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Overview

μVision for Windows is an integrated software development platform that supports the Keil Software development tools for the 8051, 251, and 166 microcontrollers. μVision includes features such as a windowed user interface, a fullfunction editor, a project manager, a make facility, and an integrated help system.

This manual is written for experienced programmers who are already familiar with the Windows operating system, microprocessor architecture, and programming using the C programming language.

You use the builtin features of μVision as well as external tools to create and edit your source files, create a project file (with automatic make information), and build a target (usually an absolute object file). The rest of this chapter briefly lists the features of μVision that help you do this and also explains how to start the μVision programming environment.

Related Topics:

Basic Features

Basic Features

To help expedite the software development process, μ Vision offers numerous features like:

- A pulldown menu system,
- Multiple file editing capability,
- Fullfunction editor with color syntax highlighting, userdefinable key sequences, and editor functions,
- Application manager for accessing external programs,
- Project manager and automated make facility for building target files,
- Dialog Boxes for all environment and development tool settings,
- Help System that describes details of μ Vision program operation.

These features, as well as many more, are described throughout the remainder of this manual.

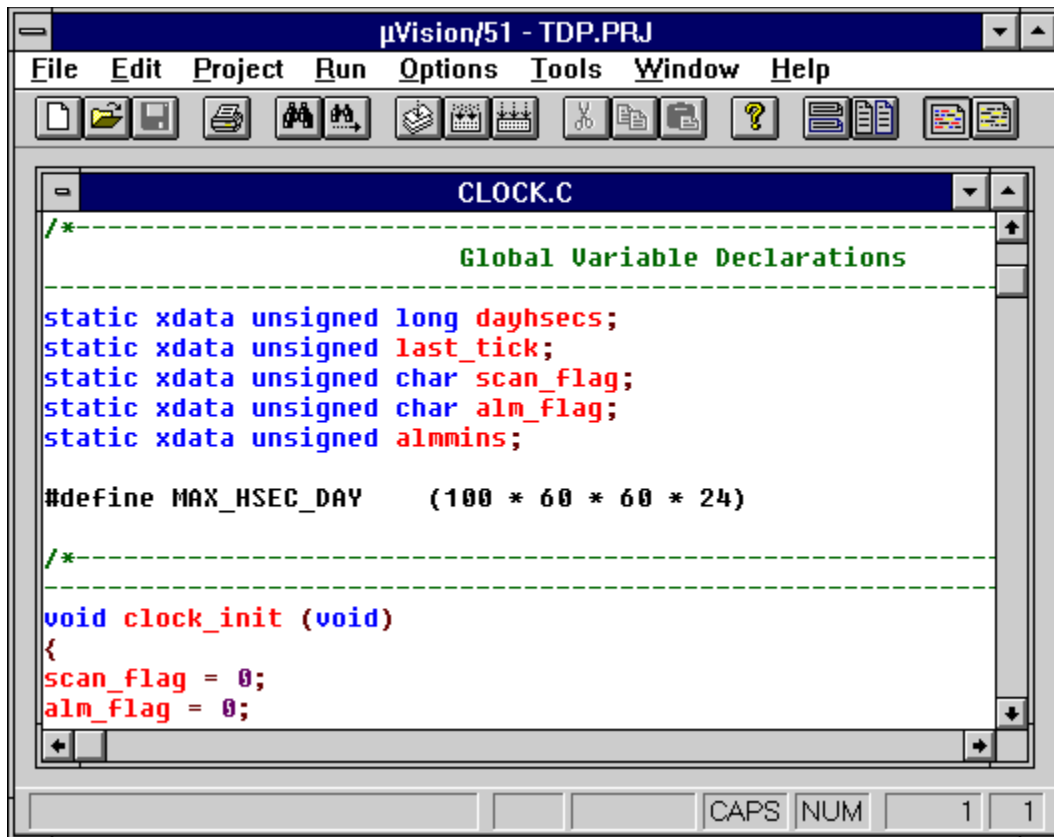
Program and Data Files

µVision comes with a number of program and configuration files. These files are listed in the following table.

Filename	Description
UVWIN.EXE	The µVision for Windows executable program.
UVWIN.INI	Initialization data file for µVision. This file contains the option settings that are restored each time you use µVision. µVision attempts to load UVWIN.INI from the directory where UVWIN.EXE is located.
UVWIN.HLP	Help file for µVision. This file contains the help text that you may access through the Help menu.
UVWIN.TPL	Editor <u>template</u> file. This file contains the template replacement text that µVision uses. µVision attempts to load UVWIN.TPL from the directory where UVWIN.EXE is located.
WINRUN.EXE	The MSDOS executor for the assembler, compiler, and other DOSbased tools. This program runs and traps error messages from the development tools.
WINRUN.PIF	The Windows program information file (PIF) for WINRUN.EXE .
*.DLL	Tool set support library. DLLs are provided for supporting the Keil 8051, 251, and 166 development tools.
*.HLP	Help files for µVision and the 8051, 251, and 166 tools.
????XLAT.EXE	Error translator programs. These programs converts error output data into µVision compatible error data.

Screen Components

You use µVision to create and maintain the source files, configuration files, and initialization files that compose your project. Specifically, you use the menu commands, tool bar, status bar, and other screen components to manipulate the text in a window.



The µVision screen provides you with a menu bar for command entry, a tool bar where you can rapidly select command buttons, and one or more windows for source files, dialog boxes, and information displays.

Related Topics:

[Menu Conventions](#)

[Using the Tool Bar](#)

[Using the Status Bar](#)

Horizontal Scroll Bar

Scrolls the contents of the source window left and right.

Vertical Scroll Bar

Scrolls the contents of the source window up and down.

Tool Bar

Contains buttons for the most frequently used commands.

Status Bar

Lists information about the source window.

Source Window

Displays the contents of a file. You use this window to enter text and make changes to a source file using the mouse and the keyboard. Text you type in this window is inserted in the the corresponding source file.

Source Window Title

Displays the file that is associated with a source window.

Title Bar

Displays "μVision", the name of the tool set supported, and the name of the active project.

Menu Bar

Shows the menus available.

Menu Conventions

Commands listed in the menus may invoke editor functions or they may present dialog boxes. The following table lists the conventions used for the command names in the menus.

Menu Convention	Description
A key combination listed to the right of a command	Indicates a shortcut for this menu command. You may use this key combination to execute this menu command without opening the menu. You may change key combinations for most commands from the Key Assignments dialog box.
An ellipsis (...) following a menu command	Indicates the command opens a dialog box.
A dimmed out menu command	Indicates that the command is not available in the current context. For example, the cut and copy commands in the edit menu are dim until a <u>text block</u> is selected.

Using the Tool Bar

You can quickly access many of the features of μ Vision using the buttons on the tool bar.



Click on a button for more information.

New File

Opens an empty source window. You may enter text in this window and save it.

Open

Opens the File Open dialog box where you may select a file to open.

Save

Saves the contents of the active window.

Print

Prints the contents of the active window or prints the selected text block from the active window.

Find

Opens the Search dialog box where you may specify text to find.

Repeat Find

Searches for the most recently specified search criterion.

Compile

Compiles or assembles a file.

Update

Updates a project. Use this command to compile and assemble only those files that are out of date.

Build All

Forces a build of all components of a project. Use this command to compile and assemble all files in a project.

Tile Horizontally

Tiles source windows horizontally.

Tile Vertically

Tiles source windows vertically.

Color Syntax Highlighting

Enables or disables color syntax highlighting for all source windows.

Show Occurrences

Shows or hides all occurrences of the search criterion specified in the Search dialog box.

Help

Opens the on-line help system.

Paste Text

Inserts text from the clipboard.

Copy Selected Text

Copies selected text to the clipboard.

Cut Selected Text

Copies selected text to the clipboard and removes it from the active window.

Using the Status Bar

The status bar displays information about the active window and about the mode in which μ Vision operates.



Click on part of the status bar for more information.

Message Area

Displays menu command descriptions, error messages, and other information messages.

Overwrite Mode

Displays **OVR** when overwrite mode is active. In overwrite mode, text you type replace existing text. This area is blank when insert mode is active. In insert mode, text you type is inserted before existing text.

Read-Only Mode

Displays **RDONLY** when the file in a source window may not be modified.

Caps Lock

Displays **CAPS** when Caps Lock mode is enabled.

Num Lock

Displays **NUM** when Num Lock mode is enabled.

Line Number

Displays the line number of the insertion point.

Column Number

Displays the column position of the insertion point.

Configuring the Editor

You configure the editor in μ Vision using the Editor Options, the Editor Color, and the Key Assignments dialog boxes available from the Options menu. These dialog boxes let you set editor preferences, color settings, and keys used to access editor functions.

Related Topics:

[Editor Options](#)

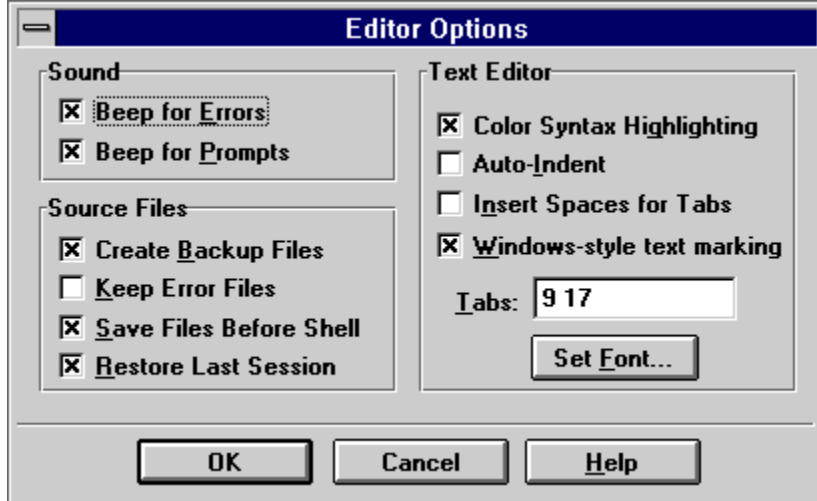
[Editor Font](#)

[Editor Colors](#)

[Key Assignments](#)

Editor Options

The Editor Options dialog box lets you configure how μ Vision's built-in editor operates. Use the controls in this dialog box to change options for sounds, source files, and editing.



Click on a control for more information.

Beep for Errors

Selects whether or not μ Vision generates a beep when errors are encountered. If you select this check box, μ Vision generates error beeps. If you clear this check box, no error beeps are generated.

Beep for Prompts

Selects whether or not μ Vision generates a beep when important input prompts are displayed. If you select this check box, μ Vision generates prompt beeps. If you leave this check box blank, no prompt beeps are generated.

Create Backup Files

Automatically creates backup files (**.BAK**) for all your edited and saved files.

Keep Error Files

Retains compiler and assembler error files for future use. If this check box is blank, error files are deleted.

Save Files Before Shell

Saves all modified files before running make. When this check box is not selected, files are not saved before running make.

Restore Last Session

Restores the text files and project open during your last session. If this check box is left blank, files are not reloaded.

Color Syntax Highlighting

Selects whether or not μ Vision colors C language elements using the colors defined in the Editor Colors dialog box. If this check box is selected, μ Vision applies different colors to the elements of the C language. If this check box is not selected, color syntax highlighting is disabled.

You may use the Color Syntax Highlighting Button on the tool bar to quickly toggle syntax highlighting.



Color Syntax Highlighting Button

Auto-Indent

Automatically indents the insertion point to the column position of the first character on the previous line. If the previous line is blank, the insertion point returns to column 1.

Insert Spaces for Tabs

Inserts spaces, rather than a tab character, when the **Tab** key is pressed.

Windows-style text marking

Enables Microsoft Windows-style text marking. You may use the **Shift** and the Cursor keys to rapidly mark a text block.

Tabs

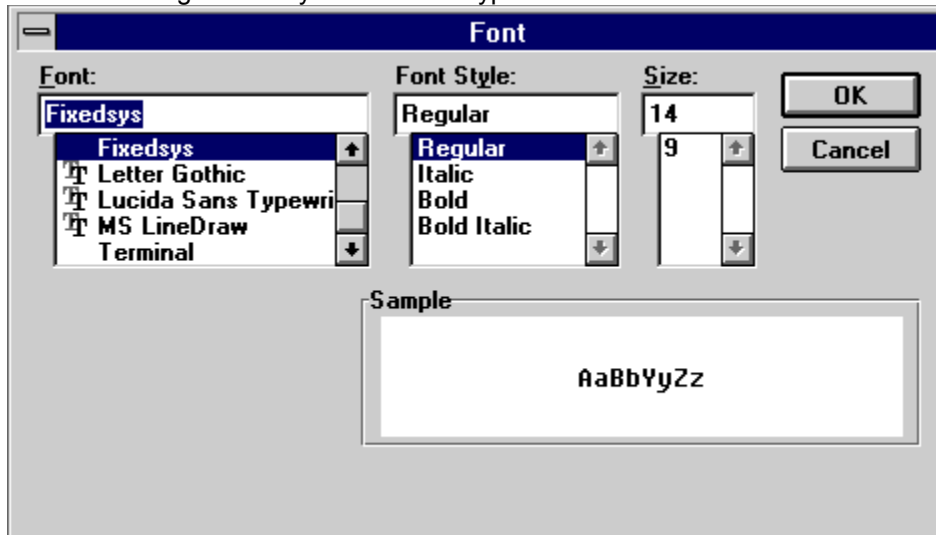
Sets tab stops. μ Vision supports programmable tab spacing. Use this control to specify what column positions to use for tab stops. Each number specified must be separated by one or more spaces. μ Vision automatically repeats the width of the last tab.

Columns in the editor start at 1, not 0. So, for example, if you want tabs every 8 columns, the Tabs input field should be "9, 17, 25". Since the last tab width is repeated, tab stops are also set at 33, 41, 49, 57, 65,

μ Vision defaults to tab positions every 8 columns.

Editor Font

The Font dialog box lets you select the typeface used in the edit windows.



Click on a control for more information.

Font

Selects fixed point fonts installed on your computer. You may select system fonts and fixed point TrueType fonts.

Font Style

Selects the style of the font. Available styles depend on the font. Regular, *italic*, **bold**, and ***bold italic*** are typical.

Size

Selects the size of the font.

Sample

Shows a sample of text displayed using the selected font.

Editor Colors

The Editor Colors dialog box lets you select the colors used by μ Vision for the edit windows, output windows, and syntax highlighting used for your C source files.

Related Topics:

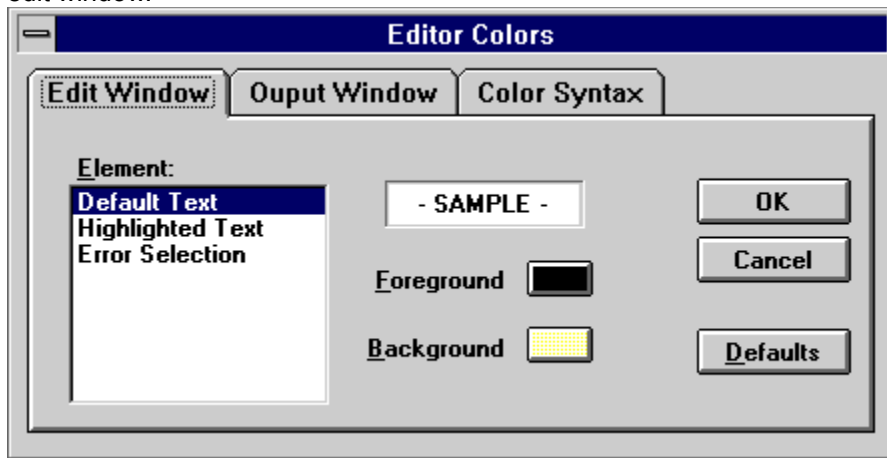
[Editor Colors: Edit Window](#)

[Editor Colors: Output Window](#)

[Editor Colors: Color Syntax](#)

Editor Colors: Edit Window

The Edit Window thumb tab in the Editor Colors dialog box lets you change the colors associated with the edit window.

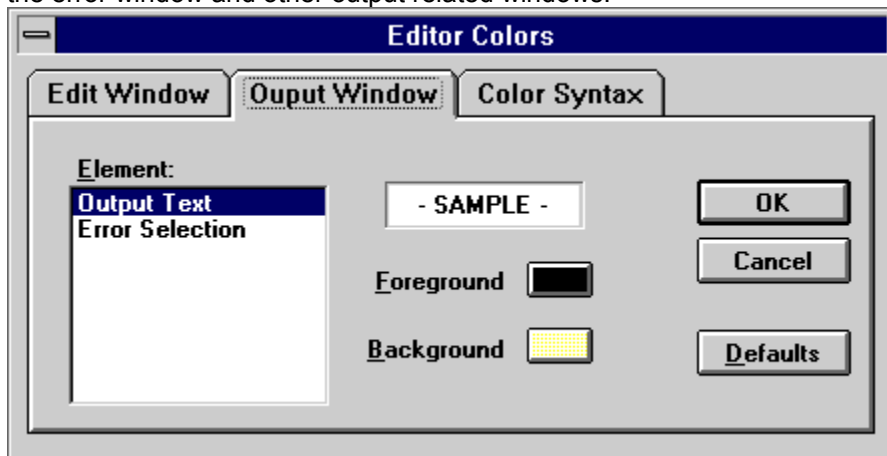


The color elements you may configure are described in the following table.

Element	Description
Default Text	Normal text displayed in edit windows.
Highlighted Text	Text in a <code>text</code> block.
Error Selection	Text that caused a compiler or assembler error.

Editor Colors: Output Window

The Output Window thumb tab in the Editor Colors dialog box lets you change the colors associated with the error window and other output related windows.

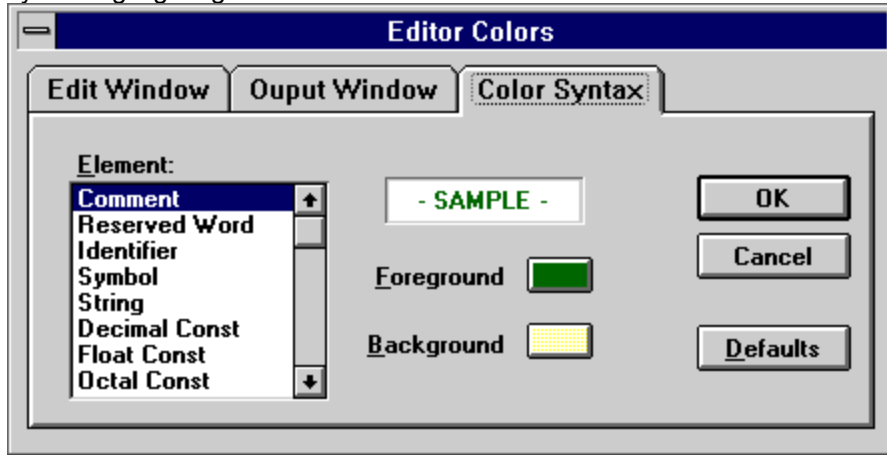


The color elements you may configure are described in the following table.

Element	Description
Output Text	Normal text in the error window.
Error Selection	Selected text in the error window.

Editor Colors: Color Syntax

The Color Syntax thumb tab in the Editor Colors dialog box lets you change the colors associated with syntax highlighting.



The color elements you may configure are described in the following table.

Element	Description
Comment	A comment in the source file.
Reserved Word	A reserved word like int, for, or while.
Identifier	A variable name or a function name.
Symbol	A symbol character like +, *, or >>.
String	A string enclosed within double quotes ("").
Decimal Const	A decimal number.
Float Const	A floating-point number.
Octal Const	An octal number.
Hex Const	A hexadecimal number.
Char Const	A character constant like 'a'.
Preprocessor Cmd	A preprocessor command like #include.
Syntax Error	Any character that generates a syntax error.

Element

Shows the elements whose colors may be changed.

Sample

Shows the color combination for the selected element.

Foreground

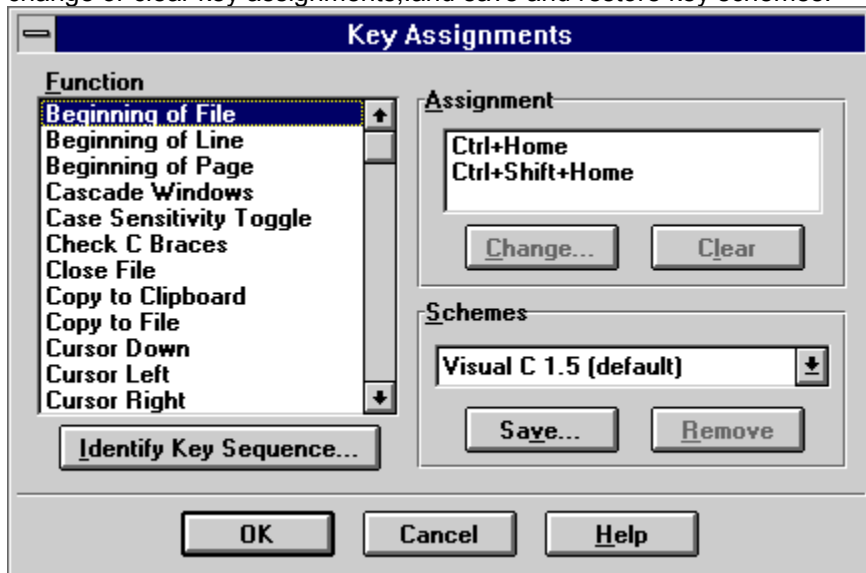
Displays the available foreground colors.

Background

Displays the available background colors.

Key Assignments

The Key Assignments dialog box lets you assign key strokes to editor functions, identify assigned keys, change or clear key assignments, and save and restore key schemes.



Function

Lists the available editor functions.

Identify Key Sequence

Displays the Identify Key Sequence dialog box where you may type a sequence of key strokes for which to search.

Assignment

Displays the active key assignment.

Change

Changes the active key assignment.

Clear

Clears the active key assignment.

Schemes

Displays the active key assignment scheme.

Save

Saves a key assignment scheme.

Remove

Removes a key assignment scheme.

Editing Files

The primary function of μ Vision is to provide a method of creating and changing source files. When you read a source file into μ Vision, the file is displayed in an edit window. Using the builtin editor functions, you can make changes to the text in the edit window. When finished, you can save the contents of the edit window back to disk.

Related Topics:

[Opening a Window](#)

[Making Changes](#)

[Saving Changes](#)

[Closing a Window](#)

Opening a Window

µVision lets you open an edit window for a new file or an existing file.

- To open an edit window for a new file, use the New command in the File menu.
- To open an edit window for an existing file, use the Open command the File menu.

Both of these methods are explained below.

Related Topics:

[Creating New Files](#)

[Opening a File](#)

Creating New Files

To open an edit window for a new file, you must select the New command from the File menu.

To open an edit window for a new file using the mouse...

1. Click on the File menu. The menu displays.
2. Click on the New command.

To open an edit window for a new file using the keyboard...

1. Press **Alt+F** to open the File menu.
2. Press **N** to select the New command.

The name of the file associated with a window is centered on the title bar of the window. New edit windows are not associated with a filename (until you save the contents of the window) and are initially given the name <Untitled>.

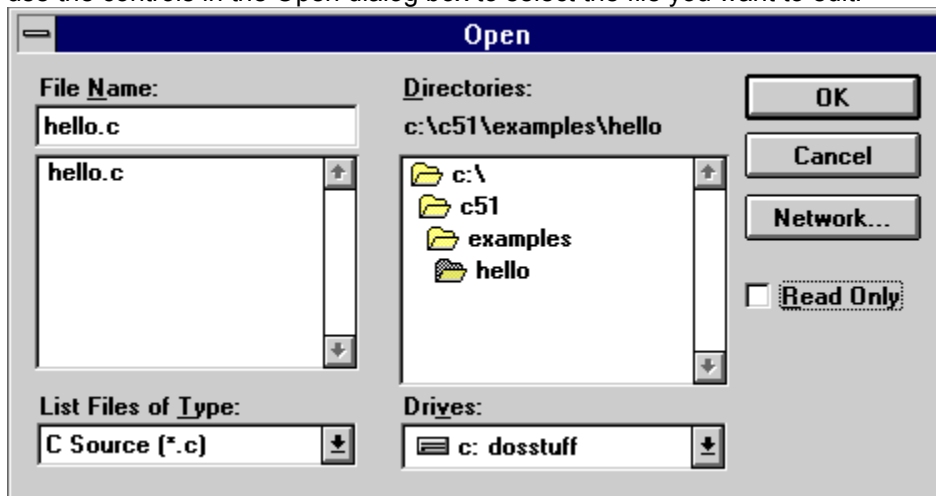
You may use the New Button on the tool bar to quickly create a new file.



New Button

Opening a File

To open an edit window for a file that already exists, select the Open command from the File menu and use the controls in the Open dialog box to select the file you want to edit.



To access the File Open dialog box using the mouse...

1. Click on the File menu. The menu displays.
2. Click on the Open command.

To access the File Open dialog box using the keyboard...

1. Press **Alt+F** to open the File menu.
2. Press **O** to select the Open command.

You may use the Open Button on the tool bar to quickly open a file.



Open Button

Making Changes

To change the text in an edit window, you use the keyboard and the mouse to select the text you want to alter and the keyboard to type in the changes.

To change the text in an edit window using the mouse...

1. Use the mouse to position the cursor on the screen at the text you want to change and click. If the text you want to change is not displayed in the window, scroll the contents of the window up or down using the vertical scroll bar, then select the text.
2. Type the changes you want to make on the keyboard.

To change the text in an edit window using the keyboard...

1. Use the cursor keys and the **PgUp**, **PgDn**, **Home**, and **End** keys to move the cursor to the part of the text file you want to change.
2. Type the changes you want to make to the text file.

Saving Changes

When you save changes to an edit window, μ Vision writes the entire file to the disk. If there is a filename already associated with the edit window, μ Vision overwrites that file with the new data. If the edit window was opened using the New command, μ Vision prompts you with the Save As dialog box. Here, you must specify a filename in which to save the window contents.

To save changes to an edit window using the mouse...

1. Click on the File menu. The menu displays.
2. Click on the Save command.

To save changes to an edit window using the keyboard...

1. Press **Alt+F** to open the File menu.
2. Press **S** to select the Save command.

You may use the Save Button on the tool bar to quickly save a file.



Save Button

Closing a Window

To close an edit window, select the Close command from the File menu. If you changed the contents of the edit window, μ Vision prompts you to save the file before closing it.

Using Editor Functions

The following functions are available in the μ Vision editor.

Related Topics:

[Beginning of File](#)

[Beginning of Line](#)

[Beginning of Page](#)

[Cascade Windows](#)

[Case Sensitivity Toggle](#)

[Check C Braces](#)

[Close File](#)

[Copy to Clipboard](#)

[Copy to File](#)

[Cursor Down](#)

[Cursor Left](#)

[Cursor Right](#)

[Cursor Up](#)

[Cut to Clipboard](#)

[Decrease Hex Value](#)

[Delete](#)

[Delete Line](#)

[Delete to End of Line](#)

[Destructive Backspace](#)

[End of File](#)

[End of Line](#)

[End of Page](#)

[Exclusive Mark](#)

[Exit](#)

[Forward Replace](#)

[Full Search](#)

[Hex/ASCII Switch](#)

[Increase Hex Value](#)

[Insert Template](#)

[Insert/Overwrite Toggle](#)

[Jump to Line](#)

[Mark Block](#)

[Mark Columns](#)

[Mark Lines](#)

New File
Next Error
Next Window
Open File
Page Down
Page Up
Paste from Clipboard
Paste from File
Previous Error
Previous Window
Print File
Project, Build
Project, Update
Repeat Last Replace
Repeat Last Search
Revert to Saved File
Run Translator
Save All
Save As
Save current file
Show/Hide Search
Tab Left
Tab Right
Tile Horizontally
Tile Vertically
Undo
Word Left
Word Right

Beginning of File

Keys: **Ctrl+Home**

Menu: None

The **Beginning of File** editor function moves the cursor to the beginning of the file.

Beginning of Line

Keys: **Home**

Menu: None

The **Beginning of Line** editor function moves the cursor to the beginning of the line.

Beginning of Page

Keys: None

Menu: None

The **Beginning of Page** editor function moves the cursor to the top line of the window.

Cascade Windows

Keys: None

Menu: Window

The **Cascade Windows** editor function arranges windows so that the title of each is visible on the screen.

Case Sensitivity Toggle

Keys: **Ctrl+F5**

Menu: None

The **Case Sensitivity Toggle** editor function toggles between case sensitivity and case insensitivity for the quick search editor functions.

Check C Braces

Keys: **Ctrl+[**

Menu: Tools

The **Check C Braces** editor function checks braces ({} and {}) in C files to make sure they match. If the braces in the file do not match, µVision displays a dialog box with a warning message and positions the insertion point at the mismatched brace. If the braces do match, µVision displays a dialog box indicating so.

Close File

Keys: **Ctrl+F4**

Menu: File

The **Close File** editor function closes the active window.

Copy to Clipboard

Keys: **Ctrl+C**

Menu: Edit

The **Copy to Clipboard** editor function copies a marked text block to the clipboard.

Use the Copy Button on the tool bar to quickly copy text from the active file.



Copy Button

Copy to File

Keys: None

Menu: None

The **Copy to File** editor function copies a marked text block to a file.

Cursor Down

Keys: **Cursor Down**

Menu: None

The **Cursor Down** editor function moves the cursor down one line.

Cursor Left

Keys: **Cursor Left**

Menu: None

The **Cursor Left** editor function moves the cursor left one column but does not wrap around to the end of the previous line.

Cursor Right

Keys: **Cursor Right**

Menu: None

The **Cursor Right** editor function moves the cursor right one column but does not wrap around to the beginning of the following line.

Cursor Up

Keys: **Cursor Up**

Menu: None

The **Cursor Up** editor function moves the cursor up one line.

Cut to Clipboard

Keys: **Ctrl+X**

Menu: Edit

The **Cut to Clipboard** editor function copies a marked block to the clipboard and deletes the block from the window.

Use the Cut Button on the tool bar to quickly cut text from the active file.



Cut Button

Decrease Hex Value

Keys: None

Menu: None

The **Decrease Hex Value** editor function subtracts 1 from the hexadecimal value shown in hex edit mode. This editor function is only available in hex edit mode.

Delete

Keys: **Del**

Menu: None

The **Delete** editor function erases the character to the right of the cursor. If a block is marked, the **Delete** function erases the entire block.

Delete Line

Keys: **Ctrl+Y**

Menu: None

The **Delete Line** editor function deletes the line at the cursor.

Delete to End of Line

Keys: **Ctrl+T**

Menu: None

The **Delete to End of Line** editor function erases the text from the current cursor position to the end of the line.

Destructive Backspace

Keys: **Bksp**

Menu: None

The **Destructive Backspace** editor function erases the character to the left of the cursor but does not wrap around to the end of the previous line.

End of File

Keys: **Ctrl+End**

Menu: None

The **End of File** editor function moves the cursor to the end of the file.

End of Line

Keys: **End**

Menu: None

The **End of Line** editor function moves the cursor to the end of the current line.

End of Page

Keys: None

Menu: None

The **End of Page** editor function moves the cursor to the bottom line of the window.

Exclusive Mark

Keys: None

Menu: None

The **Exclusive Mark** editor function marks a block of text, but does not include the character at the end of the block.

To mark a block using the mouse...

1. Move the mouse pointer to the first character of the block you wish to mark.
2. Drag the mouse cursor past the last character you wish to mark.
3. Release the Mouse button.

Exit

Keys: None

Menu: File

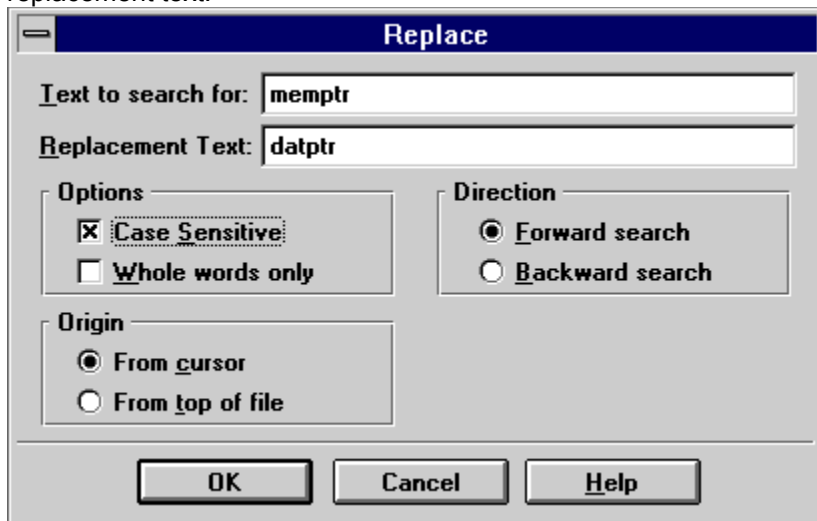
The **Exit** editor function exits μ Vision.

Forward Replace

Keys: None

Menu: Edit

The **Forward Replace** editor function searches forward for an occurrence of specified text and optionally replaces the located text with a replacement string. When invoked, the Forward Replace editor function displays the Replace dialog box. This is where you enter the text for which you want to search and the replacement text.



Each time the Forward Replace editor function locates the specified search text, μVision prompts you to verify the replacement.

Text to search for

Specifies the text to search for.

Replacement Text

Specifies the replacement text.

Case Sensitivity

Specifies that the search should match the case of the search string.

Whole words only

Specifies that only whole words should be replacement.

Forward search

Specifies that the replacement proceed to the end of the file.

Backward search

Specifies that the replacement proceed to the beginning of the file.

From cursor

Specifies that the replacement begin from the current insertion point.

From top of file

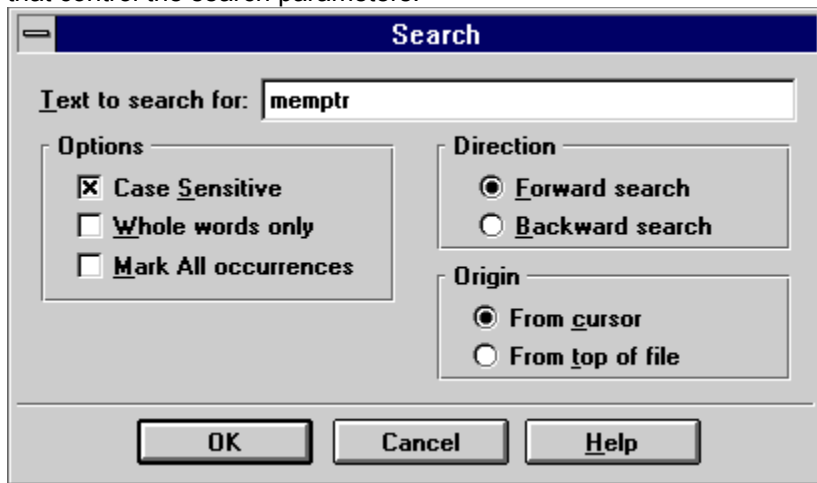
Specifies that the replacement begin from the beginning of the file.

Full Search

Keys: **Alt+F3**

Menu: Edit

The **Full Search** editor function searches forward for an occurrence of specified text. Options are provided to control search parameters. When this function is invoked, the Search dialog box displays. This is where you enter the text for which you want to search. In this box, you also specify the options that control the search parameters.



When you begin a search, μ Vision moves the cursor to the location of the next string in your text that matches the search criteria in the Search dialog box.

After locating the first matching search string, you may use the **Repeat Last Search** editor function to find the next matching string.

Text to search for

Specifies the text to serach for.

Case Sensitivity

Specifies that the search should match the case of the search string.

Whole words only

Specifies that only whole words should be compared.

Mark All occurrences

Specifies that the search should mark all occurrences of the search string.

Forward search

Specifies that the search proceed to the end of the file.

Backward search

Specifies that the search proceed to the beginning of the file.

From cursor

Specifies that the search begin from the current insertion point.

From top of file

Specifies that the search begin from the beginning of the file.

Hex/ASCII Switch

Keys: **Ctrl+H**

Menu: Window

The Hex/ASCII Switch editor function toggles the text file between ASCII and hex edit modes.

Increase Hex Value

Keys: None

Menu: None

The **Increase Hex Value** editor function adds 1 to the hexadecimal value shown in hex edit mode. This editor function is only available in hex edit mode.

Insert Template

Keys: **Shift+F2**

Menu: None

The **Insert Template** editor function replaces text with template text from the template file.

Insert/Overwrite Toggle

Keys: **Ins**

Menu: None

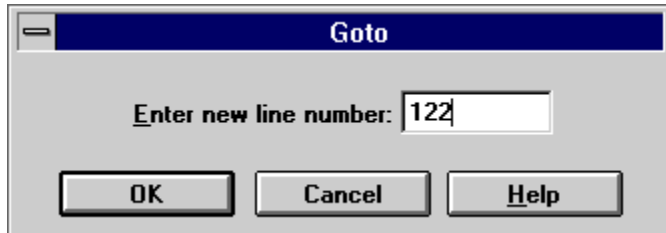
The **Insert/Overwrite Toggle** editor function toggles between insert mode (new text inserts between existing text) and overwrite mode (new text types over existing text).

Jump to Line

Keys: **Alt+G**

Menu: Edit

The **Jump to Line** editor function displays the Goto dialog box and waits for you to enter a line number or a file offset.



This editor function then moves the cursor to the specified line (in ASCII mode) or to the specified file offset (in hex edit mode).

Mark Block

Keys: None

Menu: None

The **Mark Block** editor function marks a block of text starting at the current cursor position.

To mark a block using the mouse...

1. Move the mouse pointer to the first character of the block you wish to mark.
2. Drag the mouse cursor past the last character you wish to mark.
3. Release the Mouse button.

To mark a block using the keyboard...

1. Use the cursor keys to position the cursor to the beginning of the block.
2. Press **Alt+M** to invoke the **Mark Block** editor function.
3. Move the cursor to the end of the block.

Mark Columns

Keys: **Alt+C**

Menu: None

The **Mark Columns** editor function marks one or more columns of text starting at the current cursor position.

To mark a column using the mouse...

1. Press and hold the **Ctrl** key.
2. Move the mouse pointer to the first character of the column you wish to mark.
3. Drag the mouse cursor to the last character of the column you wish to mark.
4. Release the Mouse button.

To mark a column using the keyboard...

1. Use the cursor keys to position the cursor to the beginning of the column.
2. Press **Alt+C** to invoke the **Mark Column** editor function.
3. Move the cursor to the end of the column.

Mark Lines

Keys: **Alt+L**

Menu: None

The **Mark Lines** editor function marks one or more lines of text start at the current insertion point.

To mark lines using the mouse...

1. Press and hold the **Shift** key.
2. Move the mouse pointer to the first line you wish to mark.
3. Drag the mouse cursor to the last line you wish to mark.
4. Release the Mouse button.

To mark lines using the keyboard...

1. Use the cursor keys to position the cursor to the first line.
2. Press **Alt+L** to invoke the **Mark Lines** editor function.
3. Move the cursor to the last line.

New File

Keys: **Ctrl+N**

Menu: File

The **New File** editor function creates a new edit window.

You may use the New Button on the tool bar to quickly create a new file.



New Button

Next Error

Keys: **F4**

Menu: Edit

The **Next Error** editor function positions the insertion point at the line where the next error was encountered.

Next Window

Keys: **F6**

Menu: None

The **Next Window** editor function makes the next window in the window list the active window.

Open File

Keys: **Ctrl+O**

Menu: File

The **Open File** editor function displays the `Open` dialog box and lets you select a file to edit.

You may use the Open Button on the tool bar to quickly open a file.



Open Button

Page Down

Keys: **PgDn**

Menu: None

The **Page Down** editor function moves the cursor down the file one page.

Page Up

Keys: **PgUp**

Menu: None

The **Page Up** editor function moves the cursor up the file one page.

Paste from Clipboard

Keys: **Ctrl+V**

Menu: Edit

The **Paste from Clipboard** editor function copies text from the clipboard to the insertion point.

Use the Paste Button on the tool bar to quickly paste text into the active file.



Paste Button

Paste from File

Keys: **Ctrl+R**

Menu: None

The **Paste from File** editor function copies text from a file to the insertion point.

Previous Error

Keys: **Shift+F4**

Menu: Edit

The **Previous Error** editor function positions the cursor at the line where the previous error was encountered.

Previous Window

Keys: **Shift+F6**

Menu: None

The **Previous Window** editor function makes the previous window in the window list the active window.

Print File

Keys: **Ctrl+P**

Menu: File

The **Print File** editor function prints the contents of the selected window. If a text block is marked, the Print File editor function prints only the text in the block.

You may use the Print Button on the tool bar to quickly print a file.



Print Button

Project, Build

Keys: **Alt+F8**

Menu: Project

The **Project, Build** editor function compiles and assembles all source files in a project and rebuilds the output target file.

You may use the Build All Button on the tool bar to quickly build all files in the project..



Build All Button

Project, Update

Keys: **Shift+F8**

Menu: Project

The **Project, Update** editor function compiles and assembles a project's source files that have changed and rebuilds the output target file.

You may use the Update Button on the tool bar to quickly update the changed files the project.



Update Button

Repeat Last Replace

Keys: None

Menu: Edit

The **Repeat Last Replace** editor function repeats the last Replace.

Repeat Last Search

Keys: **F3**

Menu: Edit

The **Repeat Last Search** editor function repeats the last Search.

Revert to Saved File

Keys: None

Menu: File

The **Revert to Saved File** editor function abandons changes to the current file and reloads the file from disk.

Run Translator

Keys: **Ctrl+F8**

Menu: Project

The **Run Translator** editor function invokes the compiler or assembler for the active window.

You may use the Compile Button on the tool bar to quickly compile the active source file.



Compile Button

Save All

Keys: None

Menu: File

The **Save All** editor function saves all modified files.

Save As

Keys: None

Menu: File

The **Save As** editor function displays the Save As dialog box and lets you save the contents of the active window in the specified file.

Save current file

Keys: **Alt+S**

Menu: File

The **Save current file** editor function saves the contents of the selected window.

You may use the Save Button on the tool bar to quickly save a file.



Save Button

Show/Hide Search

Keys: None

Menu: Edit

The **Show/Hide Search** editor function toggles the display of search string matches in a source file.

Use the Show Occurrences Button on the tool bar to quickly highlight all occurrences of the search text.



Show Occurrences Button

Tab Left

Keys: **Shift+Tab**

Menu: None

In insert and overwrite mode, the **Tab Left** editor function moves the cursor one tab stop to the left without erasing tabs or characters.

Tab Right

Keys: **Tab**

Menu: None

In overwrite mode, the **Tab Right** editor function moves the cursor one tab stop to the right. In insert mode, the **Tab Right** editor function inserts a tab character into the text file.

Tile Horizontally

Keys: None

Menu: Window

The **Tile Horizontally** editor function displays all windows so that they do not overlap. Windows are displayed with emphasis given to the width of the window.

Use the Tile Horizontally Button on the tool bar to quickly tile all windows horizontally.



Tile Horizontally Button

Tile Vertically

Keys: None

Menu: Window

The **Tile Vertically** editor function displays all windows so that they do not overlap. Windows are displayed with emphasis given to the height of the window.

Use the Tile Vertically Button on the tool bar to quickly tile all windows vertically.



Tile Vertically Button

Undo

Keys: **Ctrl+Z**

Menu: Edit

The Undo editor function cancels the previous edit operations. This function lets you to undo all your edits. Undo reverses the effect of editor functions one at a time in a last-in-first-out fashion. Undo information is stored only from the last save in an edit session. All but the following operations on a text window can be undone:

- saving files,
- printing files,
- compiling files,
- starting μ Vision,
- exiting μ Vision.

You can even use **Undo** as a temporary bookmark if you want to take a look at another part of the file. To do this, move to the part of the file you want to see, examine the code there, and use the **Undo** editor function to return you to your original position in the file.

μ Vision stores undo information in disk files. This allows the size of the undo buffer to be virtually unlimited. A new undo file is created for each file you have open. Undo files are given the filename **\$EDUNDO.???** where **???** is a number from 000 to 999.

Word Left

Keys: **Ctrl+Cursor Left**

Menu: None

The **Word Left** editor function moves the cursor to the beginning of the word on the left. If the cursor is at the left side of the window, the cursor moves to the last word on the previous line.

Word Right

Keys: **Ctrl+Cursor Right**

Menu: None

The **Word Right** editor function moves the cursor to the beginning of the word on the right. If the cursor is at the end of the line, the cursor moves to the first word on the following line.

Operational Modes

Read-Only Mode

Hex Edit Mode

Insert Mode and Overwrite Mode

Read-Only Mode

Files that have the read-only file attribute set or files that you specifically open as read-only may not be modified by μ Vision. To make changes to a read-only file, you must save the file with a different name using the Save As command. You may also copy text from the file to the clipboard and copy the clipboard contents to a new edit window.

μ Vision displays the **RDONLY** indicator in the status bar if a file is read-only.

Hex Edit Mode

It is often necessary to insert extended ASCII characters into a file. Hex edit mode lets you edit a file using a mixed ASCII/hex display. Hexadecimal data is displayed on the left side of the window, and the equivalent ASCII characters are displayed on the right side of the window.

In hex edit mode, most editor functions work as they do in normal text mode with the exception that you now have ASCII and hexadecimal data displayed simultaneously. You may use the **Tab** key to move between the ASCII characters on the right and their hexadecimal representations on the left.

Insert Mode and Overwrite Mode

The editor in μ Vision operates in either insert mode or overwrite mode. The current mode is displayed on the status bar. You may switch between insert and overwrite mode using the **Insert/Overwrite Toggle** editor function.

When μ Vision is in insert mode, text you type is inserted into the current file. Each character typed inserts itself in front of the character that is at the insertion point.

When μ Vision is in overwrite mode, text you type replaces existing text in the current file. Each character typed replaces the character that is at the insertion point.

File Menu

The File menu contains commands that open, save, and close files as well as commands to print and exit μ Vision.

Related Topics:

[New Command \(File Menu\)](#)

[Open Command \(File Menu\)](#)

[Save Command \(File Menu\)](#)

[Save As Command \(File Menu\)](#)

[Save All Command \(File Menu\)](#)

[Reopen Command \(File Menu\)](#)

[Close Command \(File Menu\)](#)

[Tool Set Command \(File Menu\)](#)

[Print Command \(File Menu\)](#)

[Print Setup Command \(File Menu\)](#)

[Exit Command \(File Menu\)](#)

New Command (File Menu)

Opens a new file. Use this command to create a new, empty file for your source programs. If you want to open an existing file, use the Open Command.

You may use the New Button on the tool bar to quickly create a new file.



New Button

See Also:

[Creating New Files](#)

Open Command (File Menu)

Opens an existing file. Use this command to open an existing source file. μ Vision keeps track of recently opened files. You may select one of them from the bottom of the File Menu. To create new files, use the New Command.

You may use the Open Button on the tool bar to quickly open a file.



Open Button

See Also:

[Opening a File](#)

Save Command (File Menu)

Saves the active file. Use this command to save changes to a file. If you want to save to a different file, use the Save As Command.

You may use the Save Button on the tool bar to quickly save a file.



Save Button

See Also:

[Saving Changes](#)

Save As Command (File Menu)

Displays the Save As dialog box where you may specify the name under which to save the active file. If you want to save the file using its current name, use the Save Command.

Save All Command (File Menu)

Saves all open files. Use this command to save all files at once.

Reopen Command (File Menu)

Reopens the active file. This command is available only if the active file has been changed. μ Vision prompts you before reopening the file. If you revert to the saved version of the file, all changes are lost.

Close Command (File Menu)

Closes the active file. If there are changes that have not been saved, μ Vision asks you if you wish to save the changes. When you close a file without saving it, all changes are lost.

See Also:

[Closing a Window](#)

Tool Set Command (File Menu)

Displays the Tool Set Selection dialog box where you may select the tool set μ Vision uses. The selected tool set determines which option dialog boxes are listed in the Options menu.

Use this command to select the tool set to use for the active project.

See Also:

[Tool Set Selection](#)

Print Command (File Menu)

Displays the Print dialog box where you may print the active file. μ Vision lets you select whether the entire file or only the selected area is printed. Use the Print Setup Command to select the printer to use.

You may use the Print Button on the tool bar to quickly print a file.



Print Button

Print Setup Command (File Menu)

Displays the Print Setup dialog box where you may select the printer to use when you print files in μ Vision. Use the Print Command to print the file.

Exit Command (File Menu)

Ends a μ Vision session. When you select this command, μ Vision prompts you to save files that have been changed.

Edit Menu

The Edit menu contains commands that let you manipulating text within the active window.

Related Topics:

[Undo Command \(Edit Menu\)](#)

[Cut Command \(Edit Menu\)](#)

[Copy Command \(Edit Menu\)](#)

[Paste Command \(Edit Menu\)](#)

[Delete Command \(Edit Menu\)](#)

[Search Command \(Edit Menu\)](#)

[Search Again Command \(Edit Menu\)](#)

[Replace Command \(Edit Menu\)](#)

[Show Occurrences Command \(Edit Menu\)](#)

[Go To Command \(Edit Menu\)](#)

[Next Error Command \(Edit Menu\)](#)

[Previous Error Command \(Edit Menu\)](#)

Undo Command (Edit Menu)

Reverses changes to the active file made since the last save.

Cut Command (Edit Menu)

Removes selected text from the active file and puts it on the clipboard. This command is available only when you have selected a text block. You may paste text you have put on the clipboard using the Paste Command.

Use the Cut Button on the tool bar to quickly cut text from the active file.



Cut Button

Copy Command (Edit Menu)

Copies selected text from the active file and puts it on the clipboard. This command is available only when you have selected a text block. You may paste text you have put on the clipboard using the Paste Command.

Use the Copy Button on the tool bar to quickly copy text from the active file.



Copy Button

Paste Command (Edit Menu)

Copies text from the clipboard and puts it in the active file at the insertion point. If a text block in the active window is selected, the text from the clipboard replaces it. Use the Cut Command and the Copy Command to put text on the clipboard.

Use the Paste Button on the tool bar to quickly paste text into the active file.



Paste Button

Delete Command (Edit Menu)

Removes selected text from the active file. This command is available only when you have selected a text block. Text deleted from a file may only be restored using the Undo Command.

Search Command (Edit Menu)

Displays the Search dialog box where you may specify a text string. μ Vision then searches for an occurrence of the text string in the active window. Use this command to position the insertion point at specified search string in your text file. Use the Find Button on the tool bar to quickly open the Search dialog box.



Find Button

Search Again Command (Edit Menu)

Repeats the last search. Use this menu item to repeat searching for the last string specified in the Search dialog box. Use the Repeat Find Button on the tool bar to quickly repeat a search.



Repeat Find Button

Replace Command (Edit Menu)

Displays the Replace dialog box where you may specify a string to search for and replace. This command searches for a text string and replaces it with another text string.

Show Occurrences Command (Edit Menu)

Highlights all occurrences of the search string specified in the Search dialog box. Use this command to enable highlighting for strings in your text file that match the specified search string. Use the Show Occurrences Button on the tool bar to quickly highlight all occurrences of the search text.



Show Occurrences Button

Go To Command (Edit Menu)

Displays the Go To dialog box where you may specify the current line number for the active window. Use this command to move the insertion point position to the specified line number.

See Also:

[Jump to Line](#)

Next Error Command (Edit Menu)

Moves to the line in the active window containing the next error. Use this command to move the insertion point to subsequent errors in your source file.

Previous Error Command (Edit Menu)

Moves to the line in the active window containing the previous error. Use this command to move the insertion point to previous errors in your source file.

Project Menu

The Project menu contains commands to open, edit, save, and close project files; compile source files; build or update a project; and download project target files.

Related Topics:

[Compile File Command \(Project Menu\)](#)

[Make: Update Project Command \(Project Menu\)](#)

[Make: Build Project Command \(Project Menu\)](#)

[Download to ProROM Command \(Project Menu\)](#)

[New Project Command \(Project Menu\)](#)

[Open Project Command \(Project Menu\)](#)

[Edit Project Command \(Project Menu\)](#)

[Close Project Command \(Project Menu\)](#)

Compile File Command (Project Menu)

Compiles the file in the active window. Use this command when you are ready to compile or assemble your source file.

You may use the Compile Button on the tool bar to quickly compile the active source file.



Compile Button

Make: Update Project Command (Project Menu)

Re-compiles or re-assembles files in the project that have been modified. Use this command to re-build only those files from your project that have changed.

You may use the Update Button on the tool bar to quickly update the changed files the project.



Update Button

Make: Build Project Command (Project Menu)

Builds all files in the project. Use this command to re-compile and re-assemble all files in your project.

You may use the Build All Button on the tool bar to quickly build all files in the project..



Build All Button

Download to ProROM Command (Project Menu)

Downloads a program to the ProROM EPROM emulator. Use this command to download and test your application program using ProROM.

New Project Command (Project Menu)

Displays the Create New Project dialog box where you specify the name of a project file to create.

See Also:

[Creating a New Project File](#)

Open Project Command (Project Menu)

Displays the Open Project dialog box where you specify the name of the existing project file to open.

See Also:

[Opening a Project File](#)

Edit Project Command (Project Menu)

Displays the Project dialog box where you may change the files included in the project. You may also change the options for each file in the project from this dialog box.

Close Project Command (Project Menu)

Closes the project file. Use this command to close your project.

See Also:

[Closing a Project File](#)

Run Menu

The Run menu provides commands for running external application programs and for adding application programs to the Run menu using the [Application Manager](#). Other commands specific to the selected tool set may be included in this menu as well.

Related Topics:

[Run Program Command \(Run Menu\)](#)

[Application Manager Command \(Run Menu\)](#)

Run Program Command (Run Menu)

Displays the Run Program dialog box where you may specify a program to run. This is similar to the Run command in the Program Manager's File menu.

See Also:

[Running External Programs](#)

Application Manager Command (Run Menu)

Displays the [Application Manager](#) dialog box where you may define additional application programs to link to the Run menu. These programs are invoked when you select them from the menu.

See Also:

[Application Manager](#)

Options Menu

The Options menu includes commands for setting editor, color, and key assignment options. In addition, commands specific to the selected tool set may be included in this menu. This includes assembler, compiler, linker, and debugger settings.

Related Topics:

[Editor Colors Command \(Options Menu\)](#)

[Editor Command \(Options Menu\)](#)

[Key Assignments Command \(Options Menu\)](#)

Editor Colors Command (Options Menu)

Displays the Editor Colors dialog box where you may select the colors for the edit window, the output window, and [color syntax highlighting](#).

See Also:

[Editor Colors](#)

Editor Command (Options Menu)

Displays the Editor Options dialog box where you set options that controls how μ Vision's built-in editor operates. You may also specify the default text font for the edit windows.

See Also:

[Editor Options](#)

[Editor Font](#)

Key Assignments Command (Options Menu)

Displays the Key Assignments dialog box where you may specify key sequences to associate with the various editor functions.

See Also:

[Key Assignments](#)

Tools Menu

The Tools menu provides commands that access many of the tools that are builtin to μ Vision.

Related Topics:

[Check C Braces Command \(Tools Menu\)](#)

[Insert Template Command \(Tools Menu\)](#)

Check C Braces Command (Tools Menu)

Checks the active window for matching braces. Use this command to check the braces in your C source files.

See Also:

[Check C Braces](#)

Insert Template Command (Tools Menu)

Inserts a template. Use this command to insert template text for a template tag.

See Also:

[Insert Template](#)

Window Menu

The Window menu provides commands that let you manipulate the windows on the screen. Windows can be cascaded, tiled, or closed.

Related Topics:

[Cascade Command \(Window Menu\)](#)

[Tile Horizontally Command \(Window Menu\)](#)

[Tile Vertically Command \(Window Menu\)](#)

[Close All Command \(Window Menu\)](#)

[Toolbar Command \(Window Menu\)](#)

[Status Bar Command \(Window Menu\)](#)

[Hex/ASCII Switch Command \(Window Menu\)](#)

Cascade Command (Window Menu)

Displays all windows overlapped so that the title bar of each window is visible.

Tile Horizontally Command (Window Menu)

Displays all windows so that they do not overlap. Windows are displayed with emphasis given to the width of the window. Use the Tile Horizontally Button on the tool bar to quickly tile all windows horizontally.



Tile Horizontally Button

Tile Vertically Command (Window Menu)

Displays all windows so that they do not overlap. Windows are displayed with emphasis given to the height of the window. Use the Tile Vertically Button on the tool bar to quickly tile all windows vertically.



Tile Vertically Button

Close All Command (Window Menu)

Closes all windows. If there are changes that have not been saved, μ Vision asks you if you wish to save the changes. When you close a file without saving it, all changes are lost.

Toolbar Command (Window Menu)

Toggles the toolbar on or off. When this command is checked, the tool bar is displayed.

See Also:

[Using the Tool Bar](#)

Status Bar Command (Window Menu)

Toggles the status bar on or off. When this command is checked, the status bar is displayed.

See Also:

[Using the Status Bar](#)

Hex/ASCII Switch Command (Window Menu)

Toggles between the ASCII text editor and the hexadecimal editor or [Hex Edit Mode](#). Use this menu item to switch into and out of Hex Edit Mode.

See Also:

[Hex Edit Mode](#)

Help Menu

The Help menu provides commands that access the on-line help for μ Vision.

Related Topics:

[Contents Command \(Help Menu\)](#)

[Index Command \(Help Menu\)](#)

[Search for Topic Command \(Help Menu\)](#)

[How to use Help Command \(Help Menu\)](#)

Contents Command (Help Menu)

Displays the μ Vision on-line help system contents page which provides an outline of the available help topics.

Index Command (Help Menu)

Displays an index for the μ Vision on-line help system.

Search for Topic Command (Help Menu)

Displays the Search dialog box for the μ Vision on-line help system. Here, you may specify a topic to search for in the help system.

How to use Help Command (Help Menu)

Displays information that describes how to use the Windows help system.

Overview

µVision lets you manage your software development projects in a number of ways. During development or testing, you may wish to compile a single source file to locate warnings and errors. Later you may want to create an absolute object or Intel HEX file for generating your target program. µVision supports both of these development processes.

Before you begin, you must select a tool set to use for your development. The tool set you choose determines which compiler, assembler, linker, and other tools are included in the environment.

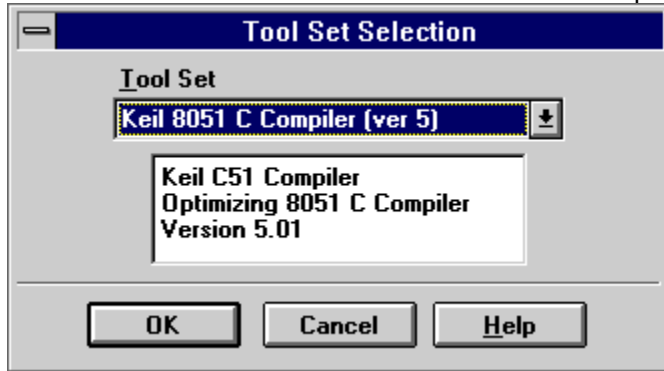
Related Topics:

[Tool Set Selection](#)

Tool Set Selection

The Tool Set Selection dialog box determines which tool set is included in μ Vision. This selection also determines which compiler and assembler are used by the make facility.

Select the Tool Set command from the File menu to open the Tool Set Selection dialog box.



Tool Set

Displays the tool sets that are installed on your computer.

Description

Displays the description of the selected tool set.

Single File Support

µVision provides the Compile File command in the Project menu to help you compile and test individual source files. To compile the file in the active window, select the Compile File command.

You may use the Compile Button on the tool bar to quickly compile the active source file.



Compile Button

µVision uses the file extensions specified in the Make Options dialog box to determine which compiler or assembler to use.

To compile or assemble an individual source file, open the file using the Open command in the File menu. Then, use the Compile File command from the Project menu. The Project Status message box displays the status of the compilation.

If no errors or warnings are encountered, the Project Status message box displays a status message indicating the compilation was successful.

Project File Support

Most embedded programs are composed of many source files. Some files may require compilation using a compiler, some may require assembly using an assembler, and some may require custom translation in the process required to build your target program.

To accommodate the intricacies of project maintenance, μ Vision includes a project manager, which:

- maintains a project file that stores all information about your project,
- keeps a sequenced list of all source files required to build your target file,
- saves the options for the tools,
- checks dependencies of your source files (by scanning your include files) and determines which source files are current and which need to be rebuilt,
- compiles and assembles the source files into object files that compose your target file,
- combines object files into a library, absolute object module, or banked object module,
- and, converts created object modules into Intel HEX files.

Essentially, the project manager provides you with a method of maintaining a project so that the target program is always uptodate. All aspects of a project are saved in a project file including:

- a list of the source files that make up the target program,
- the compiler, assembler, and linker commandline options,
- and, the debugger and simulator options; and the make facility options.

Project files end with the **PRJ** extension.

Related Topics:

[Creating a New Project File](#)

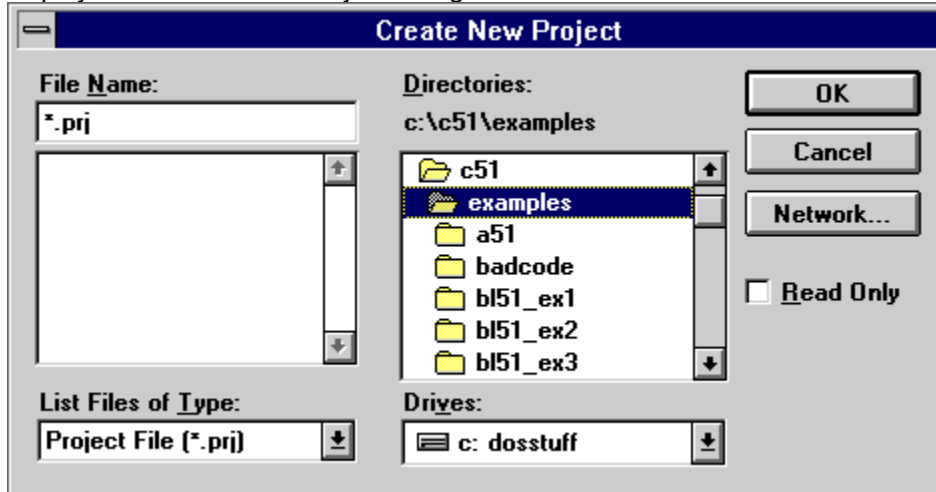
[Opening a Project File](#)

[Editing a Project File](#)

[Closing a Project File](#)

Creating a New Project File

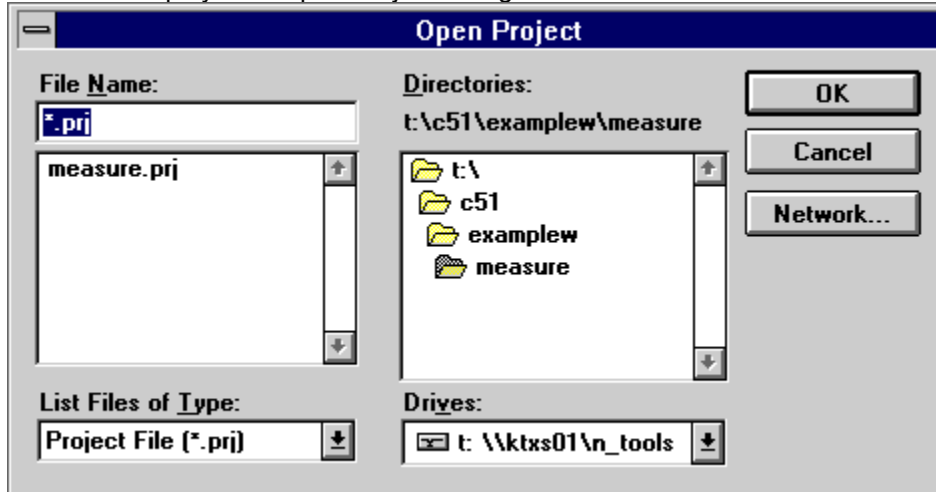
To open a new project file, select the New Project command from the Project menu. This command displays the Create New Project dialog box.



To create a new project file, select the drive and directory into which you want to place the new project file, enter the name of the project in the File Name text box, and select the OK pushbutton.

Opening a Project File

To open an existing project file, select the Open Project command from the Project menu. This command displays the Open Project dialog box.



To open an existing project file:

1. Select the drive that the file is in from the Drives list box,
2. Select the directory that the file is in from the Directories list box,
3. Select the project filename from the File Name list box.
4. Select the OK phsubutton.

Editing a Project File

Use the Edit Project command from the Project menu to edit the properties for the current project.

The Edit Project command opens the Project dialog box where project source files and options are listed.

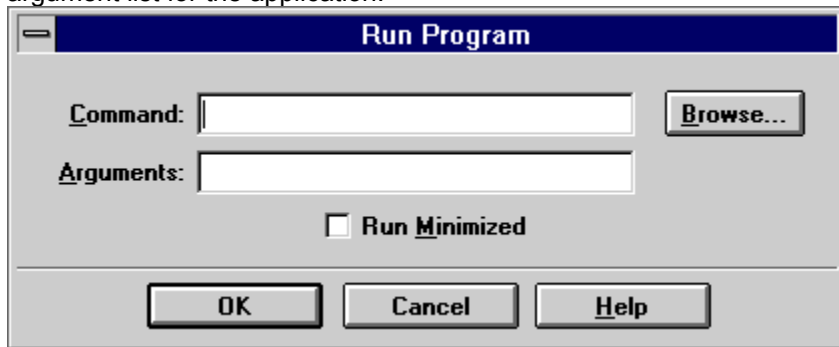
Closing a Project File

Use the Close Project command in the Project menu to to close the current project file. When you close a project file, you remove the options and the project file list from memory. The tool set options are restored to the defaults saved in the μ Vision INI file.

Running External Programs

The Run Program dialog box lets you run external programs.

Open the Run Program dialog box from the Run menu. This dialog box displays a Command line and argument list for the application.



Click on a control for more information.

Command

Lists the full path name to the program. You may use the Browse pushbutton to rapidly select the command.

Arguments

Lists arguments to pass on the command line.

Run Minimized

Reduces the program to an icon when it runs.

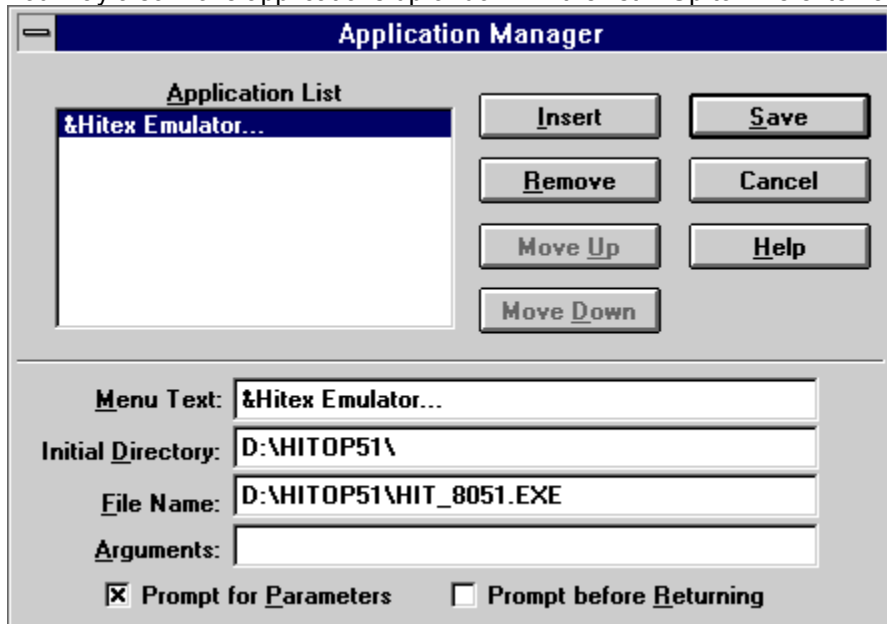
Browse

Displays the Run Program dialog box where you may select the drive, directory, and file name for the program to run.

Application Manager

The [Application Manager](#) lets you link external programs into the Run menu.

Open the Application Manager dialog box from the Run menu. This dialog box displays a list of userdefined programs (applications). You may insert, remove, or change settings for the applications. You may also move applications up or down in the list. Up to nine external applications may be added.



Related Topics:

[Adding an Application](#)

[Editing an Application](#)

[Removing an Application](#)

[Moving an Application](#)

[Running an Application](#)

Adding an Application

Before you can invoke an application from the Run menu, you must add it using the Application Manager dialog box.

To add a program to the application list...

1. Select the Insert pushbutton.
2. Use the Add Application dialog box to select the Application to add.

HINT

You may type **Alt+I** to rapidly select the Insert pushbutton.

µVision automatically fills in the Menu Text, Initial Directory, and File Name. You must enter the Arguments and select which prompts to use.

Make sure you select the Save pushbutton when you are through making changes.

Editing an Application

After a program has been added to the application list, you may decide to change some of its properties.

To change the properties for a program in the application list...

1. Select the application whose properties you wish to change.
2. Enter the correct information in the Menu Text, Initial Directory, File Name, and Arguments text boxes at the bottom of the dialog box.

Make sure you select the Save pushbutton when you are through making changes.

Removing an Application

You may remove unnecessary programs from the application list.

To remove a program from the application list...

1. Select the application you want to remove.
2. Select the Remove pushbutton.

NOTE

The remove operation cannot be undone. Make sure you select the correct program before you proceed.

Make sure you select the Save pushbutton when you are through making changes.

Moving an Application

The application manager lets you move the programs in the application list.

To move a program in the application list...

1. Select the application you want to move.
2. Select the Move Up pushbutton to move the application up one position in the list.
3. Select the Move Down pushbutton to move the application down one position in the list.

HINT

You may type **Alt+U** to move the application up or **Alt+D** to move the application down.

Make sure you select the Save pushbutton when you are through making changes.

Running an Application

Programs you add to the application list in the Application Manager dialog box are included in the Run menu and may be selected just like any other menu command.

Application List

Lists the application program that have been added to the Application Manager. Details about each application are listed at the bottom of the dialog box.

Insert

Adds a new program to the application list.

Remove

Removes the selected program from the application list.

Move Up

Moves the selected program up in the application list.

Move Down

Moves the selected program down in the application list.

Menu Text

Lists the text displayed in the Run menu for the selected application. You may use the ampersand character (&) in the menu text to specify an accelerator key for the application.

Initial Directory

Lists the initial directory used for the application.

File Name

Lists the filename of the application program.

Arguments

Lists the command-line arguments for the application program.

Prompt for Parameters

Prompts for command-line arguments before running the program.

Prompt before Returning

Prompts for input when the program has completed.

Glossary of Terms

Application Manager

Color Syntax Highlighting

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Application Manager

Adds external programs to the Run menu. Use the application manager to link programs like your in-circuit emulator, EPROM programmer, or conversion utilities into the μ Vision menu system.

Color Syntax Highlighting

A method of displaying source files where the different program elements display using different colors. This technique helps you visually debug your program before it is compiled. By coloring different program elements, you can easily tell when you have left a comment open or when you have mistyped the name of a type specifier.

Hex Edit Mode

An edit mode where you may edit a text file using a mixed ASCII/hex display. Hexadecimal data is displayed on the left side of the window, and the equivalent ASCII characters are displayed on the right side of the window.

In hex edit mode, most editor functions work as they do in normal text mode with the exception that you now have ASCII and hexadecimal data displayed simultaneously. Use **Tab** to move between the ASCII characters on the right and their hexadecimal representations on the left.

Insert Mode

An edit mode in which text you type is inserted into the active window. Each character typed inserts itself in front of the character at the insertion point. The Status Bar indicates whether or not you are in insert mode..

Insertion Point

Shows where you are in a text file. The insertion points marks where text is inserted into the active window.

Make

Compiles the source files in your project and builds the target file. Use the make commands (Compile, Update, and Build All) to compile or assemble individual files, to update the files in your project which have changed, and to completely rebuild an entire project.

Menu Bar

A narrow window below the title bar that contains the names for the menus in μ Vision.

Overwrite Mode

An edit mode in which text you type replaces existing text in the active window. Each character typed replaces the character at the insertion point. The Status Bar indicates whether or not you are in overwrite mode.

Project Manager

Controls the source files included in your project. Use the project manager to specify the files in your project as well as the order in which they are processed. You may also add custom tools, user programs, and documents to the project.

ProROM

An EPROM emulator that connects between the parallel printer port of your PC and the EPROM socket of your target hardware. You download program code (HEX or BINARY) to ProROM to run in your target. This eliminates the necessity of erasing and programming a memory device each time you change your application.

Read-Only Mode

An edit mode in which the contents of the active window cannot be modified by μ Vision. You may specify that a file is read-only when you open it using the Open dialog box. μ Vision automatically opens read-only files in read-only mode.

To make changes to these files, you must save the file with a different name (using the Save As command). You may also copy text from the file to paste into another edit window.

The Status Bar indicates whether or not you are in read-only mode.

Status Bar

A narrow window at the bottom of the screen that contains status information about the active window.

Template

Text defined in the **UVWIN.TPL** file. μ Vision supports a feature called template editing. You use the features of template editing to rapidly insert repetitive blocks of text using a few keystrokes. Typically, you use this to insert language constructs like **for** blocks, **while** blocks, **do** blocks, or **switch** blocks. However, μ Vision gives you complete control over the template data that is inserted as well as the name or tag that references the template.

Text Block

A selected portion of the active window. Use the mouse or keyboard to select a line block, column block, or a character block. You may cut, copy, delete, and print selected blocks.

Tool Bar

A narrow window below the menu bar that contains buttons for frequently used commands. You may enable or disable the Tool Bar from the Window menu.

