled “Using screen definitions to solve problems” in Chapter 3 of the CMF MONITOR Online User Guide.

Creating CLIST for invoking CMFMON Online Facility

This step creates the CLIST for starting the CMFMON Online Facility. The CMFMON Online Facility displays job- and system-related data from an ISPF application. The data is presented in a format similar to that of RMF MONITOR II (RMFMON).

The CMFMON CLIST is used to invoke the CMFMON Online Facility. The CLIST performs all necessary data set allocations and then displays the CMFMON menu from your TSO ISPF session.

To create the CMFMON CLIST

1. Copy BBSAMP member CMFMON to your private CLIST library. Make sure that the CLIST library is in the SYSPROC concatenation of your TSO logon procedure.

2. Modify the CLIST by following the directions at the top of the member.

3. Save the CLIST.

For more information about using the CMFMON Online Facility, see the CMF MONITOR CMFMON User Guide.
Creating JCL for starting CMFMON Write Facility

This step creates JCL that allows you to invoke the CMFMON Write Facility as a batch job and as a started procedure. By invoking the CMFMON Write Facility, you can write type 79 records either to the SMF data set or to an output data set of your choice. If you choose to write type 79 records to an output data set (not to SMF), this step also provides instructions for allocating that output data set.

NOTE
An output data set is required if you do not want CMFMON to write type 79 records to the SMF data set.

Creating an output data set for type 79 records

1. Copy BBSAMP member CMFJBSAM to your private JCL library.
2. Modify the JCL by following the directions at the top of the member.

NOTE
If you used this member to allocate CMF MONITOR Extractor output data sets in a previous step (described in “Specifying Extractor operating environment” on page 16), be sure to use a different name for your CMFMON output data set.

3. Submit the JCL.

Creating a batch job for starting CMFMON

1. Copy BBSAMP member CMONJCL to your private JCL library.
2. Modify the JCL by following the directions at the top of the member.
3. Save this member to use when you want to start CMFMON as a batch job.
Creating a started procedure for starting CMFMON

1. Copy BBSAMP member CMONSTC to a system procedure library.

2. Modify the JCL by following the directions at the top of the member.

3. Save this member so that you can invoke CMFMON as a Started Task from the console.

For information about using the CMFMON Write Facility, see the CMF MONITOR CMFMON User Guide.

Assembling and linking the JES3 mapping CSECT

This step is used only if your system runs a JES3 subsystem; do not perform this step if your system runs a JES2 subsystem.

The JES sampler, which is controlled by the EXTSUM Extractor control statement, needs to know the correct offsets for your version of JES3 so that it can use the proper CSECT mapping when gathering data. This step creates a job that assembles and links the mapping CSECT and provides the appropriate JES3 offsets to the EXTSUM sampler.

To assemble and link the JES3 mapping CSECT

1. Copy hilevel.BBSAMP member CMFCJES3 to your private JCL library.

2. Modify the JCL by following the directions at the top of the member.

3. Submit the JCL.

For information about using the EXTSUM Extractor control statement, see the CMF MONITOR User Guide and Reference.
Copying CMF API modules to the output load library

This optional step copies the CMF API load modules and their RMF aliases from the installation library to the specified output load library. This step is not required if the BBLINK will be on the Link List. If copied, place the output load library on the Link List ahead of the SERBLINK library.

To copy CMF API modules to the output load library

1. Copy `hilevel.BBSAMP` member CXACOPYP to your private JCL library.
2. Modify the JCL by following the directions at the top of the member.
3. Submit the JCL.

You have now completed the manual customization procedure for CMF MONITOR. Chapter 2, “Using CMF MONITOR components,” describes your next options.
Using CMF MONITOR components

Now that you have completed the Step by Step Customization or manual customization for CMF MONITOR, you can either make more customization changes to CMF MONITOR or begin using any of its three components:

- CMF MONITOR Online
- CMF MONITOR batch
- CMFMON

This chapter includes the following topics:

- Using CMF MONITOR Online ................................................. 26
- Using the batch component ................................................. 27
- Using CMFMON ................................................................. 28
Using CMF MONITOR Online

After completing the customization steps, to begin using CMF MONITOR Online, you must start the required address spaces (CAS and PAS). See the MainView Administration Guide for more CAS and PAS startup instructions.

After starting these address spaces, you can begin using CMF MONITOR Online, and you will be able to take advantage of all its features if you perform further modifications. The following list describes the optional customization steps that you can perform to take full advantage of the CMF MONITOR Online features:

- Complete the customization steps for defining the connections for cross-systems communication between multiple CASs on multiple systems.

  See the MainView Customization Reference for more information about defining the definitions for cross-systems communication.

- Complete the customization steps for defining target definitions for monitoring communication links among the active system and CASs and products on different systems.

  See the MainView Administration Guide for more information about defining target definitions for CAS communication monitoring.

- Complete customization steps for defining the appropriate security checks for access to systems, products, view tables, and view or product actions.

Securing CMF MONITOR

The MainView environment works with your IBM RACF®, CA-TOP SECRET, or CA-ACF2 security package to control access to view data. Although MainView Security Reference Manual fully explains how to use the security views and how they interact with your security package, there are a few things that you should understand first.

- Security for CMF MONITOR Online and for the cross-system data APIs is implemented through two views: SERDEF and SERDEFL.

- When you display SERDEF, you will see that CMF MONITOR Online has defined a separate resource rule for
  
  — view data in general
  — data provided by each view table
  — CMF XDS API actions
- A **view table** is a family of views that display the same type of data. To find out which views are associated with a particular view table, see Part 2, “Windows-mode security” in the *MainView Security Reference Manual*. Note that individual views cannot be secured. That is, when you grant or deny access to a view table, you grant or deny access to all views that belong to that table.

- With MainView security, either you can add rules for resources to your security package, using the default class and entity names for the resource, or you can change the class and entity names to conform to rules that you have already defined.

For example, suppose you have rules defined to your security package to control access to a resource identified by class DATASET and entity name SYS1.PROCLIB. You want to use the same rule to control access to MainView Address Space Table Data. Enter the command CHAnge beside the Address Space Table Data entity on SERDEF, and then change the class to DATASET and change the entity to SYS1.PROCLIB. MainView uses your SYS1.PROCLIB rules for Address Space Table Data.

**Further reading**

After completing any additional customization steps, you can learn how to use CMF MONITOR Online by referring to the following manuals:

- *CMF MONITOR Online Getting Started* for using the MainView window interface
- *CMF MONITOR Online User Guide* for using the CMF MONITOR Online views.

**Using the batch component**

Although you can begin using the CMF MONITOR batch component as soon as you complete the customization steps, you might want to make some additional modifications.

The following list describes the optional modifications available for this component:

- modifying the Extractor JCL statements
  
  See the *MainView Customization Reference*.

- allocating additional Extractor output data sets
  
  See Chapter 3, “Extractor output data sets.”
■ modifying the MVS PAS PROC to start collecting data in the XDS data buffer

See the *MainView Administration Guide*.

■ downloading the Spreadsheet Converter program to your PC

See Chapter 4, “Spreadsheet Converter.”

After making the desired modifications, you can learn about using the batch component of CMF MONITOR by referring to the *CMF MONITOR Batch User Guide and Reference*.

---

**Using CMFMON**

Before using the CMFMON component, you might want to use your External Security Manager (ESM) to protect your screens. If you are using an ESM such as RACF, CA-TOP SECRET, or CA-ACF2, you can protect the following program names, which all begin with the letters CMF. The last part of each name corresponds to the CMFMON screen that you are protecting.

<table>
<thead>
<tr>
<th>CMFAPF</th>
<th>CMFCHAN</th>
<th>CMFLPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMFARD</td>
<td>CMFDEV</td>
<td>CMFLNK</td>
</tr>
<tr>
<td>CMFARDJ</td>
<td>CMFDEVV</td>
<td>CMFPGSP</td>
</tr>
<tr>
<td>CMFASD</td>
<td>CMFENQR</td>
<td>CMFSENQ</td>
</tr>
<tr>
<td>CMFASDJ</td>
<td>CMFHFS</td>
<td>CMFSPAG</td>
</tr>
<tr>
<td>CMFASRM</td>
<td>CMFILOCK</td>
<td>CMFXDSA</td>
</tr>
<tr>
<td>CMFASRMJ</td>
<td>CMFIQ</td>
<td>CMFXDSP</td>
</tr>
</tbody>
</table>

You can protect the following program names, which all begin with the letters CMH. The last part of each name corresponds to the CMFMON Historical Data screen that you are protecting.

<table>
<thead>
<tr>
<th>CMHARD</th>
<th>CMHDEV</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMHARDJ</td>
<td>CMHDEVV</td>
</tr>
<tr>
<td>CMHASD</td>
<td>CMHSRCS</td>
</tr>
<tr>
<td>CMHASDJ</td>
<td></td>
</tr>
</tbody>
</table>

There are no additional customization steps for CMFMON. To learn how to use CMFMON, see the *CMF MONITOR CMFMON User Guide*.
This chapter discusses Extractor output data sets, including both primary data sets and alternate data sets.

The starter MVS PAS PROC sends Extractor data to SMF. If data is not written to SMF, you must specify that records be written to Extractor output data sets. In this case, you should have allocated Extractor output data sets during customization. Even if you did specify SMF recording but now want to record to Extractor output data sets, you first need to allocate these data sets.

BMC recommends that at least two data sets be specified to provide for alternate data set support. When two or more data sets are specified, the first one specified is called the primary data set and the others are called alternate data sets.

This chapter includes the following topics:

- Alternate data set support .................................................. 30
- Specify primary and alternate data sets to the Extractor ................. 32
Alternate data set support

If the Extractor is writing records to an Extractor output data set and that data set fills up, Extractor writing is automatically switched to an alternate data set. This process is referred to as alternate data set support. This support is not valid when data is being recorded to SMF; SMF provides its own alternate data set support.

The Extractor suspends recording if the current data set becomes full and no other data set is empty. At subsequent recording intervals, if an empty data set is detected, the Extractor resumes recording automatically.

Allocating Extractor output data sets

You can define the same data sets for both CPM and IPM data, or you can define primary and alternate data sets. However, BMC Software recommends that you define at least two data sets for each mode.

If you are using VSAM, the manual customization member CMFJVSAM in hilevel.UBBSAMP contains sample JCL for allocating four data sets: one primary and one alternate data set for CPM mode and one primary and one alternate data set for IPM mode.

If you are using BSAM, the manual customization member CMFJBSAM in hilevel.UBBSAMP contains sample JCL for allocating four data sets: one primary and one alternate data set for CPM mode and one primary and one alternate data set for IPM mode. This JCL is defined with block sizes for either a 3380 or a 3390 device type; if you have a different device type, refer to Table 5 on page 31 for the correct block size.

BSAM Extractor output data sets use the following attributes:

- **LRECL=32756**
- **DSORG=PS** *(for physical sequential)*
- **RECFM=VBS** *(for variable block sequential)*
- **BLKSIZE=variable** *(depends on the device type; see Table 5 on page 31)*
CMF MONITOR adds new records into the primary data set after those that already exist, even if `DISP=OLD` or `DISP=SHR` is specified in the JCL. This addition prevents the destruction of any data that was previously collected. CMF MONITOR writes to the beginning of the primary data set and destroys the existing data if the output data set is on tape or if `DISP=NEW` is coded in the Extractor REPORT control statement.

---

### Table 5  Recommended block sizes for BSAM Extractor output data sets

<table>
<thead>
<tr>
<th>Device type</th>
<th>Recommended block size</th>
</tr>
</thead>
<tbody>
<tr>
<td>3375</td>
<td>11616</td>
</tr>
<tr>
<td>3380</td>
<td>11476</td>
</tr>
<tr>
<td>3390</td>
<td>11476</td>
</tr>
<tr>
<td>Tape (1600 bpi)</td>
<td>12288</td>
</tr>
<tr>
<td>Tape (6250 bpi)</td>
<td>32756</td>
</tr>
<tr>
<td>Other</td>
<td>8192</td>
</tr>
</tbody>
</table>

---

**NOTE**

CMF MONITOR increases the block size to 8192 if a smaller block size is defined.

---

CMF MONITOR adds new records into the primary data set after those that already exist, even if `DISP=OLD` or `DISP=SHR` is specified in the JCL. This addition prevents the destruction of any data that was previously collected. CMF MONITOR writes to the beginning of the primary data set and destroys the existing data if the output data set is on tape or if `DISP=NEW` is coded in the Extractor REPORT control statement.

---

**NOTE**

The `DISP=NEW` status applies only to the primary data set that the Extractor writes to after initialization. See the *CMF MONITOR User Guide and Reference* for more information about the REPORT control statement.

---

When switching is required, CMF MONITOR writes to an empty data set if one is available. If an empty data set is not available, recording is suspended.

---

**NOTE**

CMF provides two members in `hilevel.UBBSAMP` that contain JCL to clear your CPM and IPM data sets:

- CMFJCLRS is a Started Task for clearing data sets.
- CMFJCLRB is a batch job for clearing data sets.
Specify primary and alternate data sets to the Extractor

You can specify either same or different primary and alternate data sets for both CPM and IPM modes. If only one data set is specified, the Extractor cannot provide alternate data set support.

When you specify the same primary and alternate data sets for both modes, all records from both modes go to the same data sets.

When you specify different data sets, the records from each mode go to different data sets.

In specifying data sets for both CPM and IPM modes, the following rules apply:

- If CPM and IPM data goes to the same primary data set, it must also go to the same alternate data sets. You cannot specify the same primary data set and different alternate data sets.

- If CPM and IPM data goes to different primary data sets, it must also go to different alternate data sets. You cannot specify different primary data sets and the same alternate data sets.

There are two ways to specify primary and alternate data sets to the Extractor. Use one of the following methods; do not use both.

**Method one: DD statements**

One method of identifying the primary and alternate data sets to the Extractor is the presence of DD statements in the Extractor JCL. Valid data set DD names for CMF MONITOR and DSO are shown in Table 6.

<table>
<thead>
<tr>
<th>Component</th>
<th>CPM</th>
<th>IPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extractor</td>
<td>//CMFCPMxx DD</td>
<td>//CMFIPMxx DD</td>
</tr>
<tr>
<td>DSO</td>
<td>//CMFCDSxx DD</td>
<td>//CMFIDSxx DD</td>
</tr>
</tbody>
</table>

You can specify up to 101 data sets, with xx representing any one or two alphanumeric characters.
Specify primary and alternate data sets to the Extractor

**NOTE**
The primary data set is the first one specified. The order in which the DD names are specified is the order in which they will be used.

The Extractor writes to these data sets automatically if the DD statements are present and SMF=YES is not specified on the Extractor report control statement. If only one statement is defined, alternate data set support is not provided.

For more information about changing the Extractor JCL contained in the MVS PAS Started Task procedure, see the *MainView Customization Reference*.

**Method two: DSNLIST parameter**

A second method of identifying primary and alternate data sets to the Extractor is through the DSNLIST parameter on the REPORT control statement. A DSNLIST parameter can be specified for dynamic allocation of up to 101 data sets in the REPORT control statement.

**NOTE**
The primary data set is the first one specified. The order in which the data set names are specified is the order in which they will be used.

See the *CMF MONITOR User Guide and Reference* for more information about the DSNLIST parameter and the REPORT Extractor control statement.
Specify primary and alternate data sets to the Extractor
Spreadsheet Converter

The CMF MONITOR Analyzer Spreadsheet Converter enables you to transfer formatted Analyzer reports to your PC, and then convert these reports into Microsoft Excel spreadsheets. The resulting spreadsheets can be used for detailed analysis on the desktop, creating graphs, or producing specialized reports. The Spreadsheet Converter is available only for Microsoft Excel, version 5 or later.

To use the Spreadsheet Converter, first download the Spreadsheet Converter program, store the output of the Analyzer in a data set, transfer that data set to a PC file, and then run the Spreadsheet Converter to generate an Excel workbook.

This chapter includes the following topics:

Installing the Spreadsheet Converter ........................................ 36
Installing the Spreadsheet Converter

The Spreadsheet Converter program is distributed in *hilevel*.BBSAMP member CX98SSCX.

If an old version of the Spreadsheet Converter is installed on your system, you must uninstall it before installing the new version.

To uninstall an old version

1. Open the old Spreadsheet Converter (.xla) file.
2. Under **Tools** on the Excel Menu bar, select **Customize** to open the Customize popup window.
3. Under **Toolbars** in the Customize window, select the **BMC Software** option and click the **Delete** button on the right side of the window.
4. Close the window and the Excel application.

To install the Spreadsheet Converter

1. Create a directory on your PC to be used for storing the Spreadsheet Converter and the converted reports.
2. Transfer *hilevel*.BBSAMP member CX98SSCX to your PC (by using IND$FILE or any other file download method) to a PC file named CX98SSCX.XLA.
   - The XLA suffix designates this file as a Microsoft Excel add-in.
   - The file transfer must be BINARY (rather than ASCII), and CRLF codes must not be added.

After CX98SSCX.XLA is created on your PC, you are ready to use the Spreadsheet Converter. For information about using the Spreadsheet Converter, see the *CMF MONITOR Batch User Guide and Reference*. 
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