Schematic Design Tools   ANC Design   ESP

┌─ Editors ─┐   ┌──────────────── Processors ────────────────┐   ┌─ Transfers ─┐

Draft		Annotate Schematic		Cleanup Schematic		Create Netlist		To PLD
Edit File						Create Hierarchical Netlist		To Digital Simulation
View Reference Material		Update Field Contents		Select Field View		Back Annotate		Extract PLD		To Layout
										To Main

┌─ Librarians ─┐   ┌──────── Reporters ────────┐   ┌─ User ─┐

Edit Library		List Library		Cross Reference Parts		Create Bill of Materials		Check Electrical Rules		User 1
Compile Library		Decompile Library		Show Schematic Structure		Convert Plot to IGES		Plot Schematic		User 2
Archive Parts in Schematic								Print Schematic		User 3
										User 4

File Split Window Next Output Dos Help Quit Key Continue Exit

```
---------------------------------------
Loading: C:\ORCADEXE\ESP_C.EXE
With Parameters:  /C16081015071507
---------------------------------------
Loading C:\ORCAD\TEMPLATE\ESP.CFG
Ω
```

← File: #ESP_OUT.TXT   Insert   Line: 1   Col: 1   →

File Split Window Next Output Dos Help Quit Key Continue Exit

```
---------------------------------------
Loading: D:\ORCADEXE\INET.EXE
With Parameters:  TUTOR.SCH TUTOR.LST  /O /W
---------------------------------------
Incremental NetList"  V4.0H  04-OCT-90"
(C)Copyright 1985,1986,1987,1988,1989,1990 OrCAD L. P.  ALL RIGHTS RESERVED.
Loading "\ORCADESP\SDT\LIBRARY\PCBDEV.LIB"
Loading "\ORCADESP\SDT\LIBRARY\DCLOCK.LIB"
Loading "\ORCADESP\SDT\LIBRARY\TTL.LIB"
```

← File: e:ercbug.txt   Insert   Line: 1   Col: 1   →

Stony Brook Software®
M2EDIT Text Editor
User's Guide

Stony Brook

M2EDIT Text Editor

User's Guide

OrCAD®

Electronic Design Automation Tools

Stony Brook

M2EDIT Text Editor

User's Guide

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C O N T E N T S

Introducing M2EDIT

M2EDIT is a general purpose, full-screen text editor. With M2EDIT, you can:

❖ Edit more than one file at a time

❖ Display two files at the same time

❖ Move blocks of text to the left or right

❖ Redefine the editing function keys

When you are writing source code, M2EDIT will:

❖ Interpret compiler messages

❖ Identify errors in the source code

❖ Automatically position the cursor

If you prefer to use another editor, you can easily configure the design environment to use it, rather than M2EDIT. The section *Configuring your own text editor* later in this chapter tells how.

About this guide   This guide is a working reference for M2EDIT. It provides step-by-step instructions for all the tasks you are likely to perform using M2EDIT.

Before you begin to explore M2EDIT, take a few minutes to install the software and register for technical support. Just follow the instructions in the *Installation & Technical Support Guide*.

Conventions   The notation conventions used in this guide are as follows:

BOLD CAPS   Used for main menu commands.

Bold   Used for other commands.

Courier bold   Used for text you enter.

Bold Italics   Used for references to other manuals.

Italics   Used for references to other sections, chapters, or parts of this guide.

<B>   Brackets <> are used to show a key that you press. For example, <Esc> means to press the escape key.

"Prompt"   Quotation marks indicate program prompts.

The shadow box shown below indicates a program or system prompt. Any bold type following the prompt indicates text that you enter.

```
Abandon edits?
```

This kind of shadow box indicates an OrCAD menu.

```
Hardcopy
Destination
File
```

△   *NOTE: Notes contain important reminders or hints.*

▲   *CAUTION: Cautions contain information about preventing damage to equipment, software, or data.*

Terminology   The instructions in this guide use the terms "enter" and "type" to mean two different things. When the instructions tell you to enter something, you press the appropriate keys and end by pressing <Enter>. When the instructions tell you to type something, you press the appropriate keys, but do *not* press <Enter>.

Starting the environment

Start the OrCAD design environment after installation by entering the command shown below in bold at the system prompt:

```
C:\> orcad
```

In a moment, the design environment work screen displays.
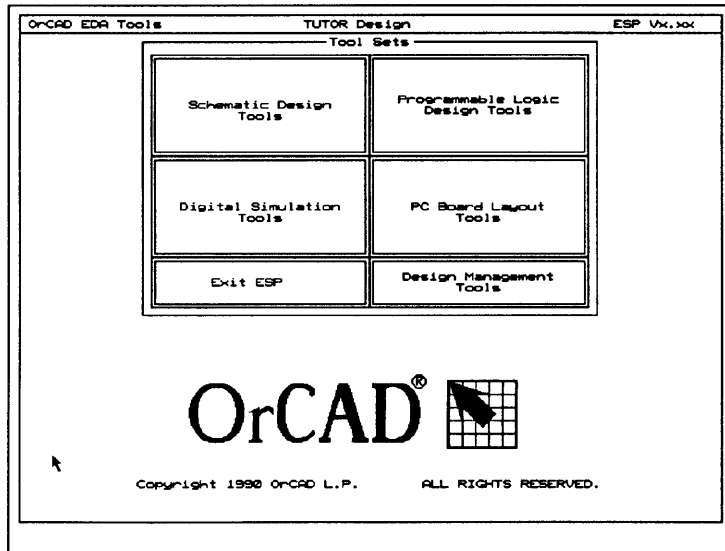
Design environment work screen.

For complete information about the design environment, see the *OrCAD/ESP Design Environment User's Guide.*

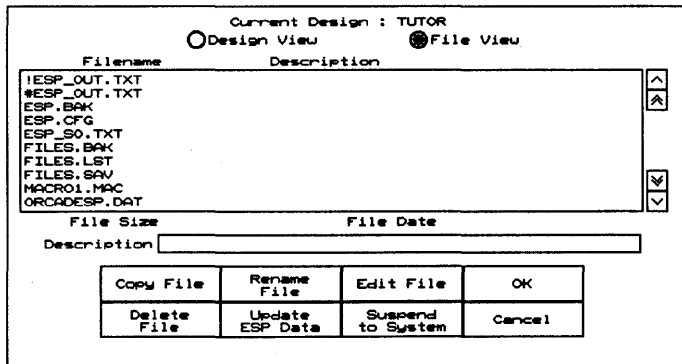The text editor is available from any OrCAD tool set, including the **Design Management Tools**. To run M2EDIT, follow these steps:

1. Double-click the **Design Management Tools** button. The **Design View** screen (shown below) displays.
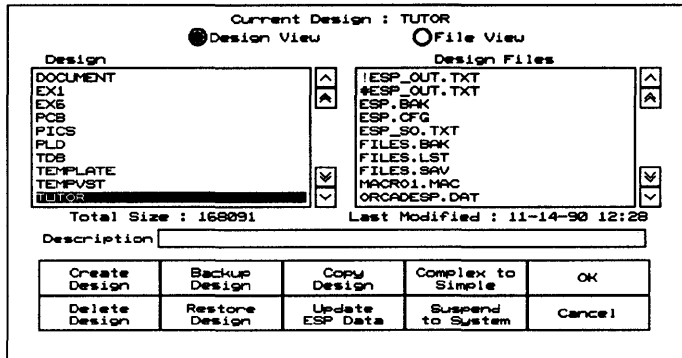
Design View screen.

2. Click the **File View** radio button. It is just above the **Design Files** list box. The **File View** screen (shown below) appears.

File View screen.

3. Click the **Edit File** button. There are **Edit File** buttons in every tool set. All **Edit Files** buttons access the configured text editor. The **File to Edit** work screen (shown below) displays.
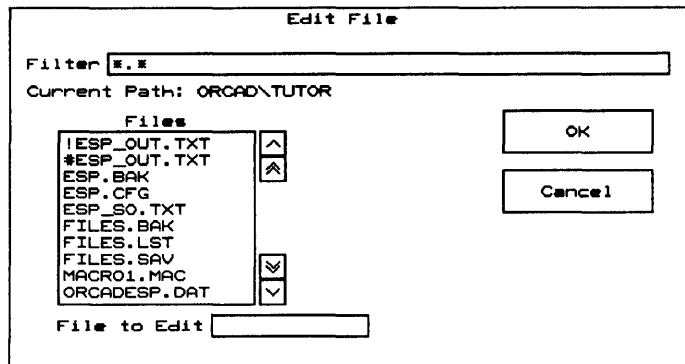
File to Edit work screen.

4. Select a file to edit. You can either select it from the list box or enter a filename in the **File to Edit** text entry box at the bottom of the screen. If no name is entered, M2EDIT opens a new, blank file.

5. Click the **OK** button. M2EDIT opens the file that you selected.
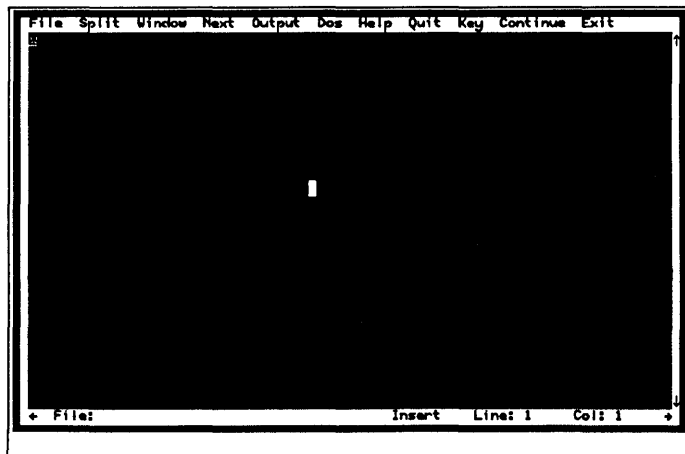
M2EDIT work screen.

5

Now that you are in M2EDIT, turn to chapter 2, *Using M2EDIT.*

Configuring your own text editor

You are not *required* to use M2EDIT as your text editor. You may already have a text editor that you know how to use, and would like to integrate it with the OrCAD design environment rather than learn to use a new editor. It is easy to do this. Just follow these steps:

1   Click once on the **Design Management Tools** button.

2   Select **Configure ESP** from the menu that displays in the upper left corner of the screen.

3   Enter the complete path and name of your editor in the **Text Editor** entry box.

4.   Select **OK**.

The OrCAD design environment is now configured to run your text editor whenever you select **Edit File** from any of the tool set work screens.

For more information about the design environment, see the *OrCAD/ESP Design Environment User's Guide.* For more information about the OrCAD tool sets, see the manuals accompanying the software.

Using M2EDIT

Editing files

Whenever you have the M2EDIT window displayed, you can enter and edit text. As you begin to type, here are some hints to keep in mind:
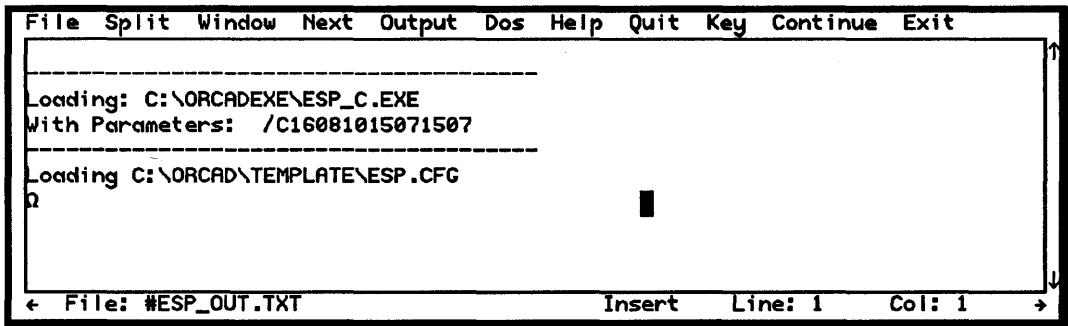
❖ Use the <Shift> key to type capital letters, as you would on a typewriter.

❖ If you make a mistake while typing, use the <Del> key to delete characters to the left of the cursor. You can move up, down, or across characters without erasing them using the arrow keys.

❖ At the end of a line, press the <Return> key.

❖ A line of text can be no more than 128 characters long.

❖ Many M2EDIT functions can be performed using either the mouse or the keyboard. If you have a mouse installed on your system, two cursors display when you are in M2EDIT:

   ❖ The text cursor is a flashing underline _

   ❖ The mouse cursor is a solid block ■

   When you type characters, they appear at the text cursor's location, not the mouse cursor. To move the text cursor to the mouse cursor's position, click the left mouse button.

Commands

Important editing commands are listed across the top of the screen. To select a command, move the mouse cursor over the command name and click the left mouse button.

For a description of what each command does, see *Chapter 3: Command reference.*

```
 File  Split  Window  Next  Output  Dos  Help  Quit  Key  Continue  Exit
┌─────────────────────────────────────────────────────────────────────────┐↑
│───────────────────────────────────────                                    │
│Loading: C:\ORCADEXE\ESP_C.EXE                                             │
│With Parameters:  /C16081015071507                                         │
│───────────────────────────────────────                                    │
│Loading C:\ORCAD\TEMPLATE\ESP.CFG                                          │
│Ω                              █                                            │
│                                                                           │
│                                                                           │
│                                                                           │
│                                                                          ↓│
├─────────────────────────────────────────────────────────────────────────┤
│ ←  File: #ESP_OUT.TXT                   Insert    Line: 1     Col: 1    → │
└─────────────────────────────────────────────────────────────────────────┘
```

M2EDIT commands.

Saving a file

Use the key command <Alt><O> to save the file when you are done editing. Use the command <Alt><E> to save the file and then exit M2EDIT.

More editing techniques

The next sections give step by step directions describing how to use M2EDIT to perform common editing tasks.

Moving around in the file

The M2EDIT window has ↑ and ↓ arrows on the right border and ← and → arrows on the bottom border.

To move down into the file, move the cursor to the ↓ symbol on the lower right border, and then press the left mouse button. M2EDIT continues scrolling until you release the button, or until the end of the file is reached.

You can also scroll up, left, and right by pointing to the appropriate arrows in the window border and pressing and holding the left mouse button.

In addition to pointing to the arrows, you can point anywhere in the lower half of the right border to scroll down, and anywhere in the upper half to scroll up.

Getting help

M2EDIT reserves the right mouse button for displaying help. If you click the right mouse button anywhere inside the window, you will see helpful information display.

To get help on an editor command, point to the command on the window border and click the right mouse button.

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Keyboard equivalents

Many of the explanations and instructions in this book use mouse terminology. If you prefer to use the keyboard, however, there are keyboard equivalents to nearly every mouse-performed operation. Instead of moving the mouse to move the cursor, you can move using the keyboard commands shown in the tables shown in *Chapter 4: Editing keys quick reference.*

Marking a block of text

Block commands are a set of commands that operate on a block of text that you select. To mark a block of text, follow these steps:

1. Move the mouse cursor to the beginning of the text.

2. Press and hold the left mouse button.

3. Move to the end of the block of text. M2EDIT highlights the selected text as you move.

4. Release the mouse button.

After marking the text, you can use any Block command.

Cut

To cut the marked text, press <F5>. M2EDIT cuts the text and moves it to the paste buffer.

Paste

To paste the cut text:

1. Place the cursor at the position where you want to insert the text.

2. Press <F7>. M2EDIT inserts the contents of the paste buffer into the text at the cursor position.

You can insert text in the paste buffer as many times as you want. The cut text remains in the paste buffer until you do another cut.

Other block commands

You can mark blocks of text in any of the following ways:

❖ Press <Ctrl><K><B> or <F3> to begin marking. Move the cursor to the end of the block.

❖ Press <Ctrl><K><K> to mark the end of a block.

❖ Press <Ctrl><K><T> to mark a word containing the cursor.

❖ Press <Ctrl><K><L> to mark a line containing the cursor.

❖ Press <Ctrl><K><R> to read a file and mark the text that is read in. M2EDIT prompts you to enter the name of the file.

M2EDIT highlights the marked block on the screen. You can now perform any of the following commands:

❖ Press <Ctrl><K><C> to copy the marked block at the cursor location.

❖ Press <Ctrl><K><V> to move the marked block to the cursor location, deleting it from the original position.

❖ Press <Ctrl><K><Y> or <F5> to cut the text and save it to the paste buffer. This is also a convenient way to delete large amounts of text.

❖ Press <Ctrl><K><W> to write the marked text to a file. M2EDIT asks you to enter a file name.

❖ <Ctrl><K><H> to turn the marked block off.

Opening several files at once

M2EDIT can open more than one file at a time. When you open a new file, M2EDIT automatically makes room for it. M2EDIT may save some files in order to make room for the new one.

Renaming files

You can rename any file while in M2EDIT.

While editing the file, press <Alt><R>. M2EDIT prompts you to enter a new file name.

Enter a new name in the entry box. M2EDIT renames the file. When you write the file to disk, M2EDIT uses the new name.

Searching   To search for one occurrence of a string:

1. Press <Shift><F1> or <Ctrl><Q><F>. M2EDIT asks you to enter the string.

2. Type the string to search for.

3. To search forward, press<Enter> or <F2>.

To search backwards, press <F1>. M2EDIT moves the cursor in the direction requested to the first location of the string.

To search for more than one occurrence of a string:

1. Follow steps 1 through 3 above.

2. Do one or the other of the following steps:

❖ Press <F1> to search backwards for the next occurrence of a string.

❖ Press <F2> to search forward for the next occurrence of a string.

Replacing occurrences   To replace occurrences of a string:
of strings

1. Press <Ctrl><Q><A>. M2EDIT asks you to enter the search string.

2. Type the search string, terminating it with <Enter>. M2EDIT asks you to enter the replacement string.

3. Type the replacement string, terminating it with <Enter>. The editor options menu displays.

```
                          Editor Options

Search direction        Forward     Backward
Replace occurrences     To end      Global      Block
Prompt before replacing             No          Yes
Ignore case             No          Yes
Whole words only        No          Yes
                        Okay        Cancel
```
Editor options menu.

4. Select the options to apply to the search, then select **Okay**. For more information about the options, see *Chapter 3: Command reference.*

Search for a line

To search for a specific line in your file:

1. Press <Shift><F2>. M2EDIT asks you to enter the line number.

   Lines are assigned numbers in the order they are read from the file. If you have inserted or deleted text from the file during the current edit session, M2EDIT continues to identify the lines according to their positions in the original file.

2. Type the line number at the prompt and press <Enter>. M2EDIT moves to the line specified.

Indenting blocks of text

The indent function is a simple way to move lines or blocks of text.

To shift a line of text:

1. Move the cursor at the line that you want to shift.

2. Do one or the other of the following steps:

   ❖ Press <Shift><F9> to shift the line four characters to the left.

   ❖ Press <Shift><F10> to shift the line four characters to the right.

3. Press <Shift><F9> or <F10> until the line is positioned where you want it.

To shift a block of text:

1. Position the cursor at the line that you want to shift.

2. Do one or the other of the following steps:

   ❖ Press <Shift><F9> to shift the line four characters to the left.

   ❖ Press <Shift><F10> to shift the line four characters to the right.

3. Press <Shift><F9> or <F10> until the line is positioned where you want it.

4. Do one or the other of the following steps:

   ❖ Press <Shift><F7> to shift the next line by the same amount.

   ❖ Press <Shift><F5> to shift the previous line by the same amount.

5. Repeat step 4 until the entire block of text is shifted.

Finding compilation errors
To move the cursor to the next compilation error, press <F8>. M2EDIT positions the cursor at the next error in the source file. The error text is displayed on the bottom border of the window.

Command reference

This chapter describes the commands that appear on the M2EDIT command line, in order of their appearance.

File   The **File** command opens a file. Follow these steps:

1. Click on **File** in the command line or press <Alt><F>. M2EDIT displays the prompt shown below.

```
File name?

┌──────────┐
│          │
└──────────┘
```

File prompt.

2. Type the file name and press <Enter>. The name can include a device, directory, or extension. The file name must be the name of a file in the current directory.

If the file does not exist, M2EDIT creates a new file when it is saved. If the file already exists, M2EDIT opens it and displays it in the current window.

Split Use **Split** command to display two files or two different parts of the same file simultaneously.

△ *NOTE: If you display the same file in both windows, M2EDIT displays the unchanged version in the second window until you move the cursor to the second window. At that time, the changes you made in the first window appear in the second window.*

To split the screen, follow these steps:

1. Press <Alt><S> or click on **Split** at the top of the screen. M2EDIT asks for a file name.

2. Type the name of the file you want to open or create in the second window and press <Enter>. M2EDIT opens a second window.
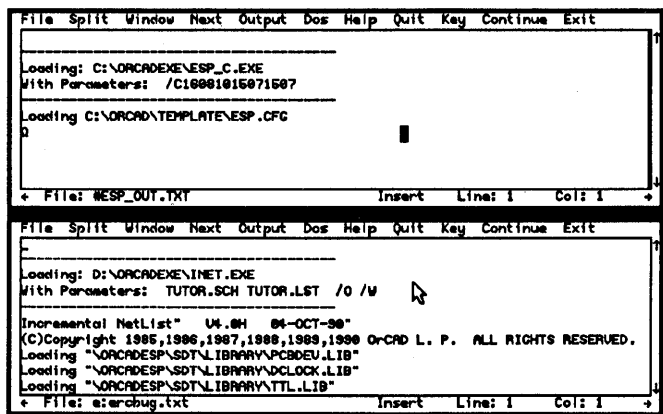
Split screen editing.

To return to full screen editing, select **Split** again or press <Alt><S>. M2EDIT displays the file in the current window in the full screen. The other file continues to remain open in the background.

Window   This command moves the cursor to the inactive window. You can click **Window** in the command line or press <Alt><W>.

Next   You can have more than one file open for editing at a time. When you do, pressing <Alt><N> or clicking on **Next** in the command line tells M2EDIT to display the next open file. Each time you select **Next**, M2EDIT cycles to the next file, eventually returning to the original file.

Output   The **Output** command saves the file on disk.

Dos   To perform a system command while using M2EDIT, follow these steps:

1. Select **Dos**. M2EDIT asks for the system command.

2. Type the DOS command and press <Enter>. M2EDIT runs the DOS command, leaving the file you are editing open.

3. Press any key to return to the file you were editing.

Help   This command displays helpful information.

Quit   To cancel the changes you have made to a file, press <Alt><Q>. The current file is removed from memory and is not updated on disk. M2EDIT then returns to the environment.

If you are editing in split screen mode, pressing <Alt><Q> once closes the bottom window. Pressing <Alt><Q> again closes the large window and exits M2EDIT.

Key If you are accustomed to an editor other than M2EDIT, and would prefer to use the editing keys you are used to, you can reassign the editing keys.

To reassign M2EDIT keys, follow these steps:

1. Press Alt><K> or click on **Key** in the command line. M2EDIT displays a control panel that lists M2EDIT functions and their key assignments.

2. Select the function to reassign.

3. Press the key or key combination to assign to the function. You can use the following keys:

   ❖ F1 through F10 and their shifted versions

   ❖ Control keys, except <Ctrl><I> and <Ctrl><M>

   ❖ <Home>, <End>, <PgUp>, <PgDn>, <Ins>, <Del>

   ❖ <Ctrl><Home>, <Ctrl><End>, <Ctrl><PgUp> and <Ctrl><PgDn>

```
┌─────────────────────────────────────────────────────────────────────┐
│                        Editor function keys                          │
├─────────────────────────────────────────────────────────────────────┤
│Beginning of a line  Home        Paste text          F7               │
│End of line          End         Shift line left     Shift F9         │
│Page up              PgUp        Shift line right    Shift F10        │
│Page down            PgDn        Shift prev line     Shift F5         │
│Top of file          Ctrl/PgUp   Shift next line     Shift F7         │
│Bottom of file       Ctrl/PgDn   Move to prev char   Ctrl/S           │
│Delete character     Del         Move to next char   Ctrl/D           │
│Delete line          F6          Move to prev line   Ctrl/E           │
│Search string        Shift F1    Move to next line   Ctrl/X           │
│Search forward       F2          Move to prev word   Ctrl/A           │
│Search backward      F1          Move to next word   Ctrl/F           │
│Replace string       Shift F4    Toggle Overwrite    Ctrl/V           │
│Replace next         F4          Insert at cursor    Ctrl/M           │
│Find line            Shift F2    Insert above        Ctrl/N           │
│Find error           F8          Delete word         Ctrl/T           │
│Mark text            F3          Make uppercase      Ctrl/U           │
│Cut text             F5          Repeat search/repl  Ctrl/L           │
│                                                                       │
│                        ┌──────┐                     Cancel           │
│                        │ Okay │                                      │
│                        └──────┘                                      │
└─────────────────────────────────────────────────────────────────────┘
```

Editor function keys screen.

4. To accept the changes, click **Okay** or press <Enter>. To cancel the changes, click **Cancel** or press <Esc>.

Continue

To continue a compilation, select **Continue** or press <Alt><C>. The environment continues compiling the file that had an error and placed you in M2EDIT. If you were not doing a compilation, this key is the same as **Exit**.

Exit

To leave M2EDIT and return to the environment, select **Exit** or press <Alt><E>.

Editor Options command

Press <Alt><P> to enter search and repeat parameters. M2EDIT displays a menu showing search and replace options.

```
┌─────────────────────────────────────────────────────────┐
│                     Editor Options                      │
│                                                         │
│   Search direction          Forward    Backward         │
│   Replace occurrences       To end     Global     Block │
│   Prompt before replacing   No         Yes              │
│   Ignore case               No         Yes              │
│   Whole words only          No         Yes              │
│                             Okay       Cancel           │
└─────────────────────────────────────────────────────────┘
```

Search direction

Set **Search direction** to **Forward** to search forward, or **Backward** to search backward in the file.

Replace occurrences

Set **Replace occurrences** to:

❖ **All** to replace the strings in the entire file.

❖ **Rest** to replace strings from the cursor position to the end of the file.

❖ **Block** to replace strings only in the marked block.

Prompt before replacing

Set **Prompt before replacing** to **Yes** if you want M2EDIT to ask for confirmation before each string it replaces. Set **Prompt before replacing** to **No** if you want M2EDIT to make the replacements without asking.

Ignore case   Set **Ignore case** to **Yes** if you want M2EDIT to match the search string regardless of the case of the text. Set **Ignore Case** to **No** if you want M2EDIT to replace just those search strings that match the search string case exactly.

Whole words only   Set **Whole words only** to **Yes** if you do not want M2EDIT to match strings inside a word. Set **Whole words only** to **No** if you want M2EDIT to match the string regardless of word boundaries.

Editing keys quick reference

To move the cursor

Function	Key	Alternate
Forward one character	<Ctrl><D>	←
Backward one character	<Ctrl><S>	→
To the next word	<Ctrl><F>	
To the previous word	<Ctrl><A>	
Up one line	<Ctrl><E>	↑
Down one line	<Ctrl><X>	↓
Up one screen	<Ctrl><R>	<Page Up>
Down one screen	<Ctrl><C>	<Page Down>
To the beginning of the file	<Ctrl> <Page Up>	
To the end of the file	<Ctrl> <Page Down>	
To the beginning of a line	<Home>	<F9>
To the end of a line	<End>	<F10>
To a line (by number)	<Shift><F2>	
To the next compilation error	<F8>	

To delete

Function	Key	Alternates
Character at the cursor position	<Del>	<Delete>, <Ctrl><G>
Character at the left of the cursor	<Backspace>	
Word containing the cursor	<Ctrl><T>	
Line the cursor is on	<Ctrl><Y>	<F6>
From the cursor to the end of the line	<Ctrl><Q><Y>	

To search

Function	Key	Alternate
Find text you specify	<Shift><F1>	<Ctrl><Q><F>
Replace text you specify	<Shift><F4>	
Find and replace text you specify	<Ctrl> <Q><A>	
Search again	<Ctrl><L>	
Continue search backward	<F1>	
Continue search forward	<F2>	
Replace next occurrence	<F4>	

To mark and edit blocks of text

Function	Key	Alternate
Begin marking a block	<Ctrl><K><B>	<F3>
End marking a block	<Ctrl><K><K>	
Turn markers on and off	<Ctrl><K><H>	
Mark a single word	<Ctrl><K><T>	
Mark one line	<Ctrl><K><L>	
Copy a block to cursor location	<Ctrl><K><C>	
Cut block	<Ctrl><K><Y>	<F5>
Read a block from a file	<Ctrl><K><R>	
Write a block to a file	<Ctrl><K><W>	

To cut and paste

Function	Key	Alternate
Move marked text to the cursor location	<Ctrl><K><V>	
Cut marked text	<F5>	<Ctrl><K><Y>
Paste text at cursor location	<F7>	

To shift text

Function	Key	Alternate
Shift line left 4 characters	<Shift><F9>	
Shift line right 4 characters	<Shift><F10>	
Shift previous line the same	<Shift><F5>	
Shift next line the same	<Shift><F7>	

To edit more than one file

Function	Key	Alternate
Open a new file	<Alt><F>	
Cycle to the next file	<Alt><N>	
Rename the current file	<Alt><R>	

To use split screen editing

Function	Key	Alternate
Toggle between split and unsplit screen	<Alt><S>	
Move between windows	<Alt><W>	

To save, exit, or quit

Function	Key	Alternate
Save the current file	<Alt><O>	
Exit to the environment	<Alt><E>	
Discard changes to the current file	<Alt><Q>	

Miscellaneous commands

Function	Key	Alternate
Run a system command	<Alt><D>	
Toggle insert and overstrike mode;between insert and overstrike mode	<Ins>	<Ctrl><V>
Convert to uppercase	<Ctrl><U>	<Alt><U>
Get help	<Alt><H>	Right mouse button
Define keys	<Alt><K>	
Show version number	<Alt><V>	

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