ChangeMan® ZMF 8.1.4.01 Readme

31 July 2018

This Readme file contains information you should know before you install or use the ChangeMan ZMF 8.1.4.01 patch release. The Readme contains cumulative information for ChangeMan ZMF releases 8.1.4, 8.1.3, 8.1.2, 8.1.1.01, 8.1.1, 8.1.0.01, and 8.1. Content that is specific to the ZMF 8.1.4.01 Readme is marked with change bars in the left margin.

ChangeMan ZMF 8.1.4.01 contains only the changes that have been made to ChangeMan ZMF since release 8.1.4. You must have ChangeMan ZMF 8.1.4 installed to apply the ZMF 8.1.4.01 patch.

You can download the ChangeMan ZMF 8.1.4.01 patch files from `Patch ID P2818` on the Micro Focus SupportLine website.

> **IMPORTANT!** ChangeMan ZMF release 8.1.4 and later run on all currently supported z/OS operating systems. However, earlier versions of ChangeMan ZMF are not supported to run on z/OS 2.3. If you want to run ChangeMan ZMF on z/OS 2.3, you must install ChangeMan ZMF 8.1.4 or later.

General Information

Product Description

ChangeMan ZMF is a comprehensive and fully integrated solution for software change, configuration, and release management systems in z/OS® environments. It provides reliable and streamlined implementation of software changes from development through all quality gates and into production. ChangeMan ZMF manages and automates the application life cycle, protects the integrity of the code migration process, and results in higher quality delivered code to each QA/test environment and to the production environment.

Release Summary

ChangeMan ZMF 8.1.4.01 has no new enhancements. See "Fixes in ChangeMan ZMF 8.1.4.01" on page 3 for links to the defects that have been fixed in ChangeMan ZMF 8.1.4.01.

Accessing the Documentation

All ChangeMan ZMF documentation is provided in Adobe® Portable Document Format (PDF) and may be downloaded from the Micro Focus SupportLine website at:

`https://www.microfocus.com/support-and-services/documentation/`

- Adobe® Reader® is available for free download at `http://get.adobe.com/reader/`. Version 9 or higher is recommended.

- Additions and corrections to documentation are frequently issued after the product release date. Updated ChangeMan ZMF Readme files and user manuals are published on the Micro Focus SupportLine website with the rest of the documentation for the product release. Updated Readme files and user manuals are flagged with an **Updated** date in the file name or description.

> **NOTE** Change bars in the left margin of ChangeMan ZMF documentation identify substantive changes from the last published version, unless otherwise noted.

Searching the Documentation

There is no cross-book index for the ChangeMan ZMF documentation suite. You can use the Advanced Search facility in Adobe Reader to search all ZMF manuals in the same or subordinate folders for information that you want. See topic "Searching the ChangeMan ZMF Documentation Suite" in the "Welcome to..." chapter of each ZMF manual.

Customer Care

- **Online Support** — The Micro Focus SupportLine website at http://supportline.microfocus.com provides an easy way for customers to manage their support cases, download software patches, or search the Knowledgebase for the latest technical information about our products at any time.

- A user ID and password are required to access the Micro Focus SupportLine website. To obtain a user ID and password, sign up online or contact Customer Care by email or telephone.

- **Telephone Support** — Telephone contact numbers for Customer Care are posted by region at the following URL:

    https://www.microfocus.com/serena/support/

  No password is needed to access Customer Care contact information.

- **Email Support** — Customers can send support requests by email to customercare@microfocus.com.

- **Authorized Support Representative** — Some support contracts specify that support calls will be centrally managed within the customer organization. This practice enables related issues to be aggregated across multiple customer sites or functional groups, and it ensures accountability for the satisfactory resolution of open issues. You should determine whether you have such a support contract before contacting Customer Care. If you do have such a contract, submit your support request to the designated support manager within your organization and arrange for that person to contact Customer Care.

New Features and Fixes

The topics in this section describe new features and fixes in ChangeMan ZMF 8.1.4.01, 8.1.4, 8.1.3, 8.1.2, 8.1.1.01, 8.1.1, 8.1.0.01, and 8.1.

New Features in ChangeMan ZMF 8.1.4.01

ChangeMan ZMF 8.1.4.01 has no new enhancements. However, the purpose of the this release is to provide significant preventive maintenance that we recommend be applied. See Fixes in ChangeMan ZMF 8.1.4.01 below for links to the defects that have been fixed.

Fixes in ChangeMan ZMF 8.1.4.01

Access the following links for a list of defects that have been fixed in ChangeMan ZMF 8.1.4.01. You must be logged in to the Micro Focus SupportLine website to access these links.

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1.4.01_RESOLVED&channel=DEFECTS

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=SERNET_8.1.4.01_RESOLVED&channel=DEFECTS

New Features in ChangeMan ZMF 8.1.4

New Option on the Component List Parameters (CMNSTG12) Panel Enables You To Filter Out Recompiled Components

The following field has been added to the Component List Parameters (CMNSTG12) panel:

    _ Ignore Recompiled Components

If you select this option, recompiled components (components with a Procname of *RECOMP*) are filtered from the result set, which displays only like-SRC components that reside in the package.

HLLX Pre- and Post-Exits Have Been Added To Include Functionality for Backout Reasons

The following pre- and post- High Level Language Exit (HLLX) points and services have been enabled for visibility to backout reasons, similar to the revert HLLX exit points in earlier ZMF releases:

Backout Exit	Backout Panel ID	Description
RVRT01B1	CMNBKOUT	Post main backout entry panel exit
RVRT00B2	CMNBKRSN	Pre backout reason panel exit
RVRT01B2	CMNBKRSN	Post backout reason panel exit
RVRT01B3	CMNBKSTI	Post backout site selection panel exit

Backout Exit	Backout Panel ID	Description
RVRT00B4	CMNBKJCD	Pre backout jobcard specification panel exit
RVRT01B4	CMNBKJCD	Post backout jobcard specification panel exit
RVRT00XB	--	Pre backout service
RVRT01XB	--	Post backout service

ZMF Supports PDSE Version 2 Data Sets

ZMF now supports the allocation and use of PDSE Version 2 data sets. For ZMF libraries that are allocated as PDSE Version 2, you are now able to keep member generations. The maximum number of generations is an environmental decision set with the MAXGENS_LIMIT keyword of the IGDSMS*xx* parmlib member.

You are able to use a mix of PDS, PDSE Version 1, and PDSE Version 2 data sets for ZMF baseline and staging libraries. The following base ZMF and ERO administration panels have been changed to accommodate the use of PDSE Version 1 or Version 2 libraries:

Panel ID	Panel Name
CMNALCDS	Allocate Dataset
CMNCGLT0	Global Library Types Part 1 of 2 (allows for sort on PDSE version)
CMNCGLT1	Global Library Types Part 2 of 2
CMNCLLT0	*applicationname* - Library Types Part 1 of 2 (allows for sort on PDSE version)
CMNCLLT1	*applicationname* - Library Types Part 2 of 2
CMNDAIPE	Verify Baseline Library
CMNRMLT0	*application - libtype* - Library Type Part 1 of 2 (ERO)

 Also the following tag has been added to several XML Services to indicate whether the target library is PDSE Version 1 or 2:

    <libraryVersion>

Throughout ZMF and XML Services, the following values identify PDSE Version 1 or 2 data sets:

Version Value	Meaning
blank or 1	PDSE Version 1
2	PDSE Version 2

Refer to the ZMF XML Services Reference Tables and Delta Report for ZMF 8.1.4 for details about the changes to the XML Services. You can request these documents from Customer Support. (See Customer Care on page 2 for instructions on contacting Customer Support.)

ZMF 8.1.4 Supports z/OS 2.3

ZMF 8.1.4 (and future releases) supports z/OS 2.3. This support includes the following:

- 8-character TSO user IDs are supported. Changes have been made to program fields and panels throughout ZMF 8.1.4 to process/display 8-character TSO user IDs.

- Function Registry for z/OS is supported. (See "Support for the z/OS Function Registry" on page 5.)

- E-mail notification for job completion messages is supported. (See "Email Notification for Job Completion Messages" on page 5.

Support for the z/OS Function Registry

The Function Registry is a new feature in z/OS 2.3 which allows vendors to register product and function. ZMF 8.1.4 delivers new components SERCOMC.V8R1M4.CNTL(SERFRAT) and SERCOMC.V8R1M4.LOAD(SERFRAT) to populate IBM's Function Registry Anchor Table (FRAT) with Micro Focus product data. These members are included in ZMF 8.1.4 in preparation for possible exploitation of the Function Registry in future releases.

Email Notification for Job Completion Messages

ZMF 8.1.4 running under z/OS 2.3 allows you to send job completion messages to a TSO user's email address. Refer to IBM documentation on z/OS 2.3 for the details on how to implement this feature.

The Start-up JCL for a Sernet Started Task No Longer Needs To Allocate the SER#PARM Data Set

If you use Virtual IP Addresses (VIPA), you are now able to remove the SER#PARM data set from your Sernet started procedure to avoid the automatic update of the SER#PARM member during startup of your task.

The absence of SER#PARM in the Sernet started procedure now allows the Sernet started task to initialize without errors.

However, any TCP/IP connections to the started task must have access to an appropriate SER#PARM data set and #SERx member to enable IP communication to the started task.

If you required this functionality, you are responsible for coding an appropriate IP address in the #SERx member of the SER#PARM data set.

If the SER#PARM data set cannot be found when the Sernet started task is initialized, the following message is issued:

```
SER8600I SER#PARM dataset not updated
```

Operating System Level Is Now Displayed during Sernet Started Task Initialization and with the System,Environ,List Service

A new message that displays the z/OS operating system level is issued during the initialization of the Sernet started task. An example of the message issued on z/OS 2.3 is:

```
SER0607I Operating system from ECVT is z/OS          0203000
```

New tags have also been added to the system,environ,list XML service to return the operating system level on which the service is executed. An excerpt from the output of the system,environ,list XML service that is executed on z/OS 2.3 is:

```
<opsysName>z/OS</opsysName>
<opsysVers>02</opsysVers>
<opsysRel>03</opsysRel>
<opsysMod>00</opsysMod>
```

Function of Sernet Keyword Option ESTAE Has Changed

The function of the Sernet keyword option ESTAE has changed in ZMF 8.1.4. The option values now have the following meanings:

ESTAE Option Value	Meaning
YES	No ESTAE specification or ESTAE=YES will take dumps for all abends.

NO	If ESTAE=NO, dumps are taken only for the following system tasks:
	
	    CMNSTART
	    HPSSTART
	    SERASTSK
	    SERDB2CA HPS
	    SERIMSCA
	    SERMAIN
	    SERMMNWD
	    SERTCBM
	    SERVMAIN
	    SERXMLDB
	
	You should only specify ESTAE=NO upon guidance from Micro Focus.

If no dump is to be produced for a particular abend, the System Diagnostic Work Area (SDWA) for the abend is written to SYS1.LOGREC to preserve information about the abend.

The Behavior of the Saved Staging Version Field on ZMF Administration Panels Has Changed

The behavior of the Aging - Staging Versions field on the Global Parameters - Part 2 of 8 (CMNGGP02) and application Parameters - Part 4 of 4 (CMNGLP04) has changed. You can now specify value 0 (unlimited, no aging) for this field regardless of the value specified for package aging on these panels.

The JAR Process Is Updated To Permit Specification of a Manifest File

The Java Archive (JAR) process is a build procedure, typically used in Java applications, that is supplied in the CMNJAR member of the CMNZMF.V8R1M4.SKELS distribution library. The various JAR keywords are in the file being built (for example, LANGUAGE=JAVA, BUILDPROC=CMNJAR).

Program CMNJSU00, which is invoked from the CMNJAR skel, has been updated to process two new keywords that identify a ZMF file to use as the JAR manifest file:

Keyword Specification	Description
MANIFESTFILE=*xxx,filename*	Identifies a manifest file that is maintained in EBCDIC format.
MANIFESTFILEASCII=*xxx,filename*	Identifies a manifest file that is maintained in ASCII format.

where:

xxx	Library type where the specified *filename* can be found.
filename	Name of the manifest file.

The MANIFESTFILE and MANIFESTFILEASCII keywords follow the same format as other keywords that are input to program CMNJSU00. The *filename* that is specified on the keyword will be copied to the work area as a manifest.mf file. This file is added to the JAR file as part of the JAR process.

It is assumed that the manifest file, created through use of the MANIFESTFILE keyword, is in EBCDIC format. Program CMNHUTIL, invoked in the CMNJAR skel, will translate the file to ASCII format if the new TRANSLATE=Y keyword is specified as input to program CMNHUTIL. If you prefer to maintain the manifest file in ASCII format, use the MANIFESTFILEASCII keyword to create it.

Added Event Log Error Notification Messages

The following event log error notification messages have been added and will appear in SERPRINT, as appropriate:

```
SER1014E XCH       *Error* Specified port number already in use: port_number
```

Messages for error in port number or IP address:

```
CMNT004I CMNENTFY Port:       IP Address:
CMNT000I CMNENTFY Error - Port or IP address not found
CMNT000I CMNENTFY Error - Event Notification Task Exiting
```

Message issued for a good startup:

```
CMNT004I CMNENTFY Port: port_number IP Address: dotted_decimal_address
```

HFS Is Being Changed to zFS Throughout ZMF

IBM has provided functionality within the z/OS 2.3 operating system to replace the Hierarchical File System (HFS) with the z/OS File System (zFS). You should migrate from HFS to zFS using the utilities provided in z/OS 2.3 to convert your entire UNIX file system hierarchy.

ZMF 8.1.4 has implemented the change from HFS to zFS support in programs and panels throughout the ZMF product. References to HFS will be changed to zFS in the ZMF documentation suite as the manuals are updated and republished in ZMF 8.1.4 and later ZMF releases.

Skeleton CMN$$JVA Now Provides a Default Java Encoding Variable

The ISPF skeleton named CMN$$JVA (see the CMNZMF.V8R1M4.SKELS distribution library) supplies a new ENCODING variable on the Java compile command. This parameter is a required customization for sites that have their code stored in EBCDIC. JAVA compiles will return an error on square brackets [], which do not display correctly in most EBCDIC environments.

The sample CMN$$JVA skeleton is provided as an example only; no default is supplied.

Selected HLL Exits Can Be Coded To Suppress the Display of User Option Panels

The relevant ISPF client programs have been changed to take notice of a proceed=NO setting from the AUDT00UV, BULD00US, BULD00UV, CKOT00UV, FREZ00UV, and PRDM00UV pre-exits. If this setting is found in these exits, the process of displaying the relevant user variable or user options panel or panels is skipped.

This change applies only to the ISPF client (and not to ChangeMan ZDD or ChangeMan ZMF for Eclipse client processing).

You Can Specify Component Filtering on the Checkout (from Package) Panel and with the CMNEX035 User Exit

Component Name and Library Type fields have been added to the Checkout (from *package*) (CMNCKOT3) panel to enable you to specify component filtering.

You can also use the CMNEX035 exit to filter components that are displayed on this panel.

HLLX Functionality Is Provided for Backout Processing

The backout and revert functions are very similar. This enhancement is an extension to the RVRT functional area to include backout. There are no changes to the data structures passed to the exit. There are just new exit points for the backout function. Here is a comparison table:

Backout Exit	Backout Panel	Description	Equivalent Revert Panel	Equivalent Revert Exit
RVRT01B1	CMNBKOUT	Post main backout entry panel	CMNREV00	RVRT0101
RVRT00B2	CMNBKRSN	Pre backout reason panel	CMNREVRS	RVRT0002
RVRT01B2	CMNBKRSN	Post backout reason panel	CMNREVRS	RVRT0102
RVRT01B3	CMNBKSTI	Post backout site selection panel	CMNRVSTI	RVRT0103
RVRT00B4	CMNBKJCD	Pre backout jobcard specification panel	CMNRVJCD	RVRT0004
RVRT01B4	CMNBKJCD	Post backout jobcard specification panel	CMNRVJCD	RVRT0104
RVRT00XB	--	Pre backout service	--	RVRT00XM
RVRT01XB	--	Post backout service	--	RVRT01XM

Db2 BIND Control Information Is Now Copied to the SYSOUT Listing

A new IEBGENER step has been inserted in the following members of the CMNZMF.V8R1M4.SKELS distribution library after a CMNDB2PL program and before a BIND program has executed. The IEBGENER step copies the Db2 BIND control information to the SYSOUT output listing so that the statements and the templating can be easily reviewed:

- CMN$$PRB

- CMN$$RPB

- CMN$$SPB

- CMN21

- CMN32

- CMN49CMN56

Package Name Is Now Passed to the CMNEXINS Exit

The CMNEXINS member of the CMNZMF.V8R1M4.ASMCPY and ASMSRC distribution libraries have been modified to enable a unique high-level qualifier to be assigned to the temporary data set that is created during an edit in staging operation.

Line Command R (Recompile) Has Been Enabled on Package Component List Panels

This enhancement enables the existing line command R (Recompile) on the following package component list panels to perform recompile on recompiled components:

Panel ID	Panel Title
CMNSTG01	STAGE: *package_name* Components (short version)
CMNSTG14	STAGE: *package_name* Components (long version)
CMNSTG24	STAGE: *package_name* Components (xlong version)

The R line command presents existing Recompile Source (CMNRCMPR) panel (if ERO is licensed) or Recompile Source (CMNRCMP0) panel (if ERO is not licensed) with the component name, library type, and recompile mode=1 (online) pre-filled and protected (output only).

Program CMNDB2PL Has Been Changed to Pass More Information to Exit CMNEXINS

Program CMNDB2PL now passes as much information as possible to exit CMNEXINS. The code that is supplied in the sample CMNEXINS member of the CMNZMF.V8R1M4.ASMSRC distribution library has been changed to allow you to specify a dummy subsystem ID to be used when CMNDB2PL calls CMNEXINS. (The subsystem ID is set to a hyphen in the sample code provided in CMNEXINS.)

You Can Now Select User Variables and Options from the STAGE: *other* Components (CMNSTG09) Panel

The following two option-selection fields have been added to the STAGE: *other* Components (CMNSTG09) panel to enable you to select user variables or options when you stage Like-Other components:

```
Enter "/" to select option:

_ User variables

_ Other options
```

If you select these options, User Options Part 1 through User Options Part 4 (CMNUSR01 through CMNSUR04) panels are displayed to enable to select the appropriate user variables and options.

Skeleton CMN90 (routine to activate components staged in batch) in the CMNZMF.V8R1M4.SKELS distribution library has also been enhanced to include selected user variables and options.

All Promotion Sites Are Now Processed Regardless of Whether No Active Components Are Found for Specific Sites

In previous ZMF releases a CMN3220A message (No active components were found to promote) was issued and you were returned to the Change Package List (CMNLIST3) panel if you entered a selective promotion request on the Promote Options (CMNRPM03) panel, and no components were available for promotion. In essence, you had to start the promotion process all over again.

The promotion processed is enhanced in ZMF 8.1.4 to process all promotion sites selected on the PROMOTE Site List (CMNRPM01) panel regardless of whether any components are found for specific sites.

User Exit CMNEX002 Now Provides Installation Time

In previous ChangeMan ZMF releases, exit CMNEX002 only provided the installation date. It has been enhanced in ChangeMan ZMF 8.1.4 to provide both the installation date and time.

Consistency in the Reallocation of Space-constrained Baseline Libraries during Baseline Ripple Has Improved

The following skeletons have been enhanced to improve consistency in the reallocation of space-constrained baseline libraries during the baseline ripple process:

Skeleton (member of the CMNZMF.V8R1M4.SKELS Distribution Library	Function
CMN30PDS	PDS baseline ripple/rename/delete processing.
CMN55PDS	Routine to perform reverse ripple of PDS.
CMN00CPY	Routine to invoke IEBCOPY or SERCOPY.

A new flag (&REALLOC) was added to CMN30PDS to permit baseline copies for like-PDS files to use SERCOPY with REALLOC rather than IEBCOPY. The default setting is NO (REALLOC = N), so the like-PDS copies will still use IEBCOPY as in previous ChangeMan ZMF releases unless you change the setting to YES (REALLOC = Y).

S1 (Stage from Development) Line Command Is Enhanced

In previous ChangeMan ZMF releases, if you requested an S1 (Stage from Development) line command, entered a library with member in the DSN field, and selected STAGE MODE = 2 (Batch), there was no check to see if the member existed, and the batch job was submitted. If the member did not exist, the batch job ended with an RC=08 and the staging function was not performed.

Beginning with ChangeMan ZMF 8.1.4, the specified library is checked to see if the member exists before the batch job is submitted. If the member does not exist, the following message is issued to inform you of that fact and the batch job is not submitted:

```
CMN2501I No member membername in libraryname dataset.
```

Now, both STAGE MODE = 1 (Online) and STAGE MODE = 2 (Batch) check for the specified member before the staging function is attempted.

You Can Now Divorce Package Behavior Settings from Area Check-in Rules

The *releasename* Release Management Parameters - Part 1 of 2 (CMNRMRC0) panel has the following new selectable option:

```
_ Bypass checkin package requirements
```

If this option is not selected, the area check-in rules are applied to the associated package when the package is checked in to the first area. For example, if area check-in rule 2 (This area must be blocked before it can be checked in to the next area) has been specified for the area, the package must be frozen to enable it to be checked in.

However, if the new selectable option is selected:

```
/ Bypass checkin package requirements
```

the associated package will not need to be frozen to check it in to the area even if area check-in rule 2 is in effect.

New Global Administration Option To Force Users To View Updates to the Global Notification File

The following new selectable option has been added to the Global Parameters - Part 3 of 8 (CMNGGP03) panel:

```
_ Force display of global notification file
```

If you select this option, the global notification file is displayed if it has been updated since the user last browsed it.

If you do not select this option, users are prompted if the global notification file has been updated. The display occurs when the user navigates to the ZMF Primary Option Menu (CMN@PRIM).

Sample JCL To Allocate the CMNVPOOL Data Set for High-Level Language Exits Is Provided

The purpose of the variable pool (CMNVPOOL) function is to provide a simple method of saving and accessing variable data across HLL exit execution. Sample JCL to allocate the CMNVPOOL data set is provided in the HLLXVPL member of the CMNZMF.V8R1M4.CNTL distribution library.

Reporting Programs Now Identify the PDSE Version

The following REXX reporting programs (provided in members of the CMNZMF.V8R1M4.REX distribution library) have been modified to report the version (1 or 2) of PDSE libraries:

Report (Member) Name	Report Title
CMN100	Application Configuration Report
CMN100E	Application Configuration Report
CMN990	Global Configuration Report
CMN990E	Global Configuration Report

The Org(anization) field in the reports displays the following:

- PDS if the libtype is defined as PDS.

- PDSE if the libtype is defined as PDSE with no version specification.

- PDSE2 if the libtype is defined as PDSE2.

New Operands Are Implemented for the SERCOPY Utility Program

The SERCOPY utility program provides enhanced copy services for ChangeMan ZMF batch jobs and internal processes. Three new operands have been implemented for the program:

Operand	Function
STATSA	Extended ISPF stats will be turned on automatically when the copy line count reaches 64k.
STATSB	Basic stats will be set.
STATSE	Extended stats will be set.

The default setting for the STATSA/STATSB/STATSE family is that the copied member will have the same type of statistics as the input member.

Refer to the ChangeMan ZMF Customization Guide for more information about the SERCOPY utility program.

Clarification on HLLX Support for Compiled REXX Execs

ChangeMan ZMF supports compiled REXX routines in exactly the same manner as standard REXX routines.

Note, however, that REXX routines built as standard load modules using MVS stub functionality are neither REXX nor LE-compliant. Hence, they are not supported in HLLX.

Fixes in ChangeMan ZMF 8.1.4

Access the following links for a list of defects that have been fixed in ChangeMan ZMF 8.1.4. You must be logged in to the Micro Focus SupportLine website to access these links.

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1.4_RESOLVED&channel=DEFECTS

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=SERNET_8.1.4_RESOLVED&channel=DEFECTS

New Features in ChangeMan ZMF 8.1.3

Return Code Issues Are Fixed in Exits CMNEX001, CMNEX020, and CMNEX025

If you have customized exits CMNEX001, CMNEX020, or CMNEX025, you will need to change any code that updates the IXP$RC field to supply the return code in a legitimate halfword field. Refer to members CMNEX001, CMNEX020, and CMNEX025 of the CMNZMF.V8R1M3.ASMSRC distribution library for examples of the correct way to code references to the IXP$RC field.

User Exit CMNEX001 Now Supports All Package Update Functions

Support for the following package update functions was added to user exit CMNEX001 in ZMF 8.1.3:

- Db2 information

- User information

- IMS information

- Release information

COBOL XML Query Extract Functions Have Been Optimized

SERXMLCC is a general purpose program designed to send and receive XML requests and parse the results into a finite COBOL data structure. Each XML service is shipped as a COBOL copybook. Note that the copybooks, as shipped, define all service combinations and all possible input and output XML. It is up to you, the user, to refine the copybooks to suit your needs.

This enhancement allows the COBOL program to optionally introduce a temporary data set to contain the results. See Solution S142060 for a description and example of this capability.

HLLX Overlaps with ISPF Panel VGET Processing Has Been Standardized

Many panel definitions and the programs and copybooks that reference them have been modified in this release to ensure that VGET panel processing does not conflict with pre-function High-Level Language Exit (HLLX) processing.

New Skeleton Variable DSUBSYS Has Been Added to Installation JCL

A new variable DSUBSYS has been added to installation JCL. DSUBSYS contains the subsystem ID of the Development (DP) started task regardless of whether an installation job targets a development or remote site.

Monitor Installation/Promotion Scheduler Panels Display the Word "Expired" for Packages that Have Passed the Scheduled Installation/Promotion Date

A new field has been added to the **Monitor Installation Scheduler Part 2 of 2** and **Monitor Promotion Scheduler Part 2 of 2** (CMNMISC2) panels. The word "Expired" is displayed in this field as an informational message to notify you if packages in Hold status have passed their scheduled installation or promotion dates.

⚠️ **CAUTION!** "Expired" is an informational message. No user action is required. Packages with expired installation or promotion dates will still be released for installation or promotion once the hold is released.

Data Set Migration Level Indicators Are Now Displayed in Data Set Lists

Migration level indicators have been added to facilities that show the migrated state of a data set. Migration state values are as follows:

Data Set Migration Indicator	Meaning
1	Migrated to disk.
2	Migrated to tape.
C	Migrated to cloud (supported in z/OS 2.1).

You Can Define Multiple User Variable Panels

A tag/variable, namely **userVarPanel**, has been added to the High-Level Language Exit (HLLX) audit, build, checkout, freeze, promote/demote functions to enable you to set an alternate User Variable panel name (CMNUSV*n*) for the specified function instead of the default User Variable (CMNUSV1) panel.

This enhancement enables you to define your own user variable panel depending on criteria such as function, application, library type, language, and so on.

Unfreeze/Refreeze *package* (CMNUNFRZ) Panel Flow Has Changed

In previous ZMF releases, you were returned to the preceding panel in the process being performed if an error was encountered on the **Unfreeze/Refreeze *package*** (CMNUNFRZ) panel. In ZMF 8.1.3, an error is diagnosed when the panel is processed (base processing or as a result of an active HLLX function violation) and you remain on the panel so that you can correct the problem.

Component Name and Library Type Have Been Added to the Checkout from Package (CMNCKOT3) Panel

The component name and library type fields have been added to the **Checkout from Package** (CMNCKOT3) panel to filter the component list. Exit CMNEX035 is also called when the panel is processed.

Mechanism To Control SYSLIB Allocations Is Provided

A new HLL exit point, namely SYSL00XM, is provided in ZMF 8.1.3. The new PACKAGE LIST SYSLIB service takes this exit. The exit may be used to alter the default SYSLIB concatenation that is generated by ZMF, or it may be used to prevent any result from being returned to the service caller.

The following members of the CMNZMF.V8R1M3.SAMPLES distribution library provide sample programs for implementing this exit:

Member	Description
HXCSYSL	Sample COBOL program.
HXPSYSL	Sample PL/I program.
HXRSYSL	Sample REXX program.

A new definition option for this exit is available in the ChangeMan ZMF ISPF administration dialog:

```
CMNHLLMM            HLL Exit Definition - Function Selection
Option ===>


1   All             Full list

2   Build           Component checkin, build, recompile, relink, delete
3   Package Create  Initial create of a package
4   Package Update  Subsequent update of package attributes
5   File Tailoring  Define customized ISPF variables for file tailoring
6   Checkout        Component Checkout from baseline/promotion
7   Promote/Demote  Promotion and demotion of components
8   Audit           Audit job submission and audit process
9   Freeze          Package freeze and selective unfreeze/refreeze
A   Approve/Reject  Package approve and reject
R   Revert          Package revert
S   Package Syslib  Package syslib list service
U   Scratch/Rename  Utility functions

Z   Modify          Issue Reload, Detach, or Attach modify commands
```

The following panel is displayed if you select this option:

```
CMNHLLMN                      HLL Exit Definition            Row 1 to 1 of 1
Command ===>                                                 Scroll ===> CSR


 HLL procedure name  . .

Internal External  + Active  1=LE   Description  +
  Name    Name               2=REXX Debug Userids  +
------------------------------------------------------------------------
SYSL00XM            NO    2         service call for package.list.syslib
 Debug:             NO    2
***************************** Bottom of data *****************************
```

Refer to the *ChangeMan ZMF High-Level Language Functional Exits Getting Started Guide* for more details about this exit.

> **NOTE** This functionality only applies to the ChangeMan ZMF for Eclipse Smart Editor integration in ChangeMan ZMF 8.1.3. ChangeMan ZMF will be enhanced to include this mechanism in other functions (for example, component build and audit) in future releases.

dataLocked Functionality Has Been Added to Promote/Demote High-Level Language Exits

dataLocked functionality has been added to the Promote/Demote HLL exits and the following panels have been modified to support this functionality:

- **Promote Options** (CMNRPM03) panel

- **Demote Options** (CMNRPM04) panel

The PassTicket-Generation Routine Is Changed in ZMF 8.1.3

The PassTicket-generation routine has been changed in ZMF 8.1.3. Refer to the section titled Rerunning the PassTicket Generation Routine on page 53 for the steps you must take to implement this change.

Processing of the MAXUSERS Command Is Changed in ZMF 8.1.3

If you issue the following console command to prevent additional users from logging on to a SERNET started task:

    /F *stcname*,MAXUSERS,0

the following processing now occurs:

- If another user attempts to log on to the started task, the following message is issued:

    SER8201E SERUSER *TCAddress* denied access to user *userID* because maximum users are logged on RC=08

where:

- Variable *TCAaddress* is now the TCA address instead of the address of the userid field.

- Variable *userID* is now the user ID of the connecting user instead of a leftover address.

- If the CMNBATCH job is run when MAXUSERS=0:

  - Message SER8201E is issued.

  - The job ends with RC=08 (instead of RC=06).

  - No transactions are posted to the CMNDELAY file.

Change to Processing if Package Is Created or Updated when the Installation Calendar Is Disabled

Packages can be created or updated if the Installation Calendar is disabled if the installation date specified is not greater than December 31, 2059. If the specified installation date is greater than December 31, 2059, the following message is issued and the package is not created or updated:

```
Install date is beyond scope of system. Max date 20591231.'
```

Fixes in ChangeMan ZMF 8.1.3

Access the following links for a list of defects that have been fixed in ChangeMan ZMF 8.1.3. You must be logged in to the Micro Focus SupportLine website to access these links.

```
http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1.3_RESOLVED&channel=DEFECTS
```

```
http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=SERNET_8.1.3_RESOLVED&channel=DEFECTS
```

New Features in ChangeMan ZMF 8.1.2

A New Field Named optsProfile Has Been Added to HLLX Data Structures

An 8-character optsProfile field has been added to the following High-Level Language Exit (HLLX) data structures:

- Audit

- Build

- Check Out

- Package Create

- Package Update

- Promote

- Demote

Only the ZMF Client Pack (ZDD and ZMF for Eclipse) uses the optsProfile field. This field is the ZMF Client Pack equivalent of the userPanel field that ISPF uses. The optsProfile field enables an HLLX exit to select the ZDDOPTS profile to be used for the display of user options.

You can set both the userPanel and optsProfile fields in the exits without regard to whether ISPF or the Client Pack is calling the exit. ISPF only looks at the userPanel field; the Client Pack only looks at the optsProfile field.

New copybooks accommodate the new optsProfile field. You will need to recompile your exits to pick up the new copybooks if you use Language Environment (LE) exits in the HLLX areas that are listed above.

You No Longer Need To Recycle ZMF During the Autumn Time Change

Prior to this change, you were encouraged to shut down your ZMF systems at the beginning of the Autumn time change to avoid possible problems during a ZMF forward-recovery scenario that might have needed need to use recovery records written during the Autumn time change window.

With this enhancement you no longer need to shut down your ZMF systems at the beginning of the Autumn time change.

To enable this feature customers who are running the ERO Option of ChangeMan ZMF need to customize and run the JCL in member CIMALTR5 of the CMNZMF.V8R1M2.CNTL (or CMNZMF.V8R1M3.CNTL) distribution library. This job unloads the Db2 Components in Motion (CIM) table, alters the table, and reloads it.

CIMALTR5 applies only to customers who have licensed the ERO Option of ChangeMan ZMF.

New Promotion History Line Command Has Been Added to Selected ERO Panels

You can now enter a new PH (Promotion History) line command on the following panels to display the promotion history of one or more components:

Panel ID	Panel Title
CMNRMALF	Release Area List
CMNRMPHP	Promotion History (Displays a list of sites to which a package has been promoted.)
CMNRMPLF	Release Package List

The PH line command displays the promotion history exactly like the H line command for area promotion/ demotion.

CMN Trace Classes Are Reorganized To Provide Better Tracing Data

CMN trace classes are now as follows:

CMN Trace Class	Description
Class=1	Applies to all CMN traces not listed below. Security check response trace by means of SERXCOMR.AUTHRSRC/SERLCSEC uses CMN class=1, but also requires the user ID in the Sernet trace table: (/F *server*,TR,Y,U=*userid*).
Class=2	Applies to: • CMNATACH user conversation incoming request and outgoing response. That is, TRACE IN … and TRACE OUT … • CMNSCHED CMN scheduler.
Mix of Class=1 and Class=2	Applies to CMNENTFY event notification.
Class=3	Applies to VSAM CMAST data interim results; shows long and short CMAST data in a common format.
Class=4	Applies to CMNVRLIO VSAM I/O response (major/minor/key/return code/ feedback).

New Scratch/Rename HLLX Functional Area

The 4-character exit name identifier (also known as the function code) for the new Scratch/Rename High-Level Language Exit (HLLX) function is SCRN.

Select option U Scratch/Rename from the HLL Exit Definition - Function Selection (CMNHLLMM) panel to define customized ISPF variables for the scratch/rename function:

```
CMNHLLMM           HLL Exit Definition - Function Selection
Option ===>

 1  All           Full list

 2  Build         Component checkin, stage, build, recompile, relink
 3  Package Create Initial create of a package
 4  Package Update Subsequent update of package attributes
 5  File Tailoring Define customized ISPF variables for file tailoring
 6  Checkout      Component Checkout from baseline/promotion
 7  Promote/Demote Promotion and demotion of components
 8  Audit         Audit job submission and audit process
 9  Freeze        Package freeze and selective unfreeze/refreeze
 A  Approve/Reject Package approve and reject
 R  Revert        Package revert
 U  Scratch/Rename Utility functions
 Z  Modify        Issue Reload, Detach, or Attach modify commands
```

Scratch/Rename exits:

Exit Name	Description
SCRN0101	Utility rename/scratch options (post-exit)
SCRN0002	Utility baseline selection criteria (pre-exit)
SCRN0102	Utility baseline selection criteria (post-exit)
SCRN0103	Utility baseline member list (post-exit)
SCRN0104	Utility package member list (post-exit)
SCRN0105	Utility libtype selection list (post-exit)

XML Services calls:

SCRN00XM   pre-service call for pkg_util service.

SCRN01XM   post-service call for pkg_util service.

Sample exits are provided in the CMNZMF.V8R1M2.SAMPLES distribution library. The samples show how to list all the information incoming to these exits. Note that not all information is available to all exit points. Those early in the dialog will not have as much information as back-end exit points. The samples provided are:

SAMPLES Library Member Name	Description
HXCSCRN	COBOL sample
HXPSCRN	PL/I sample
HXRSCRN	REXX sample

A single data structure is passed to all of these exits. The data interface looks like this:

LE var name	REXX var name	Len	Purpose	Modifiable	Cursor Field No.
SCRNFUNC	function	8	Internal exit name		
SCRNDBUG	debugCall	1	Debug exit call (Y/N)		
SCRNORGN	callOrigin	3	ISPF = SPF XML service = XML zDD = ZDD ZMF for Eclipse = ECL		
SCRNZMFS	zmfSubs	1	ZMF subsystem character		
SCRNPDB2	db2Subs	4	Default Db2 subsystem for this ZMF		
SCRNUSER	userid	8	Userid for function calling this exit		

LE var name	REXX var name	Len	Purpose	Modifiable	Cursor Field No.
SCRNEXTN	externalName	256	External routine name defined for this exit		
SCRNPKGN	packageId	10	The package being acted on		
SCRNPSTA	packageStatus	3	Package status (DEV, FRZ, etc)		
SCRNPINS	packageInsDate	8	Pkg Install Date yyyymmdd		
SCRNWRQN	workRequest	12	Package Work Request		
SCRNDEPT	department	4	Package Department		
SCRNPSIT	promotionSite	8	Promotion Site		
SCRNPRNM	promotionName	8	Promotion Name		
SCRNPRLV	promotionLevel	2	Promotion Level		
SCRNOPTN	optionRequested	1	1=baseline, 2=package	Yes	001
SCRNRQST	requestType	1	s=scratch, r=rename, d=delete	Yes	013
SCRNCOMP	componentName	256	Component name	Yes	010
SCRNLTYP	componentType	3	Component library type	Yes	011
SCRNNWNM	componentNewName	256	Component New Name (rename)	Yes	012
SCRNVVMM	verModLevel	5	Version.mod level		
SCRNCRDT	createDate	8	Member create date		
SCRNCHDT	changeDate	8	Member change date		
SCRNCHGT	changeTime	6	Member change time		
SCRNCSZE	memberSize	5	Member change size		
SCRNUSRN	Username	8	User name		
SCRNLSZE	loadSize	6	Load member size		
SCRNLTTR	loadTtr	6	Load member TTR		
CKOTALAS	loadAlias	8	Load member alias		
SCRNAC	loadAuthCode	2	Authorization code		
SCRNRM	loadRmode	3	Load Residency mode		
SCRNAM	loadAmode	3	Load Addressing mode		
SCRNATTR	loadAttributes	8	Load attributes		
SCRNNOGO	proceed	3	Set to 'NO' to stop the process	Yes	

LE var name	REXX var name	Len	Purpose	Modifiable	Cursor Field No.
SCRNLOKD	dataLocked	3	Not used by this function at present.		
SCRNSHRT	shortMsg	24	Short error message text	Yes	
SCRNLONG	longMsg	128	Long error message text	Yes	
SCRNCURS	cursorField	3	For ISPF where you wish the cursor to be placed on return to the panel display. The values relating to each field are shown in this table.	Yes	
SCRNCHNG	dataChanged	3	This field must be set to YES if you wish to return changed values to ZMF.	Yes	

Refer to the *ChangeMan ZMF High-Level Language Functional Exits Getting Started Guide* for more information about HLLX functions.

New Exit Points Added to the Build HLLX Functional Area

Component delete is a function of component build. You access the component delete function by specifying the D line command on the Stage: *package* Components (CMNSTG01) panel in ISPF.

The 4-character exit name identifier (also known as the function code) for the Build HLLX function is BULD. Two new exit points have been added to this function:

XML Service Name	Description	Exit Name
cmponent.pkg_comp.delete	Pre-service call for component delete.	BULD00XD
	Post-service call for component delete.	BULD01XD

Only a subset of data is used for the component delete exits:

LE-Language Variable Name	REXX Variable Name	Length	Purpose
BULDZMFS	zmfSubs	1	ZMF subsystem ID
BULDPDB2	db2Subs	4	Primary Db2 subsystem
BULDUSER	userid	8	Userid
BULDORGN	callOrigin	3	SPF = ISPF XML = XML service ZDD = ZDD ECL = zmf4ecl
BULDPKGN	packageId	10	Package name
BULDPSTA	packageStatus	3	Package status (for example, DEV)

LE-Language Variable Name	REXX Variable Name	Length	Purpose
BULDPINS	packageInsDate	8	Package install date
BULDCOMP	component	256	Component name
BULDLTYP	componentType	3	Component libtype

Refer to the *ChangeMan ZMF High-Level Language Functional Exits Getting Started Guide* for more information about HLLX functions.

New HLLX Administration Options Can Be Used To Reload, Detach, and Attach the HLLX Address Space

A new option Z Modify on the HLL Exit Definition - Function Selection (CMNHLLMM) panel enables you to reload, detach, and attach the HLLX address space:

```
CMNHLLMM             HLL Exit Definition - Function Selection
Option ===>

 1  All             Full list

 2  Build           Component checkin, stage, build, recompile, relink
 3  Package Create  Initial create of a package
 4  Package Update  Subsequent update of package attributes
 5  File Tailoring  Define customized ISPF variables for file tailoring
 6  Checkout        Component Checkout from baseline/promotion
 7  Promote/Demote  Promotion and demotion of components
 8  Audit           Audit job submission and audit process
 9  Freeze          Package freeze and selective unfreeze/refreeze
 A  Approve/Reject  Package approve and reject
 R  Revert          Package revert
 U  Scratch/Rename  Utility functions
 Z  Modify          Issue Reload, Detach, or Attach modify commands
```

If you select option Z, the new HLL Exit Modify Commands (CMNHLLMC) panel is displayed:

```
CMNHLLMC                 HLL Exit MODIFY commands
Option ===>

1  Reload        Reload active HLL exit definitions
2  Detach        Stop HLLX
3  Attach        Start HLLX
```

The options on this panel cause the new hllexit.admin.modify XML services to be executed, which in turn issues one of the following MVS Modify commands:

Option	MVS Modify Command	Function
1 Reload	F *stcname*,CMN,RELOAD,HLLX	Reload the active HLL exit definitions.
2 Detach	F *stcname*,CMN,DETACH,HLLX	Stop the HLLX address space.
3 Attach	F *stcname*,CMN,ATTACH,HLLX	Start the HLLX address space.

The use of these options:

- Appears in an entry in the Job Log for the started task.

- Can be displayed in the Activity Log if you select activity log codes 38 (HLLX administration) and 39 (HLLX commands) from the Select Activity Log Codes (CMNLOGE2) panel. The user ID of the user who requested the Reload, Detach, or Attach function is included in the display.

ChangeMan ZMF Can Now Manage CICS Resource Definitions

Program, mapping, copybook, pipelines, transactions, and web service definitions can now belong to the same package and be deployed automatically under ChangeMan ZMF control.

Refer to Solution S141889 for a complete description of this capability.

IBM's SMB I/O Optimization Facility Is Now Formally Supported

You have the option of using Batch Local Shared Resources (BLSR), System Managed Buffers (SMB), or no buffering on started task JCL. (No buffering is an option, but it is not recommended.)

Sample JCL statements are included in the STARTJCL and other members of the CMNZMF.V8R1M2.CNTL distribution data set, where appropriate.

You can comment or uncomment these JCL statements to use the desired optimization method when you execute the job.

SMB only applies to extended VSAM data sets; it has no effect otherwise.

You can try different values for the SMB parameter SMBVSP to test a job's performance improvement and select the most suitable value for your situation. You should not change the values of the ACCBIAS and SMBDFR parameters.

For more information on tuning SMB, see:

- IBM manual *z/OS DFSMS: Using Data Sets* (SC26-7410-10).

- Solution S140497.

M and V Line Commands Are Added to the Stage from Development (CMNSTG11) Panel

The following line commands have been added to the Stage from Development (CMNSTG11) panel:

Line Command	Function
M	Select members for a mass-stage operation.
V	View the selected member.

You Can Now Check Out Components from Another Package

The checkout-from-package function copies the following information, if present, from the source package to the target package:

- The physical component.

- Component history build parameters and user options.

- Component general description.

- Component activity file.

The following changes have been made to ChangeMan ZMF panels to implement this change:

- New option C4 (Checkout from pkg) has been added to the Package List Options (CMNLIST5) panel.

- New option 4 (Package) has been added to the Checkout Options (CMNMCKOR) panel.

- If Checkout from Pkg is selected, a new Checkout (CMNCKOT3) panel is displayed. You can specify the source package and other information on this panel and display a list of components from the source package.

You Can Now Specify Package Search Criteria on the Release Package List Panel

Follow these steps to specify package search criteria against a selected release:

- Specify the PK line command against the target release that is displayed on the Release List (CMNRMRLF) panel. The *release* Release Package List (CMNRMPLF) panel is displayed with a list of the packages in the selected release.

- Specify the LOCATE *packagename* command on the command line of the *release* Release Package List (CMNRMPLF) panel to select a target package from the selected release. You can specify the complete 10-character package name in the LOCATE command to locate a specific package or the 4-character application name to locate all packages in the specified application.

Monitor Options Function Is Enhanced

A new option 4 All has been added to the Monitor Options (CMNMONIT) panel to enable you to monitor all packages without regard to any out-of-the-ordinary situation that may apply to a package. In response, a

new Monitor All Packages (CMNQRYA1) panel is displayed that enables you to specify package selection criteria.

Empty Tag Values Can Now Be Included in XML Service Results

Currently, Sernet suppresses empty tags in XML service results in order to greatly reduce the size of XML streams.

If you want to include empty tags in XML service results, you can add a new XML tag <includeEmpty> to the XML <header> section, with a value of Y or N. If you specify Y, empty tags are not suppressed in the results. (The default is N.)

The Processing of Third-Party Notifications Has Changed

This enhancement changes how third-party notifications are handled. (A third-party is defined as a user other than the current user, for example, a user who needs to be notified of a check-out conflict.)

If the third party to be notified is logged on, the notification is sent immediately by means of an MVS SEND command. If the user is not logged on, the notification is written to a log data set.

Two New Reports Have Been Added

The following ChangeMan ZMF reports have been added in ZMF 8.1.2:

Report Number	Description
CMN985	Installation Calendar Summary Report by Site. Contains the Site Name (selectable at run time and can be masked), PEG date, and number of days in the calendar.
CMN992	Environmental Information. Contains information such as the Started Task Jobname, Started Task User ID, and list of ZMF options that have been licensed.

DISP Parameter Values of the SYSPRINT DD Statement Have Been Changed in Job Steps where Program SERCOPY Is Invoked

The DISP= parameter values for the SYSPRINT DD statement have been changed from DISP=(,PASS) to DISP=(MOD,PASS) in all job steps that invoke program SERCOPY with the RETRY or REALLOC parameter. This change affects several skeletons in the CMNZMF.V8R1M2.SKELS distribution library.

This change has been made to capture IEBCOPY messages for each iteration of the job step in the SYSPRINT data set to make retries of job step execution easier to understand and diagnose. In previous releases, only the IEBCOPY messages for the last iteration of the job step that invokes program SERCOPY were captured in SYSPRINT.

The Definition and Use of the Custom User Variables V01-V10 Have Been Standardized

The following changes have been made in ZMF 8.1.2 to standardize the definition and use of the custom user variables V01-V10:

- Added new User Variables (CMNUSV1) panel to display user variables V01-V10.

- Added option to display user variables to audit, checkout, freeze, promote/demote, stage, recompile and relink panels.

- Added HLL exits AUDT00UV, AUDT01UV, CKOT00UV, CKOT01UV, FREZ00UV, FREZ01UV, PRDM00UV, PRDM01UV, BULD00UV, BULD01UV for pre- and post-display of The User Variables (CMNUSV1) panel.

- Added option to display user variables tag <userVariables> and variable "userVariables" to audit, checkout, freeze, promote/demote and build HLLX services and COBOL, PL/1 and REXX samples.

The option to display the user variables is modeled after the option to display component user options in component build. The user's setting of this option is saved in the user's ISPF profile pool and remembered across ZMF functions and sessions.

Requestor Name and Phone Fields Have Been Added to the Package List Table

The Requestor Name and Phone fields have been added to the Package List Table (LISTTBL) that is displayed on the short and long Change Package List (CMNLIST3 and CMNLIST4) panels. You must customize the CMNLIST3 and CMNLIST4 members of the CMNZMF.V8R1M2.PANELS distribution library if you want these fields to be displayed on the panels.

Specific Install Sites Are Enforced for All Packages in All ChangeMan ZMF Interfaces

The install sites identified in the following places are enforced in the ISPF, ZDD, and ZMF for Eclipse interfaces for all packages:

- Group names specified in the user-customized CMNEX039 exit.

- Plus any additional sites defined in the HLLX pre-exit PCRE0007, which, if the exit exists, is taken prior to the display of the Create: Site Information(CMNCRT07) panel.

SSV Termination Messages Now Appear in the System Log

The following normal and abnormal Staged Saving Version (SSV) termination messages now appear in the system log, if and as appropriate:

CMNx387I CMNSSV   SSV initialization failed

CMNx387I CMNSSV   SSV terminated

where x is the ZMF subsystem ID.

Package Status Filter Has Been Added to the Monitor Packages in Limbo (CMNQRYL1) Panel

A new Package Status field has been added to the Monitor Packages in Limbo (CMNQRYL1) panel to enable you to limit the query results that are returned on the Limbo Package List (CMNQRYL2) panel to the packages having one of the following statuses:

Package Status	Status Description
APR	Approved.
BAK	Backed out.
DEV	In Development.
DIS	Distributed to production sites.
FRZ	Frozen.
INS	Installed.
OPN	Complex or super change packages that have been created to relate participating packages.
REJ	Rejected.
blank	All package statuses. No filtering is applied.

You Can Automatically Delete SSV Versions of a Package

The following changes have been made to implement this enhancement:

- A new Aging - Staging Versions field has been added to the Global Parameters - Part 2 of 8 (CMNGGP02) and *application* Parameters - Part 4 of 4 (CMNGLP04) panels. This field enables the ZMF administrator to enter the number of days that saved staging versions from a package should remain. The corresponding change package must be in BAS, INS, or TCC status for this value to take effect. If the package is in Memo Delete status this value has no effect and the saved staging versions will be deleted regardless of the value specified.

  The Staging Versions aging value cannot be greater than the Installed Packages aging value.

- Added new CMNBAT10/CMNBATCH transaction 97 to separate staging versions aging from staging data sets aging (transaction 92).

- Updated the parms.gbl.update XML Service with a new <ssvAgingPeriod> tag.

- Added the new message:

  CMN1304A - SSV aging value invalid.

Fixes in ChangeMan ZMF 8.1.2

Access the following links for a list of defects that have been fixed in ChangeMan ZMF 8.1.2. You must be logged in to the Micro Focus SupportLine website to access these links.

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=SERNET_8.1.2_RESOLVED&channel=DEFECTS

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1.2_RESOLVED&channel=DEFECTS

New Features in ChangeMan ZMF 8.1.1.01

PassTicket Generation Is Changed

In earlier ZMF 8.1.*x* releases, PassTicket TCP/IP connection impersonation functioned incorrectly for 8-byte userids. The PassTicket-generation routine has been changed in ZMF 8.1.1.01 to fix this problem. Therefore, you will need to run the SERSET routine with a different, unique token value to implement this change.

To do this, take these steps:

1   Copy the SERSET JCL supplied in the SERCOMC.V8R1M1P1.CNTL distribution library to a private library, update the STEPLIB (or JOBLIB) as necessary and change the TOKEN parameter to a value of 'B'.

2   Customize this JCL as appropriate, and execute it on all LPARs that are either hosting the Server started task or from which you can connect to the Server started task. It will produce messages similar to the following:

```
06.00.11 J0579753   SER1704I CSVDYLPA loaded SERXPTIK @ 92AE9000
06.00.11 J0579753   SER1708I SerNet.PtickB    token created
06.00.11 J0579753   SER1708I SerNet.PtickTok  token created
06.00.11 J0579753   SER1709I Passticket support enabled
```

The Server started tasks will now point to the new token and will produce messages similar to the following at start up:

```
06.04.33 S0579764 SER1701I Passticket support previously enabled under 'B' suffix
```

> **NOTE** This JCL is a one-off task required to update these particular software components in place. Do not change your existing SERSET procedures to point to the new token. When your systems are next IPLed you will automatically revert to token/suffix 'A', which is correct.

The Behavior of the *Enable Component User Variables* Global Option and the UV Line Command Has Been Changed for Like-Source Components

In ChangeMan ZMF 8.1, a new global option Enable Component User Variables was made available along with the UV (Update Component User Variables) line command, which is available on panels that perform component staging functions.

The UV line command enabled you to modify component user data that was associated with a component without having to stage the component. The UV line command applied to both source and non-source components.

The behavior of the Enable Component User Variables global option and the UV line command has been changed in ZMF 8.1.1.01.

The Enable Component User Variables global option no longer applies to like source components. If the UV line command is issued for like-source components, updates to the user variables will not be allowed for components in active, frozen, and unfrozen status.

The following new message is issued if you try to specify a UV line command against a like-source component that is not in checkout or incomp status:

```
CMN2569I - UV command only allowed for like-src in checkout/incomp status
```

Fixes in ChangeMan ZMF 8.1.1.01

Access the following links for a list of defects that have been fixed in ChangeMan ZMF 8.1.1.01. You must be logged in to the Micro Focus SupportLine website to access these links.

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1.1.01_RESOLVED&channel=DEFECTS

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=SERNET_8.1.1.01_RESOLVED&channel=DEFECTS

New Features in ChangeMan ZMF 8.1.1

ZMF Supports Additional Facilities for Native SQL Stored Procedures

Additional facilities have been added to support the management of native SQL stored procedures as delivered by IBM® Data Studio or coded directly with a mainframe editor.

This support includes direct stage to a ZMF package from the Db2® catalog, use of SP versioning and the BIND DEPLOY distribution mechanism, as well as the legacy DROP/CREATE methods. Many new facilities have been added to the batch processes including:

- A pass-through facility, which allows ZMF templating and other mechanisms to take place before the resulting DDL/SQL is passed to a third-party utility.

- General token templating, which allows wide flexibility on manipulation of DDL/SQL.

- A high-level language exit point, which allows the administrator to validate/manipulate the DDL/SQL directly.

Many of these new facilities may be applied to existing Db2 object processes; that is, they are not just for native SQL stored procedures.

Refer to the *ChangeMan ZMF Db2 Option Getting Started Guide* for details.

ZMF Supports Additional High-Level Language Exits

High-Level Language Exit (HLLX) points for REXX and Language Environment (LE)-compliant languages such as COBOL and PL/I have been added to allow pre-and post-exit routines to be performed from the

ISPF, ZDD, and ZMF4ECL interfaces to ZMF as well as from selected XML services. New functional areas that are supported include:

- File Tailoring

- Checkout

- Promote/Demote

- Audit

- Freeze (unfreeze and refreeze)

- Approve/reject

- Revert

Refer to the *ChangeMan ZMF High-Level Language Functional Exits Getting Started Guide* for details.

ZMF Supports IP Version 6

ZMF 8.1.1 supports Internet Protocol (IP) version 6 addressing.

Sort and Locate Functionality on ChangeMan ZMF Panels Has Been Extended

The Sort and Locate functional enhancements introduced in ChangeMan ZMF 8.1 have been extended to the following panels in ChangeMan ZMF 8.1.1:

- Application administration baseline panels (CMNCBAS1 and CMNCBAS2).

- Application production libraries panel (CMNCPRDL).

- Application update across applications baseline panel (CMNCBAS3).

- Application update across applications production libraries panel (CMNCPRD2).

- Global library type selection list panel (CMNGLTPL) within application administration library types, promotion, baseline, and production libraries.

ZMF Supports ARM

ChangeMan ZMF 8.1.1 supports the z/OS® Automatic Restart Manager (ARM). ARM is an IBM Sysplex function that allows for the automatic restart of critical applications in the event of failure. Two types of failure are handled:

- Failure of the application itself. In this case the application will simply be restarted on the same LPAR.

- Failure of the LPAR on which the application is running. This is referred to as a cross-system restart and will cause the application to be restarted on a different LPAR.

To implement ARM, specify DDNAME=SERSYSIN as a PARM= value on the SERVER EXEC statement in the SERVER member of the SERCOMC.V8R1M1.CNTL distribution library. Here's a sample SERVER EXEC statement:

```
//SERVER  EXEC PGM=SERVER,                           *Started Task
//             REGION=0M,                            *Maximum Region
//             DYNAMNBR=200,                          *High allocations
//             PARM='SUBSYS=&ID,&OPT',...DDNAME=SERSYSIN    *Execution Parms
```

(Note that SERSYSIN can be any DDNAME.) Then, on the SERSYSIN DD statement later in the JCL stream, specify the following parameter:

ARM=YES|NO

where:

YES tells Sernet to register the started task with ARM.

NO tells Sernet not to register the started task with ARM. NO is the default.

Licensing Enhancement for ZMF Client Pack

If you also license the ZMF Client Pack, you will need to obtain a new license key to install ZMF 8.1.1. The new license key provides a number for the ZMF Client Pack that identifies the ChangeMan ZDD and ChangeMan ZMF for ECL products as a single product. If your license file does not contain a member called LIC00213, you need to request a new license key.

Sernet Recognizes Different CCSIDs for Users in Different Geographical Regions

Sernet functionality has been extended to enable three levels of Coded Character Set Identifier (CCSID), or code page, specifications, as follows, and honored in the order shown:

1   A transaction CCSID, specified for an individual transaction. If there is no transaction CCSID, then ...

2   A user CCSID, which the user specifies when he or she logs on to the started task. This CCSID is saved in the TCA. If no user CCSID is present, then ...

3   A global CCSID, which is specified as a Sernet CCSID (also can be specified as LCLCCSID) parameter. This CCSID is saved in the CSA. (See the *ZMF Installation Guide, Appendix D Sernet Keyword Options*, for a description of the LCLCCSID parameter.)

This extended functionality enables users who reside in different countries and run with different regional settings to access and process mainframe data with greater flexibility.

New XML Service Lists Db2 Subsystems that Are Available on an LPAR

A new service named SYSTEM.DB2.LIST enables you to list all Db2 subsystems, or optionally, only the active Db2 subsystems, that are available on an LPAR.

New XML Service Resolves Symbolics in a Unix Pathname

A new service named FILE.SERVICE.REALPATH takes a Unix pathname as input and outputs a real Unix pathname with all symbolics resolved.

New Copy Facility Enables You To Copy Application Information from One Subsystem to Another

This enhancement has two parts:

- The first part is the ISPF Application Copy Tool routine, which copies an application's administrative, package and history data. You access this routine with Application Administration option Z. This option copies an application's administration, package and history records to flat package and component master files. The flat package and component files are allocated with the global development model dsnames with a package number of zeros.

- You perform the second part by customizing and running the job in member ACTLOAD of the CMNZMF.V8R1M1.CNTL distribution library. This job loads the application's administrative, package, and history records at the target system.

Messaging Between All Clients Has Been Standardized

A customized Sernet user exit, SEREX006, is now required in ZMF 8.1.1 and later releases. A sample version of the user exit is provided as member SEREX006 of the SERCOMC.V8R1M1.ASMSRC distribution library.

Its job is to provide the necessary parameters for Sernet to perform dynamic allocation of user-specific log data sets. Sernet started tasks will abend with code S806-4 if the SEREX006 user exit is missing or with code U0044 if the SEREX006 user exit does not provide all required information.

Note that the Sernet started tasks will need ALTER access (in RACF) to the high-level-qualifier specified.

> ! **IMPORTANT!** The SEREX006 copybook was omitted from the ZMF 8.1.1 distribution media. You will need this copybook to customize the SEREX006 source code for your environment. The copybook can be downloaded from S141642 on the Micro Focus SupportLine website.

Sernet now uses the following logic to deliver notifications reliably:

1 For ZDD and ZMF4ECL clients, Sernet uses TCP/IP for the notification. If this fails, the notification is written to a user-specific log data set and automatically delivered the next time the client logs on to a Sernet task (from any platform).

2 If the client is a third party, the notification is written to a log data set and automatically delivered the next time the client logs on to a Sernet task (from any platform). (A third party is defined as a user who is not the currently logged-on user; for example, when notification about a check-out conflict needs to be sent to a user who is not logged on.)

> 📝 **NOTE** The notification of third-party clients changed in ZMF 8.1.2. See "The Processing of Third-Party Notifications Has Changed" on page 26.

3 All other clients are notified with an MVS SEND command with the LOGON operand.

4 Finally, the delivery of any messages that are deemed to be time sensitive are only attempted in real time; if delivery fails, the message is discarded. An example of such a message is:

```
SER2000I appl Serena Network shutting down; Please exit!
```

The user-specific log data set is a sequential, fixed-block file that is dynamically allocated when first needed. The data set is deleted after all outstanding messages have been delivered.

Promotion Level Clean-Up Function Is Provided in ZMF 8.1.1

A new Cleanup Level field has been added to the *application/site* **Promotion Libraries (CMNLRPM3)** panel (under Application Administration option A.A.7). You can set this field (Y=Yes, N=No) to specify if clean-up processing is to be performed for each individual library type that is defined for the target promotion level.

If Y is specified for a library type of a specific promotion level, clean-up operations are performed when components of the specified library type are promoted from level to level. Skeleton CMN$$CLN handles the cleanup.

Fixes in ChangeMan ZMF 8.1.1

Access the following links for a list of defects that have been fixed in ChangeMan ZMF 8.1.1. You must be logged in to the Micro Focus SupportLine website to access these links.

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1.1_RESOLVED&channel=DEFECTS

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=SERNET_8.1.1_RESOLVED&channel=DEFECTS

New Features in ChangeMan ZMF 8.1.0.01

XML and Web Service Changes

A new tag <baseLibLevel> has been added to the CMPONENT.SERVICE.BROWSE XML service and corresponding web service. This tag enables you to browse previously baselined component versions.

You can request a copy of the latest ZMF XML Services Reference Tables and ZMF 8.1.0.01 versus 8.1.0 Delta Report from Micro Focus Customer Care.

Each of the User Options 1 to 20 Can Be Treated as Separate Variables in HLLX

As implemented in the High-Level Language Exit functionality in ZMF 8.1:

- REXX variable **userOptionsPart1** is a 10-byte field that contains the values of user options 1 through 10.

- REXX variable **userOptionsPart2** is a 10-byte field that contains the values of user options 11 through 20.

In ZMF 8.1.0.01 and future releases, 20 new 1-byte fields have been defined to enable you to treat each of the user options 1 to 20 as separate variables named **userOption01**, **userOption02**, through **userOption20**, respectively.

On entry to the REXX exec both the two original 10-byte fields and the 20 new 1-byte fields will be populated from the same data areas. Either data area can be referenced.

On return, if you are updating these user options:

- If the relevant 10-byte field is now different from the input field, the data in that 10-byte field is used and the data in the 1-byte fields is ignored.

- If the data in the 10-byte field is the same as the data from the input field, the data in the 1-byte fields is used to update these areas.

That way, if you are already using the 10-byte userOptionPart1 and/or userOptionPart2 fields to make updates to the data areas, you can continue to do so as long as you do not change any of the values of the 1-byte fields that are passed.

Likewise, if you want to use the individual 1-byte fields, you should leave the 10-byte userOptionPart1 and userOptionPart2 fields alone.

To help you visualize this functionality, assume the REXX fields are set as follows on entry to the exit:

```
userOptionsPart1= 'YYYN      '
userOption01= 'Y'
userOption02= 'Y'
userOption03= 'Y'
userOption04= 'N'
userOption05= ' '
userOption06= ' '
userOption07= ' '
userOption08= ' '
userOption09= ' '
userOption10= ' '
```

- If you do not want to change anything, even if you change some other fields, just leave all of these fields alone.

- If you want to use the 10-byte field to update the 4th option to a Y, change the 4th position in that field to Y. That is all you have to do.

- If you want to use **userOption04** to update that setting, do so, but leave position 4 of the 10-byte **userOptionPart1** field alone.

The Save Previous Version (CMNCMP03) Panel Operates the Same for Both Check-out and Staging Functions

The Save Previous Version (CMNCMP03) pop-up panel will be displayed for each member selected during check-out or staging operations until you select the **Set Save Previous Version prompt off** flag. If you select this flag, the Save Previous Version (CMNCMP03) pop-up panel is no longer displayed for each target library type component from that point on until the check-out or staging process is exited. The last

response you have entered in the **Save previous staging version field** is given for each component as long as the Save Previous Version (CMNCMP03) panel is suppressed.

An image of the Save Previous Version (CMNCMP03) panel is included here for reference:

```
CMNCMPSW                      History - ACPSRCCE.SRC           Row 1 to 2 of 2
Command ===>                                               Scroll ===> CSR


This component is included in the following packages:
        +------------------------------------------------+
Packag  | CMNCMP03    Save Previous Version              |  User     Release
ACTP00  | Command ===>                                   |  USER016
ACTP00  |                                                |  USER016
******  | Package:    ACTP000038                         | *****************
        | Component: ACPSRCCE                        +   |
        | Type:       SRC                                |
        |                                                |
        | Enter "/" to select option                    |
        |   / Save previous staging version             |
        |   _ Set Save Previous Version prompt off       |
        |                                                |
        |                                                |
        |                                                |
        |                                                |
        |                                                |
        +------------------------------------------------+
```

> **NOTE** Save-Staging-Versions settings are affected by global and application administration settings as well as from your responses on the Save Previous Version (CMNCMP03) panels that display during check-out and staging functions. Refer to the *ChangeMan ZMF Administrator's Guide* for details about administration settings that affect save-staging-version functions.

In previous ZMF releases, the Save Previous Version (CMNCMP03) pop-up panel was not displayed for components following the first one during check-out functions, unlike staging functions, regardless of the setting specified for the **Set Save Previous Version prompt off** flag.

Changes to the Depth of Some Panels

The depth of the following panels has been reduced to a maximum of 24 rows, which enables the user to view all panel information without having to scroll down. All panels are distributed in the CMNZMF.V8R1M0P1.PANELS distribution library:

Member (Panel) Name	Panel Title
CMNGGP01	Global Parameters - Part 1 of 8
CMNGGP03	Global Parameters - Part 3 of 8
CMNRCMP1	ONLINE Recompile Job Information
CMNRCMP3	BATCH MASS Recompile Job Information

Member (Panel) Name	Panel Title
CMNUSR04	User Options Part 4
CMNUSR13	Non-Source User Options Part 3
SERSUMRY	Profile Summary

Scratched Components Can Be Restored from a Previously Baselined Version

If the Stacked Reverse Delta (SRD) minus level version of the component you want to check out exists, you will get the following message on the Checkout (CMNCKOT1) panel and the target component will be checked out to your package:

    CMN2310I - *membername* checked out from *libraryname*

The following message is issued for checkout if the member does not exist or the SRD minus level member does not exist:

    CMN1014I - No entry found for member *componentname*

The following message is issued for checkout if the member does not exist and the SRD minus level member does not exist:

    CMN2501I - No member *membername* in *deltadatasetname* dataset.

The following message is issued for checkout from an SRD minus level if the SRD member exists, but the particular minus level version does not exist within the SRD member:

    Version not found | CMN8755I - Specified previous version does not exist

In previous ChangeMan ZMF releases, you were not allowed to check out a component from an SRD minus level if the component had been scratched from the 0 baselined version.

Extended Statistics Are No Longer Incorrectly Turned On When a Member Is Staged or Edited in ZMF

In previous ZMF releases, ISPF extended statistics were being incorrectly turned on when you checked out, staged, or edited a member with ZMF. Once this occurred, the extended statistics on the member were propagated to promotion, production, and/or baseline in ZMF.

In ZMF 8.1.0.01 and later releases, ISPF statistics are supported in ZMF as you have set them in ISPF. That is, if a component has standard statistics outside of ZMF, the component will have standard statistics when you check it in to ZMF. If a component has extended statistics outside of ZMF, the component will have extended statistics when you check it in to ZMF. These statistics (standard or extended, as appropriate) will be propagated to promotion, production, and baseline functions.

The CMNUPDAT utility manages Stacked Reversed Delta (SRD) processing. The processing for PARM parameter APPLY is performed when a package is baselined. The delta member is updated with differences between the baseline and staging members. Some of the baseline member statistics are also stored in the delta member. The statistics in the delta member are stored in ISPF standard statistics format. The staging member is copied to the baseline member. The staging member statistics except for the current size which is recalculated, are copied to the baseline member. After this update, the baseline member statistics are in the same standard or extended format as the staging member.

The processing for PARM parameter RESTORE undoes the prior APPLY changes in the baseline member by reversing the last delta change that is stored in the delta member. The baseline member statistics are updated with the statistics that are stored in the delta member. (The statistics do not include the record counts.) After the update, the baseline member statistics are in the same standard or extended format as they were before the update. The delta member is updated to remove the delta information that the prior APPLY processing created. After this update, the statistics are in the same standard or extended ISPF statistics format as they were before the update.(Refer to the *ChangeMan ZMF Customization Guide* for a complete description of the CMNUPDAT utility.)

> **NOTE** If ZMF 8.1 incorrectly propagated extended statistics to your promotion, production, or baseline libraries, you can request a sample REXX job from Micro Focus Customer Care to remove them. You will need to customize and test this sample job as required for your environment.

CANCEL Command Is Recognized on the Planned Installation Calendar Panel

You can now enter the CANCEL command on the command line of the Planned Installation Calendar (CMNCLNDR) panel to cancel any updates that you have specified on the panel. In previous releases, if you made updates on the Planned Installation Calendar panel and then entered a CANCEL command, the updates were made even though you had not yet entered a SAVE or END command to process them.

> **NOTE** Maintaining the Planned Installation Calendar is a global administration function. You access the Planned Installation Calendar panel through the D (Dates - Installation Calendar) option on the Update Global Administration Options (CMNGAMN1) panel.

SER#PARM Data Set Has a New Format

Each Sernet started task creates a reference table of application TCP/IP addresses and port numbers for Serena applications. This reference table is stored in a PDS member named #SER*x*, where *x* is the subsystem ID of the Sernet started task. The PDS is identified by the SER#PARM DD statement in the start-up JCL for each Sernet started task.

A new format for SER#PARM has been introduced to support long Domain Name System (DNS) names up to 253 characters and Internet Protocol (IP) Version 6 addresses consisting of 8 groups of 4 hexadecimal digits separated by colons.

Refer to the *ZMF Installation Guide* for additional information about Sernet started tasks.

Improved Messages for Connect/Disconnect

An updated SER8209I (log-on) message is now returned for all connects, including local-call connects. Local call connects are connections that are made internally within the started task. The updated SER8209I message is:

```
SER8209I Logon accepted for user aaaaaaaa Local CCSID=bbbbb TCA=cccccccc dddddddddd
```

Explanation: User ID *aaaaaaaa* has successfully logged on.

Values in the message are:

Variable	Description
aaaaaaaa	User ID.
bbbbb	5-byte CCSID to be used.
cccccccc	8-byte TCA address.
ddddddddddd	11-byte string of either blanks (for client ZMF4ECL or ZDD) or **Usertyp=*eee*** where *eee* is: • BAT (batch) • TSO (TSO) • LOC (local call)

Additional detail is available in messages SER8253T and SER5127T when TEST is turned on.

The SER1704I Message Is Augmented To Include Assembly Date and Time for SERXPTIK (PassTicketing Code)

The SER1704I message now includes the assembly date and time of SERXPTIK:

```
SER1704I CSVDYLPA loaded SERXPTIK @ xxxxxxxx, Vers yyyymmdd hh.mm
```

Variable values in the message are:

Variable	Description
xxxxxxxx	Entry point address of SERXPTIK.
yyyymmdd hh.mm	Date and time when program SERXPTIK was assembled.

This change confirms the level of PassTicketing code, which helps with debugging if necessary.

Sernet Keyword Option TIMEOUT (SDNOTIFY) Has New Default Value

The Sernet keyword option TIMEOUT specifies a period of inactivity after which a user is automatically detached from the Sernet started task. (SDNOTIFY is a synonym for TIMEOUT.)

The format of the TIMEOUT keyword option is:

```
TIMEOUT=nnn
```

or:

```
TIMEOUT=nnn,nnn
```

where:

Variable	Description
nnn	Number of inactive minutes before user is detached. Minutes may be preceded by the character M. Value is from 1 to 32767.
	If only one value *nnn* is specified, it applies to all users and clients. If two values are specified (*nnn,nnn*), the first value applies to TSO users and the second value applies to other clients such as ChangeMan ZDD.

In previous releases, the default for *nnn* was zero, which allowed a user session to run regardless of how long it was inactive.

In ZMF 8.1.0.01 and later releases, the default for *nnn* is 60, which times the session out after 60 minutes of inactivity.

Refer to the *ZMF Installation Guide* for a description of all Sernet keyword options.

Enhancement To Prevent ZMF-RACF Deadly Embrace

FDRABR is a suite of z/OS DASD management tools from Innovation Data Processing, which perform the DFHSM equivalent of auto-recalls. If your installation uses the FDRABR suite of tools, we recommend that you activate the following DD statement in the SERVER member of the SERCOMC.V8R1M0P1.CNTL distribution library:

```
//ABRSYNCH  DD DUMMY
```

This DD statement causes FDRABR to perform recalls in a separate address space to avoid a deadly embrace against the RACF database.

User Limits for Licensing Have Been Implemented in Sernet

Each user is identified by a user token that uniquely identifies a particular user ID, coming from a particular machine, and using a particular client (ZMF, ZDD, or ZMF for Eclipse). The client supplies the user token as part of the log-on request.

If a user has multiple sessions (TCP/IP sockets) coming from the same client on the same machine, they will all have the same user token, and will count as a single user. If a user is logged on from multiple machines, or is logged on from multiple clients, each logon counts as a separate user.

The current user counts for each product are LPAR-wide, and the counts include all started tasks on the LPAR. Batch jobs are exempt from user counting. License keys for the ZMF Client Pack define these user limits.

Attempts to exceed the log-on license limit are blocked and appropriate messages are written to the SERPRINT started task log.

The following information is also reported in SERPRINT:

- Hourly high watermark user count (updated each time a logon occurs and reset after each reporting).

- Cumulative high watermark user count (highest value during life of started task).

- Number of hourly periods in which the user limit was reached.

Two new operator commands have been added to display the LPAR-wide user counts that are used for licensing. These commands enable you to check the current user counts on demand, without needing to wait for the hourly cycle to complete:

Operator Command	Function
F *stc*,LICENSE	Forces a refresh of the licensing information for the started task (*stc*) against which it is issued.
F *stc*,PRODUCTS	Provides statistics for all licensed products that are serviced by the specified started task. (The specified started task can service one or all of the following clients: ZMF, ZDD, ZMF for Eclipse, Release Manager.)

The following operator command has been enhanced to include the product name as a filter to limit the output to the specified product:

Operator Command	Function
F *stc*,USERS,*product*	Identifies user information for the specified product that the started task services, where product can have one of the following values: Value Product ZMF ZMF client ZDD ZDD client ECL ZMF for Eclipse client RLM Release Manager client CLP Client Pack (either a ZDD or ZMF for Eclipse) client

Fixes in ChangeMan ZMF 8.1.0.01

Access the following links for a list of defects that have been fixed in ChangeMan ZMF 8.1.0.01. You must be logged in to the Micro Focus SupportLine website to access these links.

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1.0.01_RESOLVED&channel=DEFECTS

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=SERNET_8.1.0.01_RESOLVED&channel=DEFECTS

New Features in ChangeMan ZMF 8.1

Support for High-Level Language Exits

Starting with ChangeMan ZMF 8.1, you can code and invoke exit processing routines in REXX and in any Language Environment (LE)-compliant programming language, such as COBOL and PL/I. These user-written exits can be called by any client that can connect to ZMF, such as ChangeMan ZDD or ChangeMan ZMF for Eclipse. The same, customer-supplied, exit code will be executed regardless of which client is being used.

If an appropriate high-level language exit point is available, custom processing currently being executed through ISPF modification (for example, the addition of ISPF panel exits) can be moved there. In turn, this will simplify upgrading to new ChangeMan ZMF releases in the future.

ChangeMan ZMF 8.1 addresses requirements in the following ZMF functions:

- Package Create

- Package Update

- Build (including Stage, Recompile, and Relink)

Refer to the *ChangeMan ZMF High Level Language Functional Exits Getting Started Guide* for details.

Consistent Methods for Navigating the ISPF Interface to ChangeMan ZMF

The Common User Access (CUA) guidelines that IBM provides to ensure consistency in the look, feel, and navigation of ISPF dialogs have been implemented throughout the ChangeMan ZMF user interface. All ChangeMan ZMF panels have been modified to reflect these CUA-compliant changes. Panel navigation techniques include, but are not limited to, such things as:

- Point and shoot selection of options on menu panels.

- Consistent use of Yes/No fields. In all panels:

  - Type the forward slash key / in the action entry field that precedes an option to mean "Yes, select this option."

  - Leave the action entry field that precedes an option blank to mean "No, do not select this option."

- Consistent use of PF keys for moving forward and backward through ChangeMan ZMF panels, and performing Save, End, and Cancel functions.

Refer to the following IBM publications, among others, for more information about CUA:

- Chapter 4, Common User Access (CUA) Guidelines, *ISPF Dialog Developer's Guide and Reference* (Document SC19-3619).

- *Systems Application Architecture: Common User Access: Basic Interface Design Guide* (Document SC26-4583).

Sort and Locate Enhancements for Several Tables on ChangeMan ZMF Panels

The capability to apply SORT and LOCATE commands to the columns in tables that appear on several ChangeMan ZMF panels has been enhanced. For example, you can perform the following functions:

- Apply SORT and LOCATE commands to table columns.

- Sort column entries in ascending and descending sequence.

- Sort by two columns.

- Sort by table variables even if the variables are not displayed on the panel.

- Allow display by administrator-defined unsorted order.

- Right justify or VDEFINE as numbers to sort correctly.

- Save and restore the user's initial sort.

SORT and LOCATE functionality will be extended to additional tables that appear on ChangeMan ZMF panels in future releases.

Associated Components Can Be Scratched Automatically if Source Component is Scratched

The following new option has been added to Global Administration that enables you to request that associated non-source components, such as load and list components, be scratched automatically if the corresponding source component is scratched, whether or not housekeeping has removed the package records:

_ Auto scratch load member with source

If you do not select this global administration option, associated components are not scratched automatically if the corresponding source member is scratched. If you want to scratch associated components, you must select and scratch them in a separate operation.

This option applies to components staged after the installation of ChangeMan ZMF 8.1 and has no effect on legacy components already in baseline whose package records have been aged off in a prior release.

Last Promotion Statistics Now Appear on the Promotion Site List Panel

Last promotion statistics for each site now appear on the Promotion Site List (CMNQRY29) panel so that you do not have to drill down further in the panel hierarchy to see this information.

Closed Complex or Super Packages Can Now Be Aged and Deleted

You can age and delete complex or super packages that have been closed if they have no participating packages or if all their participating packages have been closed and deleted.

Calendar Install Date for Packages Is Extended

The maximum number of days in the future in which packages can be installed is extended up to 1820 days (approximately 5 years). You specify the number of days in the installation calendar on the Global Parameters - Part 2 of 8 (CMNGGP02).

SSV Archiving and Retrieval Functions Are Now Available

The following Saved Staging Versions (SSV) functions are now available in ChangeMan ZMF. The following members in the CMNZMF CNTL distribution data set are provided to accommodate these functions:

CMNZMF CNTL Member	Function
INITIAL3	Defines and initializes the ChangeMan ZMF Site Master, Object Master, Delta Master, and Archive Master files for ChangeMan ZMF staging versions.
SVARCLST	Generates a report on the archive master database.
SVBKUP	Backs up the staging versions VSAM files to tape.
SVMAINT	Deletes or archives staging version members that are no longer needed from the Delta Master.
SVRSTOR	Restores the staging versions VSAM files from the most recent backup.

ERO Is Enhanced with Additional Functions

The following action codes have been added to Enterprise Release Option (ERO) panels:

Action Code	Description
BB	Browse/print baseline/promotion libraries.
CC	Compare staging changes against baseline/promotion libraries.
F5	Resubmit installation JCL build request.
OF	Work with online forms.
RT	Create reports.
SC	Scan baseline.
U4	Update scheduler.
UA	Rename and scratch components (package driven).
UB	Rename and scratch components (baseline driven).
UD	Update Db2 information.
UE	Update user information.
UI	Update IMS information.
ZP	Compress package libraries.

User Records Have Been Added To Hold User Package and Component Variable Parameters

In ChangeMan ZMF releases prior to release 8.1, you have been able to define user options for source components. This capability is extended in ChangeMan ZMF 8.1 to enable you to define user options for nonsource components as well.

Choices on Global Administration, Check-out, and Staging panels enable you to specify these options.

Options on the Global Administration - Part 5 of 8 (CMNGGP05) panel enable you to define and display these user options:

```
CMNGGP05                  Global Parameters - Part 5 of 8
 Command ===>

 Audit package lock  . . . . OPTIONAL (Always/Never/Optional)

 Enter "/" to select option
      Job name increment override
      Use zprefix in batch jobs
      Suppress msgs in dis/ins/bas jobs
      Create component work records
      Force audit of unplanned packages
      Allow link packages
      Memo delete empty packages only
   /  Enable package user variables
   /  Enable component user variables
   /  Add user variables to package list table
      Allow component in multiple applications
      Auto scratch load member with source
   Approval Restrictions
      Package creator cannot approve
      Package worker cannot approve
      Only 1 approval per user
```

These global administration options are as follows:

Option	Description
Enable package user variables	Allows any user to access the package user variables during the package lifecycle. This option allows you to associate user data with a specific package and is used in conjunction with certain user exits, via a client interface to ChangeMan ZMF functions, or XML services.
Enable component user variables	Allows any user access to the component user variables during the component lifecycle. This option allows you to associate user data with a specific component and is used in conjunction with certain user exits, via a ChangeMan ZMF client interface, or XML services.
Add user variables to package list table	Specifies that package user data be added to the package list table. These variables are not used to build the displays in CMNLIST3 and CMNLIST4 panels, but you may add them in place of existing fields if you choose.

If these options are enabled in Global Administration, you can manipulate the display of user options for source and nonsource components with options that appear on subsequent check-out, staging, and component list panels and in corresponding XML services.

In staging functions, the following new line command is available that enables you to modify component user data without having to stage the component:

    UV - update component user variables

This line command applies to source and non-source components.

The extended user option variables are populated when CMNEX026 executes.

Components in Multiple Temporary Packages

When a component is staged into multiple temporary packages, the component can be inadvertently removed from the temporary libraries when one of the packages is cycled. ChangeMan ZMF now produces a warning message at checkout and stage if a component being added to a temporary package already exists in another temporary package.

&HFSTEMP Variable Added to Promotion and Installation File Tailoring Skeletons

Variable &HFSTEMP (64-byte field from global parameters) has been added to promotion and installation file tailoring functions. For promotion, only the skeletons with zFS components are affected.

Deselect Function Added to the Application Scope Selection List (CMNAUDAP) Panel for Audit

The Deselect All option on this audit panel enables you to deselect all applications that are currently selected for audit except the application that is related to the package that is being audited.

Change to XML Services with the <deletedStatus> Tag

When SERXMLxx runs the cmponent.history.list, cmponent.history.listshrt, and cmponent.history.listload services, the <checkedOutStatus>, <deletedStatus>, <promotedStatus>, <demotedStatus>, <baselinedStatus>, and <delArchStatus> request tags are now processed as normal text filters. A result is only returned if the data matches all the specified filters.

SER#PARM and CMNIMPCT Data Sets Can Be Defined in Global Administration Site Definitions

The local SER#PARM and CMNIMPCT data sets are now obtained automatically from the ChangeMan ZMF started task. Remote SER#PARM and CMNIMPCT data sets can now be defined in the global administration site definitions. These data sets are now used in file tailoring, which makes customization of skeletons for these data sets unnecessary. A default SER#PARM data set may be customized in the CMN$$DSN skeleton if SER#PARM is required for remote sites and the global administration sites SER#PARM data sets have not yet been defined.

Enhancement to Component Application Ownership

A new option called "Allow component in multiple applications" has been added to global administration parameters (A.G.1). If this option is selected, ZMF behaves as in prior releases. This option will be selected by default by Package Master initialization and conversion.

If this option is not selected, components that have the same name are only allowed to be in one application. Check-out, check-in, recompile, and relink operations will prevent a component from being added to a package if it is already in another application.

Another new option called "Component Applications" has been added to global administration component options (A.G.C). This option behaves similarly to the existing component level security, but specifies

which applications a component may be in. Check-out, check-in, recompile, and relink operations will prevent a component from being added to a package if it is not in an application specified in the Component Applications option. If there is no Component Applications entry defined for a component, the component can be in any application.

New XML Services Display the Skeleton Release Variables

The following new XML Services display the Skeleton Release Variables that are defined on the Skeleton Variables (CMN3DSM2) panel:

- skels.gbl_hedr.create

- skels.gbl_hedr.list

- skels.gbl_hedr.update

- skels.gbl_hedr.delete

- skels.gbl_hedr.create

- skels.gbl_var.list

- skels.gbl_var.update

- skels.gbl_var.delete

The gbl_hedr services process the header information in the global skeleton variables record; the gbl_var services process the variable information in the global skeleton variables record.

Updates to a Parameter in Application Administration Can Be Applied Across All Applications

A new option, U, on the **Update Application Administration Options** (CMNLAMN1) panel enables you to:

- Propagate application parameter changes to multiple applications at one time.

- Save time in administering ZMF.

- Keep applications in sync

Size of Data Set Name Field on CMNBAS2 Panel Is Expanded

The data set name field on the Baseline Configuration Part 2 of 2 (CMNBAS2) panel has been expanded to 44 characters. For file names that are longer than 44 characters, you can use PF10 and PF11 to scroll the field left or right or PF4 to expand the field in a pop-up window. See the associated help panel for details.

Consistent Use of BLKSIZE=0 in Distributed JCL

All BLKSIZE= references are changed to BLKSIZE=0 in all JCL and skeleton members in the CMNZMF CNTL and SKELS libraries that are distributed in ChangeMan ZMF 8.1.

Extended ISPF and ChangeMan ZMF Statistics for PDS and PDSE Data Sets

PDS and PDSE data set member lists are now displayed with extended ISPF statistics if they exist.

New result tags have been added to the dss.service.list XML service to accommodate these extended statistics.

Decrease in ERO Package List Response Time

The process of creating a list of the packages that belong to a release uses an alternate path to the required data. This greatly reduces the time it takes ZMF to generate the listing.

Fields Such as Work Request and Department Can Be Renamed Consistently Across ChangeMan ZMF Panels, Functions, and Reports

The new User Field Name Substitution (CMNUFNS1) panel enables you to change the default field names displayed in panels and reports throughout ChangeMan ZMF. The panel will show the 'origin' value (what the field description is as shipped), and provides the ability to modify both the row name and column name that is associated with a panel field. Refer to the associated help panel for the User Field Name Substitution (CMNUFNS1) panel for detailed instructions on using this capability.

Fixes in ChangeMan ZMF 8.1

Access the following link for a list of defects that have been fixed in ChangeMan ZMF 8.1 You must be logged in to the Micro Focus SupportLine website to access this link.

http://knowledgebase.serena.com/InfoCenter/
index?page=content&cat=CMZMF_8.1_RESOLVED&channel=DEFECTS

Other Product Information

- Some ChangeMan ZMF sample JCL includes a USER= program parameter. Code the TSO user ID of the person submitting the job in this parameter. The user ID must be the same as the batch job owner, except when ChangeMan ZMF submits the job.

- By default, many ISPF panel fields are folded to upper case, regardless of the case you type. However, if there is a **Mixed Case** field on a ChangeMan ZMF panel and it is set to **YES**, then component and library name fields are case sensitive. Support for IMS, Java, and zFS requires case-sensitive fields.

- The version numbers for ChangeMan ZMF selectable options track the version and release number (*v.r* or *v.r.m*) of the base ZMF product, regardless of whether the selectable option is enhanced.

Installation

ChangeMan ZMF 8.1.4.01 contains only the changes that have been made to ChangeMan ZMF since release 8.1.4. You must have ChangeMan ZMF 8.1.4 installed to apply the ZMF 8.1.4.01 patch.

You can download the ChangeMan ZMF 8.1.4.01 patch from `Patch ID P2818`. A customer ID and password are required to access this patch.

Install the products that you have licensed in the following order, as appropriate:

- ZMF Web Services. If you are running customized applications using ZMF Web Services, perform the actions discussed in the section titled Upgrading to ChangeMan ZMF 8.1.4.01 Web Services on page 53.

- ZDD and/or ZMF for Eclipse Clients. (You must be at the 8.1.4(+) level of ZDD or ZMF for Eclipse.)

- ZMF P sites.

- ZMF ALL, D, and DP sites.

Upgrade Notes for Customers Who Are Not at the ChangeMan ZMF 8.1.4 Level

If you have not yet upgraded to ChangeMan ZMF 8.1.4, the following table identifies the conversion jobs that you must run to convert master files from the specified ZMF version to ZMF 8.1.4.

> **NOTE** All jobs are members of the CMNZMF.V8R1M4.CNTL distribution library. They are not included in the CMNZMF.V8R1M4P1 distribution library.

Customize the job's JCL as indicated in the comments within each member before you run it.

You must have ChangeMan ZMF 8.1.4 installed to install the 8.1.4.01 patch

If you are upgrading from:	Run this job to perform the specified function:
ZMF 8.1.2 or 8.1.3 to ZMF 8.1.4 or from 8.1.4 to 8.1.4.01	■ You do not need to run any conversion jobs.
ZMF 8.1.1 or 8.1.1.01 to ZMF 8.1.4 or 8.1.4.01	■ Run the job in member CMVCONVB to convert the ZMF 8.1.1.*x* Package and Component Master files for ALL-, D-, and DP-sites to a format that supports ZMF 8.1.4 or ZMF 8.1.4.01. ■ Run the job in member CMVCONPB to convert the ZMF 8.1.1.*x* Package Master file for a P-site to a format that supports ZMF 8.1.4 or 8.1.4.01.

If you are upgrading from:	Run this job to perform the specified function:
ZMF 8.1 to ZMF 8.1.4 or 8.1.4.01	▪ Run the job in member CMVCONVA to convert the ZMF 8.1 through 8.1.0.01 hotfix 2 Package Master and Component Master files for ALL-, D-, and DP-sites to a format that supports ZMF 8.1.4 or ZMF 8.1.4.01. ▪ Run the job in member CMVCONPA to convert the ZMF 8.1 through 8.1.0.01 hotfix 2 Package Master file for a P-site to a format that supports ZMF 8.1.4 or 8.1.4.01.
ZMF 7.1.3.03 to ZMF 8.1.4 or 8.1.4.01	▪ Run the job in member CMVCONV9 to convert the ZMF 7.1.3.03 Package and Component Master files for ALL-, D,- and DP-sites to a format that supports ZMF 8.1.4 or 8.1.4.01. ▪ Run the job in member CMVCONP9 to convert the ZMF 7.1.3.03 Package Master for a P-site to a format that supports ZMF 8.1.4 0r 8.1.4.01.
ZMF 7.1.3, 7.1.3.01, or 7.1.3.02 to ZMF 8.1.4 or 8.1.4.01	▪ Run the job in member CMVCONV8 to convert the ZMF 7.1.3, 7.1.3.01, or 7.1.3.02 Package, Component, and SSV Master files for ALL-, D-, and DP-sites to a format that supports ZMF 8.1.4 or 8.1.4.01. ▪ Run the job in member CMVCONP8 to convert the ZMF 7.1.3, 7.1.3.01, or 7.1.3.02 Package Master file for a P-site to a format that supports ZMF 8.1.4 or 8.1.4.01.
ZMF 7.1, 7.1.1, or 7.1.2 to ZMF 8.1.4 or 8.1.4.01	▪ Run the job in member CMVCONV7 to convert the ZMF 7.1., 7.1.1, or 7.1.2 Package, Component, and SSV Master files for ALL-, D-, and DP-sites to a format that supports ZMF 8.1.4 or 8.1.4.01. ▪ Run the job in member CMVCONP7 to convert the ZMF 7.1, 7.1.1, or 7.1.2 Package Master files for P sites to a format that supports ZMF 8.1.4 or 8.1.4.01.

Upgrade Notes for ERO Customers

▪ ERO customers who are upgrading to a ZMF 8.1.*x* release from a pre-8.1.*x* release need to run member CMNZMF.V8R1M4.CNTL(CMNRPKSN) with input of RLS=* after all other upgrade activities are complete and your 8.1.*x* task has been started. Failure to do so will result in the following message if you attempt to access a release package:

   CMR6504I - No information found for Package search request

This utility creates a new Package Master record for each package in an ERO release.

▪ ERO customers who are running pre-8.1.3 versions of ChangeMan ZMF must run the job in member CIMALTR5 of the CMNZMF.V8R1M4.CNTL distribution library to avoid having to recycle ChangeMan ZMF during the Autumn time change. See "You No Longer Need To Recycle ZMF During the Autumn Time Change" on page 18.

ISPF Panel Changes

All members of the CMNZMF.V8R1M4.PANELS distribution library contain the statements that are highlighted in red below. The exit and copybook that are referenced in these statements are for company use only and you should not attempt to change them.

```
******************************* Top of Data ********************************
)INEXIT PGM,&EPAPATTR,CACHE
)PANEL KEYLIST(CMNELSK,CMN)
)ATTR
*INCLUDE CMNPATTR                     /* embed common panel attributes */
)BODY EXPAND(!!)
.
.
.
```

Enabling the ZMF Db2 Option

This section is important if you are upgrading to ChangeMan ZMF 8.1.4.01 from a release prior to 8.1.1. If you are currently running ZMF 8.1.1, 8.1.1.01, 8.1.2, 8.1.3, or 8.1.4, you have already performed these steps during your upgrade.

The Database Request Modules (DBRMs) that are delivered in the CMNZMF.V8R1M4.DBRM distribution library have been generated under Db2 version 10. Db2 version 10 is the minimum level of Db2 that is supported by IBM and ZMF 8.1.4. (Note that IBM's end of support for Db2 version 10 has been announced for September 30, 2017.)

Note that ChangeMan ZMF 8.1.1 and later releases contain many changes to support Native SQL Stored Procedures that require Db2 version 11. There are new packages to be bound; all existing packages have been changed and so must be rebound.

The steps that are required to enable the ZMF Db2 option have been gathered together into two new sample members, together with a conversion sample for existing customers.

> **IMPORTANT!** Customize and execute the jobs in the following members of the CMNZMF.V8R1M4.CNTL distribution library, as appropriate. Run these jobs before you bring up the started task for ChangeMan ZMF 8.1.4. The system may hang with unpredictable results if you bring up the started task for ChangeMan ZMF 8.1.4 before you run these jobs.
>
> **IMPORTANT!** The new tables created by DB2OPTN will contain SQL process admin definitions for the ZMF started task. Take regular image copies of these tables in conjunction with the backups performed for ZMF master files. See the BACKUP JCL for an example.

CMNZMF.V8R1M4.CNTL Member	Description
DB2OPTN	Run this sample JCL for D, DP, or ALL sites. It shows all the steps required to define, to the local Db2 subsystem to which the ZMF started task connects, all of the objects required to make use of the ZMF Db2 option. **NOTE** The local Db2 subsystem is the first physical Db2 system defined on the Db2 Physical Subsystems (CMNGD2S0) panel under ZMF Global Administration. The SITE field for this subsystem definition must be blank. Ensure this site is defined before you run the DB2OPTN job. **CAUTION!** This job contains a DROP DATABASE statement. Carefully consider the job steps before you run this job.

DB2OPTNC	Run this sample JCL to convert admin values that relate to Db2 admin for SQL-based components from Package Master records to the Db2 tables used in ZMF 8.1.1 and later releases. This job is required for all customers who are migrating from a release prior to ZMF 8.1.1.
	
	NOTE Run this job after you have run the DB2OPTN job to define the tables. This job applies only to customers upgrading an existing system, not to fresh installs.
	
	NOTE Modify the JOBLIB statement of member DB2OPTNC of the CMNZMF.V8R1M4.CNTL distribution library before you customize and run the job to avoid getting an S806 abend on the CONVERT job step:
	
	`//JOBLIB   DD  DISP=SHR,DSN=`*somnode*`.CMNZMF.LOAD`
	`//        DD  DISP=SHR,DSN=`*somnode*`.SERCOMC.LOAD`
	`//        DD  DISP=SHR,DSN=DSN`*vrm*`.SDSNEXIT`
	`//        DD  DISP=SHR,DSN=DSN`*vrm*`.SDSNLOAD`

DB2OPTNR	Run this sample JCL for Db2 subsystems that are targeted either via remote promote or via remote P-site install for which automatic bind processing is required (that is, the site contains the rebind of CMNDB2SQ). CMNDB2SQ makes use of a generic collection id when searching for an appropriate package. It is immaterial whether you use CMN*x* or CMNZMF as the collection id for CMNDB2SQ. However, if you use CMNDB2AT, its collection id must be CMNZMF. **NOTE** The CMNDB2_ATTRIBS table is only necessary if you wish to make use of ZMF support for Db2 versioning of native SQL Stored Procedures at the target remote Db2 subsystem. The same is true of the CMNDB2AT package.

For more details about enabling Db2 in ChangeMan ZMF, refer to:

- Solution S141663.

- *ChangeMan ZMF Db2 Option Getting Started Guide*.

Upgrading to ChangeMan ZMF 8.1.4.01 Web Services

An updated Web Services (zmfws.war) file has been delivered with the ZMF 8.1.4.01 patch.

> **IMPORTANT! Potential Problem for Customers Upgrading to ZMF 8.1.4.01 Web Services**
>
> Some customers may experience problems after upgrading to the 8.1.4.01 General Availability version of the ZMF Web Services (zmfws.war) if they are running custom applications based on the sample code distributed with Solution S139564. The exact problem may vary among customers; you can find an example of the symptoms in the following defect:
>
> DEF292332: Custom written ZMF web service routines failing after upgrade to 8.1.2 zmfws.war
>
> Please note that this problem affects only custom applications developed to utilize the base ZMF Web Services; it does not affect standard ChangeMan ZMF processing or the ChangeMan ZMF for Eclipse client plugin.
>
> If you are running customized ZMF Web Service-based applications, you should rebuild those applications using the ZMF 8.1.4.01 Web Services, regardless of the release from which you are upgrading, and redeploy your applications in production prior to or alongside updating your ZMF Server software.

Rerunning the PassTicket Generation Routine

The PassTicket-generation routine was changed in ZMF 8.1.3. Therefore, you will need to run the SERSET routine with a different, unique token value to implement this change if you are upgrading from a ZMF release prior to 8.1.3.

Take these steps:

1   Copy the SERSET JCL supplied in the SERCOMC.V8R1M4.CNTL distribution library to a private library, update the STEPLIB (or JOBLIB) as necessary, and change the TOKEN parameter to a value of 'B'.

2   Customize this JCL as appropriate, and execute it on all LPARs that are either hosting the Server started task or from which you can connect to the Server started task. It will produce messages similar to the following:

```
00.40.42 J0553644  SER1704I CSVDYLPA loaded SERXPTIK @ 922E9000, Vers 20170320 10.39
00.40.42 J0553644  SER1708I SerNet.PtickB    token created
00.40.42 J0553644  SER1708I SerNet.PtickTok  token created
00.40.42 J0553644  SER1709I Passticket support enabled
```

The Server started tasks will now point to the new token and will produce messages similar to the following at start up:

```
06.41.36 S0553755  SER1701I Passticket support previously enabled under 'B' suffix
```

> **NOTE** This JCL is a one-off task required to update these particular software components in place. Do not change your existing SERSET procedures to point to the new token. When your systems are next IPLed you will automatically revert to token/suffix 'A', which is correct.

Changes to XML Services

Some XML Services are new or changed in ZMF 8.1.4.01. To apply these changes:

- Reload your XMLSPACE LDS with the XMLDATA member that is delivered in the SERCOMC.V8R1M4P1.CNTL distribution library.

- If you are currently using XML Services and/or have written programs that use XML Services, contact Customer Care for the XML Services Delta Report that identifies the XML Services that have changed since the version of ChangeMan ZMF from which you are migrating. You can use this report to determine if you are using any of the XML Services that have changed and plan this part of your upgrade accordingly.

Optimization Considerations

We strongly recommend that you use IBM's Batch Local Shared Resource (BLSR) or System- Managed Buffering (SMB) to optimize the VSAM KSDS Package Master, Component Master, and long name Component Master files where delivered JCL shows BLSR sample code. Currently, that includes these ZMF components:

Member	Library	Description
CMN$$IAX	CMNZMF.SKELS	Impact analysis data extract submitted online.
IMPACT	CMNZMF.CNTL	Impact analysis data extract submitted manually.
STARTJCL	CMNZMF.CNTL	ZMF portion of the started procedure.

Failure to use the BLSR or SMB performance optimization tool may cause unacceptable performance issues for users and/or processes.

See Solution S100960 in the Knowledgebase for more information.

Software Compatibility

For a complete list of software requirements and product compatibility, refer to the Platform Matrix for ChangeMan ZMF 8.1.4.01 at the following location on the Micro Focus SupportLine website:

https://supportline.microfocus.com/prodavail.aspx

Known Issues

- To see known ZMF issues with z/OS versions, if any, go to the following location on the Micro Focus SupportLine website:

    https://supportline.microfocus.com/prodavail.aspx

- Different versions of ChangeMan ZMF are incompatible in ISPF split screen mode. User abend 44 blocks you from opening a second session with a different version and can also signify incomplete SEREX006 exit information.

- To avoid version conflicts, do not run the XMLSERV prototype tool for XML Services concurrently in ISPF split screen mode with a ChangeMan ZMF instance.

- The routines to stop/start/refresh an IBM® WebSphere® application in promotion, install, and backout consume excessive z/OS memory and elapsed time. Customers report that this behavior is not unique to the ChangeMan ZMF use of the WebSphere API. Customers using the ZMF WebSphere interface should include REGION=0M in jobs that include the CMN$$WSB, CMN$$WSI, and CMN$$WSP skeletons.

- Some customers may experience problems after upgrading to the 8.1.4 General Availability version of the ZMF Web Services (zmfws.war). For more information, refer to the section titled Upgrading to ChangeMan ZMF 8.1.4.01 Web Services on page 53.

- Changes to licensing software in ZMF 8.1.2 mean that the XML Service Prototyping Tool, XMLSERV, must now have access to an active license file in order to display ZMF XML Services. Failure to do so will result in XMLSERV displaying the following, empty screen:

```
SERXMLS                       XML Services

Command ===>                                        SCROLL ===> CSR

Member .. TEMPNAME Test ..   Subsys .. 2

S  Service  Scope    Message  Color    Copybook  Product

***************************** Bottom of data *****************************
```

Customers who do not hold their licenses in CSA must update their XMLSERV routine to apply the changes related to the SERLIC variable in the sample XMLSERV component that is distributed in the SERCOMC.V8R1M4.CLIST library.

- SYNCSORT customers who encounter the following message during SORT processing in the CMNVCON*xx* conversion jobs delivered in the CMNZMF.V8R1M4.CNTL distribution library (or any steps involving SORT):

    WER175A - INCORE SORT CAPACITY EXCEEDED

can add SORTWORK*xx* DD statements to steps to explicitly allocate work data sets.

Documentation Updates

Updates to the ZMF documentation suite are underway. The following user documentation has been updated to the ChangeMan ZMF 8.1.*x* release level and can be downloaded from the Micro Focus SupportLine website at https://www.microfocus.com/support-and-services/documentation/.

- Administrator's Guide

- Customization Guide

- Db2 Option Getting Started Guide

- ERO Concepts

- ERO Getting Started Guide

- ERO Messages

- ERO XML Services User's Guide

- High-Level Language Exits (HLLX) Getting Started Guide

- Installation Guide

- Java-zFS Getting Started Guide

- Load Balancing Option Getting Started Guide

- Messages

- Migration Guide

- User's Guide

- Web Services Getting Started Guide

- XML Services User's Guide

- ZMF M and R Option Quick Reference

- ZMF Quick Reference

The other user manuals in the ChangeMan ZMF documentation suite are at the ChangeMan ZMF 7.1.3 level. You can download the ChangeMan ZMF 8.1.*x* versions of these user manuals from the Micro Focus SupportLine website as they become available. Check the Micro Focus SupportLine website at regular intervals for ChangeMan ZMF documentation updates.