SERENA

SERENA®
ChangeMan® ZMF 7.1.3

INFO Option Getting Started Guide

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Welcome to Serena® ChangeMan® ZMF

The ChangeMan ZMF INFO Option Getting Started Guide describes two methods by which Serena® ChangeMan® ZMF can interface with other user applications:

- **VSAM File Interface**

  This option was new in ChangeMan ZMF Version 5.5. It enables ChangeMan ZMF to communicate with *any* user application. Communication between ChangeMan ZMF and the user application is enabled solely through the records in a VSAM Interface File.

  Part I of this manual describes the VSAM File Interface.

- **INFO Option**

  This option was introduced in ChangeMan ZMF Version 3.3.2. It enables ChangeMan ZMF and Tivoli® Information Management for z/OS to communicate with each other and share information. Communication is enabled through the Tivoli Information Management Application Program Interface (API). The INFO subtask of ChangeMan ZMF connects directly to the Tivoli Information Management API and must have access to the Tivoli Information Management load library where the API resides.

  Part II of this manual describes the INFO Option.

Both methods are described in this manual because both methods are available if you license the INFO Option with ChangeMan ZMF. Also, the procedure for applying the INFO Option license enables you to use either method.

Although the two methods have some terminology in common and the licensing is the same for both methods, you should think of them as two completely separate capabilities. The procedures for implementing each method are different. If you are familiar with the older INFO Option, we recommend that you avoid applying the principles and methodologies of this option to understanding and using the VSAM File Interface.

Before You Begin | See the ReadMe file for the latest updates and corrections to this manual.

Audience | This publication is intended for:

- ChangeMan ZMF system administrators responsible for installing, administering, and managing the change management system and setting up communication between ChangeMan ZMF and other user applications.

- Developers and administrators of the user applications that communicate with ChangeMan ZMF through the VSAM File Interface or the INFO Option.

Navigating this book | Change bars in the left margin identify substantive changes in this publication since ChangeMan ZMF release 7.1.2.

Refer to "Guide to ChangeMan ZMF Documentation" on page 6 for additional ChangeMan ZMF documentation.

Guide to ChangeMan ZMF Documentation

The following sections provide basic information about ChangeMan ZMF documentation.

ChangeMan ZMF Documentation Suite

The ChangeMan ZMF documentation set includes the following manuals in PDF format.

Manual	Description
Administrator's Guide	Describes ChangeMan ZMF features and functions with instructions for choosing options and configuring global and application administration parameters.
ChangeMan ZMF Quick Reference	Provides a summary of the commands you use to perform the major functions in the ChangeMan ZMF package life cycle.
Customization Guide	Provides information about ChangeMan ZMF skeletons, exits, and utility programs that will help you to customize the base product to fit your needs.
DB2 Option Getting Started Guide	Describes how to install and use the DB2 Option of ChangeMan ZMF to manage changes to DB2 components.
ERO Concepts	Discusses the concepts of the ERO Option of ChangeMan ZMF for managing releases containing change packages.
ERO Getting Started Guide	Explains how to install and use the ERO Option of ChangeMan ZMF to manage releases containing change packages.
IMS Option Getting Started Guide	Provides instructions for implementing and using the IMS Option of ChangeMan ZMF to manage changes to IMS components.
INFO Option Getting Started Guide	Describes two methods by which ChangeMan ZMF can communicate with other applications: ■ Through a VSAM interface file. ■ Through the Tivoli Information Management for z/OS product from IBM.
Installation Guide	Provides step-by-step instructions for initial installation of ChangeMan ZMF. Assumes that no prior version is installed or that the installation will overlay the existing version.
Java / HFS Getting Started Guide	Provides information about using ZMF to manage application components stored in USS file systems, especially Java application components.
Load Balancing Option Getting Started Guide	Explains how to install and use the Load Balancing Option of ChangeMan ZMF to connect to a ZMF instance from another CPU or MVS image.
M+R Getting Started Guide	Explains how to install and use the M+R Option of ChangeMan ZMF to consolidate multiple versions of source code and other text components.

Manual	Description
M+R Quick Reference	Provides a summary of M+R Option commands in a handy pamphlet format.
Messages	Explains messages issued by ChangeMan ZMF, SERNET, and System Software Manager (SSM) used for the Staging Versions feature of ZMF.
Migration Guide Version 5.6.x to 7.1.3	Gives guidance for upgrading ChangeMan ZMF from Version 5.6.x to 7.1.3.
Migration Guide Version 6.1.x to 7.1.3	Gives guidance for upgrading ChangeMan ZMF from Version 6.1.x.x to 7.1.3.
Migration Guide Version 7.1.x to 7.1.3	Gives guidance for upgrading ChangeMan ZMF from Version 7.1.x to 7.1.3.
OFM Getting Started Guide	Explains how to install and use the Online Forms Manager (OFM) option of ChangeMan ZMF.
SER10TY User's Guide	Gives instructions for applying licenses to enable ChangeMan ZMF and its selectable options.
User's Guide	Describes how to use ChangeMan ZMF features and functions to manage changes to application components.
XML Services User's Guide	Documents the most commonly used features of the XML Services application programming interface to ChangeMan ZMF.
ZMF Web Services User's Guide	Documents the Web Services application programming interface to ChangeMan ZMF.

Using the Manuals

Use Adobe® Reader® to view ChangeMan ZMF PDF files. Download the Reader for free at get.adobe.com/reader/.

This section highlights some of the main Reader features. For more detailed information, see the Adobe Reader online help system.

The PDF manuals include the following features:

■ **Bookmarks.** All of the manuals contain predefined bookmarks that make it easy for you to quickly jump to a specific topic. By default, the bookmarks appear to the left of each online manual.

■ **Links.** Cross-reference links within a manual enable you to jump to other sections within the manual with a single mouse click. These links appear in blue.

■ **Comments.** All PDF documentation files that Serena delivers with ChangeMan ZMF have enabled commenting with Adobe Reader. Adobe Reader version 7 and higher has commenting features that enable you to post comments to and modify the contents of PDF documents. You access these features through the Comments item on the menu bar of the Adobe Reader.

■ **Printing.** While viewing a manual, you can print the current page, a range of pages, or the entire manual.

 ■ **Advanced search.** Starting with version 6, Adobe Reader includes an advanced search feature that enables you to search across multiple PDF files in a specified directory.

Searching the ChangeMan ZMF Documentation Suite

There is no cross-book index for the ChangeMan ZMF documentation suite. You can use the Advanced Search facility in Adobe Acrobat Reader to search the entire ZMF book set for information that you want. The following steps require Adobe Reader 6 or higher.

1 Download the ZMF All Documents Bundle ZIP file and the *ChangeMan ZMF Readme* to your workstation from the My Downloads tab on the Serena Support website.

2 Unzip the PDF files in the ZMF All Documents Bundle into an empty folder. Add the *ChangeMan ZMF Readme* to the folder.

3 In Adobe Reader, select **Edit** | **Advanced Search** (or press **Shift+Ctrl+F**).

4 Select the **All PDF Documents in** option and use **Browse for Location** in the drop down menu to select the folder containing the ZMF documentation suite.

5 In the text box, enter the word or phrase that you want to find.

6 Optionally, select one or more of the additional search options, such as **Whole words only** and **Case-Sensitive**.

7 Click **Search**.

8 In the **Results**, expand a listed document to see all occurrences of the search argument in that PDF.

9 Click on any listed occurrence to open the PDF document to the found word or phrase.

Online Help

Online help is the primary source of information about ChangeMan ZMF. Online help is available as a tutorial, through Help screens, and in ISPF error messages.

Online Tutorial

ChangeMan ZMF includes an online tutorial that provides information about features and operations, from high-level descriptions of concepts to detailed descriptions of screen fields.

To view the tutorial table of contents, select option T from the Primary Option Menu, or jump to it from anywhere in ChangeMan ZMF by typing =T and pressing ENTER.

Press PF1 from anywhere in the Tutorial for a complete list of Tutorial navigation commands and PF keys.

Online Help Screens

If you have questions about how a ChangeMan ZMF screen works, you can view a help panel by pressing PF1 from anywhere on the screen.

Online Error Messages

If you make an invalid entry on a ChangeMan ZMF screen, or if you make an invalid request for a function, a short error message is displayed in the upper right corner of the screen. Press PF1 to display a longer error message that provides details about the error condition.

Remember that the long message does not display automatically. Request the long message by pressing PF1.

Typographical Conventions

The following typographical conventions are used in the online manuals and online help. These typographical conventions are used to assist you when using the documentation; they are not meant to contradict or change any standard use of typographical conventions in the various product components or the host operating system.

Convention	Explanation
italics	Introduces new terms that you may not be familiar with and occasionally indicates emphasis.
bold	Emphasizes important information and field names.
UPPERCASE	Indicates keys or key combinations that you can use. For example, press the ENTER key.
`monospace`	Indicates syntax examples, values that you specify, or results that you receive.
`monospaced italics`	Indicates names that are placeholders for values you specify; for example, *`filename`*.
vertical rule |	Separates menus and their associated commands. For example, select File | Copy means to select Copy from the File menu. Also, indicates mutually exclusive choices in a command syntax line.

Part 1

VSAM File Interface

Chapter 1
Overview of the VSAM File Interface

Introduction

The VSAM File Interface provides the means for two-way communication between a ChangeMan ZMF change package and *any* non-ChangeMan ZMF user application. It enables a user who is not familiar with ChangeMan ZMF to:

- Specify selected details of a change package (such as install sites, install dates and times, and contact names and phone numbers) as the change package moves through the change implementation cycle within ChangeMan ZMF.

- Keep track of the status and other details of a change package.

- Participate in the change package approval process.

While the INFO Option (which is described in Part II of this manual) provides a method for two-way communication between ChangeMan ZMF and Tivoli Information Management for z/OS, the VSAM File Interface extends the capability to non-Tivoli user applications.

The VSAM File Interface can also be used as an alternative to the INFO Option for ChangeMan ZMF to interface with Tivoli Information Management for z/OS.

VSAM File Interface Architecture

ChangeMan ZMF and a non-ChangeMan ZMF user application exchange information about ChangeMan ZMF change packages through records in the VSAM Interface File, as the following figure illustrates:
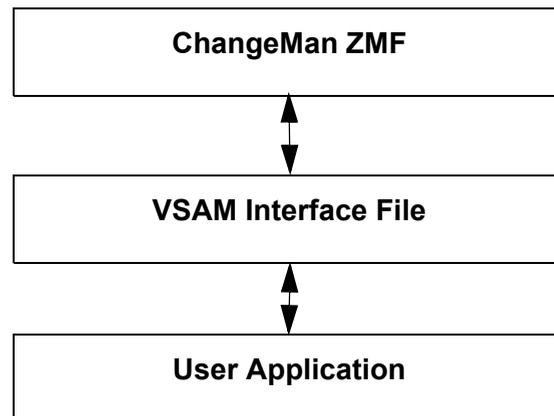
The link between the user application and a specific ChangeMan ZMF change package is established and maintained as follows:

■ The user application must create a VSAM Interface *change record* for each ChangeMan ZMF *change package* that it wants to track or be able to approve.

> **NOTE** ChangeMan ZMF can update, but not create, records in the VSAM Interface File. A record-layout copybook for the VSAM Interface File is located in *hlq*.COPYBOOKS(CMNINFVS), which is shipped with ChangeMan ZMF. This copybook and sample JCL that you can use to create the VSAM Interface File are described in "Creating and Maintaining the VSAM Interface File" on page 21.

■ A VSAM Interface change record is associated with a ChangeMan ZMF change package as follows:

  • You specify the Certification Number (INFVINF#), which is the 8-character key of the VSAM Interface change record, as the Work Request Id at the time you create the change package in ChangeMan ZMF. ChangeMan ZMF uses this Work Request Id to locate the target VSAM Interface change record.

  • Likewise, ChangeMan ZMF writes the 10-character Change Package Id that it assigns when you create a package to the ChangeMan Package Number field of the target VSAM change record.

The following picture illustrates this association.
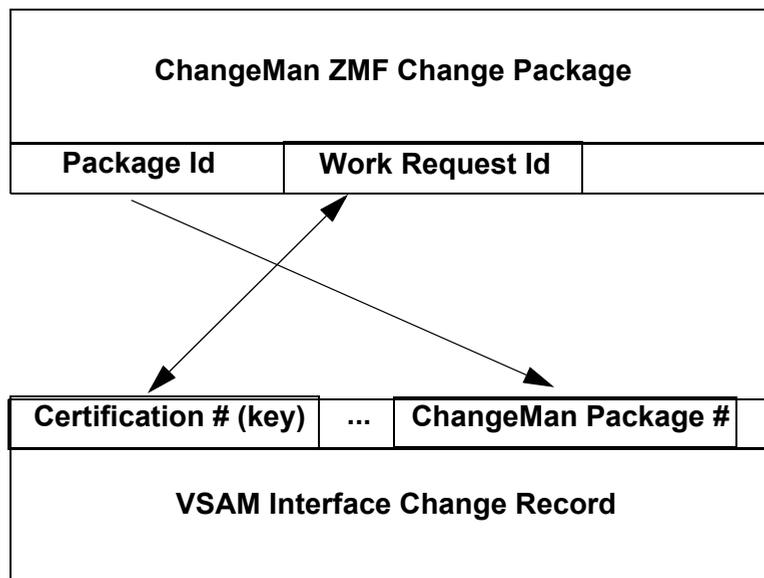
The Work Request Id field appears on the Create: Create a New Package panel, which is the first panel you see when you build a new change package in ChangeMan ZMF. Take the following steps to bring up the Create: Create a New Package panel:

1 Select option 1 (Build) from the ChangeMan Primary Option Menu and press Enter.

2 Select option 1 (Create) from the Build Options panel and press Enter. The Create: Create a New Package (CMNCRT0R) panel appears.

```
CMNCRT0R ---------------- CREATE: CREATE A NEW PACKAGE -----------------------
OPTION ===>

   L  Long method  - Prompt for package description and special instructions
   S  Short method - Use default package description and instructions

 PACKAGE TITLE
 ===> Test for no temp create, global rule 0 appl rule 4

 APPLICATION               ===> GENL       (Blank or pattern for list)
 REQUESTER'S NAME          ===> DEL ROSE
 REQUESTER'S PHONE         ===> 7605551212
 WORK REQUEST ID           ===> 10000021
 DEPARTMENT                ===> IDD
 PACKAGE LEVEL             ===> 1          (1-Simple, 2-Complex,
                                            3-Super,  4-Participating)
 PACKAGE TYPE              ===> PLANNED    (Planned or Unplanned)
 PACKAGE TIME SPAN         ===> PERM       (Permanent or Temporary)
 PACKAGE TO COPY FORWARD   ===>            (Optional package name)
 UNPLANNED REASON CODE     ===>            (* for list)
 TEMPORARY CHANGE DURATION ===>            (In days)
 ATTACH PACKAGE TO RELEASE ===> NO         (Yes/No)

 Press ENTER to process; Enter END command to exit.
```

The Work Request ID field identifies the target VSAM interface change record.

User Application Scenario

The user application that interfaces with a ChangeMan ZMF change package through the target VSAM Interface change record can perform whatever functions it needs to perform to satisfy application objectives. For example:

- As stated earlier, the application user must create the VSAM Interface File with the needed change records and supply the application that interfaces with it. Each change record must have, as a minimum, the 8-character key that associates the change record with the Work Request Id in a ChangeMan ZMF change package.

- The user application can, optionally, store details such as the installation date, the name and phone number of the requester, remote site install information for up to 36 remote sites, and so on in the target VSAM Interface change record. When you create the change package in ChangeMan ZMF, ChangeMan ZMF reads the target VSAM Interface change record and populates the corresponding change package record with those values (if the change rule that is in effect is 1, 2, 3, 4, or 5).

  The user application can also update fields in a ChangeMan ZMF change package record by updating the corresponding fields in the target VSAM interface record.

- ChangeMan ZMF sets update switches in the target VSAM Interface change record whenever you change selected information (such as install date) about the change package with ChangeMan ZMF. The user application can, optionally, check these update switches from time to time and take the appropriate action if changes have occurred.

After checking the switches, the user application should re-initialize the switches by storing blank values in them. The next time the associated information is changed within ChangeMan ZMF, ChangeMan ZMF will again store an asterisk in the appropriate switch in the target VSAM Interface change record to indicate that updates have occurred.

■ The user application can, optionally, function as an approver in the ChangeMan ZMF change package approval process (if the change rule that is in effect is 3, 4, or 5). See "Configuring the INFOMGMT Security Entity" on page 37.

Steps in Implementing the VSAM File Interface

Take the following steps to implement the VSAM File Interface. Subsequent chapters in Part I of this Getting Started Guide explain these steps in detail.

1 Apply the INFO Option license. See "Applying the INFO Option License" on page 19.

2 Create the VSAM Interface File. "Creating and Maintaining the VSAM Interface File" on page 21 describes the format of the VSAM file and identifies the sample JCL for creating it.

3 Request the INFO VSAM File Interface on the Global INFO/Management Rule panel (CMNGOINF) in ChangeMan ZMF. See "Administration" on page 29.

4 Specify the global and application administrative rules that ChangeMan ZMF is to enforce for the VSAM File Interface. See "Administration" on page 29.

5 Identify the VSAM Interface File to the ChangeMan ZMF started task and recycle the started task. See "Recycling the ChangeMan ZMF Started Task" on page 41.

6 Define the INFOMGMT security entity for change package approval if the user application is to act as an approver in the ChangeMan ZMF approval process. See "Configuring the INFOMGMT Security Entity" on page 37.

Chapter 2
Applying the INFO Option License

If you license the INFO Option at the same time that you license ChangeMan ZMF, the license for the option is applied when you apply the license for the base product. You do not have to take further action to enable the INFO Option.

If you license the INFO Option after you apply licenses for ChangeMan ZMF and other selectable options, use the SER10TY™ License Manager to add a license for the option. See the *SER10TY User Guide* for instructions on how to apply a license. The load modules, JCL, and other components that you need to run SER10TY are included in the SERCOMC libraries in the ChangeMan ZMF installer.

After you have applied a license, shut down the SERNET started task where ChangeMan ZMF runs and restart the task. Then, follow these steps to verify that the INFO Option is activated.

1   Connect to ChangeMan ZMF through ISPF.

2   From the Primary Option Menu type =A.G.O on the Option line to jump to the Global Selectable Options panel:

```
 CMNGBSOP ---------------- GLOBAL SELECTABLE OPTIONS -------------------------
 OPTION  ===>

   1  APS    - Change Man APS administrative functions
   2  DB2    - Maintain DB2 information
   3  INFO   - Specify Info/Management change rule
   4  OFM    - Configure Online Forms Manager
   5  IMS    - IMS Control Region IDs, and Library Sub-Type information

Press ENTER to process; Enter END command to exit.
```

3   If option 3 INFO is highlighted, the activation is successful.

Chapter 3

Creating and Maintaining the VSAM Interface File

Introduction

ChangeMan ZMF does not create the VSAM Interface File and cannot add new records to it. The non-ChangeMan ZMF user application must create this file and add the appropriate change records to it.

> **NOTE** The VSAM File Interface differs from the INFO Option in this respect.

Once the target VSAM Interface change record exists, ChangeMan ZMF can and does maintain it.

The following data sets are shipped with ChangeMan ZMF to help you create and maintain the VSAM Interface File:

- *hlq*.COPYBOOKS(CMNINFVS) provides an Assembler Language copybook that describes the record format for the VSAM Interface File.

- *hlq*.CNTL(CMNINFVS) provides sample JCL to create and initialize the VSAM Interface File.

- *hlq*.CNTL(CMNINFSD) provides sample JCL to load the needed records into the VSAM Interface File.

You should have experience in creating and maintaining VSAM files to perform these tasks.

VSAM Interface File Format

hlq.COPYBOOKS(CMNINFVS) provides an Assembler Language copybook that describes the record format for the VSAM Interface File. The following table describes these fields and identifies the associated fields in a ChangeMan ZMF change package record.

Note that the VSAM Interface change record has some fields that are not in the corresponding ChangeMan ZMF change package record; likewise, the ChangeMan ZMF change package record has some fields that are not reflected in the corresponding VSAM Interface change record.

Field Name	Format [a]	Description	Corresponding ChangeMan ZMF Change Package Field
INFVINF#	8	Certification Number	Work Request Id
INFVSYS	8	Application Id (ChangeMan ZMF recognizes only the first 4 characters)	Application ID
INFVDEPT	4	Department Code	Department

Field Name	Format [a]	Description	Corresponding ChangeMan ZMF Change Package Field
INFVAPRV	1	Certification Overall Approve A = Approve P = Pending R = Reject Any other value has the same effect as P (Pending). See "Updating the VSAM Interface Change Record" on page 39 for a discussion of the effect of field values on the change-package approval process in ChangeMan ZMF. ChangeMan ZMF checks the value of this field during the change package approval process to obtain approval, rejection, or pending response from the target VSAM interface change record.	None
INFVREQ	25	Requester Name	Requester's Name
INFVFONE	15	Requester Phone	Requester's Phone
INFVCERT	8	Certification Date	For user application use only. No corresponding change package field.
INFVINST	8	Installation Date (yyyymmdd) ChangeMan ZMF or the user interface can populate this field. If this record does not represent ALL sites, this field contains the earliest Installation Date specified for the remote sites. If this is record does represent an ALL site, this field contains the Installation Date specified for the package.	Install Date
INFVSTAT	2	Status	For user application use only. No corresponding change package field.
INFVUS01	3	user field	For user application use only. No corresponding change package field.
INFVIFTM	4	Installation From Time (*hhmm*, in 24-hour format. For example, 1300 is 1:00 p.m.) ChangeMan ZMF or the user interface can populate this field. If this record does not represent ALL sites, this field contains the earliest Installation From Time specified for the remote sites. If this is record does represent an ALL site, this field contains the Installation From Time specified for the package.	From Time
INFVITTM	4	Installation To Time (hhmm, in 24-hour format) ChangeMan ZMF or the user interface can populate this field. If this record does not represent ALL sites, this field contains the earliest Installation To Time specified for the remote sites. If this is record does represent an ALL site, this field contains the Installation To Time specified for the package.	To Time

Field Name	Format [a]	Description	Corresponding ChangeMan ZMF Change Package Field
INFVCNAM	25	Coverage Name ChangeMan ZMF or the user interface can populate this field. If this record does not represent ALL sites, this field contains the Primary Contact Name associated with the remote site where the earliest installation is scheduled. If this is record does represent an ALL site, this field contains the Primary Contact Name specified for the package.	Primary Contact Name
INFVCFON	15	Coverage Phone ChangeMan ZMF or the user interface can populate this field. If this record does not represent ALL sites, this field contains the Primary Contact Phone associated with the remote site where the earliest installation is scheduled. If this is record does represent an ALL site, this field contains the Primary Contact Phone specified for the package.	Primary Contact Phone
INFVCNA1	25	Coverage Name 2 ChangeMan ZMF or the user interface can populate this field. If this record does not represent ALL sites, this field contains the Backup Contact Name associated with the remote site where the earliest installation is scheduled. If this is record does represent an ALL site, this field contains the Backup Contact Name specified for the package.	Backup Contact Name
INFVCFO2	15	Coverage Phone 2 ChangeMan ZMF or the user interface can populate this field. If this record does not represent ALL sites, this field contains the Primary Contact Phone associated with the remote site where the earliest installation is scheduled. If this is record does represent an ALL site, this field contains the Primary Contact Phone specified for the package.	Backup Contact Phone
INFVCDAT	8	Current Date	For user application use only. No corresponding change package field.
INFVCTIM	8	Current Time (*hhmmssxx*, where *xx* is hundredths of a second)	For user application use only. No corresponding change package field.
INFVDESC	72	Description	Package Title
INFVPKG#	10	ChangeMan Package # ChangeMan ZMF assigns a value to this field at the time the change package is created. The user application should not update this field.	Package Id
INFVCMST	3	Status ChangeMan ZMF assigns a value to this field (DEV, FRZ, APR, and so on) when the status of the package changes. The user application should not update this field.	Package Status

Field Name	Format [a]	Description	Corresponding ChangeMan ZMF Change Package Field
INFVTPKG	1	Package Type 1 = Planned 2 = Unplanned	Package Type
INFVLPKG	1	Package Level 1 = Simple 2 = Complex 3 = Super 4 = Participating	Package Level
INFVCRDT	8	Package Create Date Populated by ChangeMan ZMF.	Package Create Date
INFVCRTM	4	Package Create Time (hhmm) Populated by ChangeMan ZMF.	Package Create Time
INFVCTSO	8	Package Creator ChangeMan ZMF assigns a value to this field at the time the package is created. The user application should not update this field.	Package Creator (TSO userid)
INFVRLSN	8	Package Release Name If you have licensed the ERO Option, this field identifies the name of the release to which the package is attached.	Release
INFVRARE	8	Package Release Target Area If you have licensed the ERO Option, this field identifies the target release area for the package.	Area
INFVSW1	1	Date/Time Updated Switch See "Update Switch Usage Notes" on page 26.	No corresponding change package field
INFVSW2	1	Control Information Update Switch See "Update Switch Usage Notes" on page 26.	No corresponding change package field
INFVSW3	1	Status Updated Switch See "Update Switch Usage Notes" on page 26.	No corresponding change package field
INFVSW4	1	Release Updated Switch See "Update Switch Usage Notes" on page 26.	No corresponding change package field
INFVSTE#	2	Number of Sites. Calculated number that reflects the number of remote sites. The user interface populates this field when the record is created and there are remote sites. ChangeMan ZMF updates this field if remote sites are added or deleted.	None
The following fields can occur up to 36 times. The first occurrence contains information about the primary installation site. The next 25 occurrences contain information about up to 35 remote installation sites.			
INFVSITE	8	Remote Site Name	Site Name
INFVRDAT	8	Remote Site Install Date (yyyymmdd)	Site Install Date
INFVRFTM	4	Remote Site Install From Time (hhmm)	Site Install From Time
INFVRTTM	4	Remote Site Install To Time (hhmm)	Site Install To Time

Field Name	Format [a]	Description	Corresponding ChangeMan ZMF Change Package Field
INFVRNAM	25	Remote Coverage Name	Name of the Primary Contact at the remote site
INFVRFON	15	Remote Coverage Phone	Phone of the Primary Contact at the remote site
INFVRNA1	25	Remote Coverage Name 2	Name of the Backup Contact at the remote site
INFVRFO2	15	Remote Coverage Phone 2	Phone of the Backup Contact at the remote site

a. All fields in a VSAM Interface change record are character format.

Update Switch Usage Notes

When the ChangeMan ZMF user updates selected information about a change package, ChangeMan ZMF updates the appropriate switch with an asterisk and other fields in the target VSAM interface change record with the appropriate values.

The user application should periodically check the value of these switches, take the appropriate action, and re-initialize the switch with a blank. The next time selected information about the target change package changes, ChangeMan ZMF again updates the appropriate switch with an asterisk. The user application can, in that fashion, track and respond as appropriate to changes to the target change package.

Date/Time Updated Switch (INFVSW1)

ChangeMan ZMF updates this field with an asterisk whenever an install date or time (including the install date or time at a remote site) is changed. If this field contains an asterisk, the user application should check all install date and time fields in the target VSAM Interface change record and take the appropriate action.

Control Information Update Switch (INFVSW2)

ChangeMan ZMF updates this field with an asterisk at the time the associated change package is first created.

ChangeMan ZMF also updates this field with an asterisk whenever the Package Id is updated. This can occur only if all of the following conditions are true:

1   You have deleted, in ChangeMan ZMF, the change package that was identified in the target VSAM interface change record.

2 The target VSAM Interface change record is reused by a new change package. This is only possible if the following prompt on the Global INFO VSAM Interface Options panel (CMNGVINF) is set to YES:

```
CMNGVINF ------------ GLOBAL INFO VSAM INTERFACE OPTIONS ---------------------
COMMAND ===>

    Reuse INFO record number for Deleted Packages    ===> YES  (Yes/No)
    (Allows prior used INFO record numbers to be
     reused if the package attached to the INFO
     record is in a delete status.)

    INFO Management can not Reject Packages           ===> NO   (Yes/No)
    (Prevents the INFO management approval entity
     from rejecting a package. Approval is still
     required.)

    Create Temporary Package if INFO Record not found ===> NO   (Yes/No)
    (When creating a package if the INFO record number
     specified is not found a temporary package with a
     duration of one day is force.)

 Press ENTER to process; Enter END command to exit.
```

If the response to this prompt is NO, the target VSAM Interface change record cannot be reused.

3 You have created a new change package in ChangeMan ZMF and have specified this VSAM Interface change record key as the Work Request Id for the new package.

If this field contains an asterisk, the user application should take the appropriate action and reinitialize the switch with a blank.

Status Updated Switch (INFVSW3)

ChangeMan ZMF updates this field with an asterisk each time the Package Status is changed (goes from DEV to FRZ, for example). The user application should check the Status field (INFVCMST) in the target VSAM Interface change record, take the appropriate action, and re-initialize the switch with a blank.

Release Updated Switch (INFVSW4)

ChangeMan ZMF updates this field with an asterisk whenever the name of the release or release area is changed in ChangeMan ZMF. The user application should check the values in the Package Release (INFVRLSN) and Package Release Target Area (INFVRARE), take the appropriate action, and reinitialize the switch with a blank.

Creating the VSAM Interface File

Sample JCL for creating the VSAM Interface File is provided in *hlq*.CNTL(CMNINFVS).

Customize this JCL according to your installation standards and submit the job to create the VSAM Interface File.

Populating the VSAM Interface File

Sample JCL for populating the VSAM Interface File with change records is provided in *hlq*.CNTL(CMNINFSD).

You can customize this JCL according to your installation standards and submit the job to populate the VSAM Interface File with the change records that your application needs. "VSAM Interface File Format" on page 22 describes the record format.

Detaching/Attaching the VSAM Interface File

Once you have identified the name of the VSAM Interface File to ChangeMan ZMF and recycled the ChangeMan ZMF started task, the started task attaches the VSAM Interface File and holds it open for use.

You must either bring down the ChangeMan ZMF started task or detach the VSAM Interface File when your non-ChangeMan ZMF user application needs to access the file for processing or maintenance.

The following table gives the command to detach and attach the VSAM Interface File and stop and start the ChangeMan ZMF started task. If you have the authority to issue console commands in the System Display and Search Facility (SDSF), you can issue these commands in SDSF:

Enter this Command in SDSF ...	To Perform this Function ...
/F *stc_name*,CMN,DETACH,INFO	Detach the VSAM Interface File from the ChangeMan ZMF started task.
/F *stc_name*,CMN,ATTACH,INFO	Reattach the VSAM Interface File to the ChangeMan ZMF started task.
/F *stc_name*,sh,1	Bring down the ChangeMan ZMF started task gracefully.
/S *stc_name*	Start the ChangeMan ZMF started task.

where *stc_name* is the name of the ChangeMan ZMF started task. Use the System Display and Search Facility (SDSF) to bring up the SERPRINT display for the ChangeMan ZMF started task to verify the success of these commands.

Chapter 4
Administration

Introduction

In keeping with the ChangeMan ZMF methodology of flexibility in rule enforcement, the decision as to the degree of the VSAM Interface File's participation in processing ChangeMan ZMF change packages is left up to the global and local (application) administrators.

Global and application administrators can specify different levels of rules to control the level of participation of the VSAM Interface File in ChangeMan ZMF change packages.

Typically, the global administrator specifies a more relaxed global rule and the application administrator specifies a more restrictive rule at the application level. The more restrictive rule prevails.

> **TIP** If you change one of the specifications that is described in this chapter, you must recycle ChangeMan ZMF for the change to take effect.

Global Administration

The global administrator for ChangeMan ZMF has the authority to specify the global administrative rules to be used with the VSAM File Interface. These rules include:

- Whether the VSAM File Interface or the INFO Option is used.

- The global change rule that determines the role that the VSAM Interface File is to play in all ChangeMan ZMF applications.

- Whether a VSAM Interface change record can be reused if the ChangeMan ZMF change package to which it applies is deleted.

- Whether a non-ChangeMan ZMF user application (through the target VSAM Interface change record) is allowed to reject a change package.

- Whether to allow the ChangeMan ZMF user to create an unplanned, temporary change package if the target VSAM Interface change record that is specified in a change-package creation request does not exist.

The following sections describe these rules in detail.

Requesting the VSAM File Interface

If you want to use the VSAM File Interface instead of the INFO Option, you *must* specifically choose the VSAM File Interface. You do this on the ChangeMan ZMF Global INFO/Management Rule panel (panel CMNGOINF). To bring up this panel:

1 Sign on to ChangeMan ZMF.

2 Select option A (Admin) on the Primary Options Menu and press Enter.

3 Select option G (Global) on the Administration Options panel and press Enter.

4 Select option O (Options) on the Global Administration Options panel and press Enter.

5   Select option 3 (INFO) on the Global Selectable Options panel and press Enter.

> **NOTE** If option 3 (INFO) does not appear on the Global Selectable Options panel, you have not correctly applied the license for INFO Option. Refer to the *SER10TY User Guide* for details.

6   The Global INFO/Management Rule panel appears:

```
------------------------GLOBAL INFO/MANAGEMENT RULE -------------------------
 OPTION  ===>

    INFO VSAM FILE INTERFACE    ===> YES  (Yes/No)

    INFO/MANAGEMENT CHANGE RULE ===> 0    (0-5)

    0   RULE 0   - INFO has no bearing, and communication is not
                   necessary.
    1   RULE 1   - INFO has some bearing in that it is kept apprised
                   of packages being created.
    2   RULE 2   - Same as RULE 1 plus the fact that updates are also
                   reflected in INFO change records
    3   RULE 3   - Same as RULE 2 plus every change package is tied
                   to INFO/MAN. The potential for approving packages
                   under the INFOMGMT entity starts with this rule.
    4   RULE 4   - Same as RULE 3 plus INFO has even more bearing in
                   that every change must already have a companion
                   INFO record created in advance.
    5   RULE 5   - Same as RULE 4 plus even unplanned packages fall
                   into this category.

 Press ENTER to process; Enter END command to exit.
```

> **NOTE** As an navigation alternative, you can specify A.G.O.3 as a shortcut on the Primary Options Menu and press Enter to bring up this panel.

7   Respond **YES** to the INFO VSAM FILE INTERFACE prompt. You *must* respond YES if you want to use the VSAM File Interface. If you respond NO, the VSAM File Interface is not used.

8   After you respond YES to this prompt, you *must* recycle the ChangeMan ZMF started task for your response to become effective. See "Recycling the ChangeMan ZMF Started Task" on page 41 for details.

You can specify the remaining global and application administrative rules to be applied to package creation and maintenance now or later, any time after you recycle the ChangeMan ZMF started task.

Specifying the Global INFO/Management Change Rule

You can choose among six global rules (0-5) to determine the role that a non-ChangeMan ZMF user application is to play in the creation, maintenance, and approval of ChangeMan ZMF change packages.

The global rule you choose applies to all change packages in all ChangeMan ZMF applications. Therefore, you typically specify a relaxed change rule at the global level. You can specify a more restrictive change rule on an application-by-application basis at the application level.

```
----------------------- GLOBAL INFO/MANAGEMENT RULE -------------------------
 OPTION  ===>

    INFO VSAM FILE INTERFACE    ===> YES  (Yes/No)

    INFO/MANAGEMENT CHANGE RULE ===> 0    (0-5)

    0   RULE 0   - INFO has no bearing, and communication is not
                     necessary.
    1   RULE 1   - INFO has some bearing in that it is kept apprised
                     of packages being created.
    2   RULE 2   - Same as RULE 1 plus the fact that updates are also
                     reflected in INFO change records
    3   RULE 3   - Same as RULE 2 plus every change package is tied
                     to INFO/MAN. The potential for approving packages
                     under the INFOMGMT entity starts with this rule.
    4   RULE 4   - Same as RULE 3 plus INFO has even more bearing in
                     that every change must already have a companion
                     INFO record created in advance.
    5   RULE 5   - Same as RULE 4 plus even unplanned packages fall
                     into this category.

 Press ENTER to process; Enter END command to exit.
```

In this example, rule 0 is chosen. Rule 0 is the most relaxed rule. This enables the application administrator to determine the change rule that is most appropriate for each ChangeMan ZMF application.

Refer to the section titled "Local (Application) Administration" on page 35 for a more detailed discussion of each rule.

Reusing a VSAM Interface Change Record

If you respond YES to the INFO VSAM FILE INTERFACE prompt on the preceding Global INFO/Management Rule panel (panel CMNGOINF) and press Enter, the Global INFO VSAM Interface Options panel (panel CMNGVINF) appears.

```
CMNGVINF ------------ GLOBAL INFO VSAM INTERFACE OPTIONS ----------------------
COMMAND ===>

 Reuse INFO record number for Deleted Packages ===> NO   (Yes/No)
    (Allows prior used INFO record numbers to be
     reused if the package attached to the INFO
     record is in a delete status.)

 INFO Management can not Reject Packages ===> NO   (Yes/No)
    (Prevents the INFO management approval entity
     from rejecting a package. Approval is still
     required.)

 Create Temporary Package if INFO Record not found ===> NO   (Yes/No)
    (When creating a package if the INFO record number
     specified is not found a temporary package with a
     duration of one day is force.)

 Press ENTER to process; Enter END command to exit.
```

Respond YES to the following prompt if you want to be able to reuse the VSAM Interface change records that apply to ChangeMan ZMF change packages that have been deleted:

Reuse INFO record number for Deleted Packages

Respond NO if you do not want to reuse the VSAM Interface change records.

Rejecting Change Packages

```
CMNGVINF ------------- GLOBAL INFO VSAM INTERFACE OPTIONS ---------------------
 COMMAND ===>

   Reuse INFO record number for Deleted Packages   ===> NO   (Yes/No)
     (Allows prior used INFO record numbers to be
      reused if the package attached to the INFO
      record is in a delete status.)

   INFO Management can not Reject Packages          ===> NO   (Yes/No)
     (Prevents the INFO management approval entity
      from rejecting a package. Approval is still
      required.)

   Create Temporary Package if INFO Record not found ===> NO (Yes/No)
     (When creating a package if the INFO record number
      specified is not found a temporary package with a
      duration of one day is force.)

  Press ENTER to process; Enter END command to exit.
```

Respond YES to the following prompt to prevent the INFOMGMT approval entity that you have defined for the user application from being able to reject a package:

INFO Management can not Reject Packages

In this case, an R (Reject) value specified for the Certification Overall Approve field (INFVAPRV) in the target VSAM Interface change record is treated the same as a P (Pending) value. That is, the non-ChangeMan ZMF user application cannot specifically reject the target change package.

Respond NO if you want the R (Reject) value in the target VSAM Interface change record if you want the non-ChangeMan ZMF user application to be able to specifically reject the associated change package.

Allowing the Creation of a Unplanned Temporary Change Package

```
CMNGVINF ------------- GLOBAL INFO VSAM INTERFACE OPTIONS ---------------------
 COMMAND ===>

   Reuse INFO record number for Deleted Packages   ===> NO   (Yes/No)
    (Allows prior used INFO record numbers to be
     reused if the package attached to the INFO
     record is in a delete status.)

   INFO Management can not Reject Packages          ===> NO   (Yes/No)
    (Prevents the INFO management approval entity
     from rejecting a package. Approval is still
     required.)

   Create Temporary Package if INFO Record not found ===> NO (Yes/No)
    (When creating a package if the INFO record number
     specified is not found a temporary package with a
     duration of one day is force.)

  Press ENTER to process; Enter END command to exit.
```

If you respond YES to the following prompt, an unplanned, temporary change package will be created if the most restrictive global or application change rule is from 1-5 even if you request a package of a different type or time span:

Create Temporary Package if INFO Record not found

If the most restrictive global or application change rule is 0, a package of whatever type and time span that you specify in the change package creation request will be created.

If you respond NO, you will get the following diagnostic message if the most restrictive global or application change rule is from 1 to 5 and you try to create a package of any type or time span:

```
INFO Subsystem Error
CMN8010I - Unable to locate INFO change record 99999999
```

where *99999999* is the Work Request Id that you specified in the change package creation request.

If the most restrictive global or application change rule is 0, a package of whatever type and time span that you specify in the change package creation request will be created.

Local (Application) Administration

You can choose among six rules (0-5) to determine the role that a non-ChangeMan ZMF user application is to play in the creation, maintenance, and approval of change packages that are associated with a specific ChangeMan ZMF application.

You specify a change rule for a specific ChangeMan ZMF application on the application INFO/Management Rule panel (panel CMNLOINF), as follows:

1 Select option A (Admin) from the Primary Options Menu and press Enter.

2 Select option A (Application) from the Administration Options panel and press Enter.

3 Specify the name of the target application in the APPLICATION field, select option O (Options) from the Application Administration Options panel, and press Enter. The INFO/Management Rule panel for the target application appears. (The target application is named GENL in this example.)

```
CMNLOINF --------------- GENL - INFO/MANAGEMENT RULE -----------------------
OPTION  ===>

    INFO/MANAGEMENT CHANGE RULE ===> 5

   0   RULE 0   - INFO has no bearing, and communication is not
                    necessary.
   1   RULE 1   - INFO has some bearing in that it is kept apprised
                    of packages being created.
   2   RULE 2   - Same as RULE 1 plus the fact that updates are also
                    reflected in INFO change records
   3   RULE 3   - Same as RULE 2 plus every change package is tied
                    to INFO/MAN. The potential for approving packages
                    under the INFOMGMT entity starts with this rule.
   4   RULE 4   - Same as RULE 3 plus INFO has even more bearing in
                    that every change must already have a companion
                    INFO record created in advance.
   5   RULE 5   - Same as RULE 4 plus even unplanned packages fall
                    into this category.

 Press ENTER to process; Enter END command to exit.
```

4 Specify a number from 0 to 5 in response to the INFO/MANAGEMENT CHANGE RULE prompt.

5 Press Enter to process your request.

These rules have the same effect as the global rules, except that they apply to a specific ChangeMan ZMF application rather than globally across all applications.

Keep the following tips in mind when you select an application rule:

- You typically select a more relaxed global rule and a more restrictive rule for an application.

- Select rule 0 (if global rule is also 0) if you want a non-ChangeMan ZMF user application to play no role in the creation, maintenance, or approval of changes packages that are created within ChangeMan ZMF for the application.

    You are still required to specify a Work Request Id when you create a change package. However, that Work Request Id does not have to identify an existing VSAM Interface change record. If it does identify an existing VSAM Interface change record,

ChangeMan ZMF will update fields in that record with selected information about the change package. However, ChangeMan ZMF will not read the target VSAM change record to obtain any information concerning the change package that might be stored there.

- Select rule 1 if you want ChangeMan ZMF to update the target VSAM Interface change record with information about the change package. However, ChangeMan ZMF will not read to target VSAM Interface change record to obtain any change package updates from that record.

- Select rule 2 or higher if you want to enable two-way communication between ChangeMan ZMF and a non-ChangeMan ZMF user application through the VSAM Interface File. ChangeMan ZMF will read the target VSAM change record to obtain updates to selected fields in a change package and will also update the target VSAM change record with any updates that the ChangeMan ZMF user makes to a change package.

- Select rule 3 or higher if you want the non-ChangeMan ZMF user application to participate in the change package approval process through approval identified in the target VSAM Interface change record. See "Configuring the INFOMGMT Security Entity" on page 37 for details.

- Select rule 4 if you want to ensure that a VSAM Interface change record exist for every planned, permanent change package that you want to create in ChangeMan ZMF for the target application. Rule 4 will still allow you to create unplanned, temporary packages even if a corresponding VSAM Interface change record does not exist (if your response to the following prompt on the Global INFO VSAM Interface Options panel is YES):

Create Temporary Package if INFO Record not found

NOTE If the INFO record is not found, an unplanned temporary package is created with a duration of 1 day by default. If you specify a greater duration on the create panel, that duration is used.

If your response to this prompt is NO, you will not be able to create a change package of any type or duration for the target application within ChangeMan ZMF.

- Select rule 5 if you want to ensure that a VSAM Interface change record exist for every change package (regardless of type or duration) that you want to create within ChangeMan ZMF for the target application.

Chapter 5
Configuring the INFOMGMT Security Entity

You can, optionally, define a security entity for the VSAM File Interface if you want a non-ChangeMan ZMF user application to participate in the change-package approval function. This is a three-step process:

1 Your security administrator needs to define the INFOMGMT security entity to your ChangeMan ZMF system.

2 Your ChangeMan ZMF application administrator needs to add the INFOMGMT security entity to the list of approvers that are defined for the target ChangeMan ZMF application.

3 Your non-ChangeMan ZMF user application needs to set the appropriate value in the Certification Overall Approve (INFVAPRV) field in the target VSAM Interface change record.

These steps are described in detail in the remaining sections of this chapter.

Defining INFOMGMT to the ChangeMan ZMF Security System

Have your security administrator perform these tasks in your security system:

1 In your security system under the resource class for ChangeMan ZMF, create the following profile with READ access (UACC READ):

INFOMGMT

2 Permit the TSO Id of the ChangeMan ZMF administrator UPDATE access to the new profile.

> **NOTE** The name of the security profile must be INFOMGMT.

Adding INFOMGMT to the List of Application Approvers

After your security administrator has defined the INFOMGMT security entity, your ChangeMan ZMF application administrator needs to add INFOMGMT to list of approvers for planned change packages that is defined for the target application. Take the following steps:

1 Select option A (Admin) from the ChangeMan ZMF Primary Option Menu and press Enter.

2 Select option A (Application) from the Administration Options panel and press Enter.

3 Type in the name of the target ChangeMan ZMF application in the APPLICATION field on the Application Administration Options panel, select option 5 (Pln Approvals), and press Enter. The Planned Approvals Part 1 of 2 panel for the target application is displayed. (The target application in this example is named GENL.):

```
CMNCAPLD ------------- GENL - PLANNED APPROVALS PART 1 OF 2 ------------- Row 1 of 3
COMMAND ===>                                                   SCROLL ===> PAGE

Define an approval list for all planned packages;
Use line command S to supply recipient notification.

Enter END command to save changes or CANCEL to exit.

                                              SECURITY    ORDER  INT.  LNK
     APPROVER DESCRIPTION                     ENTITY      NO.    APR.  PKG
''''  Lead Programmer-GENL Application___     GENLLEAD    10     ___   ___
''''  VSAM Interface User Application____     INFOMGMT    15     ___   ___
''''  General Ledger Manager_____       GENLEDGR    20     ___   ___
********************************** Bottom of data **********************************
```

4 Follow the instructions on the associated help panel to add the INFOMGMT security entity to the list of other approvers (if any) that are defined for the application. In this example, we inserted the INFOMGMT security entity between the GENLLEAD and GENLEDGR security entities.

After you have filled in this panel, you can press PF3 (END) to save your changes, or, optionally, you can use the S line command to specify notification criteria for the INFOMGMT security entity. Refer to the *ChangeMan ZMF User Guide* for details.

You can optionally add INFOMGMT to the list of approvers for unplanned packages if desired. See the *ChangeMan ZMF User Guide* for details.

Updating the VSAM Interface Change Record

The value of the Certification Overall Approve (INFVAPRV) field in the target VSAM Interface change record provides the means for the non-ChangeMan ZMF user application to participate in change package approval. See "VSAM Interface File Format" on page 22 for a description of the fields in the VSAM Interface change record.

The non-ChangeMan ZMF user application moves one of the following values into the Certification Overall Approve field in the target VSAM Interface change record to indicate package approval, rejection, or approval-pending to ChangeMan ZMF.

Value	Effect
A	Indicates that the INFOMGMT security entity has approved the target change package.
R	Indicates that the INFOMGMT security entity has rejected the target change package. The response to the following prompt on the Global INFO VSAM Interface Options panel (CMNGVINF) must be NO if you want the non-ChangeMan ZMF user application to be able to reject a package: INFO Management Can Not Reject Packages ===> NO If the response to this prompt is YES, the value R in the Certification Overall Approve field is treated the same as the value P (pending). See "Rejecting Change Packages" on page 33 for details.
P	Indicates that the INFOMGMT security entity is not ready to approve the package. The package cannot be approved until the non-ChangeMan ZMF user application moves the value A into the Certification Overall Approve field.
other	Treated the same as value P (pending).

Chapter 6
Recycling the ChangeMan ZMF Started Task

The next steps in implementing the VSAM File Interface are to:

- Add a DD statement to identify the VSAM Interface File to the ChangeMan ZMF started task.

- Recycle the ChangeMan ZMF started task.

Coding the DD Statement for the VSAM Interface File

To identify the VSAM Interface File to ChangeMan ZMF, include the following DD statement in the JCL of the procedure you use to bring up the ChangeMan ZMF started task:

CMNINFO DD DSN=*vsamfilename***,DISP=SHR**

where:

CMNINFO	Is the DD name that identifies the VSAM Interface File. You *must* use this DD name.
vsamfilename	Is the fully qualified name of the VSAM Interface File that you created according to the instructions in "Creating and Maintaining the VSAM Interface File" on page 21.

Recycling the ChangeMan ZMF Started Task

You can use the following operator commands in the System Display and Search Facility (SDSF) to recycle the ChangeMan ZMF started task.

1 Enter the following command to bring down ChangeMan ZMF gracefully if it is currently active:

/f *stc_name***,sh,1**

where *stc_name* is the name of the ChangeMan ZMF started task. After you enter this command, wait for the following message to appear on the SERPRINT listing associated with the started task, which indicates that ChangeMan has been brought down gracefully:

```
CMN1313I CMNSTART Termination Complete
```

2 Then, enter the following command to bring ChangeMan back up:

/s *stc_name*

These messages in the SERPRINT listing indicate that the VSAM File Interface is active and that ChangeMan initialization is complete. The name of the target VSAM Interface File is displayed in message CMN1800I.

CMN1129I CMNINFVS Attempting INFO API Connect CMNINFVS

CMN1800I CMNINFAP Opened VSAM file PROD3.SERP1.CMNINFO   <==Name of the VSAM Interface File (in this example)

CMN1132I CMNINFVS INFO Connection complete

CMN1303I CMNSTART Initialization Complete

Troubleshooting

If you do not see the messages shown above, something is wrong. Check the following and make any needed corrections:

1   Ensure that you have applied the license for the INFO Option. See the *SER10TY User Guide* for details.

2   Ensure that the VSAM Interface File exists. See "Creating and Maintaining the VSAM Interface File" on page 21.

3   Ensure that you have responded YES to the INFO VSAM File Interface prompt on the Global Info/Management Rule panel in ChangeMan ZMF. See "Requesting the VSAM File Interface" on page 30.

4   Ensure that you have added the DD statement that identifies the VSAM Interface File to the JCL procedure that brings up the ChangeMan ZMF started task. See "Coding the DD Statement for the VSAM Interface File" on page 42.

5   Recycle the ChangeMan ZMF started task. See "Recycling the ChangeMan ZMF Started Task" on page 42.

Contact customer support if the SERPRINT listing associated with the ChangeMan started task still indicates that you have not been able to establish the VSAM Interface File connection.

Part 2

INFO Option

Chapter 7
Data Mapping

Structure Word Mapping

Data fields from a given change package are mapped into INFO Option change record via Structure Words, or *S-words*. Not all fields are mapped. There are cases of field truncation, transformation of data for display, and date manipulation.

The list of S-words and their mapping are listed in the following table:

S-word	INFO Option Interpretation	Change Package Data	Comments	Transformation
S0CCF	Change record number	Work request number	8 zoned numeric digits	right justified, zero filled
S0BF0	Approval status	Entity INFOMGMT approval or rejection	8 characters left justified	INFO Option values "APPROVED" "REJECTED" "PENDING" blank; interpretation based on first character "A" "R" "P" " "
S0B96	Approval privilege class	n/a	8 characters left justified	Initially set to &PRIVCLS; as delivered "CHGMAN"
S0BEE	Change record status	n/a	7 characters left justified	Initially set to "OPEN"; changed to "CLOSED" after package status goes to "BAS" or "TCC"
S0C09	Change type	Level and type	8 characters left justified	Visual interpretation of package level and type level 1, type 3 means SIM/UP for simple unplanned permanent other literals COM - complex SUP - super PAR - participating /PP - planned permanent /PT - planned temporary /UT - unplanned temporary
S0CA5	System name	Application mnemonic (project)	8 characters left justified	none

S-word	INFO Option Interpretation	Change Package Data	Comments	Transformation
S0CBF	Key item affected	Package number	S8 characters left justified	none
S0B5C	Coordinator name	Creator TSO-ID	8 characters left justified	none
S0B59	Requester name	Creator name	25 characters left justified	If missing from package, filled with literal "CHANGE/MAN"
S0B2D	Requester phone	Creator phone number	15 characters left justified	none
S0C49	Date required	Install date	8 characters specially formatted	Package *yyyymmdd* <===> *mm/dd/yyyy* on Info/Man
S0C72	Time required	Install (from) time	5 characters specially formatted	Package *hhmm* <===> *hh:mm* on Info/Man
S0E0F	Description	Short title	72 characters free-form text; required	If missing from package, filled with literal "CHANGE/MAN"
S0B9B	Requester department	Department	4 characters left justified	none

Chapter 8
Overview of the INFO Option

Introduction

The INFO Option was made available in ChangeMan ZMF Version 3.3.2. There are no substantive changes to the INFO Option since ChangeMan ZMF Version 3.3.2.

The information in Part II: INFO Option will assist you with these tasks:

- Installing the INFO Option and customizing it for your data center.

- Setting up and maintaining the interface with the ChangeMan ZMF Server Started Task.

- Setting up and maintaining global and local application administration.

- Mapping package data.

- Understanding and resolving diagnostic messages.

- Assigning and manipulating variables.

This chapter discusses the interface between Serena ChangeMan ZMF and Tivoli Information Management for z/OS.

This chapter assumes that you have some knowledge of Tivoli Information Management for z/OS and have licensed ChangeMan ZMF with the INFO Option.

In addition, you should have access to an IBM manual entitled *Tivoli Information Management for z/OS Application Program Interface Guide.*

A Note about Product Name Changes

The name INFO Option is intended to associate the option with the IBM® or Tivoli® product to which it connects. That product has had several name changes:

- IBM Information/Management (InfoMan)

- Tivoli TME 10 Information/Management

- Tivoli Service Desk for OS/390 (TSO390)

- Tivoli Information Management for z/OS

Previously, the INFO Option was named INFO Option and, before that, Service Desk/390 Interface (Info/Man) to help you recognize its relationship to the IBM/Tivoli product. That name has been replaced by INFO Option in this manual and all references to the IBM/Tivoli product have been changed to Tivoli Information Management for z/OS.

However, you may still see references to "Info/Man" in the ChangeMan ZMF product panels associated with INFO Option.

Architecture

Users in ISPF session use Cross Memory Services (XMS) to request services of the ChangeMan ZMF started task. In turn, the INFO subtask satisfies these requests via the Tivoli Information Management for z/OS Application Program Interface (API).

There are several advantages to this centralized architecture over having each TSO/ISPF user (each in a unique address space) establish a session with INFO Option:

Response time	The price to pay for establishing and terminating a session is only paid once, not for each request.
Authority checks	Only the ChangeMan ZMF started task needs to be authorized to the INFO Option for a given session, not every single TSO ID.
Storage	Only one copy (approximately 600K) of INFO system modules (starting with BLGYSRVR) need be loaded into the started task region and *none* in the user address space.

Functional Overview

ChangeMan ZMF and Tivoli Information Management for z/OS have important and complementary roles to play in the automation, control, information gathering, and reporting of the change implementation life cycle.

While each provides different functionality, the philosophy and objective is remarkably similar. Both see change and change management from a release or package standpoint as opposed to being element driven. The INFO Option change record is comparable to the ChangeMan ZMF change package. Each expresses the notion of change at the business requirement level. They are both designed to provide a repository of information about that change including electronic documentation, online approvals, and history of events.

The strength of Tivoli Information Management for z/OS lies in the management of information while ChangeMan ZMF addresses the requirement to control system libraries and the activities that affect them. Working together, ChangeMan ZMF and Tivoli Information Management for z/OS constitute a powerful yet flexible change implementation life cycle management system.

Environment

The INFO Option provides a real-time interface to Tivoli Information Management for z/OS for instant information creation, retrieval, and update. The ChangeMan ZMF started task will attach a subtask that maintains a continuous link to Tivoli Information Management for z/OS (through the Tivoli Information Management for z/OS). For maintenance reasons, the subtask can be detached and reattached by modification commands at the console. Users in their own TSO/ISPF address space perform their duties under ChangeMan ZMF as before.

Information Sharing

Information is shared in both directions. Information in a Tivoli Information Management for z/OS change record can be used to populate corresponding fields in a ChangeMan ZMF change package and vice-versa.

In addition, ChangeMan ZMF will automatically recognize approvals gathered under Tivoli Information Management for z/OS. ChangeMan ZMF also communicates major events in the life cycle of the change such as staging, package freeze (or unfreeze), and installation to Tivoli Information Management for z/OS. This information exchange provides a wealth of reliable, automatically generated information.

Common identifiers establish the relationship between a Tivoli Information Management for z/OS change record and a ChangeMan ZMF change package. The change package identifier is stored in Tivoli Information Management for z/OS change record, and the change record number is stored in the ChangeMan ZMF change package. This cross storage of identifiers is called *chaining*.

Repository

The INFO/Management Change rule in the ChangeMan ZMF repository tells ChangeMan ZMF what level of interfacing is wanted. The rule is set (and maintained) online. It can be defined both at the global level and at the application level. Thus, you can have a minimum global standard that applies across all applications; yet some applications can have an enhanced level of interfacing.

Change Package and Change Record

When you create a ChangeMan ZMF change package, you may or may not specify a Tivoli Information Management for z/OS change record number. The INFO/Management Change rule may be set so that this is mandatory. If the change record is not specified, and the rule permits this, then:

- ChangeMan ZMF immediately communicates a request to INFO Option to create a change record.

- INFO Option passes the new change record number to ChangeMan ZMF.

- ChangeMan ZMF updates the change record information in the change package.

- At the end of change package creation, and at any other time that this information is changed, ChangeMan ZMF updates the Tivoli Information Management for z/OS change record.

- If a change record is specified, ChangeMan ZMF immediately queries INFO Option to see if the change record exists. If not

  - The creation is suspended until a change record is created.

  - The user must blank the field so that the procedure above will be followed. (INFO/Management Change rule permitting.)

  Conversely, if the change record exists

- ChangeMan ZMF checks to see if the change record already references (chaining) a change package, in which case the request is rejected.

- ChangeMan ZMF checks to see if the specified number references a real change record, as opposed to problem or configuration record, in which case the request is rejected.

■ Information from the change record is used to populate the change package fields; the change package number is updated in the change record.

Approvals

For any application, the Repository can include Tivoli Information for z/OS on the list of approvals. Tivoli Information Management for z/OS could be the only approval; however, this is *not* recommended because the opportunities for checking Tivoli approval are at Freeze and overt Approval times. If INFOMGMT (the security entity associated with Tivoli Information Management for z/OS) is the only approval entity assigned and it has not already been approved from the point of view of Tivoli, the Freeze mechanics will miss the connection and there is no reason for the package to be updated on existing Approval panels. If one of the approval entities on the approval list is designated as Tivoli-related (INFOMGMT), then the approval of it can only come directly (normal exception is the Global Administrator) from Tivoli. While in the approval function for a package so designated, ChangeMan ZMF will automatically query Tivoli for approval confirmation. The indication, if any, of approval or rejection is captured. A package Unfreeze (or Revert back to Development status) will reset any previously garnered approvals from the package without notifying the Tivoli change record.

Tivoli Application Administration

The person in charge of administering security rules for Tivoli Information Management for z/OS should be aware of which ChangeMan ZMF subsystems will be accessing the Tivoli database through the specified session name ("CMNINFAP Variable Rules" on page 58). An eight-character application identification must be used when establishing a session with Tivoli Information Management for z/OS.

These eight-character names must be pre-authorized by the Tivoli Administrator. Failure to provide for these names can result in the INFO subtask abending with an SA03.

The internal convention used by ChangeMan ZMF is that each subsystem (CMN, CMNA, CMNB, etc.) passes a unique eight-character name according to this schedule:

Subsystem ID	Application ID presented to Tivoli
blank	CMNSTART
A	CMNASTAR
B	CMNBSTAR
I	CMNISTAR
and so on	...

There are some responsibilities to produce the program interface data tables (PIDTs) by using the table utility **BLGUT8**.

> **NOTE** This document assumes that the data tables TS0B06*x* will be used. If you wish to customize these tables or use tables other than these standardized tables, you will need to modify CMNINFAP.

Chapter 9
Installation Considerations

Introduction

The INFO option requires that the Tivoli Information Management for z/OS Application Program Interface (API) be installed. See the *Tivoli Information Management for z/OS Application Program Interface Guide* for details.

The ChangeMan ZMF started task attaches and monitors the INFO subtask (module CMNINFAP) which services the input/output requests for Tivoli Information Management for z/OS data. The INFO subtask must have access to the Info/Sys load library (in particular, module BLGYSRVR) where the API resides.

The Info/Sys LINKLIB must be APF-authorized. If the Info/Sys LINKLIB is in the LINKLIST, CMNINFAP can load it directly. Otherwise, add the Info/Sys LINKLIB to the STEPLIB concatenation in the SERNET started task JCL.

```
//          DD DISP=SHR,DSN=somnode.INFO.LINKLIB     *Info/Sys Linklib
```

Diagnostic Messages

In the early stages of installing and tailoring the INFO Option interface, it is recommended that DDname **APIPRINT** be added to the started task procedure, for example:

```
//APIPRINT  DD SYSOUT=*     *Info/Family API Trace
```

This file acts as a trace of all activities, successful or unsuccessful. There is a slight performance penalty to be paid for this diagnostic assistance so it is recommended that it be removed when you have finished the implementation of the INFO Option.

Part of the duties of module CMNINFAP is to issue messages to DDname CMNPRINT. Some messages are considered severe and are also routed to the operator console. Most of the messages are suppressed unless the trace has been toggled to print by the console operator, as follows:

```
F CMNx,TRACE,PRINT
```

See the *ChangeMan ZMF Installation Guide* for more details on the impact of toggling the internal trace. All messages related to the INFO Option are in the 600 series:

- CMN*x*061I - Attempting INFO API Connect CMNINFAP MVS-4.1.0) 92/01/31 23:56

An attempt is being made to connect the Info/Sys subtask with the API. If you have customized the module, the version (v.r.m), date, and time of the module is displayed in this message for feedback.

- CMNx062I - INFO subtask complete

The INFO Option subtask connection was successful and is now ready for servicing requests.

- CMN*x*063I - Unable to load BLGYSRVR - INFO API

An attempt was made to load the INFO Option server module and failed. There are three reasons for this to occur:

1 The Info/Sys Linklib is not Linklisted.

2 The Steplib concatenation was not done.

3 The module was found but not loaded from an APF-authorized library.

In all cases, you will receive console messages describing the failure. In the first two cases, the messages will be

- CSV003I REQUESTED MODULE BLGYSRVR NOT FOUND

- CSV028I JOBNAME=cmnstart STEPNAME=CMNx

In the last case, the messages will be

- CSV019I - REQUESTED MODULE BLGYSRVR NOT ACCESSED, IS IN NON-APF LIBRARY

- CSV028I JOBNAME=cmnstart STEPNAME=CMN*x*

The INFO Option subtask connection cannot be made and message CMNx064I also will be issued.

- CMNx064I - INFO subtask detached

The INFO Option subtask connection has failed and is detached for the duration of this Started Task.

- CMNx065I - NOT A REAL PIDT - ABANDON TRAN

An attempt has been made to create, read, or update an INFO Option change record but the specified data table is missing or invalid.

- CMNx066I - INFO; Tran=Txxx, RC=yyy, REAS=zzzzz, Change Record=nnnnnnnn

INFO transaction *Txxx* was attempted but failed with return code *yyy* and reason code *zzzzz*. Whatever change record was being requested is displayed as *nnnnnnnn*.

- CMNx066I - INFO/SYS API TASK NOT ACTIVE; CONTACT GLOBAL ADMIN

INFO services were requested but the subtask was inactive.

- CMNx066I - INFO/SYS API TASK DETACHED; CONTACT GLOBAL ADMIN

INFO services were requested but the subtask has been temporarily detached by the console operator.

- CMN*x*067I - Disconnecting from INFO API

Either the entire started task is coming down or a specific request has been made by the console operator to DETACH the INFO interface.

- CMN*x*068I - INFO; Structure word not found, sword=*xxxxx*

Structure word *xxxxx* was used to access data and could not be found in the PIDT. Considered severe and requires the attention of your INFO Option administrator.

- CMN*x*069I - Sword=*xxxxx*,code=*yy*

Validation error *yy* was reported for structure word (S-word) *xxxxx*.

CMNINFAP Variables

As delivered, module CMNINFAP is generated for vanilla INFO Option access. That is, if you installed the INFO Option change management application exactly as IBM delivers without doing any customization, this interface will work with that predefined set of data tables. The load module CMNINFAP matches the source code CMNINFAP, as you might expect. If, however, you choose a session name, privilege class, and/or data table names other than those listed below, you must change them and regenerate module CMNINFAP. To do this, copy member CMNINFAP from the CMNZMF ASMSRC library delivered from Serena into your custom ASMSRC library for editing.

Change the values of the global variables to whatever is desired:

```
*===================================================================
* Below is where the user can tailor the source code for the shop.
*===================================================================
&SESSION SETC  'BLGSES00'         INFO invocation session name
&PRIVCLS SETC  'CHGMAN  '         INFO privilege class name
&PIDTCRT SETC  'TS0B06C'          PIDT - create
&PIDTUPD SETC  'TS0B06U'          PIDT - update
&PIDTRET SETC  'TS0B06R'          PIDT - retrieve
*===================================================================
* Above is where the user can tailor the source code for the shop.
*===================================================================
```

CMNINFAP Variable Rules

BLGSES00	Default session name. Whatever is chosen must exist in the Info/Sys Linklib.
CHGMAN	Default privilege class. Whatever is chosen must be reflected by the INFO Option administrator when authorizing access to the session name.
TS0B06C	Specified data table for creating change records. Delivered as part of vanilla INFO Option change management application.
TS0B06U	Specified data table for updating change records. Delivered as part of vanilla INFO Option change management application.
TS0B06R	Specified data table for retrieving change records. Delivered as part of vanilla INFO Option change management application.

Save the member and assemble and link using member ASSEMBLE in the ChangeMan ZMF CNTL library.

Chapter 10
Applying the INFO Option License

If you license the INFO Option at the same time that you license ChangeMan ZMF, the license for the option is applied when you apply the license for the base product. You do not have to take further action to enable the INFO Option.

If you license the INFO Option after you apply licenses for ChangeMan ZMF and other selectable options, use the SER10TY™ License Manager to add a license for the option. See the *SER10TY User's Guide* for instructions on how to apply a license. The load modules, JCL, and other components that you need to run SER10TY are included in the SERCOMC libraries in the ChangeMan ZMF installer.

After you have applied a license, shut down the SERNET started task where ChangeMan ZMF runs and restart the task. Then, follow these steps to verify that the INFO Option is activated.

1 Connect to ChangeMan ZMF through ISPF.

2 From the **Primary Option Menu** type =A.G.O on the Option line to jump to the Global Selectable Options panel:

```
 CMNGBSOP ---------------- GLOBAL SELECTABLE OPTIONS -------------------------
 OPTION  ===>

   1  APS    - Change Man APS administrative functions
   2  DB2    - Maintain DB2 information
   3  INFO   - Specify Info/Management change rule
   4  OFM    - Configure Online Forms Manager
   5  IMS    - IMS Control Region IDs, and Library Sub-Type information

Press ENTER to process; Enter END command to exit.
```

3 If option 3 INFO is highlighted, the activation is successful.

Chapter 11

Administration

In keeping with the ChangeMan ZMF methodology of flexibility in rule enforcement, the decision as to the degree of INFO Option participation is left up to the Global and Local Administrators.

Global Administration

The *Global Info/Management Rule* panel contains the information management change rule.

To access the Global Info/Management Rule panel, take the following steps:

1 Select **A** (Admin) from the Primary Option Menu. Press Enter.

2 Select **G** (Global) from the Administration Options panel. Press Enter.

3 From the Global Administration Options panel, select **O** (Option) and press Enter. The Global Selectable Options panel (CMNGBSOP) appears.

```
CMNGBSOP ---------------- GLOBAL SELECTABLE OPTIONS -------------------------
OPTION  ===>

  1  APS    - Change Man APS administrative functions
  2  DB2    - Maintain DB2 information
  3  INFO   - Specify Info/Management change rule
  4  OFM    - Configure Online Forms Manager
  5  IMS    - IMS Control Region IDs, and Library Sub-Type information

Press ENTER to process; Enter END command to exit.
```

1. From the Global Selectable Options panel, if you have the privilege to access the global INFO/Management Change Rule, type **3** and press Enter.

You can set the global INFO/Management Change Rule to 0 (the most liberal value) if your company desires to give individual application administrators complete latitude in choosing INFO/Management Change rules.

```
CMNGOINF ---------------- GLOBAL INFO/MANAGEMENT RULE -------------------------
OPTION  ===>

  INFO VSAM FILE INTERFACE    ===> NO   (Yes/No)

  INFO/MANAGEMENT CHANGE RULE ===> 0    (0-5)

  0    RULE 0   - INFO has no bearing, and communication is not
                  necessary.
  1    RULE 1   - INFO has some bearing in that it is kept apprised
                  of packages being created.
  2    RULE 2   - Same as RULE 1 plus the fact that updates are also
                  reflected in INFO change records
  3    RULE 3   - Same as RULE 2 plus every change package is tied
                  to INFO/MAN. The potential for approving packages
                  under the INFOMGMT entity starts with this rule.
  4    RULE 4   - Same as RULE 3 plus INFO has even more bearing in
                  that every change must already have a companion
                  INFO record created in advance.
  5    RULE 5   - Same as RULE 4 plus even unplanned packages fall
                  into this category.

Press ENTER to process; Enter END command to exit.
```

The rules and their meanings are summarized below:

Rule	Explanation
0	INFO Option has no bearing and no communication is necessary.
1	INFO Option has some bearing in that it is kept apprised of packages being created. If the INFO subtask is temporarily detached, the transfer of information is excused. Keeping INFO Option in synchrony is not critical. The package creator is apprised of any failure to transfer data to INFO Option.
2	Rule 1, plus the fact that *updates*, including status changes, to change packages are also reflected in INFO Option change records.
3	Rule 2, plus there is no excuse for the INFO Option subtask to be detached. Every change package is tied to INFO Option. The potential for approving packages from INFO Option under the entity INFOMGMT starts with this rule. See "Approving Through the INFO Option" on page 63.
4	Rule 3, plus INFO Option has even more bearing in that every *planned* change package must already have a companion INFO Option change record created in advance. At change package creation time, the work request number must refer to an existing INFO Option change record that has not already been *chained* to another package. Data elements from the change record are used as suggestions for creation of the change package. Unplanned packages may usurp pre-authorization of INFO Option.
5	Rule 4, plus even *unplanned* packages fall into this category.

Approving Through the INFO Option

With Rules 3 through 5, it is possible for INFO Option to be charged with approval responsibility. Any given (simple) package contains a list of entities for gathering approvals. If the entity INFOMGMT is on the approval list at freeze time, INFO Option is charged with approval or rejection responsibility for that entity. INFOMGMT cannot be the last chronological entity on the approval list and the concept of hierarchical approval gathering does not apply when INFOMGMT is an approving entity.

Only the Global Administrator may intercede on behalf of INFOMGMT. The points in time that ChangeMan ZMF interrogates INFO Option for approval under that entity are

- Package Freeze time.

- Every opportunity that the package is presented for approval by any potential approver or rejecter, and it has not already been approved or rejected by INFO Option.

Local Administration

Since the importance of INFO Option may vary from application to application, each application (project) mnemonic has the option of setting the INFO/Management Change Rule level. It is recommended that the Local INFO/Management Change Rule be set to 1 in the beginning. Option **A.A.O** of the Application Administration panel lists all the selectable options that have been purchased for your data center. Since the panel is dynamically built, *only* the selectable options that have been purchased are shown on this

panel and it may differ substantially from the panel you observe. If you are a Local Administrator, you have the privilege to access the INFO/Management Change Rule. To do so, type **3** and press Enter.

```
CMNGBSOP -------------- APPLICATION SELECTABLE OPTIONS -----------------------
OPTION  ===>


1 - APS    - Change Man APS administrative functions
2 - DB2    - Maintain DB2 information
3 - INFO   - Specify Info/Management change rule
4 - OFM    - Configure Online Forms Manager

Press ENTER to process; Enter END command to exit.
```

The global INFO/Management Change rule can be set to 0 (the most liberal value) if your company desires that Local Administrators have complete latitude in choosing INFO/Management Change rules by application.

```
CMNLOINF ---------------- ABCD - INFO/MANAGEMENT RULE ------------------------
OPTION  ===>

   INFO/MANAGEMENT CHANGE RULE ===> 0

   0    RULE 0   - INFO has no bearing, and communication is not
                   necessary.
   1    RULE 1   - INFO has some bearing in that it is kept apprised
                   of packages being created.
   2    RULE 2   - Same as RULE 1 plus the fact that updates are also
                   reflected in INFO change records
   3    RULE 3   - Same as RULE 2 plus every change package is tied
                   to INFO/MAN. The potential for approving packages
                   under the INFOMGMT entity starts with this rule.
   4    RULE 4   - Same as RULE 3 plus INFO has even more bearing in
                   that every change must already have a companion
                   INFO record created in advance.
   5    RULE 5   - Same as RULE 4 plus even unplanned packages fall
                   into this category.

 Press ENTER to process; Enter END command to exit.
```

The requirement for a Work Request Number affects the INFO/Management Change rule setting. If the local administrator specified:

```
     WORK REQUEST NUMBER REQUIRED  ===> YES
```

and

```
     INFO/MANAGEMENT CHANGE RULE   ===> 1
```

then the user (package creator) could not leave the Work Request Number blank and bypass the panel syntax checking. He would be forced to type an INFO Option change record number, and there may not be one at this point in time.

- If the INFO/Management Change rule is 4 or 5, requiring a Work Request Number is appropriate.

- If the INFO/Management Change rule is 1 to 3, requiring a Work Request Number is probably not appropriate.

- If the INFO/Management Change rule is 0, requiring a Work Request Number, is a decision independent of INFO Option.

The global Work Request Number parameter is found on the Global Parameters panel (CMNGGP03) (option **A.G.1**), shown below with the pertinent line in blue:

```
CMNGGP03 -------------- GLOBAL PARAMETERS - PART 3 OF 7 ----------------------
COMMAND ===>

BASELINE: STACKED REVERSE DELTA  ===> YES  (Y/N)
          PANVALET               ===> NO   (Y/N)   USER DEFINED ===> NO   (Y/N)
          LIBRARIAN              ===> NO   (Y/N or LAM)
KEEP BASELINE BY SITE           ===> NO   (Y/N)
REQUIRE WORK REQUEST NUMBER     ===> NO   (Y/N; affects INFO)
REQUIRE DEPARTMENT NUMBER       ===> NO   (Y/N)
DISABLE INSTALLATION CALENDAR   ===> YES  (Y/N)
ALLOW TEMPORARY PACKAGES        ===> YES  (Y/N)
PROCESS PARTICIPATING PACKAGES
         BY INSTALLATION DATE   ===> YES  (Y/N)
HIERARCHICAL APPROVAL PROCESS   ===> YES  (Y/N)
NOTIFICATION VEHICLES:   EMAIL  ===> YES  (Y/N)
                        BATCH   ===> YES  (Y/N)
USE GLOBAL NOTIFICATION FILE    ===> YES  (Y/N)
ALLOW APPLICATION UPDATE TO FILE ===> YES  (Y/N)
GLOBAL NOTIFICATION FILE    ===> CMNTP.S0.NOTIFY

Press ENTER to continue; Enter B to go back 1 screen, or CANCEL to exit.
```

The application's Work Request Number parameter is found on the *application* Parameters (CMNGLP03) panel (option **A.A.1**):

```
CMNGLP03 ------------- ACTP PARAMETERS - PART 3 OF 3 --------------------------
COMMAND ===>

AGING - INSTALLED PACKAGES     ===> 0       (0 to 9999 days)
      - STAGING DATASETS       ===> 0       (0 to 9999 days)
      - COMPONENT HISTORY      ===> 0       (0 to 9999 days)
DEFAULT UNIT NAME              ===> SYSDA   (Generic disk unit)
DEFAULT VOLUME SERIAL          ===>
REQUIRE WORK REQUEST NUMBER    ===> NO      (Y/N; affects INFO)
REQUIRE DEPARTMENT NUMBER      ===> NO      (Y/N)
HIERARCHICAL APPROVAL PROCESS  ===> YES     (Y/N)
ELIMINATE SAVE TO PERSONAL LIB ===> YES     (Y/N)
EDIT STAGING RECOVERY MODE ON  ===> YES     (Y/N)
BUILD INSTALL JCL AT APPROVE   ===> NO      (Y/N)
USE LIKE-LOD IN SYSLIB         ===> YES     (Y/N)
JOB CARD INFORMATION:
===> //SERT771  JOB (),'S7.V710 CMNGLP03',_____
===> //          CLASS=A,MSGCLASS=X_____
===> //*_____
===> //*_____

Press  ENTER  to generate application parameters.
Enter B to go back 1 screen or CANCEL to exit.
```

Scenarios

The setting of INFO/Management Change rules may vary from application to application. The impact of each setting can be illustrated with practical examples.

Rule Zero, No Connection

For this to happen, the Global rule must be set to zero and the Local (application mnemonic) rule also set to zero. Every activity within this application is independent of INFO Option. change packages are created and carried through their life cycle without INFO Option ever being aware of their existence, unless there is a manual intervention or a batch (CMNSAS11) process to feed the information over.

Rules One to Five

Where the Globally and Locally set rules vary, the one with the higher number is enforced. At opportune moments (package Creation, Update, Freeze, Approval, Install, and Baseline Ripple), ChangeMan ZMF checks to see if the connection to the INFO Option subtask is

attached. The following table provides descriptions for scenarios involving different combinations of package actions, INFO Option subtask statuses, and rule numbers.

Package Action	INFO Option Subtask	Impact of INFO/Management Change Rules
Create	Detached	Liberal rules (1 or 2) allow the process to continue but warns a user that INFO Option was not updated accordingly. This processing without update was pre-authorized by the Global and Local administrators by assignment of the rule. A more restrictive rule (3 to 5) would disallow the package to be created while the subtask is detached. It would be up to the ChangeMan ZMF and INFO Option administrators to decide the future course of action, e.g., loosen the rules or attach the subtask.

Package Action	INFO Option Subtask	Impact of INFO/Management Change Rules
Create	Attached	Liberal rules (1 or 2) mean that a INFO Option change record is created with selected data fields from the package and the two are chained—the package logically points to the change record and the change record logically points to the package. The package field WORK REQUEST ID is where the INFO Option change record number is held. The INFO Option change record number is an eight-digit numeric field consisting of ■ INFO field *System Name* (S0CA5) holds the 3 to 4 character application mnemonic. ■ INFO field *Key Item Affected* (S0CBF) holds the package number. Rule 3 would act the same as 1 and 2. If this is a planned package, restrictive rules 4 or 5 would insist that an INFO Option change record previously exist essentially pre-authorizing the creation. For an unplanned package, rule 5 would have the same effect but rule 4 would be treated liberally, like rule 3. Pre-authorizing means ■ A one-on-one chaining of package to INFO Option change record must happen. Package field *Work Request ID* must specify a unique INFO Option change record that has not already been chained to another package. If the INFO Option package hasn't been created, the ChangeMan ZMF package creation process is suspended until the Info/Man package has been created. If the user specifies an Info/Man record that is not considered a change record (either syntax problem or configuration issue) or is already pointing to another package, appropriate messages to the user describe the offense until a valid chain is established or the package creation is canceled.
Update	Detached	Rule 1 is only concerned about creating packages, not updates. Rule 2 allows the process to continue but warns a user that INFO Option was not updated accordingly. Rules 3 to 5 would disallow the package to be updated until INFO Option subtask is re-attached.
Update	Attached	Rule 1 has no effect. Rules 2 to 5 would certify that all changes (within the subset of fields in common) are reflected in the associated change record.
Freeze	Detached	Rules 1 or 2 have no effect. Under rules 3 to 5, no attempt would be made to check if INFO Option had pre-approved the change record.

Package Action	INFO Option Subtask	Impact of INFO/Management Change Rules
Freeze	Attached	Rules 1 or 2 have no effect. Under rules 3 to 5 ■ Entity INFOMGMT is *not* on the approval list, no action is taken. ■ Entity INFOMGMT *is* on the approval list, a check if the INFO Option approval status (Structure Word S0BF0) is A – approved, or R – rejected and that indication is captured.
Approve	Detached	Rules 1 or 2 have no effect. Under rules 3 to 5, no attempt would be made to check if INFO Option has approved the change record.
Approve	Attached	Rules 1 or 2 have no effect. Under rules 3 to 5 ■ Entity INFOMGMT is *not* on the approval list, no action is taken. ■ Entity INFOMGMT *is* on the approval list, a check if the INFO Option approval status (Structure Word S0BF0) is A – approved, or R – rejected and that indication is captured.
Complete (status TCC or BAS)	Detached	Under all rules, no attempt would be made to update INFO Option. The change package has cycled in a batch execution and there is no one to tell of the event.
Complete (status TCC or BAS)	Attached	Rule 1 has no effect. Rules 2 to 5 would certify that the change record status (Structure Word S0BEE) is changed to "CLOSED."

Sample Change Package Creation

This section contains an example in which a real change package under ChangeMan ZMF is created. In this example, the INFO Option change record reference

```
WORK REQUEST NUMBER  ===>
```

is left blank. This is only legal if the INFO/Management Change rule is three or less (0 to 3). The intent is to create a new change record, link it to the new package and keep common data elements synchronized.

```
CMNCRT01 ----------------  CREATE: CREATE A NEW PACKAGE -----------------------
OPTION ===>

L  Long method  - Prompt for package description and special instructions
S  Short method - Use default package description and instructions

PACKAGE TITLE
===> Payroll package to install 100 batch programs

APPLICATION              ===> DEMO        (Blank or pattern for list)
REQUESTER'S NAME         ===> x
REQUESTER'S PHONE        ===> X
WORK REQUEST ID          ===> X
DEPARTMENT               ===> X
PACKAGE LEVEL            ===> 1           (1-Simple, 2-Complex,
                                           3-Super,  4-Participating)
PACKAGE TYPE             ===> PLANNED     (Planned or Unplanned)
PACKAGE TIME SPAN        ===> TEMP        (Permanent or Temporary)
PACKAGE TO COPY FORWARD  ===>             (Optional package name)
UNPLANNED REASON CODE    ===>             (* for list)
TEMPORARY CHANGE DURATION ===>            (In days)

Press ENTER to process; Enter END command to exit.
```

After the change package is created, a subsequent browse of package ABCD000024 will list the INFO Option change record number that has been assigned. Assume it is 00000123. It is now possible to view and/or update this information from INFO Option panels. Generally speaking, INFO Option panels are often customized. You accomplish data mapping through Structure Words, discussed later in this document (see "Structure Word Mapping").

Since we cannot predict the level of customization in force at any given shop, the following figures illustrate vanilla INFO Option change management panels only.

```
BLG0S020                 CHANGE SUMMARY DISPLAY            CHANGE: 00000123


Assignee name.........  KDSW          Change type............  SIM/PP
Assignee phone.........  555-5678     Change status..........  OPEN
Coordinator name......  PMXW          Approval status........  PENDING
Program name..........  _____      Owning priv. class......  _____
Device name...........  _____      Entry priv. class.......  CHGMAN
Key item affected......  000024       Date entered............  01/04/91
Date required.........  01/21/91      Time entered............  22:47
Completion date.......  _____      Date last altered......  01/05/91
Current priority......  __            Time last altered......  14:47
Estimated duration....  _____      User last altered......  CMNDSTAR


Description.......Payroll production abends with S0C7 on weekends.

SELECT ONE OF THE FOLLOWING, OR REPLY END OR CANCEL TO EXIT DISPLAY


      1. Requester display.              6. Detail display.
      2. Status display.                 7. Activity list display.
      3. Close display.                  8. Approver display.
      4. History display.                9. Reviewer display.
      5. Freeform text and notes.       10. Record utilities.
===>
```

```
BLG0M100                 CHANGE REQUESTER DISPLAY          CHANGE: 00000123

Requested by...........  DeBugger      Change type............  SIM/PP
Requester dept.........  0355          Change status..........  OPEN
Requester phone........  555-1234      Approval status........  PENDING
Network name...........  _____       Change reason...........  _____
System name............  ABCD          Initial priority.......  __
Program name...........  _____       Estimated duration.....  _____
Device name............  _____       Problem fixed...........  _____
Key item affected.......  000024       User form number........  _____
Date required..........  01/21/91      Location code..........  _____
Time required..........  11:00


Description........Payroll production abends with S0C7 on weekends.

          TO RETURN TO SUMMARY DISPLAY PANEL REPLY END OR CANCEL


===>
```

```
BLG0M200                  CHANGE STATUS DISPLAY            CHANGE: 00000123

 Assignee name.........   KDSW         Change status..........  OPEN
 Assignee dept.........   CSW/TEAMZ    Current phase..........  _____
     Assignee phone......... 555-5678   Approval status........  PENDING
 Date assigned.........   01/05/91     Planned start date.....  _____
 Time assigned.........   13:37        Planned start time.....  _____
 Transfer-to class.....   _____     Actual start date......  _____
 Current priority......   __           Actual start time.......  _____
 Coordinator name......   PMXW         Planned end date.......  _____
 Coordinator dept.......  _____     Planned end time.......  _____
 Coordinator phone......  _____     Estimated effort.......  ____
 Risk assessment.......   _____       Estimated duration.....  _____
 Co-Requisites..........  _____
 Pre-Requisites.........  _____

            TO RETURN TO SUMMARY DISPLAY PANEL REPLY END OR CANCEL
 ===>
```

```
BLG0M500                  CHANGE APPROVER DISPLAY          CHANGE: 00000123

   APPROVAL PENDING          APPROVAL PROVIDED          APPROVAL REJECTED

CHGMAN      _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____
_____    _____      _____  _____      _____  _____

     SELECT ONE OF THE FOLLOWING, OR REPLY END TO RETURN TO SUMMARY DISPLAY

                 1. Accept change for privilege class.
                 2. Reject change for privilege class.

 ===>
```

```
BLG0CU00              CHANGE REQUEST SUMMARY           CHANGE: 00000123

 Assignee name.......... KDSW            Change status........... OPEN
 Assignee phone......... 555-5678        Approval status......... PENDING
 Coordinator name....... PMXW            Current priority........ __
 Device name............ _____        Owning priv. class...... _____
 Key item affected...... 000024          Entry priv. class....... CHGMAN
 Date required.......... 01/21/91        Date entered............ 01/04/91
 Planned start date..... _____        Time entered............ 22:47
 Completion date........ _____        Date last altered....... 01/05/91
 Description............ Payroll production abends with S0C7 on weekends.


     SELECT ONE OF THE FOLLOWING, OR REPLY END (TO FILE) OR CANCEL (NO SAVE)


               1. Requester data.        6. Reviewer data.
               2. Status data.           7. Activity entry.
               3. Close data.            8. Freeform text.
               4. Detail data.           9. File record.
               5. Approver data.


 ===>
```

```
BLG0C100              CHANGE REQUESTER ENTRY           CHANGE: 00000123

 Enter change requester data; cursor placement or input line entry allowed.

  1. Requested by....... DeBugger_____   11. Change type......... SIM/PP__
  2. Requester dept...... 0355_____       12. Change status...... OPEN___
  3. Requester phone..... 555-1234_____     13. Change reason....... _____
  4. Network name........ _____          14. User change number.. 00000123
  5. System name......... ABCD____          15. Initial priority.... __
  6. Program name........ _____          16. Estimated duration.. _____
  7. Device name......... _____          17. Problem fixed....... _____
  8. Key item affected... 000024__          18. User form number.... _____
  9. Date required....... 01/21/91          19. Location code....... _____
 10. Time required....... 11:00

 20. Description....... Payroll production abends with S0C7 on weekends.

             WHEN COMPLETE REPLY END (TO SAVE) OR CANCEL (NO SAVE)

 ===>
```

```
 BLG0C200                    CHANGE STATUS ENTRY              CHANGE: 00000123

 Enter change status data; cursor placement or input line entry allowed.

   1. Assignee name....... KDSW_____   12. Change status...... OPEN___
   2. Assignee dept....... CSW/TEAMZ__      13. Current phase....... _____
   3. Assignee phone...... 555-5678_____    14. Planned start date.. _____
   4. Date assigned....... 01/05/91         15. Planned start time.. _____
   5. Time assigned....... 13:37            16. Actual start date... _____
   6. Transfer-to class... _____         17. Actual start time... _____
   7. Current priority.... __               18. Planned end date.... _____
   8. Coordinator name.... PMXW_____   19. Planned end time.... _____
   9. Coordinator dept.... _____       20. Estimated effort.... ____
  10. Coordinator phone... _____     21. Estimated duration.. _____
  11. Risk assessment..... _____

  22. Co-requisites....... _____
  23. Pre-requisites...... _____

              WHEN COMPLETE REPLY END (TO SAVE) OR CANCEL (NO SAVE)

  ===>
```

```
 BLG0C500                   CHANGE APPROVER ENTRY            CHANGE: 00000123

 Enter names of privilege classes that must approve this change request.

   1. Approver priv. class... CHGMAN__     10. Approver priv. class... _____
   2. Approver priv. class... _____     11. Approver priv. class... _____
   3. Approver priv. class... _____     12. Approver priv. class... _____
   4. Approver priv. class... _____     13. Approver priv. class... _____
   5. Approver priv. class... _____     14. Approver priv. class... _____
   6. Approver priv. class... _____     15. Approver priv. class... _____
   7. Approver priv. class... _____     16. Approver priv. class... _____
   8. Approver priv. class... _____     17. Approver priv. class... _____
   9. Approver priv. class... _____     18. Approver priv. class... _____

              WHEN COMPLETE REPLY END (TO SAVE) OR CANCEL (NO SAVE)

  ===>
```

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