ChangeMan® ZDD 8.1.4

Tools Guide

Proprietary and Confidential Information

Table of Contents

What's New

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

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.

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

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>	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 **Ctrl + Ins**	Copy selection to clipboard Copy line, if no selection
Ctrl + V **Shift + Ins**	Paste
Ctrl + X **Shift + Del**	Cut selection 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 **Ctrl + F6**	Next window
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

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
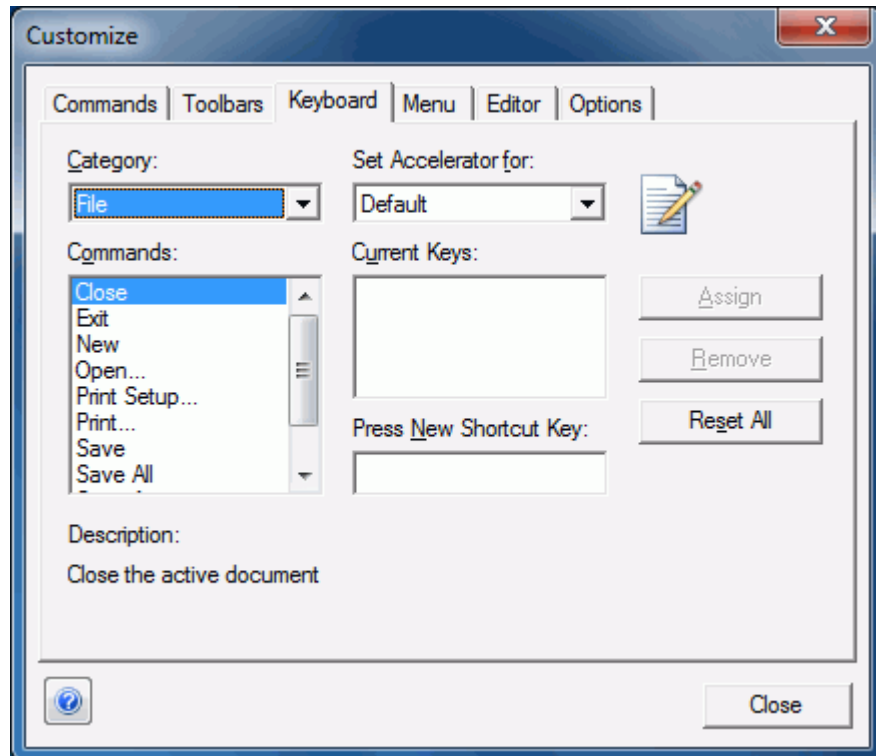
You can add or remove key assignments as follows:

Step	Action
1	Select **Tools → Customize** from the menu.
2	Select the **Keyboard** tab of the **Customize** dialog box.
3	Select **ChangeMan Edit** in the **Accelerator** drop down list.
4	From the Category drop down list, select the category containing the commands you want to work with. The **All Commands** category includes everything.
5	In the **Commands** 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 **Current Keys** list box, and press the **Remove** button.
7	To add a shortcut, click on the **New Shortcut Key** edit box, and press the key combination that you want to assign. Finally, press the **Assign** 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

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

Step	Action
1	Select **Tools → Customize** from the menu.
2	Select the **Keyboard** tab of the **Customize** dialog box.
3	Select **ChangeMan Edit** in the **Accelerator** drop down list.
4	Press the **Reset** button.

Customizing Menus

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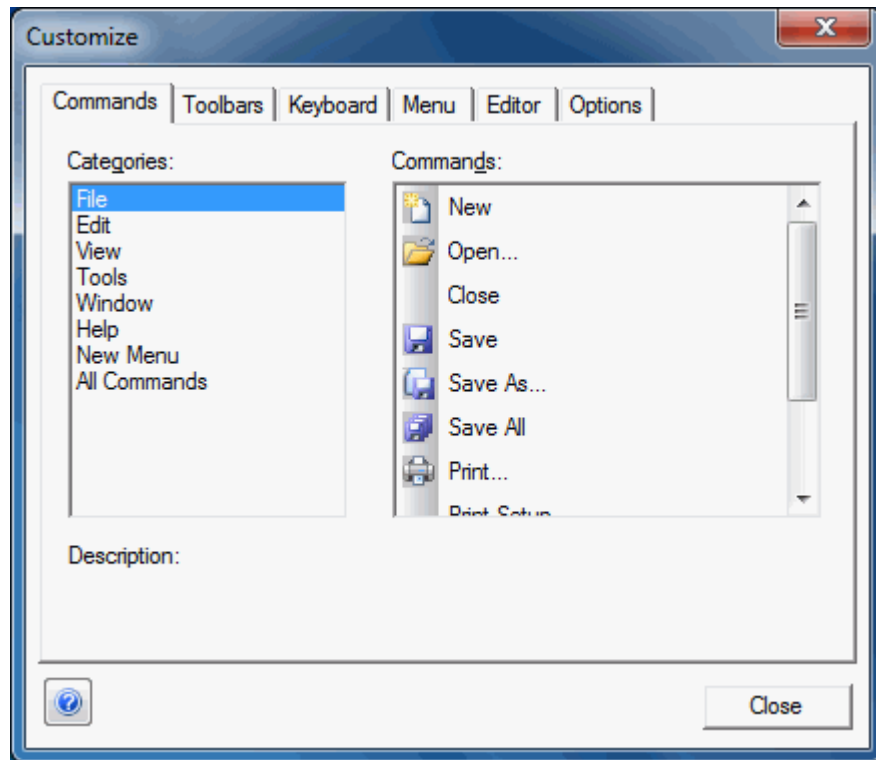
You can customize menus to add or remove commands as follows:

Step	Action
1	Select **Tools → Customize** from the menu.
2	Select the **Commands** tab of the **Customize** 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 **Commands** tab of the **Customize** 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 **Tools → Customize** from the menu.
2	Select the **Menu** tab of the **Customize** dialog box.
3	Press the **Reset** button.

Customizing Toolbars

Showing or Hiding Toolbars
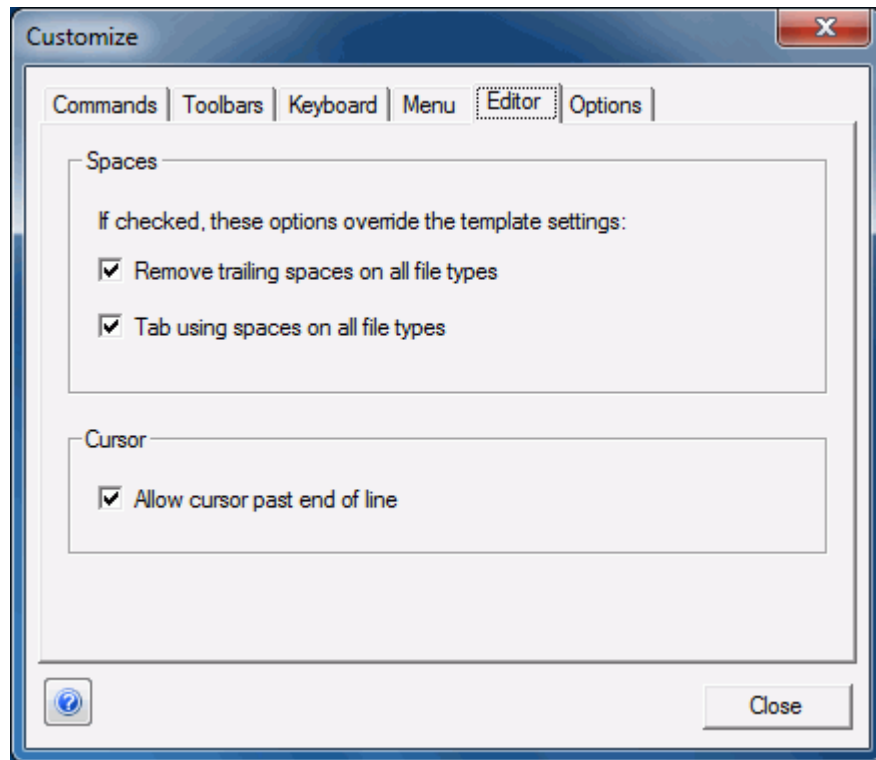
You can a show or hide toolbars as follows:

Step	Action
1	Select **Tools** → **Customize** from the menu.
2	Select the **Toolbars** tab of the **Customize** 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 **Tools** → **Customize** from the menu.
2	Select the **Toolbars** tab of the **Customize** dialog box.
3	Press the **New** 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 **Tools → Customize** from the menu.
2	Select the **Commands** tab of the **Customize** 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 **Customize** 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 **Tools → Customize** from the menu.
2	Select the **Toolbars** tab of the **Customize** dialog box.
3	On the toolbars list, select the toolbar that you want to reset.
4	Press the **Reset** button to reset the selected toolbar or press the **Reset All** 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 **Tools → Customize** from the menu.
2	Select the **Toolbars** tab of the **Customize** dialog box.
3	On the toolbars list, select the toolbar that you want to rename or delete.

Step	Action
4	Press the **Rename** button or the **Delete** 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.

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** → **Edit** from the popup menu. Otherwise, choose **All Programs** → **ChangeMan ZDD** → **ZDD Edit** from the Windows **Start** menu. The **ChangeMan Edit** window displays.
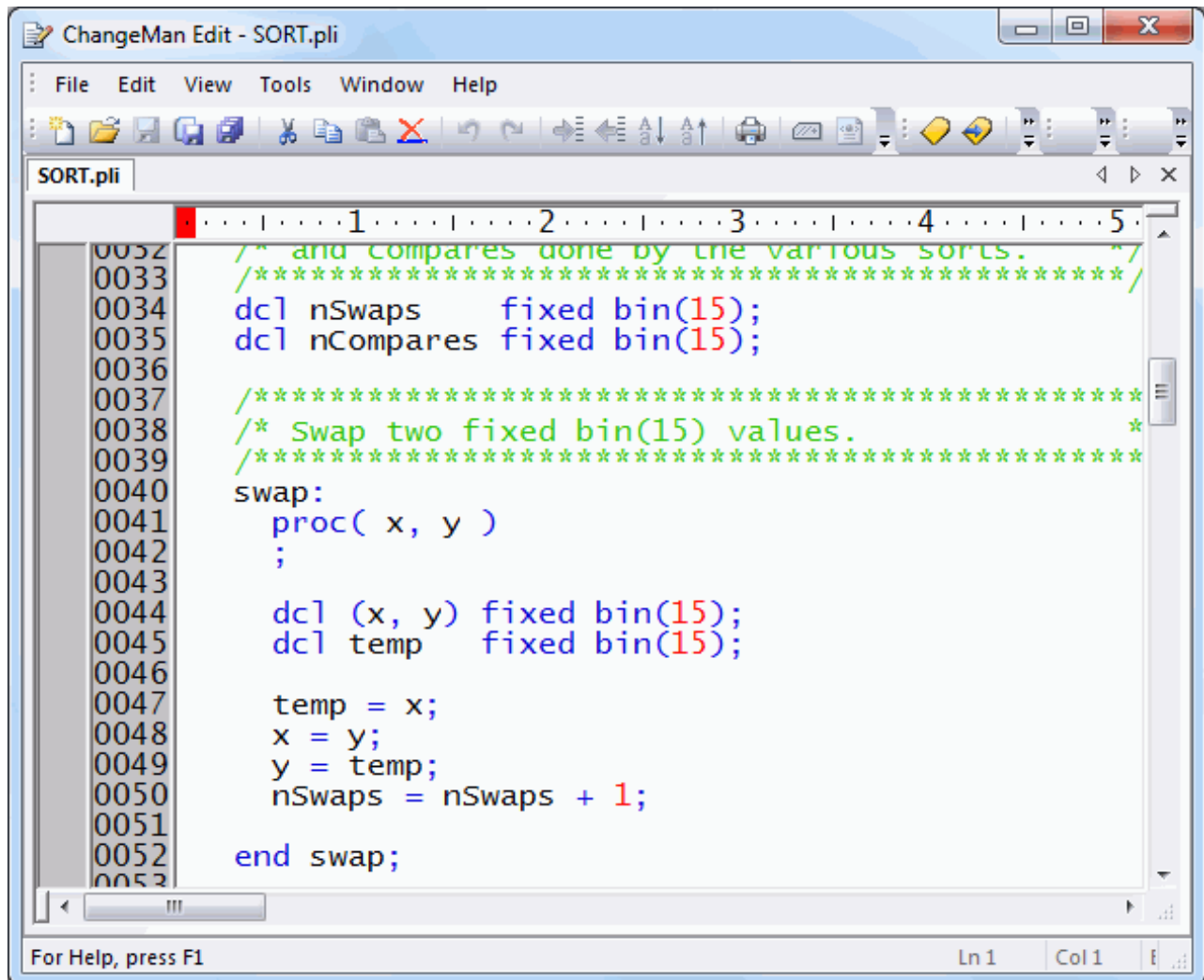
If the file you are attempting to edit has been migrated, the following message displays:

An unknown error occurred while accessing *<file name>*.

To recall the data set, right-click the file and choose **Serena Network** → **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.
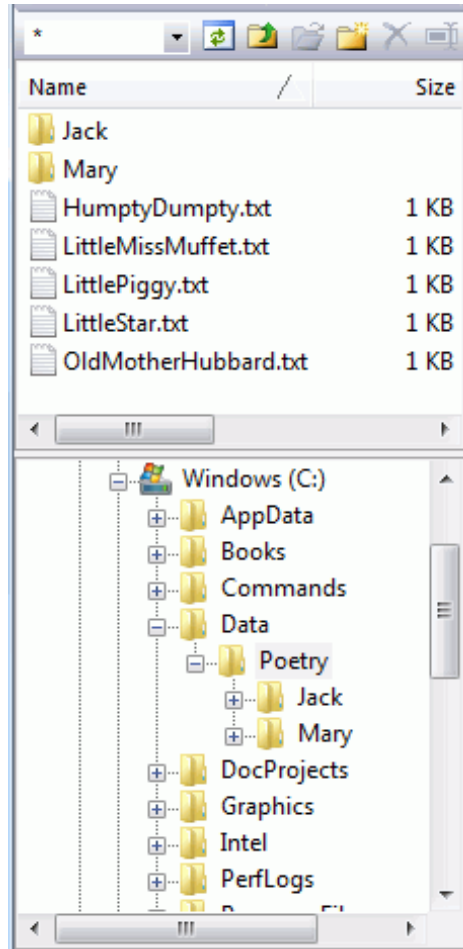
The navigation bar includes the following components:

- Filter box
- Toolbar
- File list
- Folder tree

Filter Box

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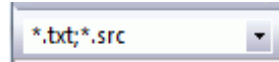
The filter box allows you to filter the list of files displayed using a pattern string with wild characters. The pattern can contain include multiple names, separated by semicolons. For example: "*.txt;*.src".

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.

- 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 **Cut** ✂ or choose **Cut** from the **Edit** menu.
3	Bring the insertion point to a new location.
4	Click **Paste** 📋 or choose **Paste** from the **Edit** menu.

Copying a Selection to a New Location Using Commands

Step	Action
1	Make a selection.
2	Click **Copy** 📋 or choose **Copy** from the **Edit** 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.

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 **Find** 🔍 , or choose **Find** from the **Edit** menu. ChangeMan Edit displays the **Find** dialog box.
2	In the **Find** dialog box, enter the text to find.
3	You can customize your search by setting the following options: ■ **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. ■ **Match case** - Select this option to find the text with the same capitalization as the text displayed in the **Find what** box.
4	Click **Find Next** 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 **Find what** box.
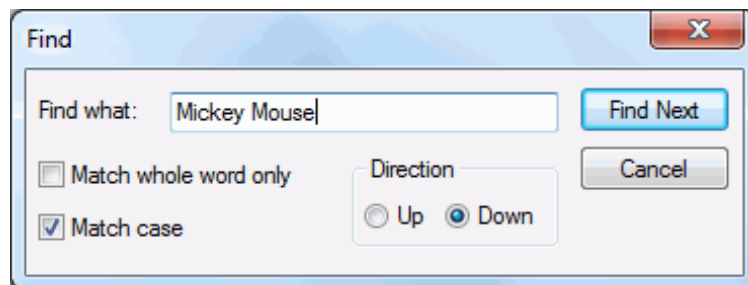
To resume the Find search for the previously defined criteria, click **Repeat** 🔍 .

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 **Find what** field, type the text to be replaced.
3	In the **Replace with** field, enter the replacement text.

Step	Action
4	Select the match search criteria (if necessary).
5	Determine how you want the search to proceed by choosing from the following options:

Click...	To...
Replace	Replace the text and find the next occurrence.
Replace All	Change all occurrences of your selection without confirmation.
Find Next	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.

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 ![bookmark icon]. ■ Choose **Toggle Bookmark** from the **Edit** menu. ChangeMan Edit places the bookmark symbol on the Marker Bar for the corresponding line.

Removing a Bookmark

Use this procedure to remove a bookmark:

Step	Action
1	Place the cursor in the line containing the bookmark.
2	Click **Toggle Bookmark** ![icon], or choose **Toggle Bookmark** from the **Edit** menu. ChangeMan Edit removes the bookmark symbol from the Marker Bar.

Navigating to Bookmarks

Use these actions to navigate bookmarks:

To...	Do this...
Move to the next bookmark.	■ Click ![icon] ■ Choose **Next Bookmark** from the **Edit** menu.
Move to the previous bookmark	■ Click ![icon] ■ Choose **Previous Bookmark** from the **Edit** menu.
Remove all bookmarks in the active document	■ Click ![icon] ■ 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** button, or select **Ruler** from the **View** menu.

Displaying Line Numbers

To display line numbers, click **Line Number** 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** 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.

The picture below illustrates a frame window with two vertical tab groups.
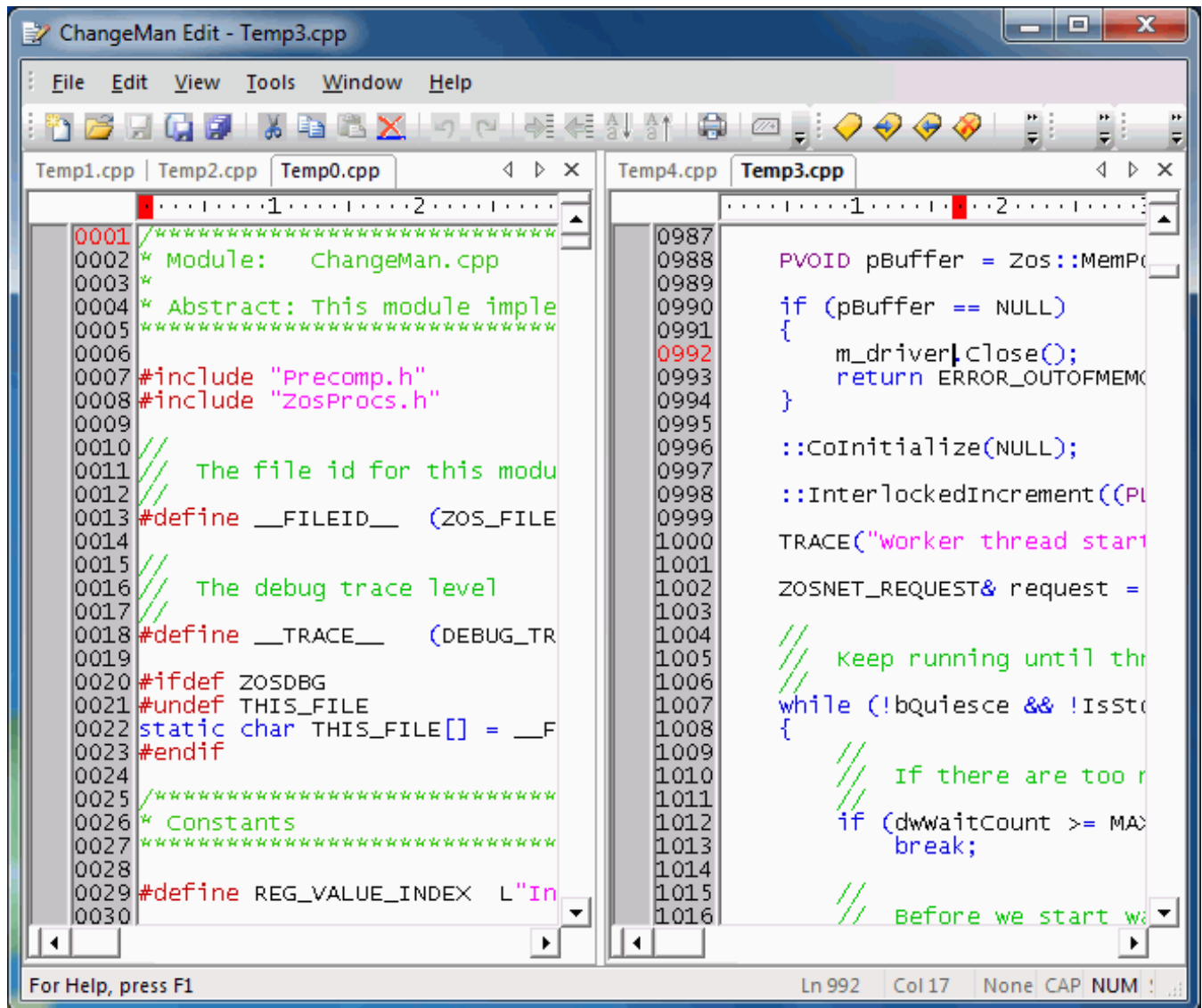
To create a new tab group using the following commands from the Window menu:

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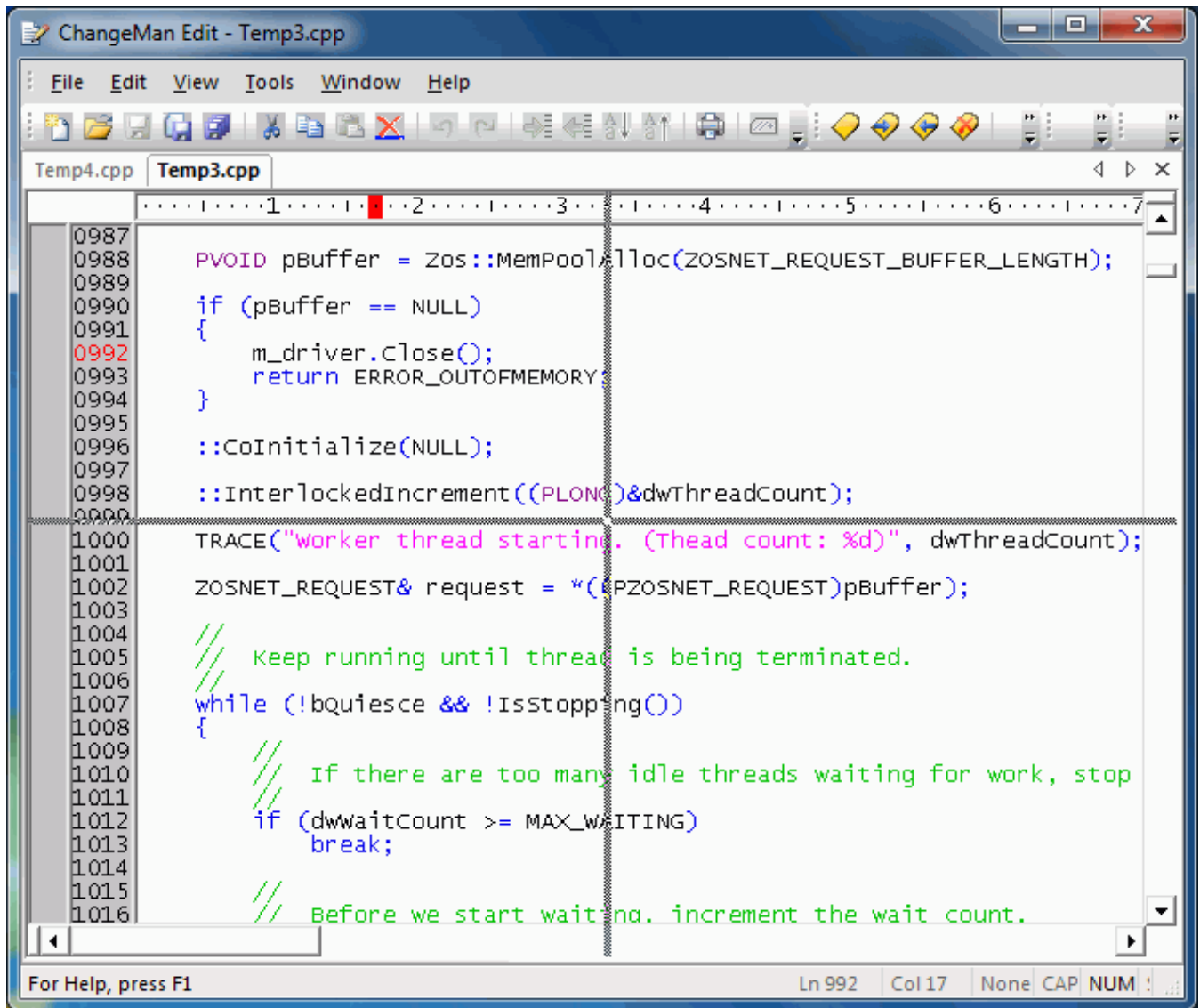
The window panes are divided by a splitter bar. You can resize the window panes by dragging the splitter bar. To remove a window pane, just move the splitter bar all the way to the edge of the window.

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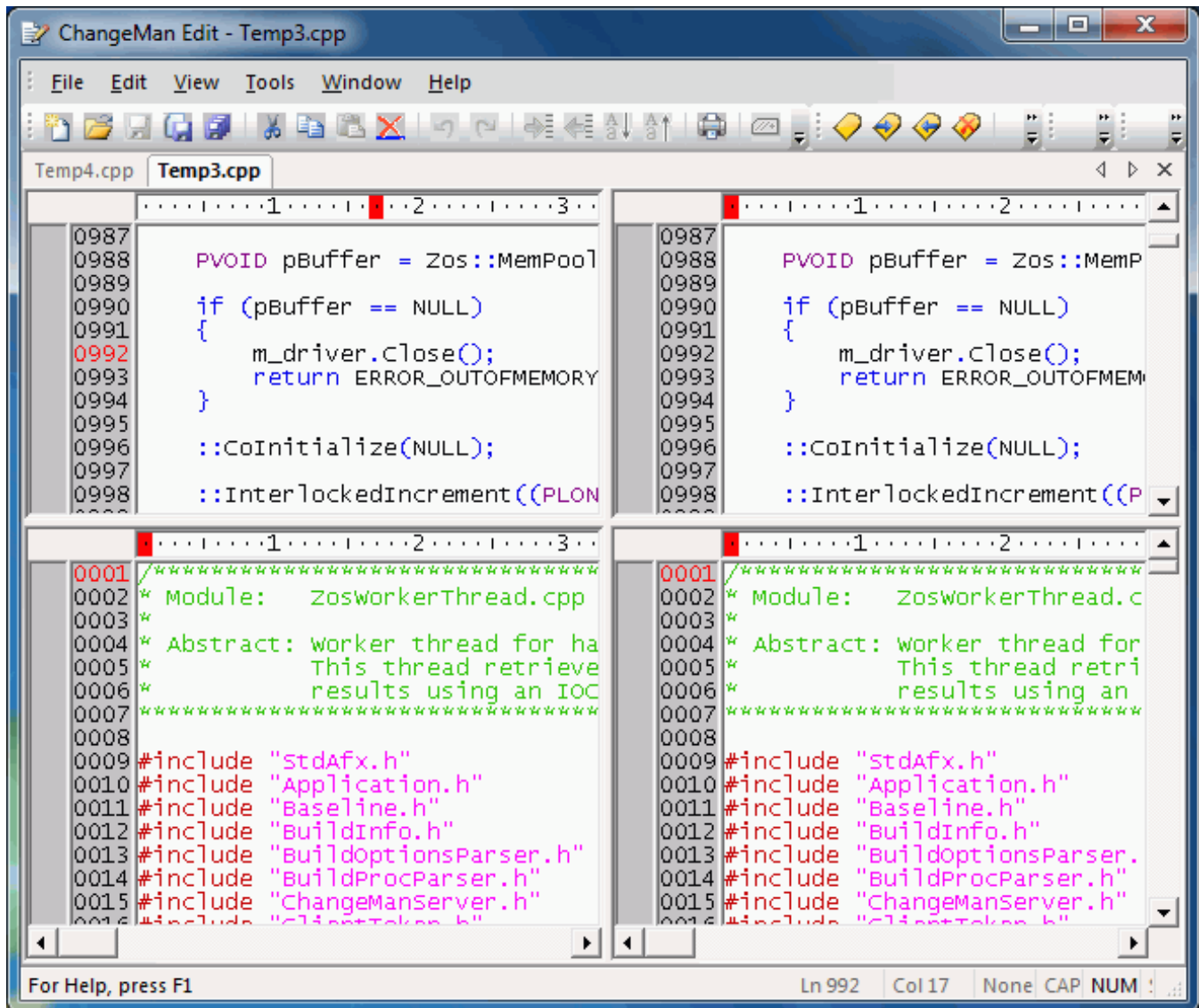
Full Screen Mode

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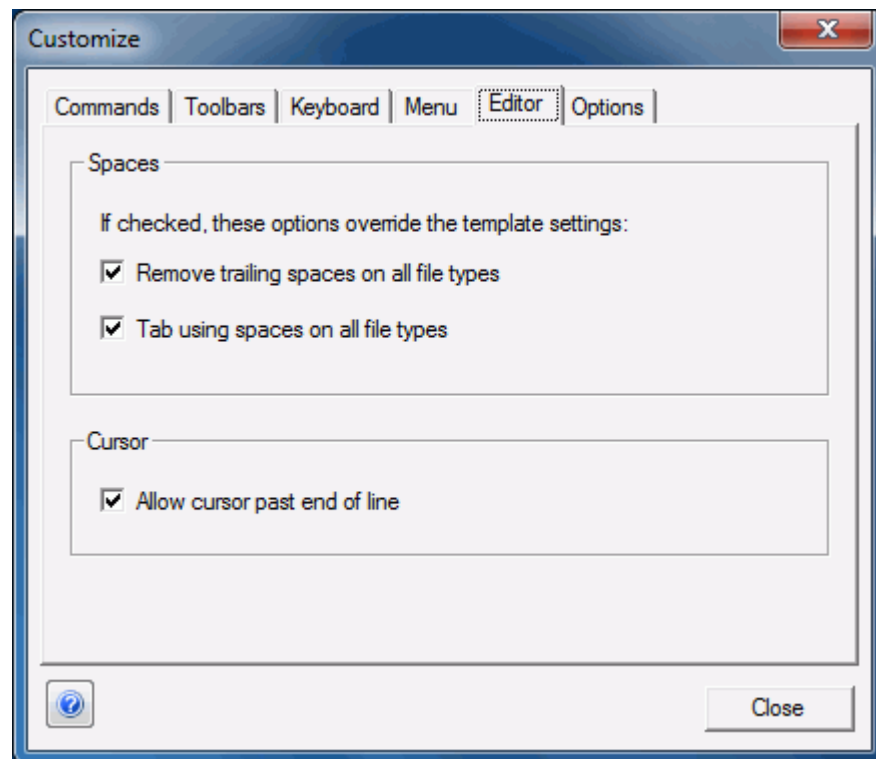
Any boxes that are checked in the Editor tab will apply to all languages. If the box is checked it will override the language-specific option in the templates. If the box is not

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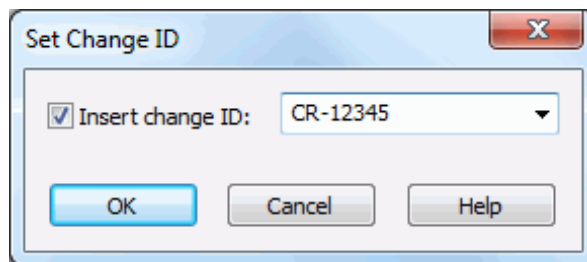
If the **Insert change ID** box is not checked, the change ID insertion will be disabled.

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 **File name** 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 **New Document** ☐ (or choose **New** from the **File** menu). ChangeMan Edit displays a list of all the configured editor templates.
2	Select a template, then click **OK**. 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 → 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.
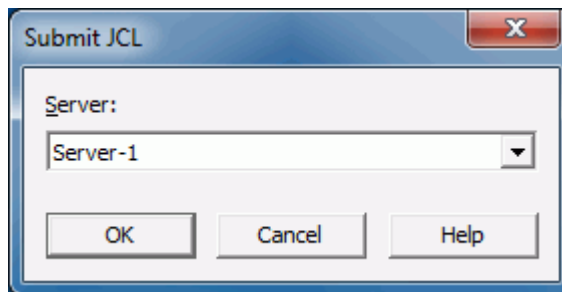
You do not need to save the JCL file before submitting it. The JCL will be submitted as it currently appears in the edit window.

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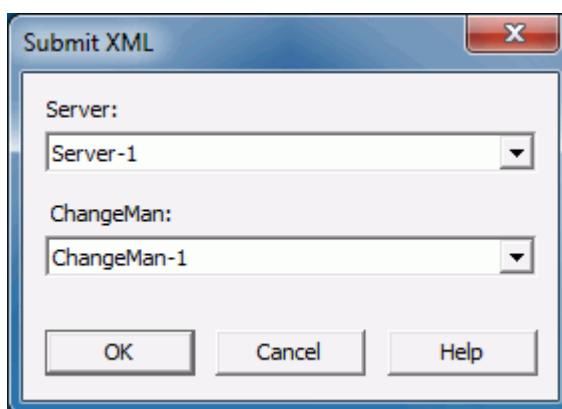
If no ChangeMan instance is specified, the XML file will be submitted to the server, rather than a ChangeMan instance. This is only valid for SerNet services and not for ChangeMan ZMF services. ChangeMan ZMF services must be directed to a ChangeMan instance.

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.

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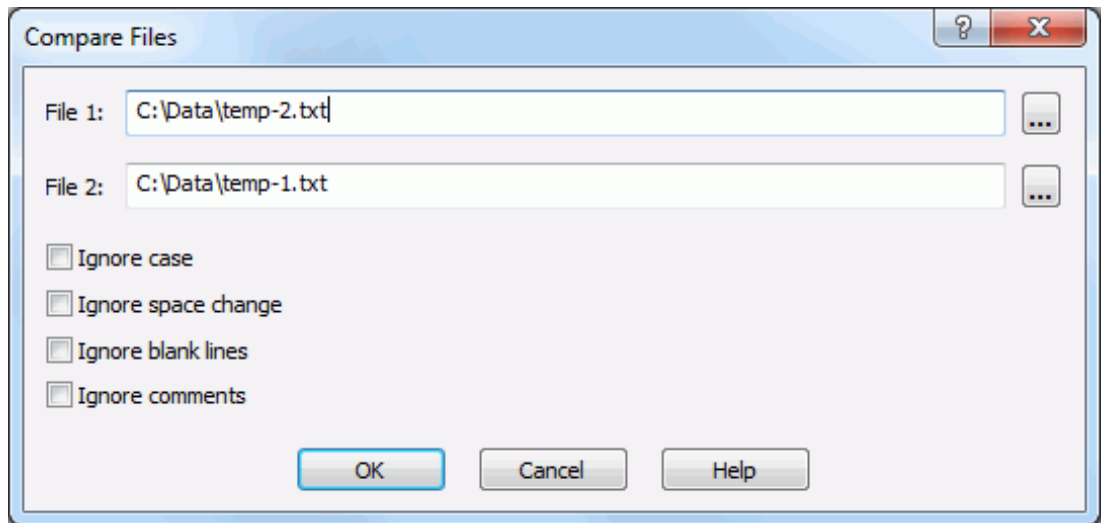
2 The files you selected display in the **File 1** and **File 2** text boxes. You can change the
path names in the text boxes or click the browse button to select different files.

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.
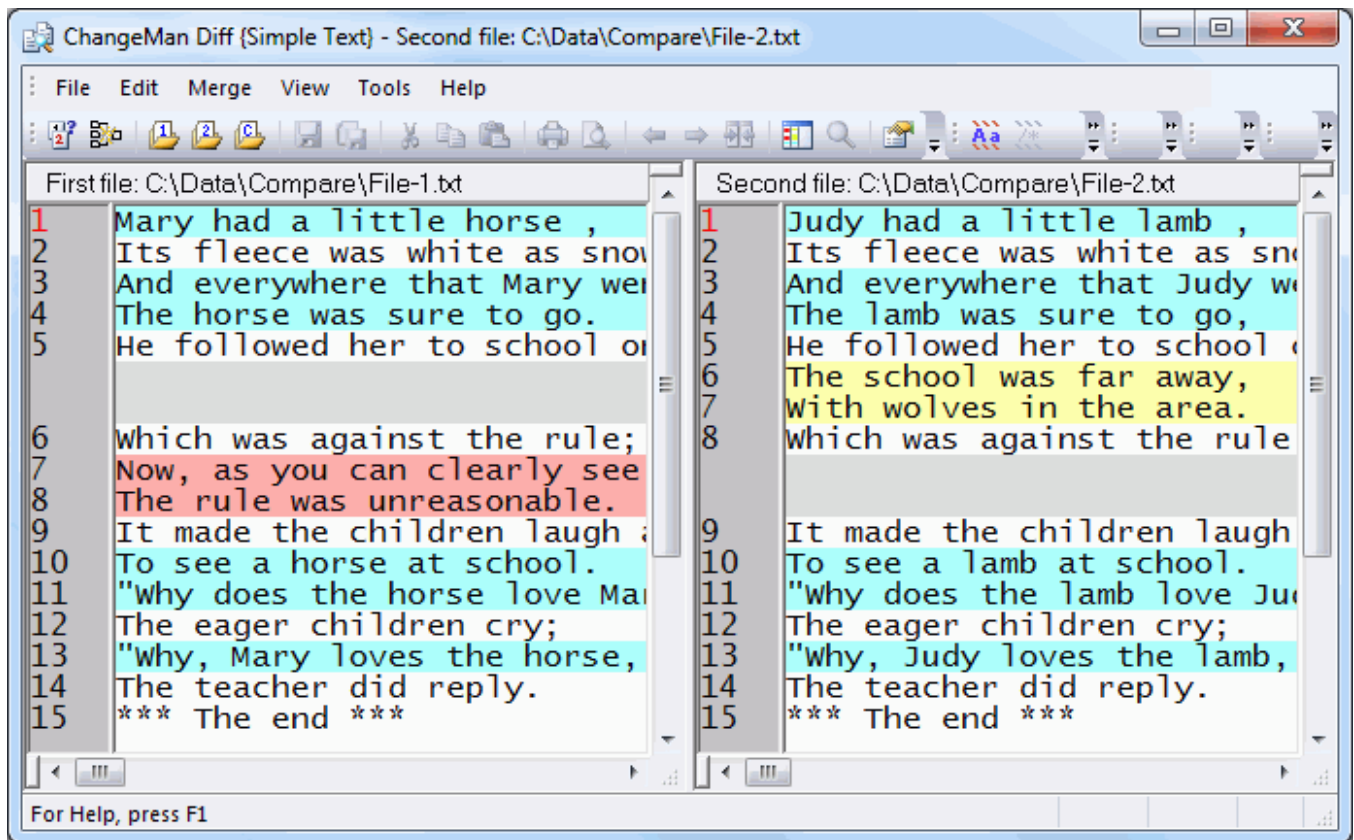
The two large panes display the compared files.

- 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 → Set Template**.

You can modify templates and create new ones with the Template Manager: choose **Tools → 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.
Map	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 → Options,** or by clicking the appropriate button on the Diff Parameters tool bar.
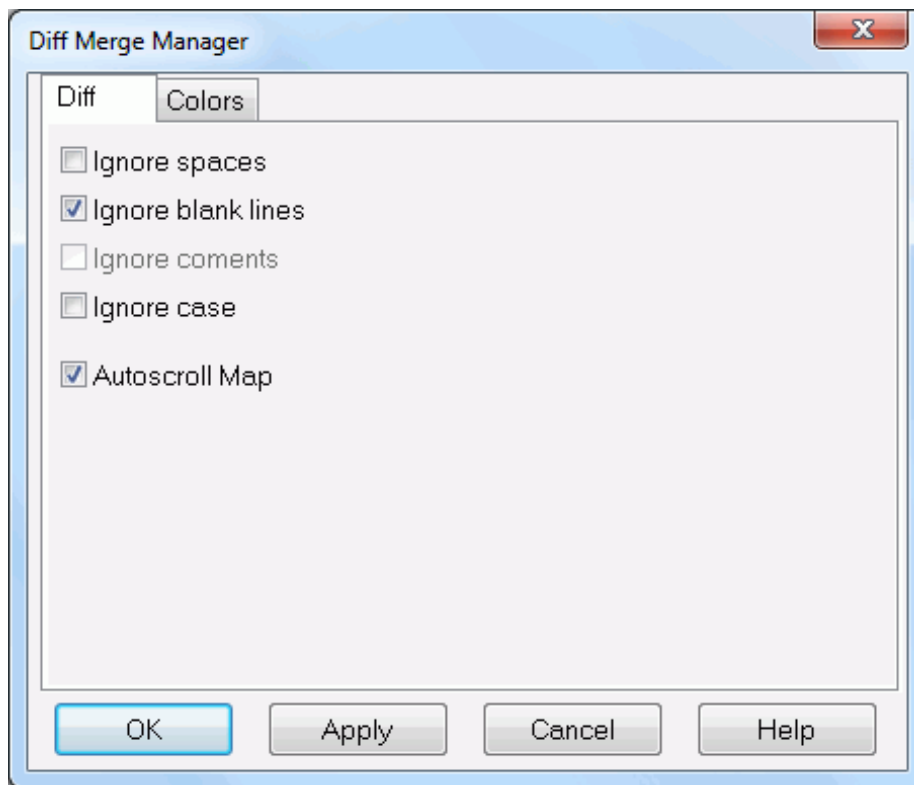
Changing Text Background Colors

You can change the background colors displayed by the ChangeMan Diff utility by choosing **Tools → Options**. The one exception is: identical lines have a white background and cannot be changed.
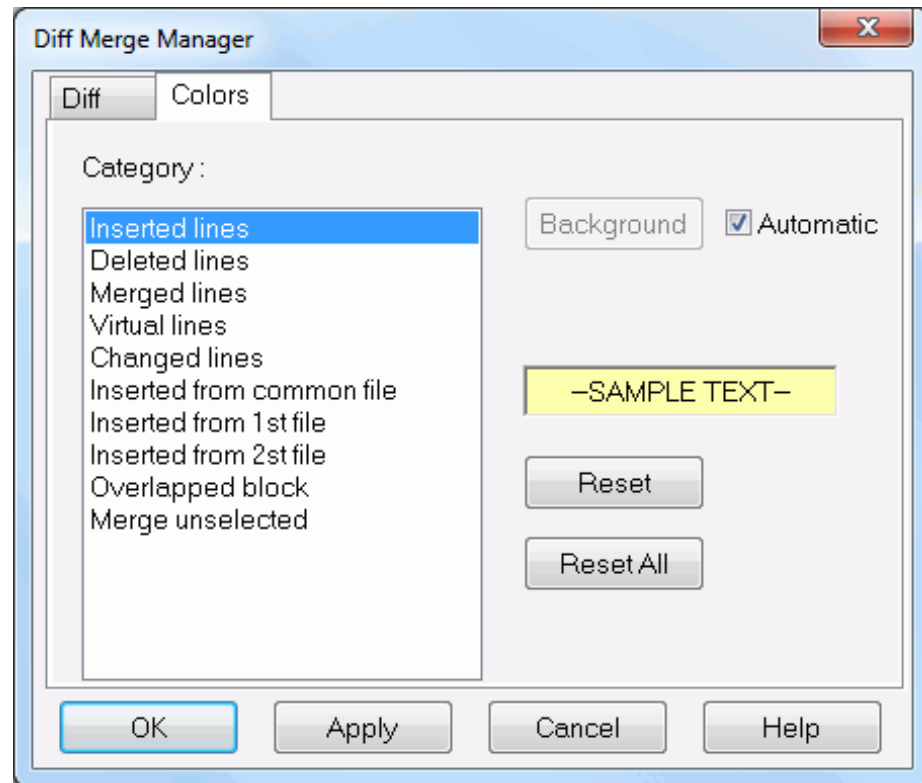
The default colors are as follows:

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: ■ different in the two files being merged ■ merged without conflict ■ selected as final merge result	Green
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 **File → Compare.**

Performing a Merge

You can perform a merge on the files being compared by choosing **File → 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 → 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:
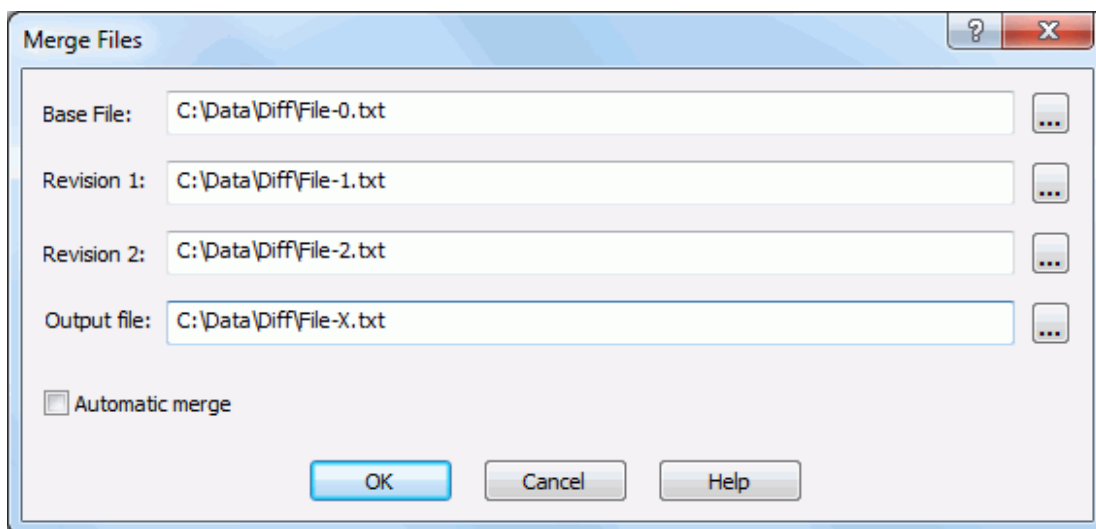
- If you selected one file/component, its path name will display in the *Base File* text box.

- 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.
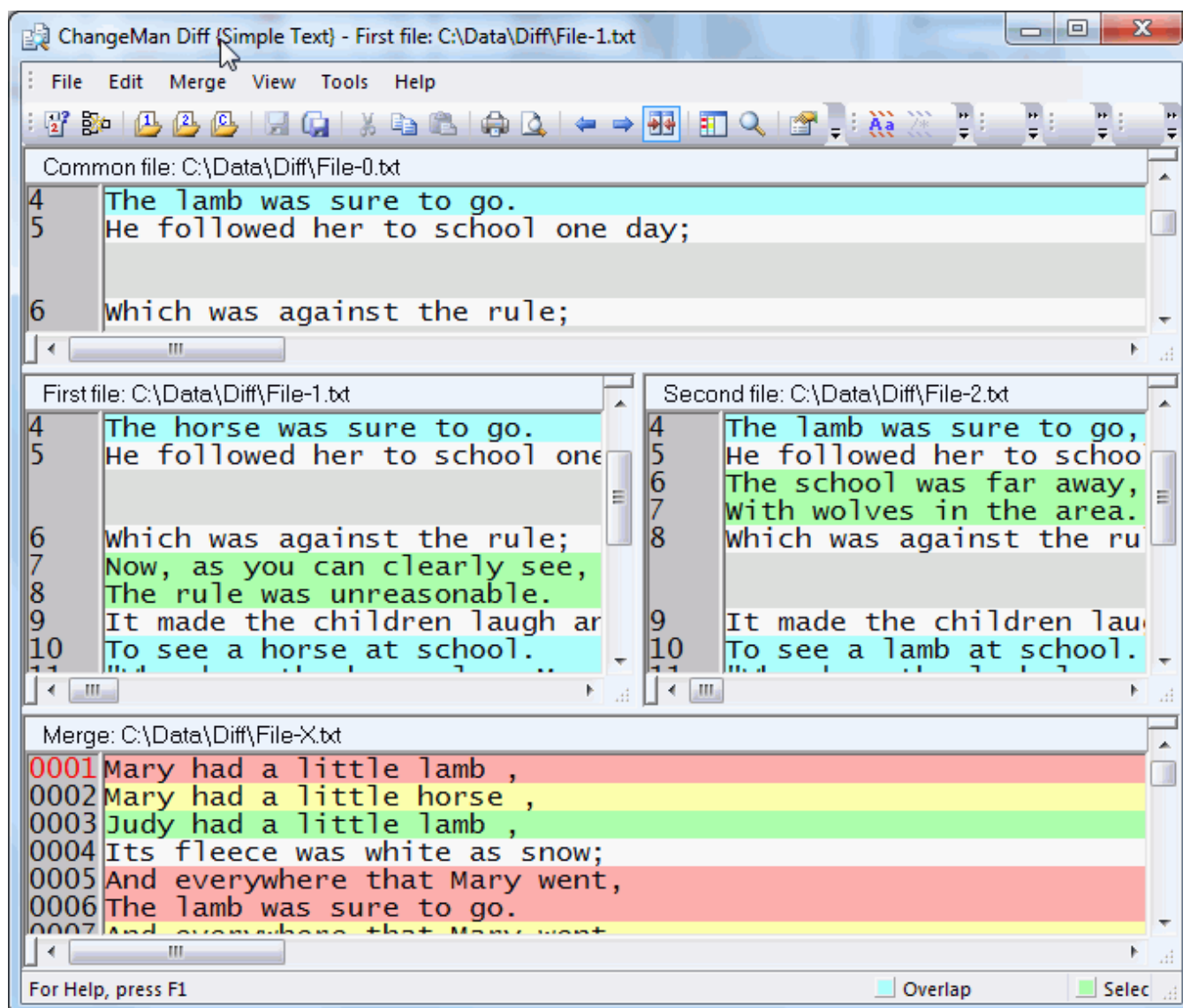
- The Map on the left hand side gives a micro view of each file, with arrows indicating the current positioning of the file, and colors indicating positions of where differences occur. The different columns correspond to the different files: the left-most column is for the First File, the middle column 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).

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** ➡ or **Previous Change** ⬅ .

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 → Save** or clicking **Save** 💾 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 → 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 → Compare** or **Compare** on the toolbar, then change to the comparison view by choosing **View → 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.

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.
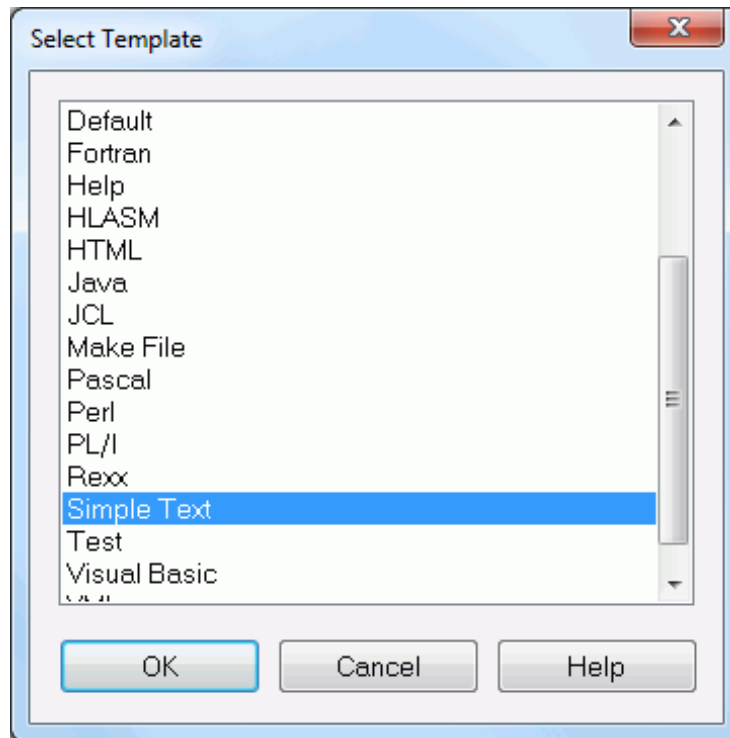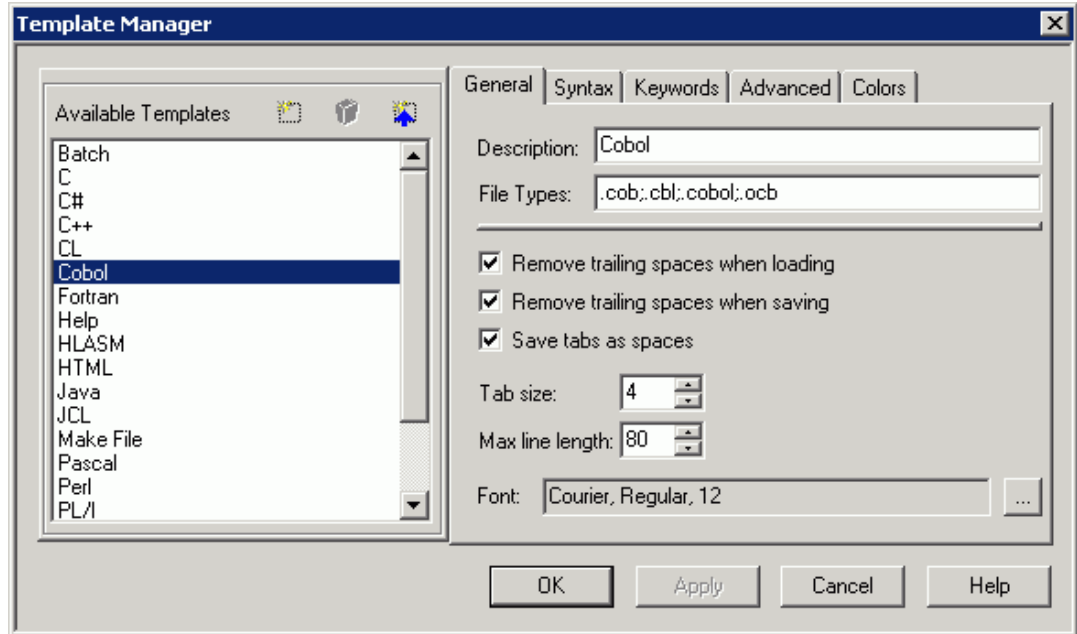

Opening the Template Manager

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

The following dialog box displays:

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.

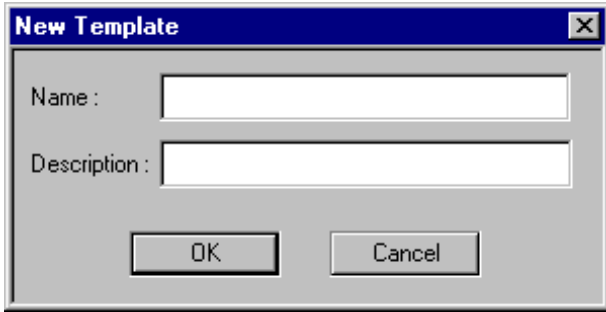# Creating a New Template

Use this procedure to create a new template:

Step	Action
1	Open the Template Manager.
2	Click **Add Template** . The following dialog box displays:

Step	Action
3	Enter a template name and description.
4	Click **OK**. 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 **Copy Template** 🔧. The following dialog box displays: **New Template** Name : Description : OK Cancel
3	Enter the name and description of the new template.
4	Click **OK**. 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** ✕.

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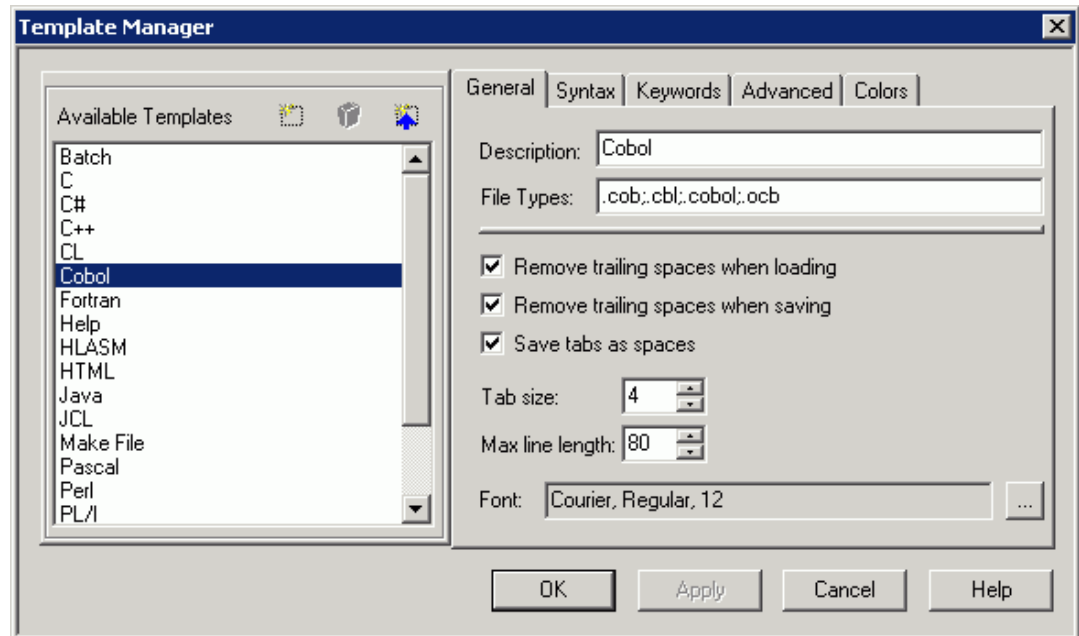
For the template selected in the left pane, a description and a set of pre-defined file types for that template are presented.

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

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

Select...	To...
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.
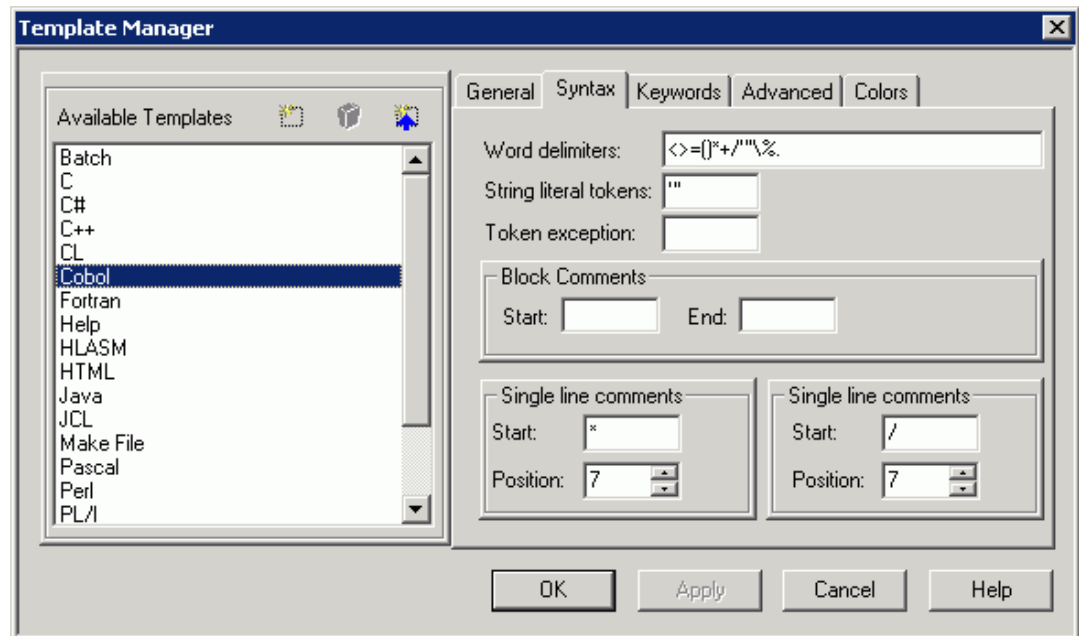

The **Syntax** tab contains the following options:

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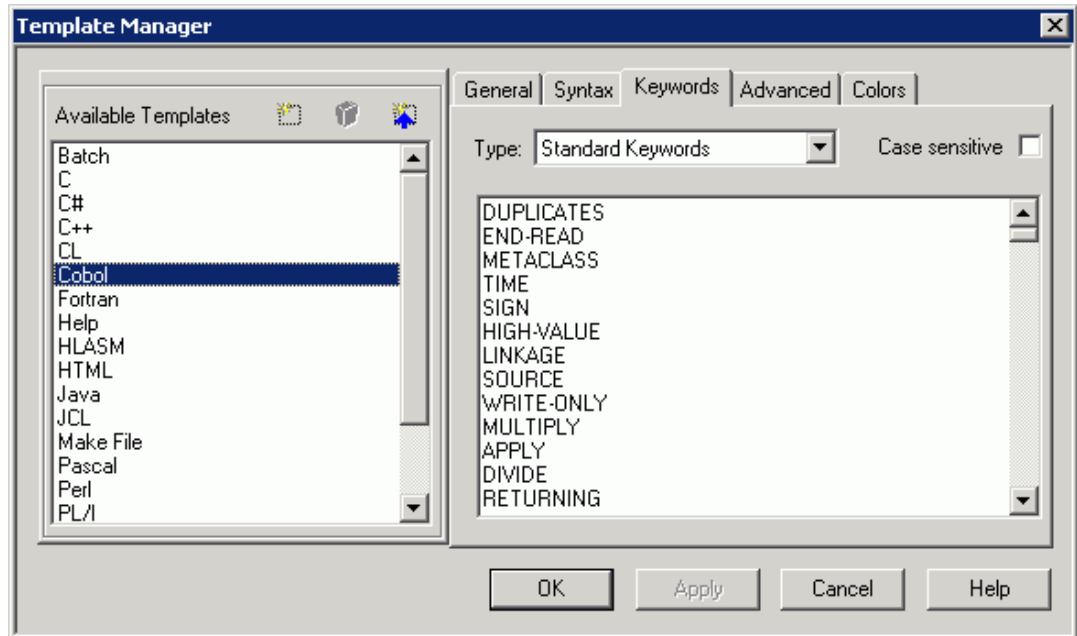
The **Keywords type** pull-down menu shows four sets of template keywords:

- 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 **Apply** 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.
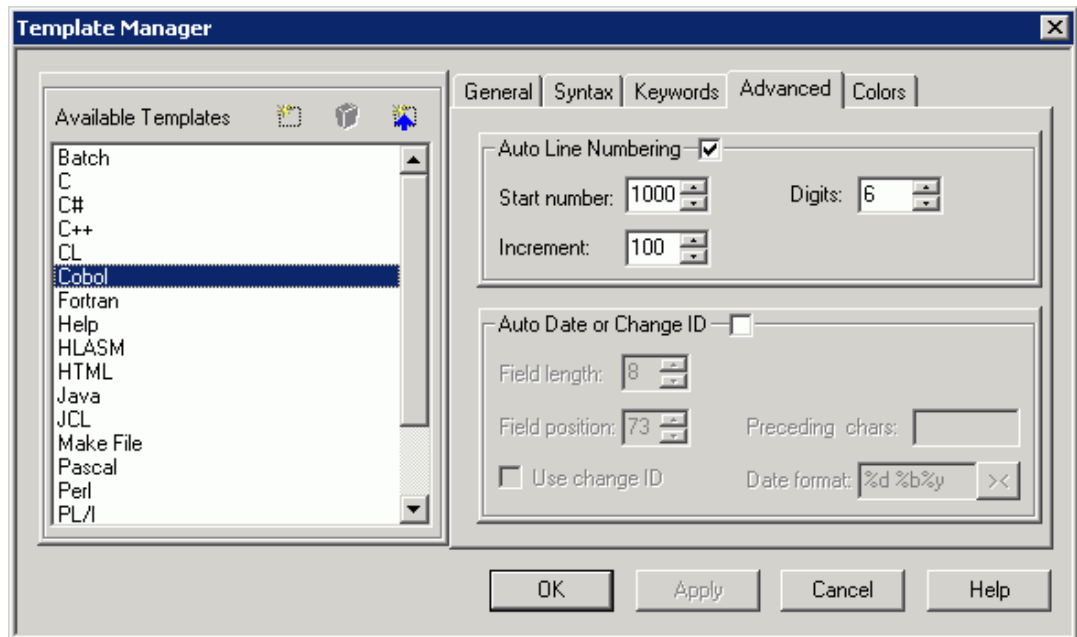
Configuring Auto Line Numbering

Use this procedure to configure automatic line numbering:

Step	Action
1	Select the **Auto Line Numbering** box.
2	Type (or select) a **Start number** 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 **Field length** value.
3	The **Field position** and **Preceding chars** 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 **Field position** field. ■ To start right after a specified character string, clear out the **Field position** field and enter a character string in the **Preceding chars** field.

Step	Action
4	Do one of the following to select the "Change ID" or "Date" option:
	a Select the **Use change ID** 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 **Field length**. As you edit the file, the string is automatically inserted into the columns you specified.
	b Deselect the **Use change ID** option and the **Date format** field is enabled. Click the **><** 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.
5	Click **Apply**.

Color Options

The **Colors** tab allows you to customize the Code Window color scheme.
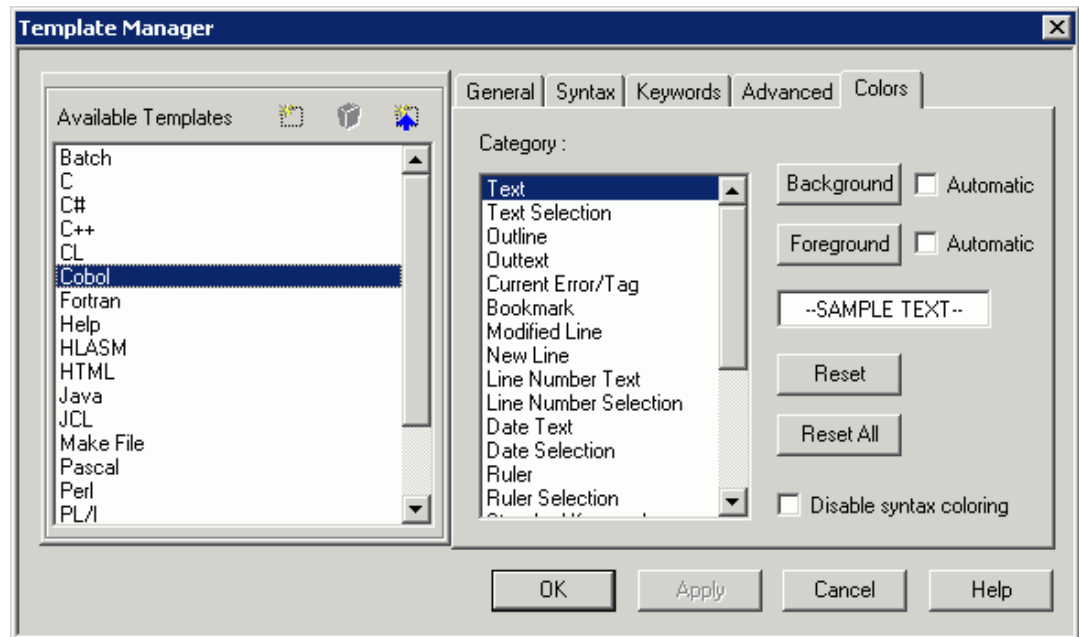
You can choose custom background and foreground colors for the Code Window categories, or use the **Automatic** option.

> **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 **Background** or **Foreground** button.
3	Click the color from the palette.
4	Click **Apply** or **OK** 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 **Reset** or **Reset All** button. **Reset All** will reset the colors for all categories.
3	Click **Apply** or **OK** and view the new colors.

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