# ChangeMan<sup>®</sup> ZDD 8.1.4

# **Tools Guide**

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# What's New

This section summarizes the what's new in each release of ChangeMan ZDD.

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# Changes in 8.1.2

Corrected problem in which data was formatted incorrectly when copying and pasting text from an outside source.

# Changes in 8.1.1

There are no changes to the functionality described in this manual in ChangeMan ZDD release 8.1.1.

### Changes in 8.1

#### Unicode Support for ZDD Edit and ZDD Compare/ Merge

The ChangeMan ZDD text editor and the compare/merge tool now support Unicode (UTF-16), UTF-8, and DBCS files, and thus, they can now be used with Asian languages. The **Save As** dialog box has a new **Encoding** drop down list that allows you to override the default encoding when saving a file.

#### **Navigation Pane for ZDD Edit**

The ZDD text editor has a new navigation pane on the left side. The navigation pane allows you to easily navigate folders and choose files to edit. The navigation bar also allows you to delete files, rename files or folders, and to create folders.

# Changes in 7.1.2.1

#### Submitting XML From ChangeMan Edit

You can now submit XML from inside the ChangeMan ZDD text editor. The **File** menu includes a new **Submit XML** command. The **Submit XML** command is disabled (grayed out) unless the first line of the file begins with "<?xml". You will be prompted to select the z/OS server and ChangeMan ZMF instance.

The results of the XML request are then displayed inside the text editor.

## Changes in 7.1.2

#### **Text Editor Enhancements**

Many new keyboard and mouse shortcuts have been added for performing common editing operations and making the editor easier to use. Many keyboard functions can be configured by the user.

New configuration option to allow the cursor to move beyond the end of line.

New reference card for the keyboard and mouse shortcuts.

## Changes in 7.1.1

#### Submitting JCL From ChangeMan Edit

You can now submit JCL from inside the ChangeMan ZDD text editor. The **File** menu includes a "Submit JCL" command. The "Submit JCL" command is disabled (grayed out) unless the first line of the file begins with "//". You will be prompted to select the z/OS server.

# Changes in 7.1

#### **Enhanced ChangeMan Tools**

The ChangeMan Edit and ChangeMan Compare tools, which are included with ChangeMan ZDD, have been enhanced to support path names that exceed 259 characters in length (if you are using Windows Vista or Windows 7).

The ChangeMan Edit tool has been enhanced to allow a value to be inserted in specified columns whenever you update or add a line in the file you are editing. For example, you may specify a change request number to be automatically inserted in columns 73-80 whenever you update or add a line. This feature is available on the **Advanced** tab of the **Template Manager**.

# Chapter 1 Introduction

ChangeMan ZDD includes two tools to assist in your development, **ChangeMan Edit** and **ChangeMan Diff**. These tools use the **Template Manager** to control how your code is displayed.

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# ChangeMan Edit

**ChangeMan Edit** is a context sensitive editor that supports several programming languages and file types.

**ChangeMan Edit** lets you edit any text-based file on your local computer, and it lets you edit Mainframe data that you access through ChangeMan ZDD such as:

- Sequential data sets
- Partitioned data set members
- ChangeMan components (text-based)
- JES spool data sets
- z/OS Unix files

## **ChangeMan Diff**

ChangeMan Diff compares and merges the following files:

- Files on your local computer.
- Files and ChangeMan ZMF components on your z/OS server.

You can initiate the Compare and Merge functions in the following ways:

- Select files/components in the Explorer window, right-click, and choose Serena Network → Compare Files or Serena Network → Merge Files from the popup menu. See the ChangeMan ZDD User Guide for more information.
- Select ChangeMan ZMF components from the Staging Versions dialog box and click the Compare or Merge buttons See the ChangeMan ZDD User Guide for more information.

Once you are within the **ChangeMan Diff** tool, you can alternate between comparing and merging files, and initiate new compares/merges.

### **Template Manager**

The **Template Manager** allows you to choose the template that controls how your code is displayed. You can either choose from existing templates, or you can create your own.

# Chapter 2 Keyboard and Mouse

This section contains a summary of the keyboard and mouse operations in ChangeMan Edit. Keyboard and mouse shortcuts provide a quick and easy way to perform many editing operations. If you take the time to learn these shortcuts, you will save much time.

Using the Keyboard and Mouse

# Using the Keyboard and Mouse

#### **Cursor Movement**

Keyboard / Mouse	Action
Left arrow	Cursor left
Right arrow	Cursor right
Up arrow	Cursor up
Down arrow	Cursor down
Ctrl + Home	Top of file
Ctrl + End	Bottom of file
Alt + Home	Top of window
Alt + End	Bottom of window
Home	Beginning of line
End	End of line
PgUp	Page up
PgDn	Page down
Ctrl + PgUp	Page left
Ctrl + PgDn	Page right
Ctrl + Up	Scroll up (one line)
Ctrl + Down	Scroll down (one line)
Ctrl + Left	Previous word
Ctrl + Right	Next word
Tab	Next tab stop
Shift + Tab	Previous tab stop

# Selection

Keyboard / Mouse	Action
Ctrl + K	Start or end character selection
Ctrl + L	Start or end line selection
Ctrl + B	Start or end block selection
Ctrl + W	Select word
Ctrl + A	Select all
F5	Deselect
Backspace	
Del	Delete selection
Tab	Indent selection
Shift + Tab	Unindent selection
F7	Shift selection left
F8	Shift selection right
Shift + <cursor keys=""></cursor>	Start or extend char/stream selection
Double-Click	Select word
Triple-Click	Select line
Click & Drag	Start character selection (text window)
Start line selection (line number bar)	
Right-Click & Drag	Start block selection
Triple-Click & Drag	Start line selection
Shift + Click	Extend selection
Ctrl + Right-Click	Move selection to cursor
Ctrl + Shift + Right-Click	Copy selection to cursor

# Inserting Text

Keyboard / Mouse	Action
Ins	Insert/overwrite toggle
Enter	Insert a line
Ctrl + Enter	Insert blank line above
Ctrl + Shift + Enter	Insert blank line below

### **Deleting Text**

Keyboard / Mouse	Action
Del	Delete char under cursor
Backspace	Delete char before cursor
Ctrl + Shift + Del	Delete word to left of cursor
Ctrl + Del	Delete word to right of cursor
Alt + Del	Delete to end of line
Ctrl + D	Delete line

## Clipboard

Keyboard / Mouse	Action
Ctrl + C	Copy selection to clipboard
Ctrl + Ins	Copy line, if no selection
Ctrl + V Shift + Ins	Paste
Ctrl + X	Cut selection
Shift + Del	Cut line, if no selection

# Searching

Keyboard / Mouse	Action
Ctrl + F	Find
Ctrl + H	Replace
F3	Find next occurrence
Shift + F3	Find previous occurrence

### Bookmarks

Keyboard / Mouse	Action
Ctrl + F2	Toggle bookmark
Shift + F2	Previous bookmark
F2	Next bookmark

### Files

Keyboard / Mouse	Action
Ctrl + S	Save file
Ctrl + Alt + S	Save file as another name
Ctrl + Shift + S	Save all
Ctrl + O	Open file

# Windowing

Keyboard / Mouse	Action
Ctrl + Tab	Next window
Ctrl + F6	
Ctrl + Shift + Tab	Previous window
F6	Next split window pane
Shift + F6	Previous split window pane
Ctrl + F4	Close window
Ctrl + T	Split window
Ctrl + G	New vertical tab group
Ctrl + Shift + G	New horizontal tab group
Ctrl + M	Move to next tab group
Ctrl + Shift + M	Move to previous tab group
Ctrl + Alt + Enter	Toggle full screen mode

## Miscellaneous

Keyboard / Mouse	Action
F1	Help
Alt + F4	Exit
Ctrl + Z	
Alt + Backspace	Undo
Ctrl + Y	
Alt + Shift + Backspace	Redo
Ctrl + P	Print
Ctrl + U	Lower case
Ctrl + Shift + U	Upper case
F7	Shift left
F8	Shift right

Keyboard / Mouse	Action
F4	Set change ID
Shift + F4	Set template

# Chapter 3 Customizing the User Interface

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# **Customizing the Keyboard**

ChangeMan Edit has many keyboard shortcuts built into the editor. Most of the keyboard shortcuts can be customized by the user. Generally, you can change any shortcuts, with the exception of those defined for cursor movement operations.

Keyboard shortcuts are defined as a combination of any keyboard key in conjunction with the Control, Alt, and Shift keys.

**Adding or Removing Key Assignments** 

Customize		×
Commands   Toolbars	Keyboard Menu Editor Option	ons
<u>C</u> ategory: File Commands:	Set Accelerator for: Default Current Keys:	
Close Exit New Open Print Setup Print Save Save All Description: Close the active docu	Press <u>N</u> ew Shortcut Key:	<u>A</u> ssign <u>R</u> emove <b>Re<u>s</u>et All</b>
	ансан.	Close

You can add or remove key assignments as follows:

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Keyboard</b> tab of the <b>Customize</b> dialog box.
3	Select <b>ChangeMan Edit</b> in the <b>Accelerator</b> drop down list.
4	From the Category drop down list, select the category containing the commands you want to work with. The <b>All Commands</b> category includes everything.
5	In the <b>Commands</b> list box, select the command for which you want add or remove a shortcut key.

Step	Action
6	To remove a shortcut, select the key assignment that you want to remove from the <b>Current Keys</b> list box, and press the <b>Remove</b> button.
7	To add a shortcut, click on the <b>New Shortcut Key</b> edit box, and press the key combination that you want to assign. Finally, press the <b>Assign</b> button. You will only be allowed to assign key combinations that are not already in use. If the key combination you enter is already assigned, it will display the current key assignment below the edit box.

# **Resetting the Key Assignments**

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Keyboard</b> tab of the <b>Customize</b> dialog box.
3	Select <b>ChangeMan Edit</b> in the <b>Accelerator</b> drop down list.
4	Press the <b>Reset</b> button.

You can reset the keyboard back to the default state as follows:

# **Customizing Menus**

Customize		×
Commands Toolbars Keyboar Categories: File Edit View Tools Window Help New Menu All Commands	rd Menu Editor Options Commands: New Open Close Save Cose Save As	• III
Description:	Save All Print Dist Sature	Ŧ
0		Close

#### **Adding or Removing Commands**

You can customize menus to add or remove commands as follows:

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Commands</b> tab of the <b>Customize</b> dialog box.
3	Open the menu you wish to customize by clicking on it.
4	To remove a command, drag it off of the menu.
5	To add a command, drag the desired toolbar button from the <b>Commands</b> tab of the <b>Customize</b> dialog box and drop onto the desired location in the menu.

#### **Resetting Menus**

You can reset the menus back to the default state as follows:

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Menu</b> tab of the <b>Customize</b> dialog box.
3	Press the <b>Reset</b> button.

# **Customizing Toolbars**

#### **Showing or Hiding Toolbars**

Customize
Commands Toolbars Keyboard Menu Editor Options
Spaces
If checked, these options override the template settings:
Remove trailing spaces on all file types
Tab using spaces on all file types
Cursor
Allow cursor past end of line
Close

You can a show or hide toolbars as follows:

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Toolbars</b> tab of the <b>Customize</b> dialog box.
3	On the toolbars list, check or uncheck the toolbars that you wish to show or hide.

#### **Creating a New Toolbar**

You can create your own toolbars as follows:

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Toolbars</b> tab of the <b>Customize</b> dialog box.
3	Press the <b>New</b> button.
4	When prompted, enter the name for your new toolbar.

Step	Action
5	Drag the empty toolbar and dock it at the top of the window.
6	Add buttons to the toolbar as described below.

#### **Adding or Removing Buttons**

You add or remove buttons from toolbars as follows:

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Commands</b> tab of the <b>Customize</b> dialog box.
3	To remove a command, drag it off of the toolbar.
4	To add a command, drag the desired toolbar button from the Commands tab of the <b>Customize</b> dialog box and drop onto the desired location in the toolbar.

#### **Resetting a Toolbar**

You can reset one of the built-in toolbars back to the default state as shown below. User-defined toolbars do not have a default state.:

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Toolbars</b> tab of the <b>Customize</b> dialog box.
3	On the toolbars list, select the toolbar that you want to reset.
4	Press the <b>Reset</b> button to reset the selected toolbar or press the <b>Reset All</b> button to reset all toolbars.

### **Renaming or Deleting a Toolbar**

You can rename or delete a toolbar as shown below. You can only rename or delete toolbars that you created. The built in toolbars can be customized, but not renamed or

deleted.

Step	Action
1	Select <b>Tools</b> $\rightarrow$ <b>Customize</b> from the menu.
2	Select the <b>Toolbars</b> tab of the <b>Customize</b> dialog box.
3	On the toolbars list, select the toolbar that you want to rename or delete.

Step	Action
4	Press the <b>Rename</b> button or the <b>Delete</b> button.
5	If you are renaming the toolbar, you will be prompted for the new name.

# Chapter 4 Editing Files Using ChangeMan Edit

The ChangeMan Edit utility is included with ChangeMan ZDD and supports path names that exceed 259 characters in length if you are using Windows Vista or Windows 7.

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# Overview

ChangeMan Edit is a context-sensitive editor that supports several programming languages and file types. The following standard templates define settings specific to each language or file type:

- ANSI C Source File
- ANSI C Fortran
- ANSI C Pascal
- CL Code
- COBOL
- General Make File
- Help
- HTML Source File
- Java Source File
- MS C++ Source File
- MS Visual Basic
- Simple Text

You can modify the standard templates, or create your own custom templates.

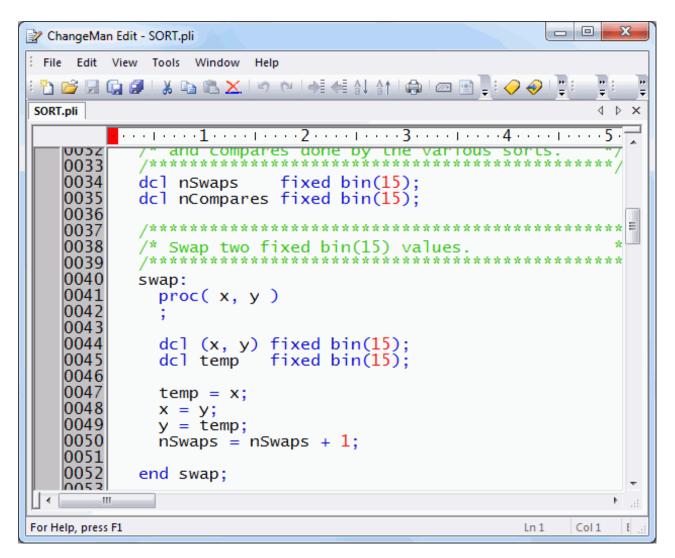
You can edit the following types of data using ChangeMan Edit:

- Any text-based file on your local computer
- Mainframe data that you access through ChangeMan ZDD:
  - Sequential data sets
  - Partitioned data set members
  - Unix files (text-based)
  - ChangeMan components (text-based)
  - JES spool data sets

ChangeMan Edit does not create temporary (intermediate) or backup files, so you are not required to change any settings to use it with ChangeMan ZDD. Some other text editors require setting changes to prevent temporary and backup files from being created.

### **Invoking the Editor**

If ChangeMan Edit is your default editor, right-click any file in Windows Explorer and choose **Serena Network**  $\rightarrow$  **Edit** from the popup menu. Otherwise, choose **All Programs**  $\rightarrow$  **ChangeMan ZDD**  $\rightarrow$  **ZDD Edit** from the Windows **Start** menu. The **ChangeMan Edit** window displays.



If the file you are attempting to edit has been migrated, the following message displays:

An unknown error occurred while accessing <file name>.

To recall the data set, right-click the file and choose **Serena Network**  $\rightarrow$  **Recall Data Set** from the popup menu.

You can customize some components of the display window by selecting or deselecting options on the **View** menu. In the above example, the code window is bordered by a ruler bar on top and a line number bar to the left.

# **Using the Navigation Bar**

The following screen shot shows the navigation bar, which can be displayed on the left side of the ChangeMan Edit window. You can show or hide the navigation bar by selecting **Navigation Bar** on the **View** menu.

* 🔹 🖬 📬	Xđ
Name /	Size
퉬 Jack	
📕 Mary	
HumptyDumpty.txt	1 KB
LittleMissMuffet.txt	1 KB
LittlePiggy.txt	1 KB
LittleStar.txt	1 KB
📄 OldMotherHubbard.txt	1 KB
<	Þ
🖶 🚢 Windows (C:)	*
🕀 🔒 AppData	
🗄 🔐 Books	
🗄 🚽 Commands	=
📄 🎽 Data	_
🖻 🖓 🔒 Poetry	
i Jack	
i ∰ Mary	
iaib DocProjects iaib Graphics	
⊕ Graphics	
	+
•	- E

The navigation bar includes the following components:

- Filter box
- Toolbar
- File list
- Folder tree

#### Filter Box

The filter box is displayed on the top left side of the navigation bar:

*.txt;*.src 🔹

The filter box allows you to filter the list of files displayed using a pattern string with wild characters. The pattern can contain include multiple names, separated by semicolons. For example: "\*.txt;\*.src".

#### Toolbar

The toolbar is displayed at the top of the navigation bar, next to the filter box:



The toolbar contains buttons to perform the following operations:

- Refresh Refresh file list
- **Parent folder** Go up to parent folder
- Open Open a file or folder
- New folder Create a new folder
- Delete Delete a file
- Rename Rename a file or folder

#### File List

The top half of the navigation pane contains a file list. You can double click on a file to open it in the editor. Double clicking on a folder will open the folder in the navigation bar. You can also right click on files in the file list to perform the operations listed in the **Toolbar** section.

#### Folder Tree

The bottom half of the navigation pane contains a folder tree. The folder tree allows you to navigate between folders. Selecting a folder in the folder tree displays that folder in the file list.

### Modifying a File

You can use ChangeMan Edit to modify files in the same way you edit text in most Windows-based word processing or development utilities.

Use the scroll bars to the right and bottom of the code window to scroll the editable area of the window.

Use the mouse or keyboard to position the insertion point on a line of code.

To use the mouse, scroll the editable area using the scroll bars, position the cursor, then click the left mouse button.

If you use the keyboard to position the insertion point, ChangeMan Edit automatically scrolls the editable area to ensure that the new insertion point is always visible.

The current cursor position is always shown on the ruler bar and line number bar.

The following is a list of keyboard navigation commands available for a file opened in ChangeMan Edit.

Press	To Move
Ctrl + Right arrow	One word to the right.
Ctrl + Left arrow	One word to the left.
Left arrow	One character to the left
Right arrow	One character to the right
Up arrow	To the previous line
Down arrow	To the next line
Ctrl + Home	To the start of the file
Ctrl + End	To the end of the file
Alt + Home	To top f window
Alt + End	To bottom of window
Home	To the start of the current line
End	To the end of the current line
Page Up	To the previous page
Page Down	To the next page
Ctrl + Page Up	Half screen width to the left
Ctrl + Page Down	Half screen width to the right
Ctrl + Up arrow	Scroll up one line
Ctrl + Down arrow	Scroll down one line
Ctrl + Right arrow	One word to the right.
Ctrl + Left arrow	One word to the left.
Tab	Next tab stop
Shift + Tab	Previous tab stop

Once you have identified the point at which you want to begin editing, and you have set the insertion point, a flashing cursor is displayed.

When editing more than one character you must identify a selection.

- To create a selection, place the insertion point at the start of the selection, hold the mouse button down, and drag the insertion point to the end of the selection.
- To remove an existing selection, click anywhere in the editable area, or press one of the arrow keys.

 To extend or restrict an existing selection, move the insertion point using either the mouse or keyboard while keeping the **Shift** key pressed.

## **Selecting Text**

A selection is a marked region of text. There are three types of selections:

- Character selection: Any range of continuous text.
- Line selection: Group of full lines
- Block selection: Block of text within a range of columns

There is a selection indicator, located in the status bar along the bottom of the editor window that displays the type of selection. This indicator will display **None**, **Char**, **Line**, or **Block**, allowing you to see which type of selection that you have made.

#### **Character selection**

Character selections are used to select any contiguous range of text. The character selection includes all text between the starting location and an ending location, and may be include parts of lines, as well as full lines.

You can create a character selection using any of the following methods:

- Click the left mouse button and drag.
- Press Ctrl+K to start the selection, and then use the arrow keys to extend the selection. Press Ctrl+K again to end the selection.
- Press the Shift key with any cursor movement keys, such as the arrow keys, Page Up, Page Down, Home, End, etc.

You can select words of text as follows:

- Press **Ctrl+W** to select the word at the cursor location.
- Double click on the word with the left mouse button.

#### **Line Selections**

A line selection is used to select a range of complete lines.

Line selections are treated differently than character selections. A line selection is always inserted before or after another line, and never inserted into the middle of another line. When performing operations on complete lines, line selections are faster and easier to use than character selections.

You can create a line selection using any of the following methods:

- Triple-click on a line with the left mouse button. You can then hold the left mouse button down and drag to select multiple lines.
- Click on a line number in the line number bar on the left side of the window with the left mouse button. You can hold the left mouse button down and drag to select multiple lines.

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- Press Ctrl+L to start the selection, and then use the arrow keys to extend the selection. Press Ctrl+L again to end the selection.
- Press Ctrl+A (or Select All from the Edit menu) to select the entire file. This is treated as a line selection.

### **Block Selections**

A block selection is used to select a block of text within a range of columns. The block may consist of segments from multiple lines.

You can create a block selection using any of the following methods:

- Right-click the using the mouse the mouse and drag.
- Press Ctrl+B to start the selection, and then use the arrow keys to extend the selection. Press Ctrl+B again to end the selection.

# **Moving and Copying Text**

This section describes how to move, copy, and paste text.

# Moving a Selection to a New Location Using Commands

Step	Action
1	Make a selection.
2	Click <b>Cut</b> 🐰 or choose <b>Cut</b> from the <b>Edit</b> menu.
3	Bring the insertion point to a new location.
4	Click <b>Paste e</b> or choose <b>Paste</b> from the <b>Edit</b> menu.

# **Copying a Selection to a New Location Using Commands**

Step	Action
1	Make a selection.
2	Click <b>Copy</b> a or choose <b>Copy</b> from the <b>Edit</b> menu.
3	Bring the insertion point to a new location.
4	Click Paste 💼 or choose Paste from the Edit menu.

The Copy command can be used to copy selections in the same file, in different files opened in the Edit module, or between Edit and other Microsoft Windows programs.

ChangeMan Edit uses the clipboard for all text movements. The clipboard is a shared resource that allows all Microsoft Windows applications to provide a temporary location for storing data that needs to be moved/copied.

To copy a selection, you can also use a shortcut key combination such as Ctrl + C or Ctrl + V for the copy/paste commands.

#### Moving a Selection Using the Drag-and-Drop Method

The drag-and-drop method is a simple way to move or copy a limited selection a relatively short distance.

Step	Action
1	Make a selection.
2	Point to the selected text and hold down the left mouse button.
3	Drag the insertion point to the new location.
4	To move the text, release the mouse button.

#### Copying a Selection Using the Drag-and-Drop Method

Step	Action
1	Make a selection.
2	Point to the selected text and hold down the left mouse button.
3	Drag the insertion point to the new location.
4	Press and hold CTRL while releasing the mouse button.

### **Undo and Redo Commands**

If you make a mistake in the code window, you can undo your last action or command. For example, if you delete a selection you can easily restore it.

To undo the last action, click **Undo** from the Standard toolbar, or select **Undo** from the **Edit** menu.

As you make changes in the Code Window, ChangeMan Edit records all of your actions, and lets you undo them if necessary. The number of actions that you can undo is based on the amount of available RAM.

After you undo the last action, you may realize that you need it after all. In this case, you can use the Redo command.

To redo the previously undone action, click **Redo** from the Standard toolbar, or select **Redo** from the **Edit** menu.

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# **Find and Replace Commands**

You can use the Find and Replace commands to locate and change specific text in your document.

### **Finding Text**

Use this procedure to find a text string:

Step	Action		
1	Click <b>Find</b> A, or choose <b>Find</b> from the <b>Edit</b> menu. ChangeMan Edit displays the <b>Find</b> dialog box.		
2	In the <b>Find</b> dialog box, enter the text to find.		
3	You can customize your search by setting the following options:		
	<ul> <li>Match whole words only - Select this option to find the whole words, not parts of words, that match the text displayed in the Find what box.</li> </ul>		
	<ul> <li>Match case - Select this option to find the text with the same capitalization as the text displayed in the Find what box.</li> </ul>		
4	Click <b>Find Next</b> to start the search process. ChangeMan Edit highlights the next occurrence of the search text that matches the criteria. The Find dialog uses your current selection as the initial criteria to be displayed in the <b>Find what</b> box.		

Find			×
Find what:	Mickey Mouse		Find Next
Match whole word only		Direction	Cancel
Match case		🔘 Up 💿 Down	
L			]

To resume the Find search for the previously defined criteria, click Repeat  $\mathbf{k}$ .

### **Replacing Text**

Use this procedure to replace one text string with a different string:

Step	Action
1	Choose Replace from the Edit menu.
	ChangeMan Edit displays the Replace dialog.
2	In the <b>Find what</b> field, type the text to be replaced.
3	In the <b>Replace with</b> field, enter the replacement text.

Step	Action	
4	Select the mat	ch search criteria (if necessary).
5	Determine how you want the search to proceed by choosing from the following options:	
	Click	То
	Replace	Replace the text and find the next occurrence.
	Replace All	Change all occurrences of your selection without confirmation.
	<b>Find Next</b> Leave the text unchanged and search for the next occurrence.	
	Cancel (or press ESC)Cancel a search in progress or close the dialog box.To undo the effects of the last replacement, choose Undo from the Edit menu. This will reverse the last change made.	

Replace		×
Find what:	Mickey Mouse	Find Next
Replace with:	Donald Duck	Replace
Match whole word only		Replace All
Match case		Cancel

# Bookmarks

Bookmarks provide a convenient way to mark specific lines in a file and enable you to quickly jump to the next/previous bookmark or cycle through all of the bookmarks.

**NOTE** Bookmark functionality is identical for the ChangeMan Edit and ChangeMan Diff utilities.

### **Placing a Bookmark**

Use this procedure to place a bookmark:

Step	Action
1	Place the cursor in the text where you wish to insert a bookmark.
2	Either:  Click 4.
	<ul> <li>Choose Toggle Bookmark from the Edit menu.</li> <li>ChangeMan Edit places the bookmark symbol on the Marker Bar for the corresponding line.</li> </ul>

### **Removing a Bookmark**

Use this procedure to remove a bookmark:

Step	Action
1	Place the cursor in the line containing the bookmark.
2	Click <b>Toggle Bookmark</b> , or choose <b>Toggle Bookmark</b> from the <b>Edit</b> menu. ChangeMan Edit removes the bookmark symbol from the Marker Bar.

### **Navigating to Bookmarks**

Use these actions to navigate bookmarks:

То	Do this	
Move to the next bookmark.	Click 3	
	• Choose <b>Next Bookmark</b> from the <b>Edit</b> menu.	
Move to the previous	Click 🔀	
bookmark	• Choose <b>Previous Bookmark</b> from the <b>Edit</b> menu.	
Remove all bookmarks in the	Click	
active document	• Choose Clear All Bookmarks from the Edit menu.	

# **Displaying Bars**

ChangeMan Edit contains different visual bars that help you to easily edit your code.

The **Ruler Bar** and **Line Number Bar** help you track column and line positions. As the insertion point is moved in the Code Window, the status bar displays the current line number and character position, where the first number indicates the ruler position and the second the line number.

### **Displaying the Ruler**

The **Ruler Bar** at the top of the code window provides a visual indication of the character position relative to the first character of each line.

To display the ruler, click the **Ruler**  $\square$  button, or select **Ruler** from the **View** menu.

### **Displaying Line Numbers**

To display line numbers, click **Line Number D** button, or select **Line Number** from the **View** menu.

### **Displaying the Markers**

The Marker Bar shows the location of your bookmarks.

To display the markers, click **Marker** 🔲 button, or select **Marker** from the **View** menu.

### **Displaying the Dates**

The Date Bar normally displays the date on which a line was changed. However, the template can be configured to place a user-specified change ID in this area instead. See "Configuring an Automatic Date or Change ID" on page 70 for details.

To display the line change dates, click **Date**  $\square$  button, or select **Date** from the **View** menu.

### **Displaying the Status Bar**

The **Status Bar** shows either a color key for your text or the location of your cursor.

To display the Status Bar, select Status Bar from the View menu.

# Window Management

### **Tab Groups**

ChangeMan Edit displays the files being edited as tabbed windows. Normally, the editor displays one file at a time, and you use the tab to select which file is currently displayed.

You can display more than one file at a time by creating multiple tab groups. Each tab group has its own set of tabs, and each group displays one file at a time. There are two types of tab groups:

- Vertical tab groups: The windows are aligned side-by-side.
- Horizontal tab groups: The windows are aligned with one above the other.

You can only use one type of tab group at a time. It is not possible to have a combination of both vertical and horizontal tab groups.

ChangeMan Edit - Temp3.cpp		
Eile Edit View Tools Window Help		
i 🗅 💋 🖓 📓 👗 🛍 🖏 🗐 🖓 🔤	AL AY I 📾 I 📼 🧊 🤣 🤣 🤣 🥔 📋 🛒 関	
Temp1.cpp   Temp2.cpp	Temp4.cpp         Temp3.cpp          ×	
••••••••••••••••••••••••••••••	·····1····1·····1	
	0987	
0002 * Module: ChangeMan.cpp	0988 PVOID pBuffer = Zos::MemP(	
0004 * Abstract: This module imple	0990 if (pBuffer == NULL)	
0005 **********************	0991 { 0992 m driverLClose():	
	0992 m_driverLClose(); 0993 return ERROR_OUTOFMEM(	
0007 #include "Precomp.h" 0008 #include "ZosProcs.h"	0994 }	
0009	0995 0996 ::CoInitialize(NULL);	
0011 // The file id for this modu	0997	
0012 //	0998 ::InterlockedIncrement((Pl	
0013 #defineFILEID (ZOS_FILE 0014	0999 1000 TRACE("Worker thread star1	
0015 //	1001	
0016 // The debug trace level	1002 ZOSNET_REQUEST& request =	
0017 // 0018 #defineTRACE (DEBUG_TR	1003	
0019	1005 // Keep running until the	
0020 #ifdef ZOSDBG 0021 #undef THIS_FILE	1006 // 1007 while (!bQuiesce && !IsSt(	
0022 static char THIS_FILE[] =F	1007 Witte (ibQuiesce av issu	
0023 #endif	1009 //	
0024 0025 /***********************	1010 // If there are too r	
0026 * Constants	1012 if (dwwaitCount >= MA)	
0027 ****************	1013 break;	
0028 0029 #define REG_VALUE_INDEX L"In	1014 1015 //	
0030	1016 // Before we start wa	
For Help, press F1 Ln 992 Col 17 None CAP NUM :		

The picture below illustrates a frame window with two vertical tab groups.

To create a new tab group using the following commands from the Window menu:

- New Vertical Tab Group (or Ctrl + G)
- New Horizontal Tab Group (or Ctrl + Shift + G)

Use the following commands from the **Window** menu to move a file from one tab group to another:

- Move to Next Tab Group (or Ctrl + M)
- Move to Previous Tab Group (or Ctrl + Shift + M)

You can also move a window from one tab group to another by clicking on its tab and dragging it to a different tab. A tab group is removed when you close the last file in that group or move the last file to a different tab group.

You can even view the same file in two different tab groups at the same time. To accomplish that, first use the **New Window** command to create a second window for the

file. Then move one of the windows to a different tab group. However, split windows, described in the next section, provide a more flexible way to have multiple views of the same file.

### **Split Windows**

Split windows, allow you to split an edit window into multiple panes. Each pane can be scrolled separately and this allows you to view different parts of the file at the same time.

The window can be split vertically, horizontally, or both. Thus, the window is divided into either two or four panes.

To create a split window, use the Split Window command from the Window menu, or **Ctrl** + **T** from the keyboard. A cross-hair is then displayed, which you move to the location at which you want the window to be split. You can move the cross-hair either by dragging it with the mouse or by using the arrow keys on the keyboard. To set the cross-hair location, either release the mouse button, or press enter.

If you set the cross-hair in the center of the window, the window will be split into four panes. To split the window into only two panes, move the cross-hair over to one of the window edges.

The picture below illustrates the cross-hair used to set the size and position of the split windows.

📝 ChangeN	lan Edit - Temp3.cpp		
<u>Eile E</u> dit	<u>V</u> iew <u>T</u> ools <u>W</u> indow <u>H</u> elp		
i 🗅 📂 😡			
Temp4.cpp			
	·····1·····5·······6······7		
0987 0988 0989	PVOID pBuffer = Zos::MemPool/lloc(ZOSNET_REQUEST_BUFFER_LENGTH);		
0990 0991	if (pBuffer == NULL) {		
0992 0993 0994 0995	<pre>m_driver.close();     return ERROR_OUTOFMEMORY }</pre>		
0995	::CoInitialize(NULL);		
0998	::InterlockedIncrement((PLON@)&dwThreadCount);		
1000 1001	TRACE("Worker thread starting. (Thead count: %d)", dwThreadCount);		
1002	ZOSNET_REQUEST& request = *(*PZOSNET_REQUEST)pBuffer);		
1004 1005 1006	// Keep running until thread is being terminated.		
1008 1007 1008	<pre>while (!bQuiesce &amp;&amp; !IsStopping()) {</pre>		
1009 1010 1011	// If there are too many idle threads waiting for work, stop		
1011 1012 1013 1014	<pre>if (dwwaitCount &gt;= MAX_W/FITING)</pre>		
1014 1015 1016	Before we start waiting. increment the wait count.		
For Help, pre	For Help, press F1 Ln 992 Col 17 None CAP NUM		

The window panes are divided by a splitter bar. You can resize the window panes by dragging the splitter bar. To remove a window pane, just move the splitter bar all the way to the edge of the window.

ChangeMan Edit - Temp3.cpp	
<u>Eile Edit View Tools W</u> indow <u>H</u> elp	
8 14 14 17 17 17 18 18 18 18 19 17 17 18 18 18 18 18 18 18 18 18 18 18 18 18	N &   📾 💭 🚽 🔶 🧇 🧇 🖉 🛛 🕽 👘 🚦
Temp4.cpp Temp3.cpp	4 Þ ×
·····1····1····1····3··	▲····1····2····1····▲
0987 0988 PVOID pBuffer = Zos::MemPool 0989	0987 0988 PVOID pBuffer = Zos::MemP 0989
0990 if (pBuffer == NULL) 0991 {	0990 if (pBuffer == NULL) 0991 {
0992 m_driver.Close(); 0993 return ERROR_OUTOFMEMORY 0994 } 0995	0992 m_driver.Close(); 0993 return ERROR_OUTOFMEM 0994 } 0995
0996 ::CoInitialize(NULL); 0997	0996 ::CoInitialize(NULL); 0997
0998 ::InterlockedIncrement((PLON	0998 ::InterlockedIncrement((P
<b>1</b>	▲
0001 0002 * Module: ZosWorkerThread.cpp	0001 /**********************************
0004 * Abstract: Worker thread for ha 0005 * This thread retrieve	0004 * Abstract: Worker thread for 0005 * This thread retri
0006 * results using an IOC 0007 **********************************	0006 * results using an 0007 **********************************
0009 #include "StdAfx.h" 0010 #include "Application.h" 0011 #include "Baseline.h"	0009#include "StdAfx.h" 0010#include "Application.h" 0011#include "Baseline.h"
0012 #include "BuildInfo.h" 0013 #include "BuildOptionsParser.h" 0014 #include "BuildProcParser.h"	0012#include "BuildInfo.h" 0013#include "BuildOptionsParser. 0014#include "BuildProcParser.h"
0015 #include "ChangeManServer.h"	0015 #include "ChangeManServer.h"
For Help, press F1	Ln 992 Col 17 None CAP NUM : 🔡

The picture below illustrates a window that has been split into four panes.

### **Full Screen Mode**

Full screen mode provides the largest possible view of your edit windows. Full screen mode expands the ChangeMan Edit frame window to fill the entire screen. During full screen mode the tool bars are hidden in order to increase the viewing area.

Full screen mode can be very useful when editing very large files or when the frame window is divided by tab groups or split windows.

You can toggle back and forth between full screen mode and normal screen mode using either of the following methods:

- Full Screen command from the View menu.
- Ctrl + Alt + Enter from the keyboard

## **Customizing the Editor**

ChangeMan Edit allows you to configure settings that change the appearance and control the behavior of editing features.

There are two types of editor settings:

- Global editor settings apply to all languages
- Language specific settings apply only to a specific language

Language specific settings are specified using templates, and these are set using the **Template Manager**. See the section entitled "Saving a File" on page 47 for details on language specific options.

Global editor settings are set using the **Customize** dialog, which can be displayed from by selecting **Customize** from the **Tools** menu.

### **Global Editor Settings**

To open the global editor settings, select **Customize** from the **Tools** menu. The **Customize** dialog box has an **Editor** tab for the global editor settings.

Customize
Commands       Toolbars       Keyboard       Menu       Editor       Options         Spaces       If checked, these options override the template settings:       If checked, these options override the template settings:         Image: The space of t
Cursor Allow cursor past end of line
Close

Any boxes that are checked in the Editor tab will apply to all languages. If the box is checked it will override the language-specific option in the templates. If the box is not

checked, the setting from the template will be used. This provides a quick way to set an option globally without having to change every template.

Option	Description
Remove trailing spaces	Trims trailing spaces from the end of each line when loading or saving a file.
Tab using spaces	Uses spaces, rather than tab characters to indent text. When saving a file, tab characters are converted to spaces.
Allow cursor past end of line	Allows the cursor to be positioned past the end of line. This makes some editing operations easier to perform.

For files on a z/OS server, it is important to use spaces rather than tab characters. Tab characters are generally not recognized by z/OS software. Using tab characters can result in compiler errors, JCL errors, etc.

# **Inserting a Change ID**

You can automatically insert a user-specified change ID at a specified position into each line that you change. The template you are using must be configured to use a change ID. See "Configuring an Automatic Date or Change ID" on page 70 for information on configuring the template for this.

If the template is configured to use a change ID, you can set the change ID at any time by choosing **Set Change ID** from the **Tools** menu. The dialog box below will display allowing you to set or disable the change ID.

Set Change ID	×	
☑ Insert change ID:	CR-12345 -	
ОК	Cancel Help	

If the **Insert change ID** box is not checked, the change ID insertion will be disabled.

# Saving a File

ChangeMan Edit provides Save and Save As options for saving files.

When you change a file, a date tag appears in the Modification Date Bar next to the changed line, indicating that the file has been modified. The modification date tag disappears when you save the file, and reappears when you make new changes to the file.

### Saving with the Original Name

To save a file using the original name, click **Save** (or choose **Save** from the **File** menu). ChangeMan Edit checks the file for changes since it was last loaded or saved; if no changes are detected, the Save command is disabled.

If you have more than one file opened for editing, you can save changes to all files by selecting the **Save All** command.

### Saving with a Different Name

Use this procedure to save files with a different name:

Step	Action
1	Choose Save As from the File menu.
2	Navigate to the folder into which the file is to be saved.
3	Enter the new name of the file in the <b>File name</b> box.
4	Click Save.

# **Creating a New File**

ChangeMan Edit lets you create a new file directly from the Edit module.

Use this procedure to create the file:

Step	Action
1	From ChangeMan Edit, click <b>New Document</b> (or choose <b>New</b> from the <b>File</b> menu). ChangeMan Edit displays a list of all the configured editor templates.
2	Select a template, then click <b>OK</b> . ChangeMan Edit opens a blank code window.

When you finish editing a new file, save it with the **Save As** command.

# **Submitting JCL**

When you are editing a file containing JCL, you can submit the JCL to run as a job on a z/ OS server. To submit the JCL, select **File**  $\rightarrow$  **Submit JCL** from the menu.

Since all valid JCL begins with "//", the **Submit JCL** command is disabled unless the first line of the file begins with "//".

You will then be prompted with the dialog box below, on which you select the name of the z/OS server.

Submit JCL		×
Server:		
Server-1		•
ОК	Cancel	Help

You do not need to save the JCL file before submitting it. The JCL will be submitted as it currently appears in the edit window.

Jobs submitted with the Submit JCL command run under the authority of the logged on user (the owner ID is the same as the logged on user ID). If you are not already logged on, you will be automatically prompted to log on.

### **Notify Messages**

You can receive notify messages when jobs submitted from ChangeMan ZDD complete. Notify messages are written to the **Notify** message log. At any time, you can view the last 64 messages written to this log by launching the **Notify** message viewer application that is installed with ChangeMan ZDD: choose **Start**  $\rightarrow$  **Programs**  $\rightarrow$  **ChangeMan ZDD**  $\rightarrow$ **Notify**. You can also choose to have a message box pop up every time you receive a message.

These options can be configured using the **Notify** page of the **Serena Network** properties.,

### Submitting XML

When you are editing a file containing XML request for XML Services, you can submit the XML request to a server or ChangeMan ZMF. To submit the XML, select **File**  $\rightarrow$ **Submit XML** from the menu.

Since all valid XML begins with "<?xml", the **Submit XML** command is disabled unless the first line of the file begins with "<?xml".

You will then be prompted with the dialog box below, on which you select the name of the z/OS server and ChangeMan instance.

Submit XML			x
Server:			
Server-1			⊡
ChangeMan:			_
ChangeMan-1			-
ОК	Cancel	Help	

If no ChangeMan instance is specified, the XML file will be submitted to the server, rather than a ChangeMan instance. This is only valid for SerNet services and not for ChangeMan ZMF services. ChangeMan ZMF services must be directed to a ChangeMan instance.

You do not need to save the XML file before submitting it. The XML will be submitted as it currently appears in the edit window.

If you are not already logged on, you will be automatically prompted to log on.

On completion, the results will be displayed in another edit window. The results window will have a name such as "Result01.xml". You can then save the results, if you wish to do so.

# Chapter 5

# **Comparing/Merging Files Using ChangeMan Diff**

The ChangeMan Diff utility is included with ChangeMan ZDD and supports path names that exceed 259 characters in length if you are using Windows Vista or Windows 7.

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# Overview

Using the ChangeMan Diff utility, you can compare and merge:

- Files on your local computer.
- Files and ChangeMan ZMF components on your z/OS server.

You can initiate the Compare and Merge functions in the following ways:

- Select files/components in the Explorer window, right-click, and choose Serena Network → Compare Files or Serena Network → Merge Files from the popup menu (described in this chapter).
- Select ChangeMan ZMF components from the Staging Versions dialog box and click the Compare or Merge buttons.

Once you are within the ChangeMan Diff utility, you can alternate between comparing and merging files, and initiate new compares/merges.

# **Comparing Files**

You can compare the contents of two text-based files using the ChangeMan Diff utility. The resulting differences are displayed side-by-side.

The following types of data can be compared:

- Any text-based file on your local computer
- Sequential data sets
- Partitioned data set members
- Unix files (text-based)
- ChangeMan ZMF components (text-based)
- JES spool data sets



**NOTE** Word documents cannot be compared using this utility.

Files of different types can be compared with each other. For example, you can compare:

- A ChangeMan ZMF SRC component with a TXT file on your local computer.
- Components in two different ChangeMan ZMF instances.

### **Initiating the Compare**

1 Select one or two files to be compared. Right-click and choose **Serena Network** → **Compare Files** from the popup menu. The **Compare Files** dialog box displays.

Compare	Files
File 1:	C:\pata\temp-2.txt
File 2:	C:\pata\temp-1.txt
🔲 Igno	re case
📃 Igno	re space change
📃 Igno	re blank lines
📃 Igno	re comments
	OK Cancel Help
	re comments

- **2** The files you selected display in the **File 1** and **File 2** text boxes. You can change the path names in the text boxes or click the browse button to select different files.
- **3** The following options can be selected.

Option	Description
Ignore case	Differences in case are ignored.
Ignore space change	Space differences within a line are ignored.
Ignore blank lines	Blank lines are ignored.
Ignore comments	Comments are ignored. A comment is determined by the file type.

4 Click **OK** to invoke the **ChangeMan Diff** utility. The following dialog box displays a side-by-side comparison.

ChangeMan Diff {Simple Text} - Second file: C:\Data\Compare\File-2.txt				
File Edit Merge View Tools Help				
: 🖞 🐌 🔔 😃 🔛 🖓 I X 🖻 🖎 I 🖨 🔍 🗢				
First file: C:\Data\Compare\File-1.txt	🗧 Second file: C:\Data\Compare\File-2.txt 🛛 🗖			
1 Mary had a little horse ,	<b>1</b> Judy had a little lamb ,			
Mary had a little horse , Its fleece was white as snow And everywhere that Mary weil	2 Its fleece was white as sno			
	2 Its fleece was white as sno 3 And everywhere that Judy we 4 The lamb was sure to go,			
4 The horse was sure to go.				
5 He followed her to school or	5 He followed her to school (			
E	6 The school was far away, 7 With wolves in the area.			
6 Which was against the nuler				
6 Which was against the rule; 7 Now, as you can clearly see	8 Which was against the rule			
8 The rule was unreasonable.				
9 It made the children laugh a	9 It made the children laugh			
10 To see a horse at school.	10 To see a lamb at school.			
11 "Why does the horse love Mai	11 "Why does the lamb love Ju			
12 The eager children cry;	12 The eager children cry;			
	13 "Why, Judy loves the lamb,			
14 The teacher did reply.	14 The teacher did reply.			
15 *** The end ***	15 *** The end ***			
. • · · · ·				
For Help, press F1				

The two large panes display the compared files.

- The file names display on the title bars.
- Line numbers display on the left side of each pane.
- The text lines are highlighted in different colors to represent different types of changes. In the previous example, the highlighted section of code in the right pane was added; the highlighted section in the left pane was deleted. When you place the cursor in the text of a file, the type of change is indicated in the legend at the bottom right side of the screen.

The Map area on the left side of the screen gives a micro view of each file. Arrows indicate the cursor position in the files; colors indicate the areas with differences.

The order in which files are selected determines if lines are considered added or deleted. If you select the files so that the newest file is File 2, then the added lines appear as added; otherwise, they appear as deleted.

### **Using Templates**

Templates define the properties for the text display. You can change the template by choosing **Tools**  $\rightarrow$  **Set Template**.

You can modify templates and create new ones with the Template Manager: choose **Tools**  $\rightarrow$  **Template Manager**. The ChangeMan Diff Template Manager is identical to the

ChangeMan Edit Template Manager: see "Saving a File" on page 47 for details on how to configure templates.

### **Altering the Display Mode**

Change the display mode by choosing options on the **View** menu:

This option	Does this
Toolbars	Lets you show or hide the toolbars.
Status Bar	Lets you show or hide the status bar.
Split	Lets you split the window using your mouse. The split can be altered by dragging the edge of the split. To remove the split, drag the edge out of the window.
Мар	Toggles the display of the map. The map is an micro-view of the file. Changes are marked in.
Compare Mode	Displays a two window view of the comparison files.
Single Window	Displays a one window view of a comparison file.
Merge Mode	Displays the merge mode view.
Diff Output	Displays changes in a text-based report form.
Auto Align	Select this option to scroll the text panes in synchronization; deselect to scroll separately.

### **Changing Compare Options**

Change the compare options to ignore items such as blank lines, extra spaces, and case by choosing **Tools**  $\rightarrow$  **Options**, or by clicking the appropriate button on the Diff Parameters tool bar.

Diff M	lerge Manager			×
Dif	Colors			
	lgnore spaces			
	lgnore blank lir	ies		
	Ignore coment	3		
	lgnore case			
<b>V</b>	Autoscroll Map			
	ОК	Apply	Cancel	Help

### **Changing Text Background Colors**

You can change the background colors displayed by the ChangeMan Diff utility by choosing **Tools**  $\rightarrow$  **Options**. The one exception is: identical lines have a white background and cannot be changed.

Diff Merge Manager	×
Diff Colors	
Category :	Background Statematic
Inserted lines Deleted lines Merged lines Virtual lines Changed lines Inserted from common file Inserted from 1st file Inserted from 2st file Overlapped block Merge unselected	Background Automatic
OK Apply	Reset All Cancel Help

The default colors are as follows:

This category	Indicates	Default color
Inserted lines	Added lines.	Yellow
Deleted lines	Deleted lines.	Red
Merged lines	(Used in Merge Mode.) A line that is:	Green
	<ul> <li>different in the two files being merged</li> </ul>	
	<ul> <li>merged without conflict</li> </ul>	
	<ul> <li>selected as final merge result</li> </ul>	
Virtual lines	Placeholders. It means the other file contains a line here that this file doesn't.	Gray
Changed lines	Changed lines.	Blue
Inserted from common file	Lines found in the common ancestor file. This appears only if each of the three files has a different change for a common line.	Red
Inserted from 1st file	New lines added from the first file.	Yellow

This category	Indicates	Default color
Inserted from 2nd file	New lines added from the second file.	Green
Overlapped block	Block of text that appears in both documents.	Blue
Merge Unselected	Deselected lines.	Gray

## **Using Bookmarks**

To add bookmarks to the file, see "Bookmarks" on page 38.

# **Redoing the Comparison**

Redo the comparison by choosing  $\textbf{File} \rightarrow \textbf{Compare.}$ 

### **Performing a Merge**

You can perform a merge on the files being compared by choosing **File**  $\rightarrow$  **Merge**. You are prompted to select an ancestor (baseline) file. After choosing the ancestor file, the display changes to Merge Mode and you can now perform an interactive merge, described in "Interactive Merge" on page 60.

# **Merging Files**

Using the ChangeMan Diff utility, you can merge the contents of two file versions with a baseline version and create a new merged version. You can merge any files that can be compared using ChangeMan Diff.

### **Initiating the Merge**

If you are already within the ChangeMan Diff utility, choose **File**  $\rightarrow$  **Merge**. Skip the rest of this section and go to "Interactive Merge" on page 60.

Otherwise, you can initiate the Merge function in one of the following ways:

Select one or two files/components in the Explorer window, right-click and choose
 Serena Network → Merge Files from the popup menu.

or

 Select one or two files in the Staging Versions dialog box and click the Merge button

The **Merge Files** dialog box displays:

Merge Files	2 ×
Base File:	C:\pata\piff\File-0.txt
Revision 1:	C:\pata\piff\File-1.txt
Revision 2:	C:\pata\piff\File-2.txt
Output file:	C:\pata\piff\File-X.txt
Automatic	merge
	OK Cancel Help

- If you selected one file/component, its path name will display in the Base File text box.
- If you selected two files/components, the path names will display in the *Revision 1* and *Revision 2* text boxes.
- *Output file* contains the path name for the resulting merge file.

Enter the path names for all of the files. You can type in the text boxes or click the browse button to select files from the Explorer directory tree.

You can reconcile differences between the file versions either automatically or interactively:

- Select Automatic merge to have changes between the versions applied based on default rules.
- Deselect Automatic merge to perform an interactive merge and choose which changes are incorporated.

### **Automatic Merge**



**NOTE** You can only perform an automatic merge from the Merge Files dialog box.

The automatic merge reconciles the differences between two files according to a set of defined rules. A merged file is created automatically when there are no conflicting changes.

- In the case of inserted lines, ChangeMan Diff accepts all inserted lines from both revised files.
- In the case of deleted lines, ChangeMan Diff omits all deleted lines from both files.
- A message is not returned on successful completion you can check the results in the *Output file*.

If there are conflicting changes, such as an update to the same line, ChangeMan Diff displays in Merge mode, where you can do an interactive merge and choose the changes to apply (described in the following section).

### **Interactive Merge**

The interactive merge lets you reconcile disparate changes in the two files by choosing added, deleted, or changed lines from the two versions. Once you have reconciled the differences and go to save the merged file, the file name will depend on the following:

- If you initiated the merge from the Merge Files dialog box, the merged file is the file name you specified in *Output file.*
- If you initiated the merge from within ChangeMan Diff (by choosing File → Merge), you specify the merged file name in the Save As dialog box.

When you initiate an interactive merge, the ChangeMan Diff utility displays the files in Merge mode. In the following example, the Base File is on top, Revision 1 and Revision 2 are in the middle, and the resulting merged Output File is on the bottom.

🖓 ChangeMan Diff {Simple Text} - First file: C:\Data\Diff\File-1.txt		
File Edit Merge View Tools Help		
: 월 월   😃 🚇   🖳 🕼   X 🗈 🛳   🚓 💁   🖛 🔍   🖀 📮 👯 💥 📜 📮 📮		
Common file: C:\Data\Diff\File=0.txt		
4 The lamb was sure to go. 5 He followed her to school one day;		
B He for towed her to school one day,		
6 Which was against the rule;		
Image: Second sec		
First file: C:\Data\Diff\File-1.txt		
4 The horse was sure to go. 4 The lamb was sure to go.		
5 He followed her to school one 5 He followed her to school		
6 The school was far away, 7 With wolves in the area.		
6 Which was against the rule; 💷 8 Which was against the ru		
7 Now, as you can clearly see, 8 The rule was unreasonable.		
9 It made the children laugh ar 9 It made the children lau		
10 To see a horse at school		
Merge: C:\Data\Diff\File-X.txt		
0001Mary had a little lamb , 0002Mary had a little horse ,		
0003 Judy had a little lamb ,		
0004 Its fleece was white as snow; 0005 And everywhere that Mary went,		
0006 The lamb was sure to go.		
For Help, press F1 Overlap Selec		

- The Map on the left hand side gives a micro view of each file, with arrows indicating the current positioning of the file, and colors indicating positions of where differences occur. The different columns correspond to the different files: the left-most column is for the First File, the middle column is for the Second File, and the right column is for the Ancestor File. To display (or hide) the Map, choose View → Show Map (or choose View → Hide Map).
- The text background is color coded to indicate which lines came from which file. Place your cursor in a file, and the Status Bar at the bottom will display the meaning of the colors for that file. To display (or hide) the Status Bar, choose View → Show Status Bar (or choose View → Hide Status Bar). See "Changing Text Background Colors" on page 57 for explanation of the different colors.
- The other features of the display are the same as for the Compare function (see "Comparing Files" on page 52).

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### **Interactive Merge Actions**

The following actions are available during the interactive merge.

#### Navigating Changes in the File

Step through the changes in a file by placing the cursor in the file, then clicking either **Next Change**  $\Rightarrow$  or **Previous Change**  $\blacklozenge$ .

#### Accepting/Rejecting Inserted Lines

For inserted lines, right-click on the line and the choose either **Unselect Block** (reject) or **Select Block** (accept).

#### Accepting/Rejecting Changed Lines

For changed lines, you can right-click and **Accept Changes** or **Reject Changes**, or you can choose the change from a particular file by choosing **Accept from First File**, **Accept from Second File**, or **Accept from Common Ancestor**.

#### Editing Merge File

You can edit any part of the merge file by placing your cursor in the line, then overtyping.

You can also cut code from File 1, File 2, or the Common Ancestor and paste it into the merge file.

#### Saving and Exiting the Merge

After you have completed the merge, save the merge file by either choosing **File**  $\rightarrow$  **Save** or clicking **Save**  $\square$  on the toolbar.

To exit and discard changes to the merged file, click the close button and reply **No** to the prompt.

#### **Redoing the Merge**

To discard changes and redo the merge file, choose either File  $\rightarrow$  Merge or Merge on the toolbar.

#### Performing a Compare

To perform a comparison of the files (and discard changes to the merge file), choose either **File**  $\rightarrow$  **Compare** or **Compare** on the toolbar, then change to the comparison view by choosing **View**  $\rightarrow$  **Compare Mode**.

See "Comparing Files" on page 52 for more information.

# Chapter 6 Template Manager

Each programming language has unique requirements for content editing, syntax highlighting, line numbering, and formatting. To support these variations, ChangeMan Edit uses Template Manager, which defines the settings required for each language.

Some standard templates for programming languages are provided that supply most common options for each language. Furthermore, you can create custom templates.

The Template Manager is used by both ChangeMan Edit and ChangeMan Diff.

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# Selecting a Template

Whenever you open a file to edit or compare ChangeMan Edit or ChangeMan Diff assign a template to that file. The template defines the characteristics of that file, and its display and edit settings.

Each template defines which file extensions it is used for. If the file name ends in an extension that has a template defined for it, ChangeMan Edit or ChangeMan Diff will automatically assign the correct template when the file is opened.

If the file name ends in an extension that has no template defined, or if there are multiple templates defined for the file extension, then the dialog box below displays, allowing you to choose the template to use.

Se	elect Template	x
Г		
	Default	
	Fortran	
	Help	
	HLÁSM	
	HTML	
	Java	
	JCL	
	Make File	
	Pascal	
	Perl	=
	PL/I	
	Rexx	
	Simple Text	
	Test	
	Visual Basic	-
	CA II	
	OK Cancel Help	

# **Opening the Template Manager**

To open the Template Manager, click the **Template Manager** button (or choose **Template Manager** from the **Tools** menu).

The following dialog box displays:

Template Manager	×
Available Templates	General       Syntax       Keywords       Advanced       Colors         Description:       Cobol         File Types:       .cob).cbl:.cobol.ocb         Image: Types:       .cob).cbl:.cobol.ocb         Image: Remove trailing spaces when loading         Image: Remove trailing spaces when saving         Image: Save tabs as spaces         Tab size:       4         Image: Max line length:       80         Image: Font:       Courier, Regular, 12
	OK Apply Cancel Help

The **Template Manager** window is divided into two panes.

- The left pane displays a list of available templates.
- The right pane displays settings for the currently selected template.

The following procedures describe operations you can perform at the template level.

# **Creating a New Template**

Use this procedure to create a new template:

Step	Action	
1	Open the Template Manager.	
2	Click Add Template . The following dialog box displays:	
	New Template       Name :       Description :       OK         Cancel	

Step	Action
3	Enter a template name and description.
4	Click <b>OK</b> . A new blank template is created. You must go through all of the options to define characteristics of this template.

To simplify the process of creating a new template, you have the option of copying an existing template to a new one.

# **Copying a Template**

Use this procedure to copy a template:

Step	Action	
1	Open the Template Manager, then select the template to copy.	
2	Click <b>Copy Template</b> The following dialog box displays:	
	New Template       Name :       Description :       OK   Cancel	
3	Enter the name and description of the new template.	
4	Click <b>OK</b> . ChangeMan ZDD creates a new template with all the characteristics of the template you copied.	

### **Deleting a Template**

Use this procedure to delete a template:

Step	Action
1	Open the Template Manager, then select the template to delete.
2	Click Remove Template X.

# **Defining Options for the Template**

The right pane of the main Template Manager window contains the following tabs to define the options for the selected template:

- General
- Syntax
- Keywords
- Advanced
- Colors

### **General Options**

The **General** tab provides information on loading, displaying, and saving options.

Template Manager	×
Available Templates           Available Templates       Image: Complexity of the second se	General       Syntax       Keywords       Advanced       Colors         Description:       Cobol         File Types:       .cob;.cbl;.cobol;.ocb         ✓       Remove trailing spaces when loading         ✓       Remove trailing spaces when saving         ✓       Save tabs as spaces         Tab size:       4         Max line length:       80         Font:       Courier, Regular, 12
	OK Apply Cancel Help

For the template selected in the left pane, a description and a set of pre-defined file types for that template are presented.

You can configure the template specifications by selecting or clearing the following options:

Select	То
Remove trailing spaces when loading	Delete spaces at the end of the line while loading the file.

Select	То
Remove trailing spaces when saving	Delete spaces at the end of the line while saving the file.
Save tabs as spaces	Insert a variable number of spaces to simulate tab position formatting. It is necessary to convert tabs to spaces in certain applications, notably when using compilers that do not support the tab character. For example, ANSI COBOL doesn't recognize tabs. ChangeMan Edit replaces the tab with four spaces.

In addition, you can configure:

- Number of spaces for each tab
- Line length
- Display font

### **Syntax Options**

The **Syntax** tab allows you to define a set of syntax options for the selected template, which include non-keywords, quoted string support, and comment styles.

Template Manager	X
Available Templates Batch C C C C C C C C C C C C C C C C C C C	General Syntax Keywords Advanced Colors   Word delimiters: <>=()*+/'''\%.   String literal tokens: ''''   Token exception:
	OK Apply Cancel Help

The **Syntax** tab contains the following options:

Input Field	Description
Word delimiters	Symbols that define the end of the word.
String Literal Tokens	Symbols that define a string of characters.
Token exception	To use literal tokens inside a string, enter the token exception.

Input Field	Description
Block comments	Define the way you start and end the block comments.
Single line comments	You can configure two methods of defining the start symbol and position of the single line comments.

### **Keyword Options**

The **Keywords** tab lists the various types of keywords for the programming language. This screen also provides an option to determine if the language is case sensitive.

Template Manager	X
Available Templates           Available Templates       Image: Complete Sector Sect	General       Syntax       Keywords       Colors         Type:       Standard Keywords       Case sensitive         DUPLICATES       Case sensitive         END-READ       Image: Case sensitive         METACLASS       TIME         SIGN       HIGH-VALUE         LINKAGE       SOURCE         WRITE-ONLY       MULTIPLY         APPLY       DIVIDE         RETURNING       Image: Case sensitive
	OK Apply Cancel Help

The **Keywords type** pull-down menu shows four sets of template keywords:

- Standard keywords such as commands for the selected language.
- Compiler keywords such as compiler directives and calls.
- User defined keywords.
- Other keywords such as function names.

#### Modifying a List of Keywords

Use this procedure to modify the list of keywords:

Step	Action
1	Define the set of keywords to modify.
2	Click inside the list.
3	Add, delete, or edit words.
4	Click <b>Apply</b> to implement the changes.

### **Advanced Options**

The **Advanced** tab allows you to define options for automatic line numbering or automatic insertion of a date or change ID.

Template Manager	×
Available Templates           Available Templates       Image: Complexity of the second se	General       Syntax       Keywords       Advanced       Colors         Auto Line Numbering       ✓       Digits:       6       ●         Start number:       100       ✓       Digits:       6       ●         Increment:       100       ✓         ●         Field length:       8       ✓             Field length:       8       ✓

#### Configuring Auto Line Numbering

Use this procedure to configure automatic line numbering:

Step	Action
1	Select the Auto Line Numbering box.
2	Type (or select) a <b>Start number</b> value.
3	Type (or select) Increment and Digits values.
4	Click Apply.

#### Configuring an Automatic Date or Change ID

Use this procedure to have an automatic date or change ID inserted into the specified columns. When the file is open for editing, ChangeMan Edit displays the date or change ID in the Marker Bar for the added and modified lines.

Step	Action	
1	Select the Auto Date or Change ID box.	
2	Type (or select) a <b>Field length</b> value.	
3	The <b>Field position</b> and <b>Preceding chars</b> fields are mutually exclusive. Specify the field starting position in one of the following ways:	
	• To start in a fixed column, type (or select) a value in the <b>Field position</b> field.	
	• To start right after a specified character string, clear out the <b>Field position</b> field and enter a character string in the <b>Preceding chars</b> field.	

Step	Action
4	Do one of the following to select the "Change ID" or "Date" option:
	a Select the <b>Use change ID</b> option to have a change ID automatically inserted when you make a change to a file that uses this template. When you open the file, a dialog box displays, prompting you to enter a string of the length you specified in <b>Field length</b> . As you edit the file, the string is automatically inserted into the columns you specified.
	<ul> <li>b Deselect the Use change ID option and the Date format field is enabled.</li> <li>Click the &gt;&lt; button to display a list of date/time variables; select one or more variables. As you edit the file, the date/time is automatically inserted into the columns you specified.</li> </ul>
5	Click Apply.

### **Color Options**

The **Colors** tab allows you to customize the Code Window color scheme.

Template Manager	X
Available Templates   Available Templates  Batch  C  C  C  C  C  C  C  C  C  C  C  C  C	General       Syntax       Keywords       Advanced       Colors         Category : <ul> <li>Text</li> <li>Background</li> <li>Automatic</li> <li>Foreground</li> <li>Automatic</li> <li>Guttext</li> <li>Current Error/Tag</li> <li>Bookmark</li> <li>Modified Line</li> <li>New Line</li> <li>Line Number Text</li> <li>Line Number Text</li> <li>Line Number Selection</li> <li>Date Text</li> <li>Date Selection</li> <li>Reset</li> <li>Reset All</li> <li>Disable syntax coloring</li> <li>OK</li> <li>Apply</li> <li>Cancel</li> <li>Help</li> </ul>

You can choose custom background and foreground colors for the Code Window categories, or use the **Automatic** option.



**NOTE** If you are using the ChangeMan Diff utility, the Merge Colors override the syntax colors of the Template Manager.

#### **Changing Colors**

Use this procedure to change the background or foreground colors:

Step	Action
1	Select the category.
2	Click the <b>Background</b> or <b>Foreground</b> button.
3	Click the color from the palette.
4	Click <b>Apply</b> or <b>OK</b> and view the sample text.

#### Resetting Colors

Use this procedure to reset the colors back to the default colors:

Step	Action
1	Select the category.
2	Click the <b>Reset</b> or <b>Reset All</b> button. <b>Reset All</b> will reset the colors for all categories.
3	Click <b>Apply</b> or <b>OK</b> and view the new colors.

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