

Additional Controls Command (Shortcut Menu)	
Displays the Additional Controls dialog box so that you can add	controls.

Additional Controls Command (Tools Menu)
Displays the Additional Controls dialog box where you can add controls or insertable objects (such as a Microsoft Word Document) to the Toolbox .

Align Commands (Format Menu)

Aligns selected <u>objects</u> with each other using the control with the white grab handles as the reference.

Lefts

Aligns the horizontal position of the selected objects, putting the left-most edges in line with the control with the white grab handles.

Toolbar shortcut: E.

Centers

Aligns the horizontal position of the selected objects, putting the centers in line with the control with the white grab handles.

Toolbar shortcut:

Rights

Aligns the horizontal position of the selected objects, putting the right-most edges in line with the control with the white grab handles.

Toolbar shortcut:

Tops

Aligns the vertical position of the selected objects, putting the tops in line with the control with the white grab handles.

Toolbar shortcut: .

Middles

Aligns the vertical position of selected objects, putting the middles in line with the control with the white grab handles.

Toolbar shortcut: ••.

Bottoms

Aligns the vertical position of the selected objects, putting the bottoms in line with the control with the white grab handles.

Toolbar shortcut: .

To Grid

Aligns the top left of the selected objects to the closest grid. The object is not resized.

Toolbar shortcut: <u>a.</u>

Arrange Buttons Commands (Format Menu)

Arranges selected command buttons along the bottom or edge of a form.

Bottom

Arranges to the bottom left side of the form with equal spacing between each of them.

Toolbar shortcut: 🖾.

Right

Arranges to the top right side of the form with equal spacing between each of them.

Toolbar shortcut: 23.

Bookmarks Commands (Edit Menu)

Displays a menu that you can use to create or remove placeholders in the **Code** window, move to the next or preceding bookmark, or clear all of the bookmarks. Bookmarks mark lines of code so that you can easily return to them at a later time.

When you add a bookmark, a ppears next to the line of code where the bookmark is inserted.

Toggle Bookmark

Toggles a bookmark on or off.

Toolbar button:



Next Bookmark

Moves the insertion point to the next bookmark.

Toolbar button: 🌂



Previous Bookmark

Moves the insertion point to the previous bookmark.

Toolbar button:



Clear All Bookmarks

Removes all bookmarks.

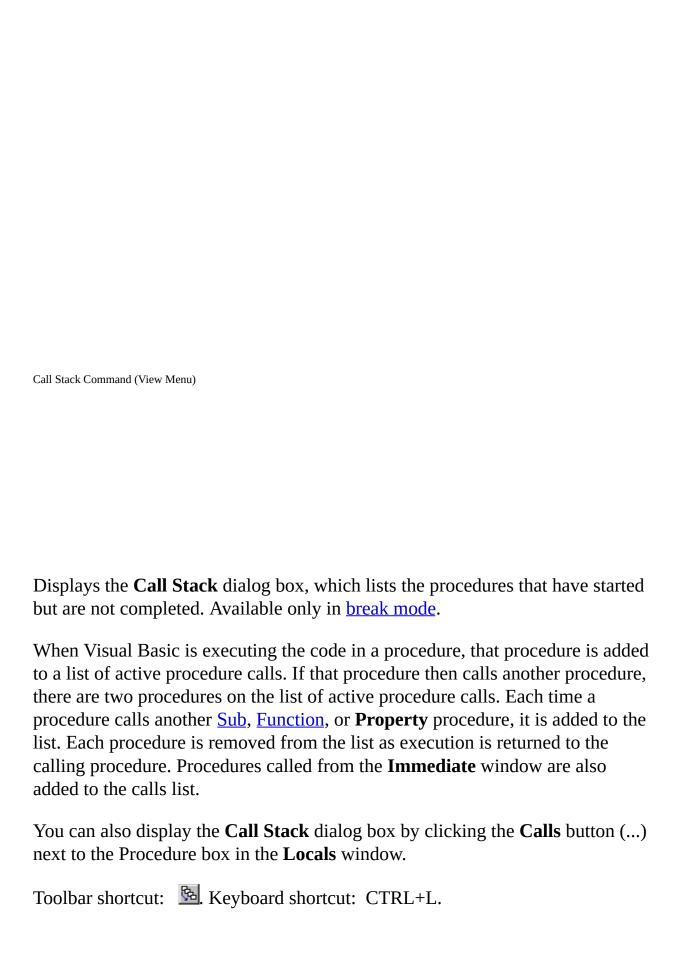
Toolbar button: 🎉

Break Command (Run Menu)

Stops execution of a program while it's running and switches to <u>break mode</u>. Any statement being executed when you choose this command is displayed in the **Code** window with • in the left margin if you checked Margin Indicator Bar in the **Editor Format** tab of the **Options** dialog box. If the application is waiting for events in the idle loop (no statement is being executed), no statement is highlighted until an event occurs.

Some editing changes made in break mode may require you to restart your program for the changes to take effect.

Toolbar button: . Keyboard shortcut: CTRL+BREAK.



Center in Form Commands (Format Menu)

Centers selected objects on the central axes of the form.

Horizontally

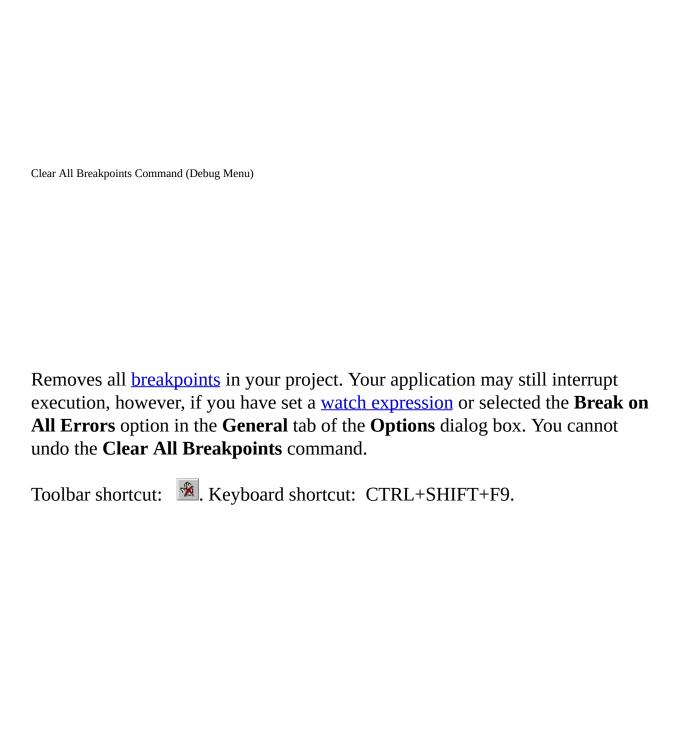
Aligns the middles of the selected objects to a horizontal line in the middle of the form.

Toolbar shortcut: 🖹.

Vertically

Aligns the centers of the selected objects to a vertical line in the center of the form.

Toolbar shortcut: .



Clear and Delete Commands (Edit Menu)

Clear

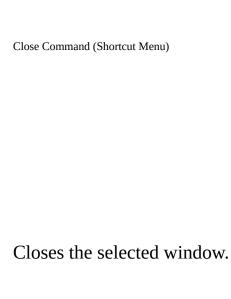
Deletes text only when a module is active.

Delete

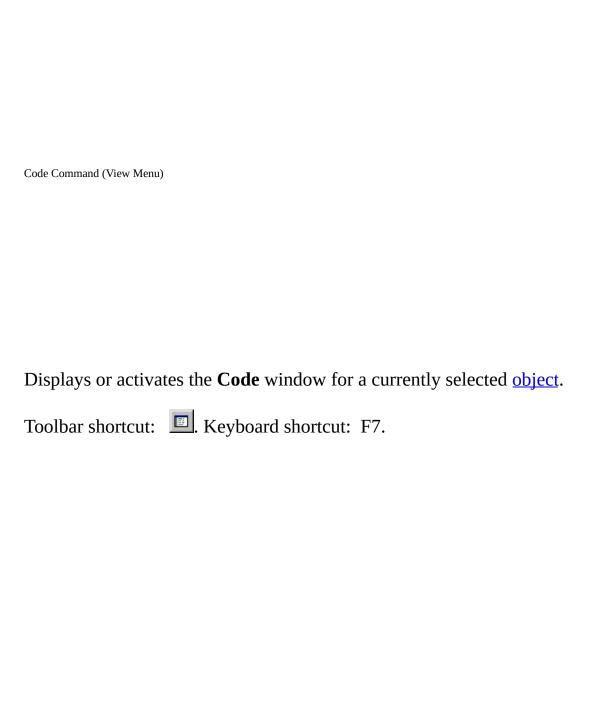
At other times, changes to the **Delete** command that deletes the currently selected control, text, or <u>watch expression</u>. You can undo the **Delete** command in the **Code** window or in the form if you deleted the control from the form.

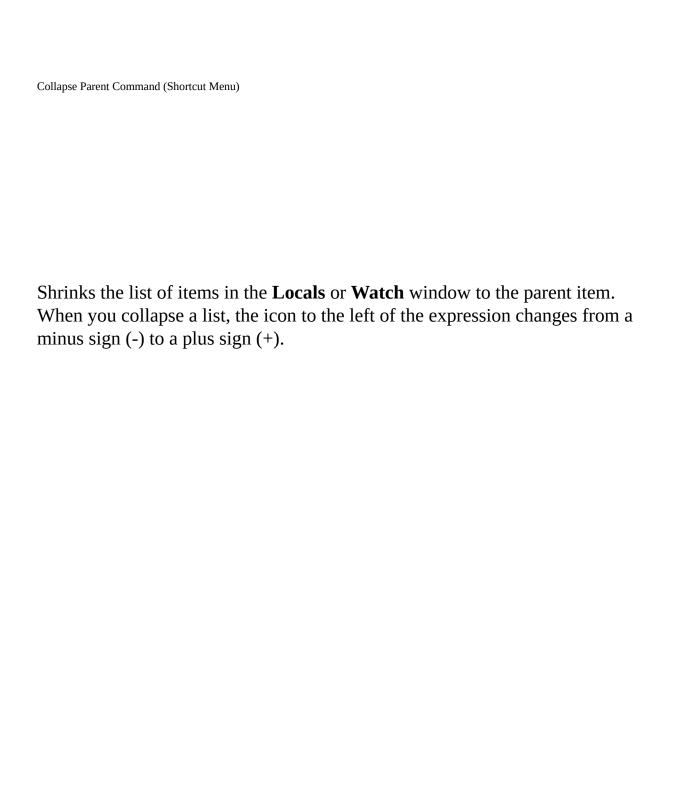
Toolbar shortcut: X. Keyboard shortcut: DELETE.

Not available at run time.



Close & Return to <host application=""> Command (File Menu)</host>
Closes the development environment and returns you to the host application. Visual Basic is hidden but remains in memory.





Comment Block and Uncomment Block Commands

Adds and removes the comment character, an apostrophe, for each line of a selected block of text. If you do not have text selected and you choose the **Comment Block** or **Uncomment Block** command, the comment character is added or removed in the line where the pointer is located.

Comment Block

Adds the comment character to each line of a selected block of text.

Toolbar button:

...

Uncomment Block

Removes the comment character from each line of a selected block of text.

Toolbar button: 🖺.

Compile <project> Command (Debug Menu)

Compiles your project.

Toolbar shortcut: 🖭.



Complete Word Command (Edit Menu)

Fills in the rest of the word you are typing once you have entered enough characters for Visual Basic to identify the word you want.

Toolbar shortcut: At. Keyboard shortcut: CTRL+SPACEBAR.

Copy Command (Object Browser Shortcut Menu)	
Copies the text for the selected class or member to the Clipboard.	

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Allows you to use a drag-and-drop operation on controls on the form. Select a control using the right mouse button, hold it down and then drag the control. When you release the mouse button, a shortcut menu appears with the following commands.

Copy Here

Copies the selected control to the location where you dragged your cursor.

Move Here

Moves the selected control to the location where you dragged your cursor.

Cancel

Cancels the operation.

Customize <item> Command (Shortcut Menu)</item>
Displays the Customize Control dialog box where you can change the tool tip text, or the control icon for the selected item.

Customize Command (Shortcut Menu)	
Displays the Customize dialog box where you can add, delete, modify, or custom toolbars.	reate

Cut, Copy, Paste, and Delete Commands (Edit Menu)

Cut

Removes the selected control or text and places it on the **Clipboard**. You must select at least one character or control for this command to be available. You can undo the **Cut** command when used on a control.

Copy

Copies the selected control or text onto the **Clipboard**. You must select at least one character or control for this command to be available. You cannot undo the **Copy** command in the **Code** window.

Toolbar shortcut: Es. Keyboard shortcut: CTRL+C or CTRL+INSERT

Paste

Inserts the contents of the **Clipboard** at the current location. Text is placed at the insertion point.

Pasted controls are placed in the middle of the form.

You can undo the **Paste** command in the **Code** window or in the form if you pasted the control onto the form.

Delete

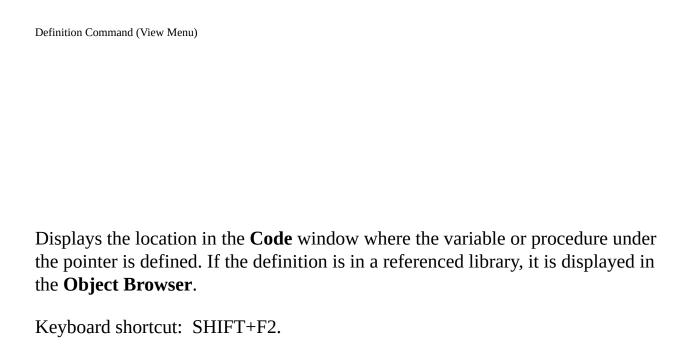
Deletes the currently selected control, text, or <u>watch expression</u>. You can undo the **Delete** command only in the **Code** window.

Note To delete a file from your disk, use the standard deletion procedures for your operating system.

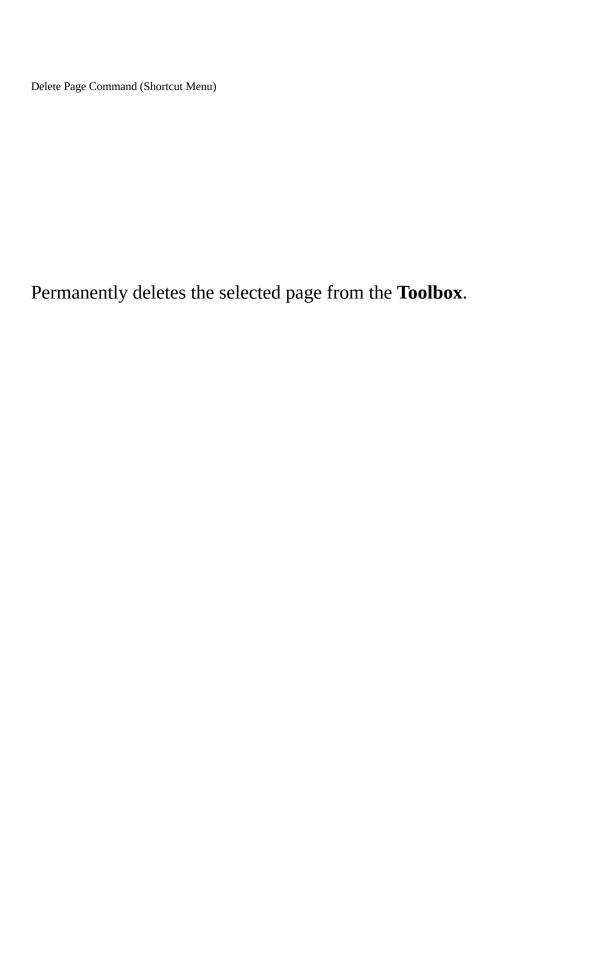
Toolbar shortcut: X. Keyboard shortcut: DEL.

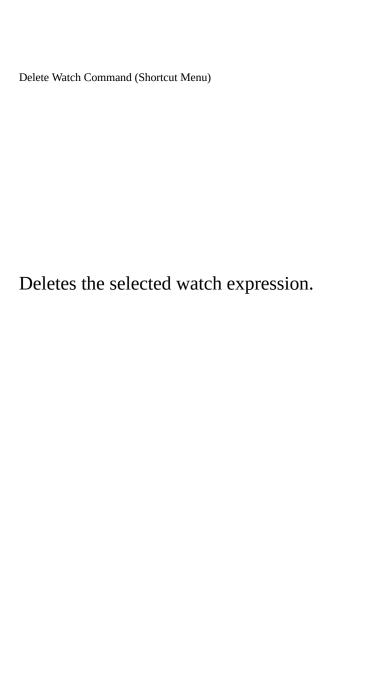
Not available at <u>run time</u>.

Definition Command (Shortcut Menu)
Displays the location in the Code window where the variable or procedure under the pointer is defined. If the definition is in a referenced library, it is displayed in the Object Browser .



Delete <item> Command (Shortcut Menu)</item>
Deletes the selected item from the Toolbox . You can add the item again using the Additional Controls command on the shortcut menu.





Design Mode and Exit Design Mode Commands (Run Menu)

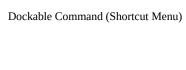
Turns design mode on and off per project. Design mode is the time during which no code from the project is running and events from the host or project will not execute. You can leave design mode by executing a macro or using the **Immediate** window.

Design Mode Command

Turns design mode on and changes to **Exit Design Mode**.

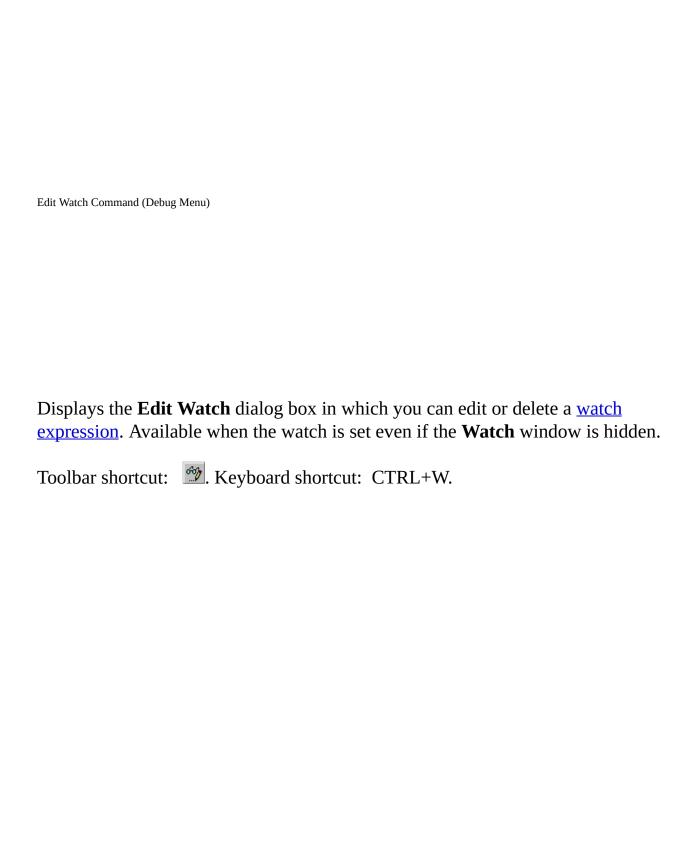
Exit Design Mode Command

Turns design mode off and clears all module level variables in the project.



Toggles the ability to dock the active window on and off.

A window is docked when it is attached or "anchored" to one edge of the screen, application window, or another dockable window. When you move a dockable window, it "snaps" to the location. A window is not dockable when you can move it anywhere on the screen and leave it there.



File Command (Insert Menu)
Displays the Insert File dialog box so that you can insert text from an existing module at the current cursor position.
Not available when no editor is open.

Find

Searches for the specified text in a search range specified in the **Find** dialog box.

If a search is successful, the **Find** dialog box closes and Visual Basic selects the located text. If no match is found, Visual Basic displays a message stating that the text was not found.

Toolbar shortcut: M. Keyboard shortcut: CTRL+F.

Find Next

Finds and selects the next occurrence of the text specified in the Find What box of the **Find** dialog box.

Toolbar shortcut: . Keyboard shortcuts: SHIFT+F4 (**Find Next**) or SHIFT+F3 (**Find Previous**).

Dialog Box Options

Find What

Type or insert the information you want to find, or click the down arrow and select from the last four entries. If any text is selected or the cursor is on a word when you choose the command, this text is displayed in the Find What box.

Search

Specifies the search range.

Current Procedure — Searches only the current procedure.

Current Module — Searches only the current module.

Current Project — Searches all the modules in your project.

Selected Text — Searches a selected range of code in your project.

Direction

Sets the direction of the search to Down or Up from the location of the cursor, or All in the selected search range.

Find Whole Word Only

Searches for the full word by itself and not as part of a larger word.

Match Case

Finds all occurrences with the exact combination of uppercase and lowercase letters specified in the Find What box.

Use Pattern Matching

Searches using pattern-matching characters.

Find Next

Finds and selects the next occurrence of the text specified in the Find What box.

Cancel

Closes the dialog box without performing the search.

Replace

Displays the **Replace** dialog box, retaining the information typed in the **Find**

What dialog box.

Find Whole Word Only Command (Object Br	rowser Shortcut Menu)	
Allows you to search for oc the Search Text box of the		atch the word you typed into

Group and Ungroup Commands (Format Menu)

Groups and ungroups selected objects.

Group

Creates a group.

Note You can still select a single object from within a group and change its properties.

Note You cannot create groups within a group (nested grouping).

Toolbar shortcut: 🔼

Ungroup

Ungroups the objects that were previously grouped.

Toolbar shortcut: 💆.

Group Members Command (Object Browser Shortcut Me	nu)
Toggles the Members of pane betw selected class and a list grouped by	veen an alphabetical list of the members of the y the member type.

Help Command (Shortcut Menu)
Displays the Help topic related to the item selected when the Help command is chosen.

Hide Command (Shortcut Menu)
Hides the active window, project, folder, module, or the Toolbox .

Horizontal Spacing Commands (Format Menu)

Changes the horizontal space between selected objects.

Make Equal

Moves the selected objects so that there is equal space between them using the outermost objects as endpoints. The outermost objects do not move.

Toolbar shortcut:

Increase

Increases horizontal spacing by one grid unit based on the object with focus. When an object has focus, white handles appear on its borders. You can change the size of your grid units in the **General** tab of the **Options** dialog box.

Toolbar shortcut: 🛎.

Decrease

Decreases horizontal spacing by one grid unit based on the object with focus. When an object has focus, white handles appear on its borders. You can change the size of your grid units in the **General** tab of the **Options** dialog box.

Toolbar shortcut: **2.**

Remove

Removes the horizontal space so that the objects are aligned with their edges touching based on the object with focus. When an object has focus, white handles appear on its borders.

Toolbar shortcut: 🕰.

Note The object with focus does not move but the other objects move around it.

Note If using the **Horizontal Spacing** command does not produce the results you want, try to manually rearrange some of the objects and repeat the command. Also, try the using the **Vertical Spacing** command.

Immediate Window Command (View Menu)

Displays the **Immediate** window and displays information resulting from debugging statements in your code or from commands typed directly into the window.

Use the Immediate window to:

Test problematic or newly written code.

Query or change the value of a variable while running an application. While execution is halted, assign the variable a new value as you would in code.

Query or change a property value while running an application.

Call procedures as you would in code.

View debugging output while the program is running.

Toolbar shortcut: **!** Keyboard shortcut: CTRL+G.

Import File and Export File Commands (File Menu)

Adds existing <u>modules</u> and forms to your project or saves a module or form as a separate file.

Import File

Displays the **Import Files** dialog box which allows you to add an existing module or form to the project. A copy of the file is added to the project and the original file is left intact. If you import a form or module with the same name as an existing one, the file is added with a number appended to it.

Imported components appear in the **Project Explorer** window.

Export File

Displays the **Export File** dialog box so that you can extract the active form or module from the project. The file is copied into an external file.

Not available if you have not selected a file in the **Project Explorer**.



Imports and exports pages.

Import Page

Opens the **Import Page** dialog box so that you can find and select the page you want to add to the **Toolbox**.

The **Import Page** dialog box is the Windows **Open** common dialog box.

Export Page

Opens the **Export Page** dialog box so that you can select a location and name for the selected page that you want to export from the **Toolbox**.

The **Export Page** dialog box is the same as the Windows **Save** common dialog box.

Indent Command (Edit Menu)

Shifts all lines in the selection to the next tab stop. If you place the cursor anywhere in a line and choose the Indent command, the entire line is shifted to the next tab stop. All lines in the selection are moved the same number of spaces to retain the same relative indentation within the selected block.

You can change the tab width on the **Editor** tab of the **Options** dialog box.

Toolbar shortcut: **!=!**. Keyboard shortcuts: CTRL+M.

Last Position Command (View Menu)

Allows you to quickly navigate to a previous location in your code. Enabled only if you edited code or made a **Definition** command call and only when the **Code** window is displayed. Visual Basic only keeps track of the last 8 lines that were accessed or edited.

Keyboard shortcut: CTRL+SHIFT+F2.

List Constants Command (Edit Menu)

Opens a dropdown list box in the **Code** window that contains the valid constants for a property that you typed, and that preceded the equal sign (=). The **List Constants** command also works for functions with arguments that are constants. To have the list box automatically open as you type your code, select Auto List Members on the **Editor** tab in the **Options** dialog box.

You can find the constant you want by:

Typing the name.

Using the up and down arrow keys to move up and down in the list.

Scrolling through the list and selecting the constant you want.

You can insert the constant into your code statement by:

Double-clicking the constant.

Selecting the constant and pressing TAB to insert the selection or pressing ENTER to insert the selection and move to the next line.

Toolbar shortcut: Lake Weyboard shortcut: CTRL+SHIFT+J.

List Properties/Methods Command (Edit Menu)

Opens a dropdown list box in the **Code** window that contains the properties and methods available for the object The **List Properties/Methods** command also displays a list of the globally available methods when the pointer is on a blank space. To have the list box automatically open as you type your code, select Auto List Members on the **Editor** tab in the **Options** dialog box.

You can find the property or method you want in the list box by:

Typing the name. As you type, the property or method that matches the characters you type is selected and moves to the top of the list.

Using the up and down arrow keys to move up and down in the list.

Scrolling through the list and selecting the property or method you want.

You can insert the property or method into your statement by:

Double-clicking the property or method.

Selecting the property or method and pressing TAB to insert the selection or pressing ENTER to insert the selection and move to the next line.

Note Objects of the type Variant do not show a list after the period (.).

Locals Window Command (View Menu)
Displays the Locals window and automatically displays all of the <u>variables</u> in the current stack and their values.
The Locals window is automatically updated every time you change from <u>run</u> time to <u>break mode</u> and every time the stack context changes.
Toolbar shortcut: .

Macros Command (Tools Menu)
Displays the Macros dialog box where you can create, run, step into, edit, or delete a macro.

Make Same Size Commands (Format Menu)

Based on the object with the white grab handles, makes the selected objects the same size in the dimension you select.

Width

Adjusts width.

Toolbar shortcut: 🗐.

Height

Adjusts height.

Toolbar shortcut: 🗓.

Both

Adjusts both the width and the height.

Toolbar shortcut: 😇.

Module and Class Module Commands (Insert Menu)

Module

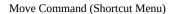
Inserts a new standard module and adds it to your active project.

Toolbar shortcut: **&**.

Class Module

Creates a new <u>class module</u> and adds it to your active project.

Toolbar shortcut: 🚨.



Depending on whether a window or the **Toolbox** is active when you select the **Move** command, one of the following actions occurs:

Changes the pointer to a \$\displays \text{ so you can move the active window to another location.}

Displays the **Page Order** dialog box where you can change the order of the pages in your **Toolbox**.

You can move the selected page to the left or right of the other pages.

New Page Command (Shortcut Menu)
Adds a new tabbed page with the name, New Page. You can use the Rename command on the shortcut menu to change it.
You can have more than one page with the name, New Page.
When you add a new page to the Toolbox , the page automatically contains the Pointer tool.



Object Command (View Menu)

Displays the active item.

Options Command (Tools Menu)
Displays the Options dialog box, from which you can choose a tab to set attributes of the Visual Basic programming environment.
Tabs
Editor
Editor Format
Lattor Format
General
Docking

Order Commands (Format Menu)

Changes the order of the selected objects on a form.

Bring To Front

Moves the selected objects to the front of all other objects on a form.

Send To Back

Moves the selected objects behind all other objects on a form.

Bring Forward

Moves the selected object one step higher in the <u>z-order</u>.

Toolbar shortcut: 🖳

Send Backward

Moves the selected object one step lower in the z-order.

Toolbar shortcut: 🖳

Outdent Command (Edit Menu)

Shifts all lines in the selection to the previous tab stop. If you place the cursor anywhere in a line and choose the **Outdent** command, the entire line is shifted to the previous tab stop. All lines in the selection are moved the same number of spaces to retain the same relative indentation within the selected block.

You can change the tab width on the **Editor** tab of the **Options** dialog box.

Parameter Info Command (Edit Menu)

Shows a popup in the **Code** window that contains information about the parameters of the initial function or statement. If you have a function or statement that contains functions as its parameters, choosing **Parameter Info** provides information about the first function. **Quick Info** provides information about each embedded function.

As you type a parameter it is bold until you type the comma used to delineate it from the next parameter.

The **Parameter Info**, once activated, will not close until:

All of the required parameters are entered.

The function is ended without using all of the optional parameters.

You press ESC.

Print Command (File Menu)

Prints forms and code to the printer specified in the Microsoft Windows **Control Panel**.

Dialog Box Options

Printer

Identifies the printer to which you are printing.

Range

Determines the range you print:

Selection — Prints the currently selected code.

Current Module — Prints the forms and/or code for the currently selected module.

Current Project — Prints the forms and/or code for the entire project.

Print What

Determines what you print. You can select as many options as you like, depending on what you selected as the Range.

Form Image — Prints the form images.

Code — Prints the code for the selected range.

Print Quality

Determines whether you print high, medium, low, or draft output quality.

Print to File

If selected, print is sent to the file specified in the **Print To File** dialog box. This dialog box appears after you choose OK in the **Print** dialog box.

OK

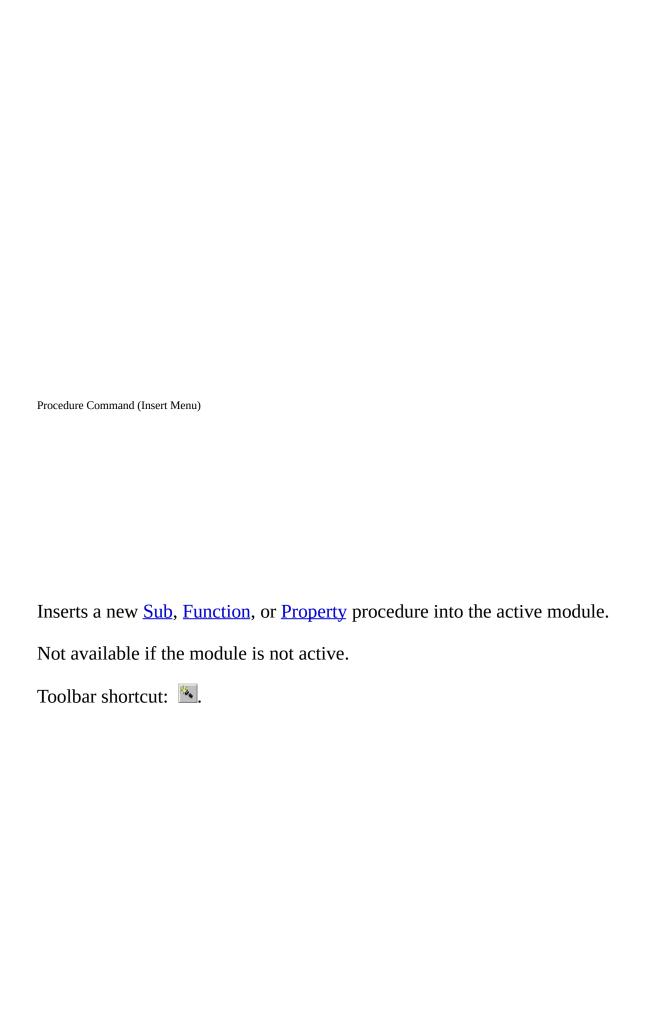
Prints your selection.

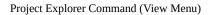
Cancel

Closes the dialog box without printing.

Setup

Displays the standard **Print Setup** dialog box.





Displays the **Project Explorer**, which displays a hierarchical list of the currently open projects and their contents.

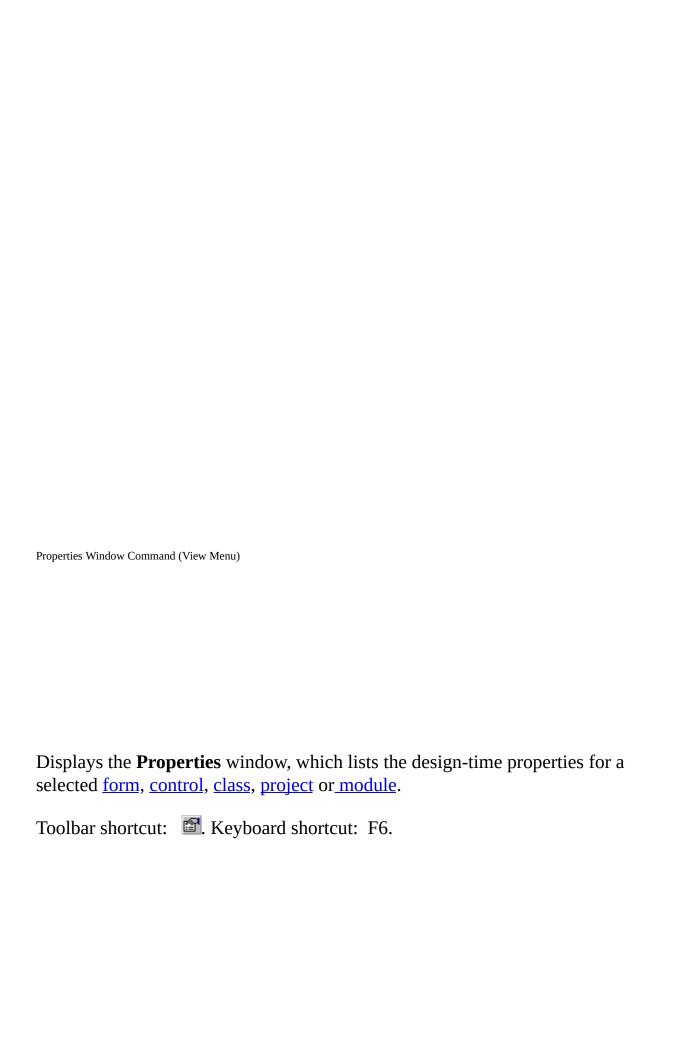
The **Project Explorer** is a navigational and management tool only. You cannot build an application from the **Project Explorer**.

Toolbar shortcut: S. Keyboard shortcut: CTRL+R.

<project name=""> Properties Command (Tools Menu)</project>
Displays the Project Properties dialog box where you can set protection for and options specific to your project.
Toolbar shortcut: 📃.

Properties Command (Object Browser Shortcut Menu)
Displays the Member Options dialog box where you type a description of the custom member and give it a Help Context ID and Help File name.
Only available for items containing Basic code.

Properties Command (Shortcut Menu)
Opens the Properties window for the selected item.

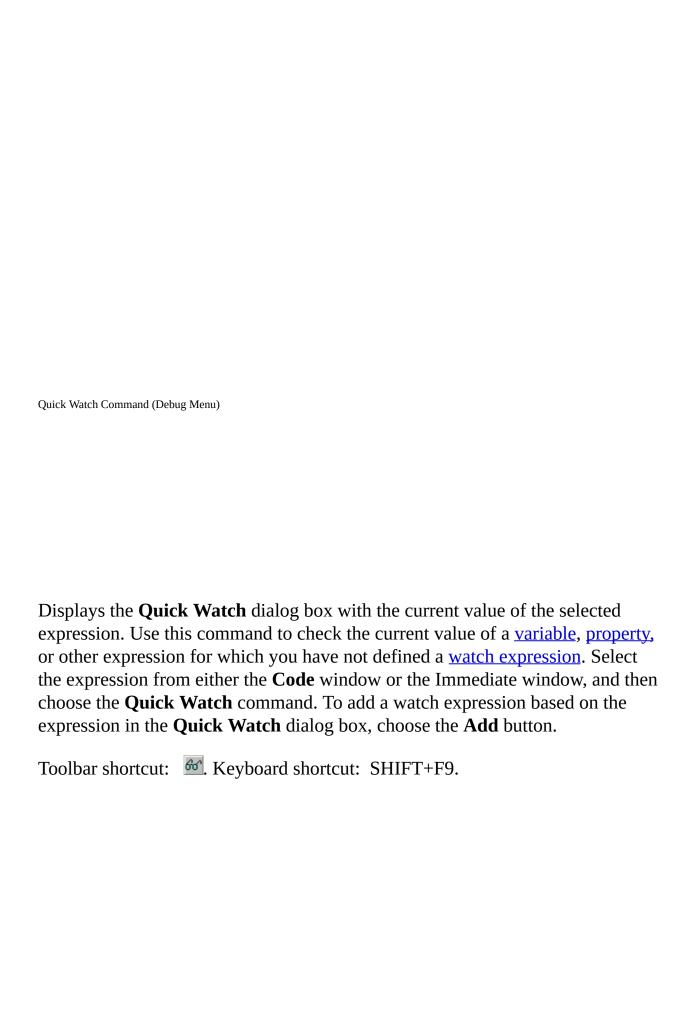


Quick Info Command (Edit Menu)

Provides the syntax for a variable, function, statement, method, or procedure selected in the **Code** window.

Quick Info shows the syntax for the item and highlights the current parameter. For functions and procedures with parameters, the parameter appears bold as you type it, until you type the comma used to delineate it from the next parameter.

To have **Quick Info** automatically appear as you type your code, select Auto Quick Info on the **Editor** tab in the **Options** dialog box.



Undo

Reverses the last editing action, such as typing text in the **Code** window or deleting controls. When you delete one or more controls, you can use the **Undo** command to restore the controls and all their properties.

Toolbar shortcut . Keyboard shortcuts: CTRL+Z or ALT+BACKSPACE.

Note You can't undo a **Cut** operation using the **Undo** command on a form.

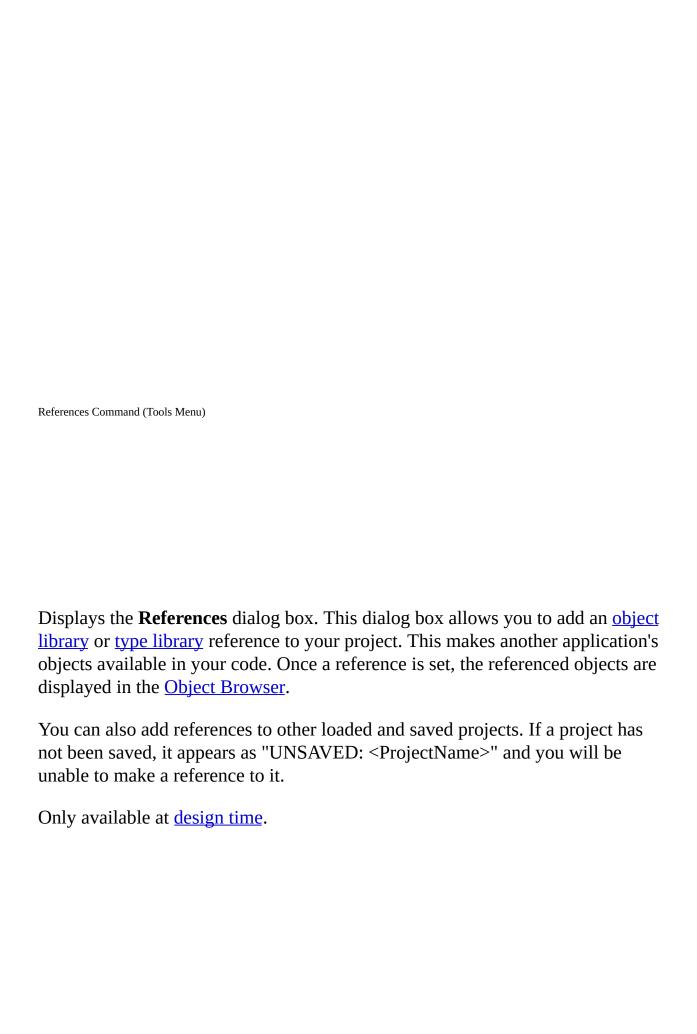
Redo

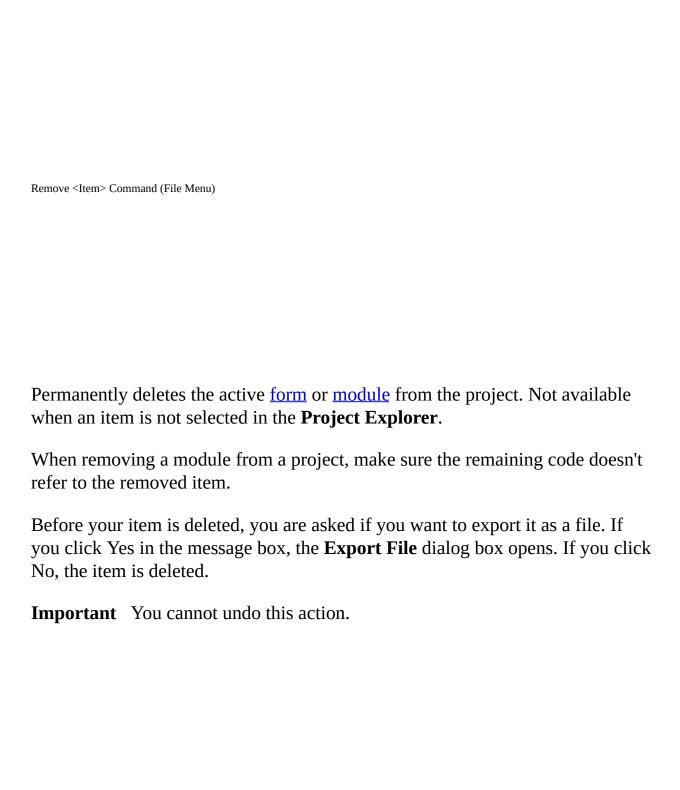
Restores the last text editing or resizing and positioning of controls if no other actions have occurred since the last **Undo**.

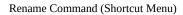
Toolbar shortcut .

For text edits, you can use **Undo** and **Redo** to restore up to twenty edits.

These commands are unavailable at runtime, or if there was no previous edit, or if any other action has been performed after the last edit. Also, some large edits may cause low memory conditions that could prevent an **Undo** action.







Displays the **Rename** dialog box so that you can change the name of the selected page in your **Toolbox** and create a tip.

Dialog Box Options

Caption

Allows you to give a new name to the tabbed page.

Control Tip Text

Allows you to create a tip for the tabbed page.

Replace Command (Edit Menu)

Searches code in the project for the specified text and replaces it with the new text specified in the **Replace** dialog box.

Dialog Box Options

Find What

Type or insert the information you want to find, or click the down arrow and select from the last four entries. If any text is selected or the cursor is on a word when you choose the command, this text is displayed in the Find What box.

Replace With

Type the text you want to use as the replacement text or paste it from the **Clipboard**. To delete the text in the Find What box from the document, leave the Replace With box empty.

Search

Specifies the search range.

Current Procedure — Searches only the current procedure.

Current Module — Searches only the current module.

Current Project — Searches all the modules in your project.

Selected Text — Searches a selected range of code in your project.

Direction

Sets the direction of the search to Down, Up, or All in the selected search range.

Find Whole Word Only

Searches for the full word by itself and not as part of a larger word.

Match Case

Finds all occurrences with the exact combination of uppercase and lowercase letters specified in the Find What box.

Use Pattern Matching

Searches using pattern-matching characters.

Find Next

Finds and selects the next occurrence of the text specified in the Find What box.

Cancel

Closes the dialog box without replacing text.

Replace

Confirms before replacing the search text with the replacement text.

Replace All

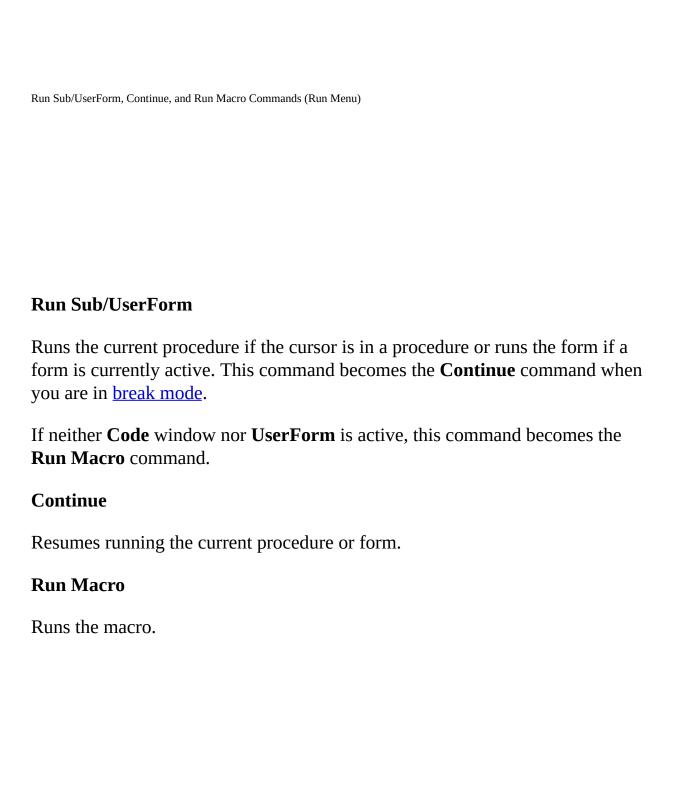
Replaces all occurrences of the search text with the replacement text without stopping for confirmation.

Reset project> Command (Run Menu)

Clears the **Call** stack and clears the module level variables.

Toolbar shortcut: .





Run to Cursor Command (Debug Menu)

When your application is in design mode, use **Run To Cursor** to select a statement further down in your code where you want execution to stop. Your application will run from the current statement to the selected statement and the current line of execution margin indicator, ▶ appears in the **Margin Indicator** bar.

You can use this command, for example, to avoid stepping through large loops.

Keyboard shortcut: CTRL+F8.



Select All Command (Edit Menu)
Selects all of the code in the active Code window or all the controls on a form.

Set Next Statement Command (Debug Menu)

Sets the execution point to the line of code you choose. You can set a different line of code to execute after the currently selected statement by selecting the line of code you want to execute and choosing the **Set Next Statement** command or by dragging the Current Execution Line margin indicator to the line of code you want to execute.

Using **Set Next Statement**, you can choose a line of code located before or after the currently selected statement. When you run the code, any intervening code isn't executed. Use this command when you want to rerun a statement within the current procedure or to skip over statements you don't want to execute. You can't use **Set Next Statement** for statements in different procedures.

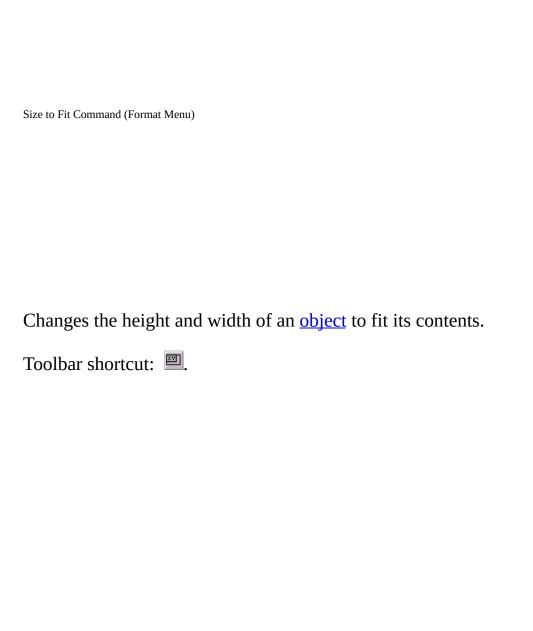
Show Next Statement Command (Debug Menu)

Highlights the next statement to be executed. Use the **Show Next Statement** command to place the cursor on the line that will execute next.

Available only in break mode.

Toolbar shortcut:

Size Command (Shortcut Menu)
Changes the pointer so that you can resize the active window or Toolbox .



Size to Grid Command (Forma	nt Menu)
-	and width of the selected <u>object</u> to fit the nearest gridlines in change the size of your grid on the General tab of the x.
Toolbar shortcut:	

Step Into, Step Over, and Step Out Commands (Debug Menu)

Step Into

Executes code one statement at a time.

When not in design mode, **Step Into** enters <u>break mode</u> at the current line of execution. If the statement is a call to a procedure, the next statement displayed is the first statement in the procedure.

At <u>design time</u>, this menu item begins execution and enters <u>break mode</u> before the first line of code is executed.

If there is no current execution point, the **Step Into** command may appear to do nothing until you do something that triggers code, for example click on a document.

Toolbar button: 🔼 Keyboard shortcut: F8.

Step Over

Similar to **Step Into**. The difference in use occurs when the current statement contains a call to a procedure.

Step Over executes the procedure as a unit, and then steps to the next statement

in the current procedure. Therefore, the next statement displayed is the next statement in the current procedure regardless of whether the current statement is a call to another procedure. Available in break mode only.

Step Out

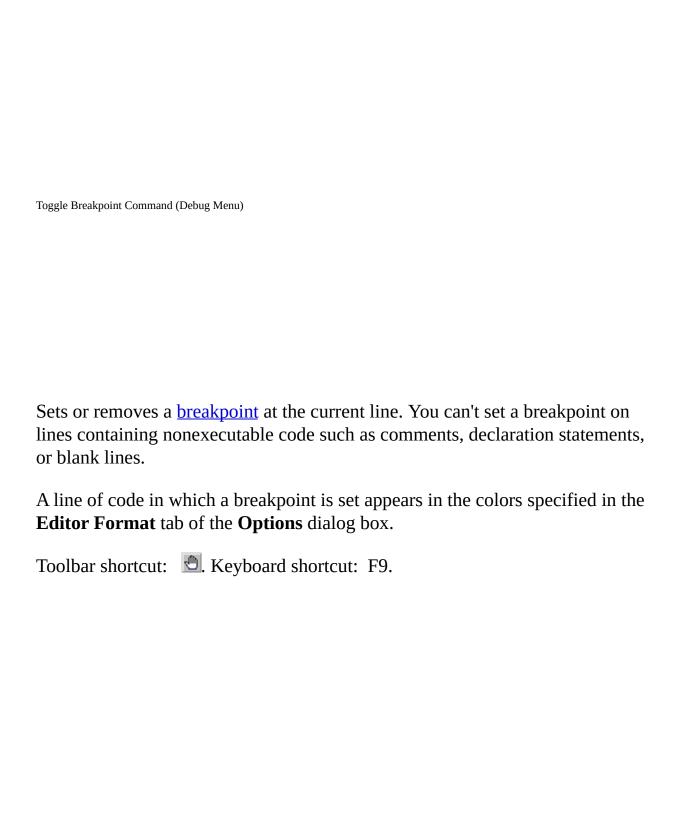
Executes the remaining lines of a function in which the current execution point lies. The next statement displayed is the statement following the procedure call. All of the code is executed between the current and the final execution points. Available in break mode only.

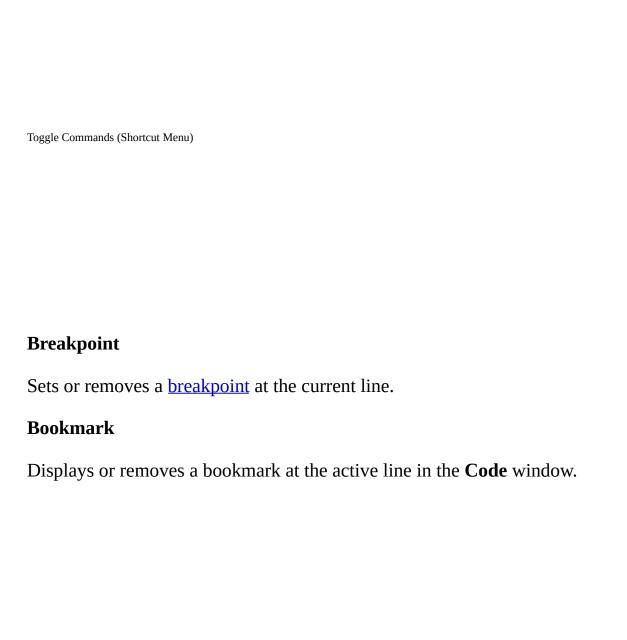
Tab Order Command (View Menu)

Displays the **Tab Order** dialog box for the active **Form**.

Toolbar shortcut: 🖺.







Lists the toolbars that are built into Visual Basic and the **Customize** command. You can:

Toggle the toolbars on and off.

Drag the toolbars to different locations on you desktop.

Debug

Displays the **Debug** toolbar which contains buttons for common debugging tasks.

Edit

Displays the **Edit** toolbar which contains buttons for common editing tasks.

Standard

Displays the **Standard** toolbar which is the default toolbar.

UserForm

Displays the **UserForm** toolbar which contains buttons specific to the form.

Customize

Displays the **Customize** dialog box where you can customize or create toolbars and your menu bar.

Toolbox Command (View Menu)
Displays or hides the Toolbox , which contains the controls currently available to your application.
Toolbar shortcut: 🔼



Vertical Spacing Commands (Format Menu)

Changes the vertical space between the selected <u>objects</u>, based on the object with focus. When an object has focus, white handles appear on its borders.

Make Equal

Moves the selected objects so that there is equal space between them using the top and bottom objects as the endpoints.

Toolbar shortcut: 🖹.

Increase

Increases the vertical spacing by one grid based on the object with focus. You can change the size of your grid units in the **General** tab of the **Options** dialog box.

Toolbar shortcut: 🚉.

Decrease

Decreases the vertical spacing by one grid based on the object with focus. You can change the size of your grid units in the **General** tab of the **Options** dialog box.

Remove

Removes the vertical spacing so that the object's borders are touching, based on the object with focus

Toolbar shortcut:

Note The object with focus does not move but the other objects move around it.

Note If using the **Vertical Spacing** command does not produce the results you want, try to manually rearrange some of the objects and repeat the command. Also, try the using the **Horizontal Spacing** command.

View Definition Command (Object Browser Shortcut Menu)				
Takes you to the definition of the selected member.				

View (Dbject and View Code Commands (Shortcut Menu)		
Allo	ows you to view either the Design window or the Code window.		
Viev	w Object		
Disp	Displays or activates the selected item.		
Viev	w Code		
Disp	plays or activates the Code window for a currently selected object		

Watch Window Command (View Menu) Displays the Watch window and displays the current watch expressions. The Watch window appears automatically if watch expressions are defined in the project. If the context of the expression isn't in scope when going to break mode, the current value isn't displayed.

Split

Toggles splitting the **Code** window in half horizontally. Only available when the **Code** window is active.

Toolbar shortcut: .



Tile Horizontally

Tiles all open document windows in your project horizontally.

Toolbar shortcut: \blacksquare .



Tile Vertically

Tiles all open document windows in your project vertically.

Toolbar shortcut:



Cascade

Rearranges all open document windows in your project so they overlap in a cascade.

Toolbar shortcut: 🖹.



Arrange Icons

Arranges the icons of any document windows you have minimized, neatly at the bottom left of the window.

Window List

Lists all open document windows.

Use these key combinations to edit code in the ${f Code}$ window:

Press	To
CTRL+C	Copy the selected text to the Clipboard .
CTRL+X	Cut the selected text to the Clipboard .
DELETE or DEL	Delete the selected text without placing it on the Clipboard .
CTRL+V	Paste the Clipboard contents at the insertion point.
CTRL+Z	Undo the last editing action in the current line.
CTRL+Y	Cut the current line to the Clipboard .
CTRL+DELETE	Delete to the end of the word.
CTRL+BACKSPACE	Delete to the beginning of the word.
SHIFT+F4	Find Next: repeat text search down through your code. If no text search has been done, the Find dialog box is displayed.
SHIFT+F3	Find Previous : repeat text search up through your code. If no text search has been done, the Find dialog box is displayed.
SHIFT+TAB	Remove indent.

Code

Window General Use Keys

Use these key combinations in the **Code** window:

Press	То
F1	Get context-sensitive Help on functions, statements, methods,
EO	properties, or events.
F2	Display the <u>Object Browser</u> .
F9	Set or remove a <u>breakpoint</u> .
CTRL+SHIFT+F9	Clear all breakpoints.
F5	Run a Sub/UserForm or macro.
F8	Execute code one line at a time (single step).
SHIFT+F8	Execute code one procedure at a time (procedure step).
CTRL+BREAK	Stop running a Visual Basic application.
HOME	Move the cursor to the beginning of text in a line.
END	Move the cursor to the end of text in a line.

Double-click on the split bar

SHIFT+F10

Delete the split bar.

View shortcut menu.

View Shorteut menu.

ALT+F5 Runs the error handler code or returns

the error to the calling procedure. Does not affect the setting for error trapping on the **General** tab of the **Options**

dialog box.

ALT+F8 Steps into the error handler or returns

the error to the calling procedure. Does not affect the setting for error trapping on the **General** tab of the **Options**

dialog box.

CTRL+J Turn on **ListProperties/Methods**.

CTRL+SHIFT+J Turn on **List Constants**.

CTRL+I Turn on **Quick Info**.

CTRL+SHIFT+I Turn on **Parameter Info**.

CTRL+SPACEBAR Turn on **Complete Word**.

Use these key combinations to navigate in the ${f Code}$ window:

Press	To
CTRL+F2	Move the insertion point into the Object box.
SHIFT+F2	Go to the definition of the selected procedure.
CTRL+DOWN ARROW	Display the next procedure.
CTRL+UP ARROW	Display the previous procedure.
PAGE DOWN	Page down through the procedures in your code.
PAGE UP	Page up through the procedures in your code.
CTRL+SHIFT+F2	Go back to the last position in your code.
CTRL+HOME	Go to the beginning of the module.
CTRL+END	Go to the end of the module.
CTRL+RIGHT ARROW	Go one word to the right.
CTRL+LEFT ARROW	Go one word to the left.
END	Go to the end of the line.
HOME	Go to the beginning of the line.
CTRL+PAGE DOWN	Go to the bottom of the current procedure.
CTRL+PAGE UP	Go to the top of the current procedure.
F6	Switch between Code window panes

(when the window is split).

Use these key combinations in all Visual Basic windows:

Press	То
F5	Run a Sub/UserForm or macro.
F8	Execute code one line at a time.
SHIFT+F8	Execute <u>statements</u> one line at a time without stepping into <u>procedure calls</u> .
CTRL+BREAK	Stop running a Visual Basic application.
CTRL+G	Displays the Immediate window.
CTRL+TAB	Switch between windows.
ALT+F5	Runs the error handler code or returns the error to the calling procedure. Does not affect the setting for error trapping on the General tab of the Options dialog box.
ALT+F8	Steps into the error handler or returns the error to the calling procedure. Does not affect the setting for error trapping on the General tab of the Options dialog box.

Use these key combinations in all Windows-based applications:

Press	To
F1	Open Help.
ALT+F6	Toggle between the last two active windows.
ALT+F4	(Visual Basic) Close the active window; if all windows are closed, close Visual Basic.
CTRL+C or F3	Copy the selection to the Clipboard .
CTRL+X	Cut the selection to the Clipboard .
CTRL+V	Paste the Clipboard selection.
CTRL+Z	Undo the last edit.
SHIFT+F10	View shortcut menu.

Compile project>

Step Into

Step Over

Step Out

Run To Cursor

Add Watch

Edit Watch

Quick Watch

Toggle Breakpoint

Clear All Breakpoints

Set Next Statement

Show Next Statement

<u>Undo</u>
Redo
Cut
Сору
<u>Paste</u>
Clear and Delete
Select All
<u>Find</u>
Find Next
<u>Replace</u>
<u>Indent</u>
Outdent
List Properties/Methods
List Constants
Quick Info

Parameter Info

Complete Word

Bookmarks

New Project

Open Project

Save <host document> and Save As

Import File

Export File

Close Project

Remove <Item>

Print

<u>Make <Project></u>

Close and Return to <host application>

Note Some menu items are not available in all editions of the Visual Basic Editor.

_ A 7			
/\	ы.	~	n
		v	
	ш	~	.,

Make Same Size

Size to Fit

Size to Grid

Horizontal Spacing

Vertical Spacing

Center in Form

Arrange Buttons

Group

Ungroup

<u>Order</u>

Microsoft Visual Basic Help

If the **Office Assistant** is not currently visible, displays the **Office Assistant** and **Office Assistant** balloon. If the **Office Assistant** is visible, shows the **Office Assistant** balloon.

Toolbar shortcut: 2. Keyboard shortcut: F1.

MSDN on the Web

Connects you to the Internet where you can get additional information and support.

To use this command, you must have a modem or network connection to the Internet and a Worldwide Web browser.

About Microsoft Visual Basic

Displays a dialog box with the version number, a copyright notice, and system information.

Incort	Menu

Procedure

<u>UserForm</u>

Module

Class Module

Components

<u>File</u>

Note Some menu items are not available in all editions of the Visual Basic Editor.

Run Menu

Run Sub/UserForm or Run Macro

Break

Reset

Design Mode/Exit Design Mode

Publish Mode

Tools Menu

References

<u>Macros</u>

Options

<Project> Properties

Digital Signature

Code
<u>Object</u>
<u>Definition</u>
Last Position
Object Browser
Immediate Window
Locals Window
Watch Window
Call Stack
Project Explorer
Properties Window
Toolbox
Tab Order
<u>Toolbars</u>
<hr/> <hr/> Host application>

Visual	Basic	Menu

Visual Basic has two types of menus, built-in and shortcut.

Built-in menus appear on the menu bar across the top of the Visual Basic window. Each menu contains commands that relate to the menu name. For example, the **Format** menu contains commands used for formatting your form. Some of the commands have submenus that contains more specific commands. For example, the **Toolbars** command on the **View** menu has a submenu that contains the names of the toolbars and the **Customize** command. You can use the **Customize** command to modify the built-in menus or to add commands to the menu bar.

Shortcut menus are menus containing frequently used commands that appear when you click the right mouse button or press SHIFT+F10.

Note To find information on a command on a menu, use the **Search Reference Index** command on the **Help** menu and search for the name of the command.

The **Object Browser** and **Code** window contain many icons that represent classes and members. The following is a list of icons and what they represent.

This Icon:	Represents a:
	Property
	Default Property
a ♦	Method
	Default Method
<i>§</i>	Event
	Constant
A.	Module
	Class
₫	User Defined Type
•	Global
	Library
髮	Project
==	Built-in keywords and types
₽	Enum

Built-in pattern matching provides a versatile tool for making string comparisons. The following table shows the wildcard characters you can use with the Like operator and the number of digits or strings they match.

Character(s) in pattern	Matches in expression
?	Any single character
*	Zero or more characters
#	Any single digit (09)
[charlist]	Any single character in <i>charlist</i>
[!charlist]	Any single character not in <i>charlist</i>

A group of one or more characters (*charlist*) enclosed in brackets ([]) can be used to match any single character in *expression* and can include almost any characters in the <u>ANSI</u> character set, including digits. In fact, the special characters opening bracket ([]), question mark (?), number sign (#), and asterisk (*) can be used to match themselves directly only if enclosed in brackets. The closing bracket (]) can't be used within a group to match itself, but it can be used outside a group as an individual character.

In addition to a simple list of characters enclosed in brackets, *charlist* can specify a range of characters by using a hyphen (-) to separate the upper and

lower bounds of the range. For example, using [A-Z] in *pattern* results in a match if the corresponding character position in *expression* contains any of the uppercase letters in the range A through Z. Multiple ranges can be included within the brackets without any delimiting. For example, [a-zA-Z0-9] matches any alphanumeric character.

Other important rules for pattern matching include the following:

An exclamation mark (!) at the beginning of *charlist* means that a match is made if any character except those in *charlist* are found in *expression*. When used outside brackets, the exclamation mark matches itself.

The hyphen (-) can be used either at the beginning (after an exclamation mark if one is used) or at the end of *charlist* to match itself. In any other location, the hyphen is used to identify a range of ANSI characters.

When a range of characters is specified, they must appear in ascending sort order (A-Z or 0-100). [A-Z] is a valid pattern, but [Z-A] isn't.

The character sequence [] is ignored; it's considered to be a zero-length string ("").

Code Window Keyboard Shortcuts

You can use the following shortcut keys to access commands in the **Code** window.

Description	Shortcut Keys
View Code window	F7
,	1,
View <u>Object Browser</u>	F2
Find	CTRL+F
Replace	CTRL+H
Find Next	F3
Find Previous	SHIFT+F3
Next procedure	CTRL+DOWN ARROW
Previous procedure	CTRL+UP ARROW
View definition	SHIFT+F2
Shift one screen down	CTRL+PAGE DOWN

Shift one screen up CTRL+PAGE UP
Go to last position CTRL+SHIFT+F2

Beginning of module CTRL+HOME

End of module CTRL+END

Move one word to right CTRL+RIGHT ARROW

Move one word to left CTRL+LEFT ARROW

Move to end of line END

Move to beginning of line HOME

Undo CTRL+Z

Delete current line CTRL+Y

Delete to end of word CTRL+DELETE

Indent TAB

Outdent SHIFT+TAB

Clear all <u>breakpoints</u> CTRL+SHIFT+F9

View shortcut menu SHIFT+F10

Use these key combinations in the **Immediate** window:

Press	To
ENTER	Run a line of selected code.
CTRL+C	Copy the selected text to the Clipboard .
CTRL+V	Paste the Clipboard contents at the insertion point.
CTRL+X	Cut the selected text to the Clipboard .
CTRL+L	Display Call Stack dialog box (break mode only).
F5	Continue running an application.
F8	Execute code one line at a time (single step).
SHIFT+F8	Execute code one procedure at a time (procedure step).
DELETE or DEL	Delete the selected text without placing it on the Clipboard .
F2	Display the Object Browser .
CTRL+ENTER	Insert carriage return.
CTRL+HOME	Move the cursor to the top of the Immediate window.
CTRL+END	Move the cursor to the end of the Immediate window.
SHIFT+F10	View shortcut menu.
ALT+F5	Runs the error handler code or returns

ALT+F8

the error to the calling procedure. Does not affect the setting for error trapping on the **General** tab of the **Options** dialog box.

Steps into the error handler or returns the error to the calling procedure. Does not affect the setting for error trapping on the **General** tab of the **Options** dialog box.

Use these key combinations for menu shortcuts in the ${f Code}$ window:

Press	То
CTRL+P	Print
CTRL+Z	Undo
CTRL+V	Paste
DEL or DELETE	Delete
CTRL+F	Find
SHIFT+F4	Find Next
CTRL+H	Replace
TAB	Indent
SHIFT+TAB	Outdent
SHIFT+F2	Definition
CTRL+SHIFT+F2	Last Position
F2	Object Browser
CTRL+G	Immediate Window
CTRL+R	Project Explorer
F4	Properties Window
F8	Step Into
SHIFT+F8	Step Over
CTRL+F8	Run To Cursor
F9	Toggle Breakpoint.
CTRL+SHIFT+F9	Clear All Breakpoints
F5	Run Sub/Form or Run Macro

CTRL+BREAK **Break**

SHIFT+F10 Shortcut menu

CTRL+J List Properties/Methods

CTRL+SHIFT+J List Constants
SHIFT+F9 Quick Watch
CTRL+M ImportFile
CTRL+E Export File

CTRL+I Quick Info

CTRL+SHIFT+I Parameter Info
CTRL+SPACEBAR Complete Word

Use these key combinations in the **Project Explorer**:

Press	То
ENTER	Open the selected file from the list, or expand and collapse the list to show its subentries.
SHIFT+ENTER	Open the Code window for the selected file.
F7	Open the Code window for the selected file.
SHIFT+F10	View shortcut menu.
HOME	Select the first file in the list.
END	Select the last file in the list.
RIGHT ARROW	Expands a list and then selects a subentry in the list each time you press it.
LEFT ARROW	Selects a subentry in the list and then moves up the list each time you press it until the subentry list collapses into a folder.
UP ARROW	Moves up the list one entry at a time.
DOWN ARROW	Moves down the list one entry at a time.

Use these key combinations when the Property list has the focus in the **Properties** window:

Press	То
PAGE DOWN	Move down through the Property list.
PAGE UP	Move up through the Property list.
DOWN ARROW	Move down through the Property list, one property at a time.
UP ARROW	Move up through the Property list, one property at a time.
RIGHT ARROW	Move down through the Property list, one property at a time.
LEFT ARROW	Move up through the Property list, one property at a time.
END	Move to the last property in the list.
HOME	Move to the first property in the list.
TAB	Move the insertion point among the property, properties settings box, and the Object box.
CTRL+SHIFT+ALPHA	Move to the next property in the list that begins with the alpha character.
Double-Click	Cycle through settings of enumerated properties, or switch focus to the settings box for other property types.
ALT+F6	Switch between the last two active windows.

Use these key combinations when the settings box for a property has the focus in the **Properties** window:

Press	То
CTRL+Z	Undo the last editing action in the current line.
CTRL+C	Copy the selected text to the Clipboard .
CTRL+X	Cut the selected text to the Clipboard .
DEL or DELETE	Delete the selected text without placing it on the Clipboard .
CTRL+V	Paste the Clipboard contents at the insertion point.
SHIFT+TAB	Switch focus between the Object box and the active Properties tab.
TAB	Move the focus among the Object box, the active Properties tab, a property, and the property value.
ESC	Cancel the property change.
CTRL +SHIFT+ALPHA	Move to the next property that begins with the alpha character, in the list.

Use these key combinations when a property has enumerated values and its settings box has the focus in the **Properties** window:

Press	To
ALT+DOWN ARROW	Open the settings box list.
ALT+UP ARROW	Close the settings box list.

Use these key combinations when you set the **BackColor**, **ForeColor**, **FillColor**, or **BorderColor** properties, and the settings box has the focus in the **Properties** window:

Press	To
ALT+DOWN ARROW	Display the Color palette.
ALT+UP ARROW	Close the Color palette.

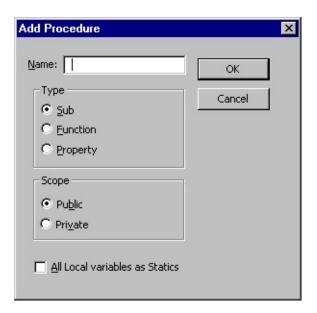
Use these key combinations when you set the **Icon** or **Picture** properties, and the settings box has the focus in the **Properties** window:

Press	То
ALT+DOWN ARROW	Display the Load Icon or Load Picture dialog box.
ALT+UP ARROW	Display the Load Icon or Load Picture dialog box.

Use these key combinations in the **Watch** window:

Press	To
SHIFT+ENTER	Display the selected watch expression.
CTRL+W	Display Edit Watch dialog box.
ENTER	Expands or collapses the selected watch value if it has a plus (+) or minus (-) to the left of it.
F2	Display the Object Browser.
SHIFT+F10	View shortcut menu.

Add Procedure Dialog Box



Inserts a new <u>Sub</u>, <u>Function</u>, or **Property** procedure. The **Add Procedure** dialog box also allows you to set the <u>scope</u> to public or private, and make all local

variables in the procedure static.

Dialog Box Options

Name

Lists a name for the new procedure.

Type

Identifies the type of procedure to create.

Sub — Creates a new **Sub** procedure.

Function — Creates a new **Function** procedure.

Property — Creates a new **Let** property and **Get** property procedure pair.

Scope

Sets the procedure's scope to either **Public** or **Private**.

All Local Variables as Statics

Adds the **Static** keyword to the procedure definition.

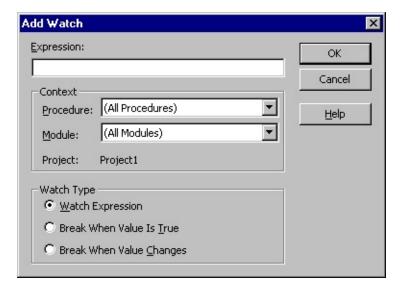
OK

Inserts the procedure template in the ${f Code}$ window.

Cancel

Closes the dialog box without inserting a new procedure.





Use to enter a <u>watch expression</u>. The expression can be a <u>variable</u>, a property, a function call, or any other valid Basic expression. Watch expressions are updated in the **Watch** window each time you enter <u>break mode</u> or after execution of each statement in the Immediate window.

You can drag selected expressions from the **Code** window into the **Watch** window.

Important When selecting a context for a watch expression, use the narrowest scope that fits your needs. Selecting all procedures or all modules could slow down execution considerably, since the expression is evaluated after execution of each statement. Selecting a specific procedure for a context affects execution only while the procedure is in the list of active procedure calls, which you can see by choosing the **Call Stack** command on the **View** menu.

Dialog Box Options

Expression

Displays the selected expression by default. The expression is a variable, a property, a function call, or any other valid expression. You may enter a different expression to evaluate.

Context

Sets the scope of the variables watched in the expression.

Procedure — Displays the procedure name where the selected term resides (default). Defines the procedure(s) in which the expression is evaluated. You may select all procedures or a specific procedure context in which to evaluate the variable.

Module — Displays the <u>module</u> name where the selected term resides (default). You may select all modules or a specific module context in which to evaluate the variable.

Project — Displays the name of the current <u>project</u>. Expressions can't be evaluated in a context outside of the current project.

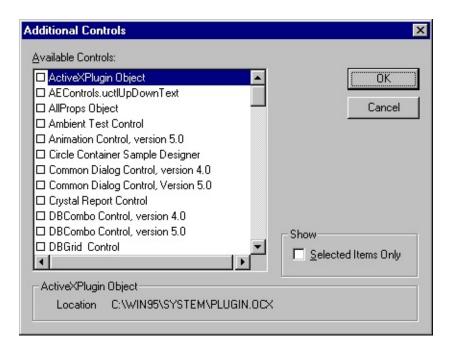
Watch Type

Determines how Visual Basic responds to the watch expression.

Watch Expression — Displays the <u>watch expression</u> and its value in the **Watch** window. When you enter break mode, the value of the watch expression is automatically updated.

Break When Value Is True — Execution automatically enters break mode when the expression evaluates to true or is any nonzero value (not valid for string expressions).

Break When Value Changes — Execution automatically enters break mode when the value of expression changes within the specified context.



Allows you add controls to your project's **Toolbox**.

Dialog Box Options

Available Controls

Displays the available custom controls.

Note You cannot remove a control that is used in your project.

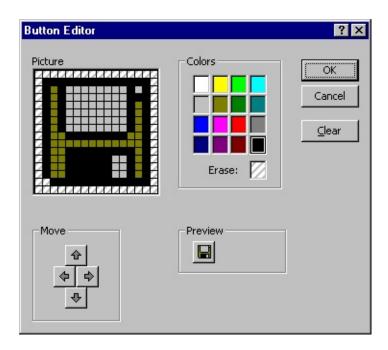
Show

Determines which items are listed in the Available Controls list. You can select any or all of the following options.

Selected Items Only — Displays only those items in the Available Controls list which you have selected to include in the project.

Path

Displays the path of the item selected in the Available Controls list.



Provides the tools to modify **Toolbar** icons.

Dialog Box Options

Picture

Shows the icon pixel by pixel.

Move

Moves the picture around so that you have access to all parts of it.

— Moves the picture up one row each time you click it until the top row of pixels is visible.

— Moves the picture down one row each time you click it until the bottom row of pixels is visible.
— Moves the picture to the right one column each time you click it until the right-most column is visible.
— Moves the picture to the left one column each time you click it until the left-most column is visible.

Colors

Changes the color of the pixel. You click on the color you want and then click on the pixel that you want to appear with that color.

Erase — Removes the color from the pixel you click on after you click on the Erase box.

Preview

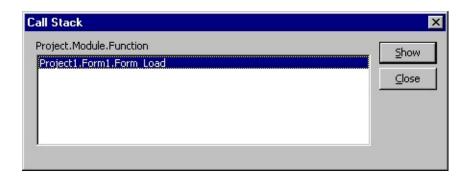
Shows you how your icon will appear as you make the changes.

Clear

Clears all of the color and picture from the picture box.

OK

Assigns the picture to the control.



Displays a list of currently active procedure calls during <u>break mode</u>. When executing code in a procedure, that procedure is added to a list of active procedure calls. Each time a procedure calls another procedure, it is added to the list. Called procedures are removed from the list when execution returns to the calling procedure. Procedures called from the **Immediate** window are also added to the calls list.

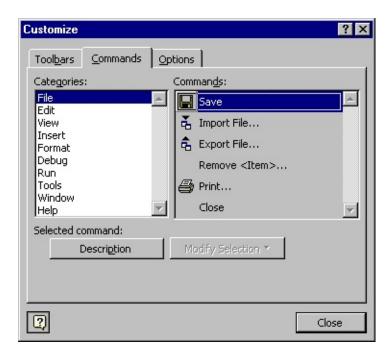
Dialog Box Options

Project Module Function

Lists the procedures.

Show

Moves the insertion point to the location where the call was made and turns on the Call Stack indicator, ❖.



Allows you to add controls and modify existing controls on the **Menu** bar or any toolbar. You can also modify the button image and text of your added commands.

Tab Options

Categories

Lists the different command categories.

Commands

Lists the controls available for the category you select in the Categories list. You can drag the command to the toolbar where you want the command to reside. To

add the command to a menu, drag it over the menu's title and then into the location in the menu that appears.

Description

Displays a QuickTip for the currently selected control.

Modify Selection

Allows you to change the selected command.

Reset — Resets the command to the default.

Delete — Deletes the command.

Name — Changes the name of the control to the name you type into the box. By using the ampersand (&), you can also set shortcut keys.

Copy Button Image — Copies the button image to the **Clipboard**.

Paste Button Image — Pastes the button image from the **Clipboard**.

Reset Button Image — Resets the button image to its default setting.

Edit Button Image — Displays the **Button Editor** dialog box.

Change Button Image — Displays a list of button images from which you can select a different image for your button.

Default Style — For toolbar buttons, shows only the icon. For menu items, shows the icon and the name.

Text Only (Always) — Shows the command name only.

Text Only (in Menus) — Hides the icon, if any, for menu items. This options has no effect on toolbar buttons.

Image and Text — For toolbars, shows both the icon and name. This option has no effect on menu items.

Begin a Group — For toolbars, puts a separator line before the control. Dimmed when the control is at the beginning of the toolbar.



Allows you to add **ToolTips** and modify the icon for your control.

Dialog Box Options

Tool Tip Text

Contains the text for the tool tip.

Preview

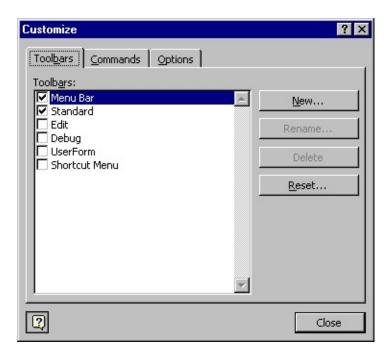
Shows the icon that you choose to use for the control.

Edit Picture

Displays the **Edit Picture** dialog box where you can modify the icon.

Load Picture

Displays the **Load Picture** dialog box. The **Load Picture** dialog box is a standard **Open** common dialog box.



Allows you to customize your toolbars and menus.

Tabs

Toolbars

Allows you to create, rename, delete, and reset your toolbars.

Commands

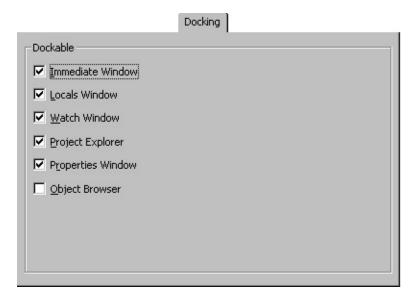
Contains commands you can drag to your menus and toolbars.

Options

Allows you to change the size of your toolbar buttons, to show ToolTips and shortcut keys, and to add animation to your menus.

Office Assistant Button

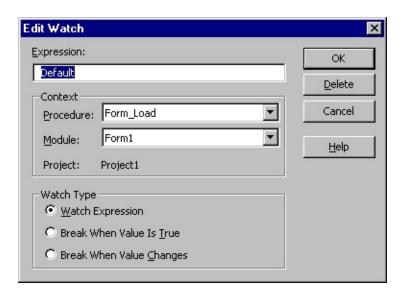
Displays the **Office Assistant**.



Allows you to choose which windows you want to be dockable. A window is docked when it is attached or "anchored" to one edge of other dockable or application windows. When you move a dockable window, it "snaps" to the location. A window is not dockable when you can move it anywhere on the screen and leave it there.

Select the windows you want to be dockable and clear those that you do not. Any, none, or all of the windows in the list can be docked.

Edit Watch Dialog Box



Use to delete or edit the context or type of a watch expression.

Important When selecting a context for a watch expression, use the narrowest

scope that fits your needs. Selecting all procedures or all modules could slow down execution considerably, since the expression is evaluated after execution of each statement. Selecting a specific procedure for a context affects execution only while the procedure is in the list of active procedure calls.

Dialog Box Options

Expression

Displays the selected expression by default. The expression is a variable, a property, a function call, or any other valid expression. You may enter a different expression to evaluate.

Context

Sets the scope of the variables watched in the expression.

Procedure — Displays the procedure name where the selected term resides (default). Defines the procedure(s) in which the expression is evaluated. You may select all procedures or a specific procedure context in which to evaluate the variable.

Module — Displays the <u>module</u> name where the selected term resides (default). You may select all modules or a specific module context in which to evaluate the variable.

Project — Displays the name of the current project. Expressions can't be evaluated in a context outside of the current project.

Watch Type

Determines how Visual Basic responds to the watch expression.

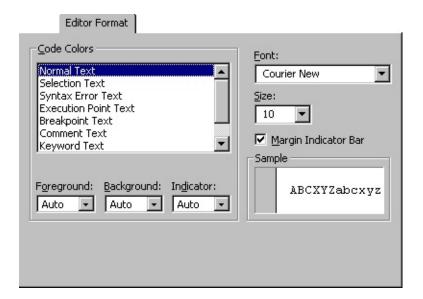
Watch Expression — Displays the watch expression and its value in the **Watch** window. When you enter break mode, the value of the watch expression is automatically updated.

Break When Value Is True — Execution automatically enters break mode when the expression evaluates to true or is any nonzero value (not valid for string expressions).

Break When Value Changes — Execution automatically enters break mode when the value of expression changes within the specified context.

Delete

Deletes the watch expression.



Specifies the appearance of your Visual Basic code.

Tab Options

Code Colors

Determines the foreground and background colors used for the type of text selected in the list box.

Color Text List — Lists the text items that have customizable colors.

Foreground — Specifies the foreground color for the text selected in the Color Text List.

Background — Specifies the background color for text selected in the Color Text List

Indicator — Specifies the margin indicator color.

Font

Specifies the font used for all code.

Size

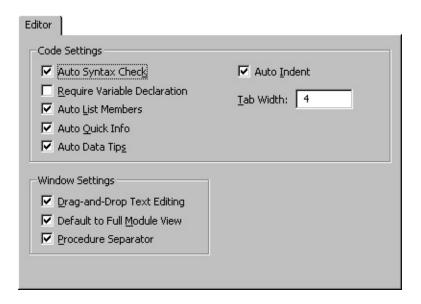
Specifies the size of the font used for code.

Margin Indicator Bar

Makes the margin indicator bar visible or invisible.

Sample

Displays sample text for the font, size, and color settings.



Specifies the **Code** window and **Project** window settings.

Tab Options

Code Settings

Auto Syntax Check — Determines whether Visual Basic should automatically verify correct syntax after you enter a line of code.

Require Variable Declaration — Determines whether explicit variable declarations are required in modules. Selecting this adds the Option Explicit statement to general declarations in any new module.

Auto List Member — Displays a list that contains information that would

logically complete the statement at the current insertion point.

Auto Quick Info — Displays information about functions and their parameters as you type.

Auto Data Tips — Displays the value of the variable over which your cursor is placed. Available only in Break mode.

Auto Indent — Allows you to tab the first line of code; all subsequent lines will start at that tab location.

Tab Width — Sets the tab width, which can range from 1 to 32 spaces; the default is 4 spaces.

Window Settings

Drag-and-Drop Text Editing — Allows you to drag and drop elements within the current code and from the **Code** window into the **Immediate** or **Watch** windows.

Default to Full Module View — Sets the default state for new modules to allow you to look at procedures in the **Code** window either as a single scrollable list or only at one procedure at a time. It does not change the way currently open modules are viewed.

Procedure Separator — Allows you to display or hide separator bars that appear at the end of each procedure in the **Code** window.



Allows you to give a name to the exported file and choose a location where it will be saved.

Dialog Box Options

Save in

Select the folder where you want to store the file.

Up One Level

Shows a list of folders or drives one level above the current folder.

Create New Folder

Creates a new folder.

Details

Shows the folder or documents in a list that includes the folder or document icon and name, its size (documents only), type, and the date and time it was last modified.

List

Shows the folders or documents in a list format that includes the folder or document icon and its name.

File name

Unless you specify a filename extension, Visual Basic automatically adds the default filename extension .frm for form, .bas for modules, or .cls for class modules.

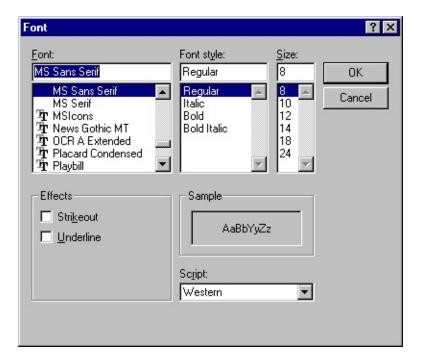
List Files of Type

Select a file type from the list:

Form Files (*.frm) — Lists all forms.

Basic Files (*.bas) — Lists all standard modules.

Class Files (*.cis) — Lists all class modules.



Use to change the fonts, the font size, and/or the font style you use for text and data fields.

Dialog Box Options

Font

Lists all the fonts that you have installed for Windows. When the box first appears, the font already in use for the selected element is highlighted.

Font Style

Lists four additional attributes that you can assign to the font selected:

Regular — Standard, unmodified style

Bold — Boldface

Italic — Italic

Bold Italic — Bold Italic

Size

Lists common point sizes for the highlighted font. When the box first appears, the point size for the font already in use for the selected element is highlighted, and the highlighted point size appears in the edit box at the top.

You can select directly from the list or type the new point size in the edit box at the top (if you know that you have additional sizes installed for the currently selected printer or if you are using scalable type).

Effects

Lists two additional options that you can use for highlighting the selected font.

Strikeout — Prints the strikeout character across the font

Underline — Underlines the font

You may select as many of the Effects as you wish.

Sample

Displays a sample of the font you have selected. The sample shows the font, style, size, effects, and color you have specified. You can use this box to preview the results as you experiment with different formatting options.

Script

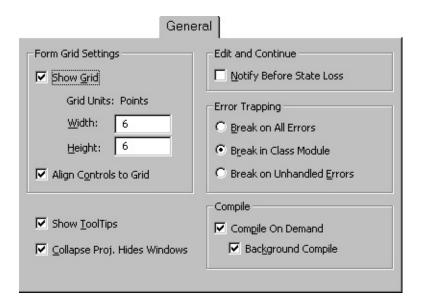
Displays a list of available scripts.

OK

Applies the font changes to the selected report element.

Cancel

Cancels all font changes and leaves the selected element report unchanged.



Specifies the settings, error handling, and compile settings for your current Visual Basic project.

Tab Options

Form Grid Settings

Determines the appearance of the form when it is edited.

Show Grid — Determines whether to show the grid.

Grid Units — Displays the grid units used for the form.

Width — Determines the width of grid cells on a form (2 to 60 points).

Height — Determines the height of grid cells on a form (2 to 60 points).

Align Controls to Grid — Automatically positions the outer edges of controls on grid lines.

Show ToolTips

Displays ToolTips for the toolbar buttons.

Collapse Proj. Hides Windows

Determines whether the project, **UserForm**, object, or module windows are closed automatically when a project is collapsed in the **Project Explorer**.

Edit and Continue

Notify Before State Loss — Determines whether you will receive a message notifying you that the action requested will cause the all module level variables to be reset for a running project.

Error Trapping

Determines how errors are handled in the Visual Basic development environment. Setting this option affects all instances of Visual Basic started after you change the setting.

Break on All Errors — Any error causes the project to enter break mode, whether or not an error handler is active and whether or not the code is in a class module.

Break in Class Module — Any unhandled error produced in a class module causes the project to enter break mode at the line of code in the class module which produced the error.

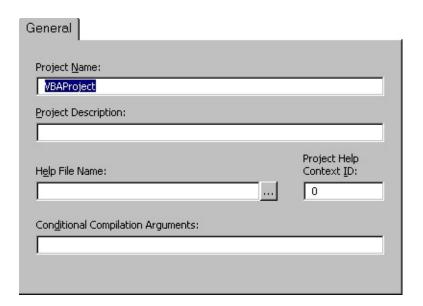
Break on Unhandled Errors — If an error handler is active, the error is trapped without entering break mode. If there is no active error handler, the error causes the project to enter break mode. An unhandled error in a class module, however, causes the project to enter break mode on the line of code that invoked the offending procedure of the class.

Compile

Compile On Demand — Determines whether a project is fully compiled before it starts, or whether code is compiled as needed, allowing the application to start sooner.

Background Compile — Determines whether idle time is used during run time to finish compiling the project in the background. Background Compile can improve run time execution speed. This feature is not available unless Compile on Demand is also selected.

General Tab (Project Properties Dialog Box)



Specifies the settings for the current Visual Basic project. The name of the project is displayed in the title bar.

Tab Options

Project Name

Identifies your component in the Windows Registry and the **Object Browser**. It is important that it has a unique name.

The project name is the name of the *type library* for your component. The type library, or TypeLib, contains the description of the objects and interfaces provided by your component.

It is also used to qualify the names of classes. A combination of project name and class name is sometimes referred to as a *fully qualified class name*, or as a *programmatic ID*. The fully qualified class name may be required to correctly identify an object as belonging to your component.

Help File Name

Displays the name of the Help file associated with the project.

Project Description

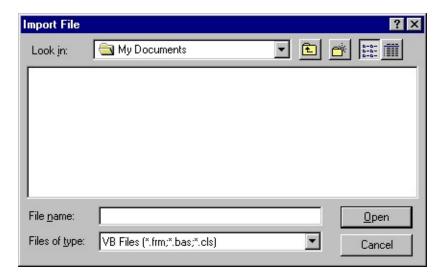
Sets the descriptive text that is displayed in the **Description** pane at the bottom of the **Object Browser**.

Project Help Context ID

Lists the context ID for the specific Help topic to be called when the user selects the button while the application's object library is selected in the Object Browser.

Conditional Compilation Arguments

Lists the constant declarations used for conditional compilation.



Allows you to choose the file that you want to import.

Dialog Box Options

Look in

Select the location of the project you want to open.

Up One Level

Shows a list of folders or drives one level above the current folder.

Create New Folder

Creates a new folder.



Shows the folders or projects in a list format that includes the folder or project icon and its name.

Details

Shows the folders or projects in a list that includes the folder or project icon and name, its size, type, and the date and time it was last modified.

Filename

Select or type the name of the file you want to import.

List Files of Type

Select a file type; the default is Visual Basic Project Files (*.frm, *.bas, *.cls). Files of the selected type will appear in the File Name list box.

Open

Opens the selected file.

Cancel

Closes the dialog box without opening a new project.



Allows you to look for and insert a file into a module in your project.

Dialog Box Options

Look in

Displays the computers, servers, drives, and folders available on your computer that you can use to locate the project you want to open.

Up One Level

Shows a list of folders or drives one level above the current server, computer, or folder.

Create New Folder

Creates a new folder.

List

Shows the folders or documents in a list format that includes the folder or document icon and its name.

Details

Shows the folder or documents in a list that includes the folder or document icon and name, its size (documents only), type, and the date and time it was last modified.

File Name

Selector type the name of the file you want to insert.

List Files of Type

Select a file type; the default is Text Files (*.txt). Files of the selected type will appear in the **File Name** box.

Open

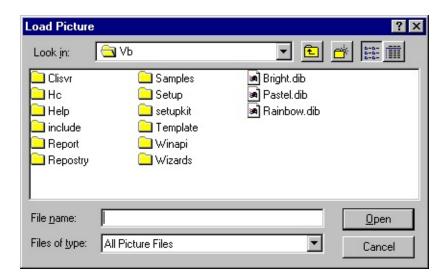
Inserts the selected file.

Desktop

Lists the folders and files on the desktop. The files and folders are displayed in the **File Name** box.

Cancel

Closes the dialog box without inserting a new file.



Loads an existing picture file.

Dialog Box Options

Look in

Select the location of the picture you want to open.

Up One Level

Shows a list of folders or drives one level above the current folder.

Create New Folder

Creates a new folder.



Shows the folders or files in a list format that includes the icon and its name.

Details

Shows the folders or files in a list that includes the icon and name, its size, type, and the date and time it was last modified.

File name

Select or type the name of a picture file you want to open.

List files of type

Select a file type. Files of the selected type appear in the **File Name** box.

All Picture Files (*.bmp, *.dib, *.wmf, *.emf, *.ico, *.cur) — Lists all picture files.

Bitmaps (*.bmp, *.dib) — Lists bitmaps and DIBs.

Metafiles (*.wmf, *.wmf) — Lists Microsoft Windows Metafiles.

Icons (*.ico, *.cur)—Lists the icons.

All Files (*.*) — Lists files of all types.

Open

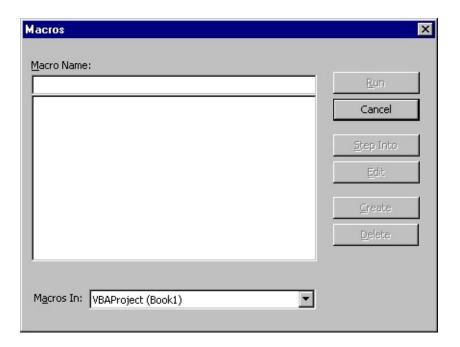
Opens the selected file.

Cancel

Closes the dialog box without loading a picture file.

Desktop

Lists the folders and files on the desktop. The files and folders are displayed in the **File Name** box.



Allows you to run, edit, or delete the selected macro. You can also create a macro from the **Macros** dialog box.

Dialog Box Options

Macro Name

Contains the name of the selected macro or is blank if there are no macros in the Macro Box.

Macro Box

Lists the available macros in the Project selected in the Macros In box.

Macros In

Lists the available projects.

Run

Runs the selected macro.

Step Into

Highlights the first line of the macro and places the Current Execution Line Indicator.

Edit

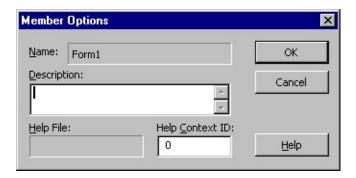
Opens the **Code** window with the selected macro visible so you can modify your macro.

Create

Opens a module in the **Code** window so you can create a new macro.

Delete

Removes the selected macro from your project.



Allows you to add Help information or comments about the procedures, that you define in your project.

Dialog Box Options

Member Name

Displays the name of the item selected in the Classes or the Members of list.

Description

Allows you to specify a string that shows up in the Details pane of the **Object Browser**.

Help File

Displays the Help file associated with the item listed in the Member Name box. This is set in the Help File Name box in the **General** tab of the **Project Properties** dialog box.

Help Context ID

Assigns a unique numeric value for the context ID. This value is used to find the appropriate Help topic in the file listed in the Help File box when the user presses F1 or the button while looking at the procedure in the **Object Browser**.

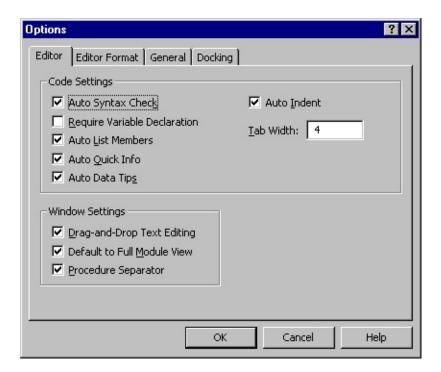


Allows you to give your new toolbar a name.

Dialog Box Option

Toolbar name

You can type the name for your new toolbar or use the default name. The default name changes for each custom toolbar, for example, Custom1, Custom2 and so on.



Allows you to change default settings for the Visual Basic development environment.

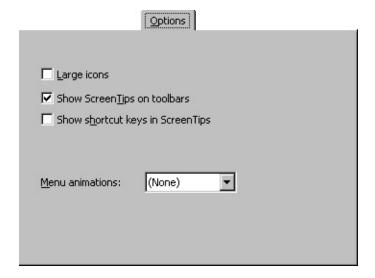
The Options dialog box has the following tabs:

Editor

Editor Format

General

Docking



Allows you to change the appearance of your menu bar and toolbars.

Tab Options

Large Icons

Changes the toolbar icons to a larger size.

Show ScreenTips on toolbars

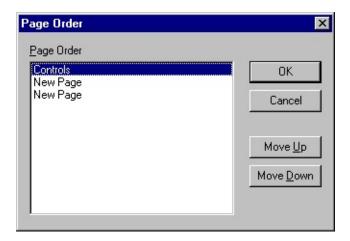
Turns **ScreenTips** off and on.

Show shortcut keys in ScreenTips

Displays the shortcut keys on the menus.

Menu animations

Lists available animations you can apply to your menu bar.



AllowSAs you to change the order of your tabbed pages.

Dialog Box Options

Page Order

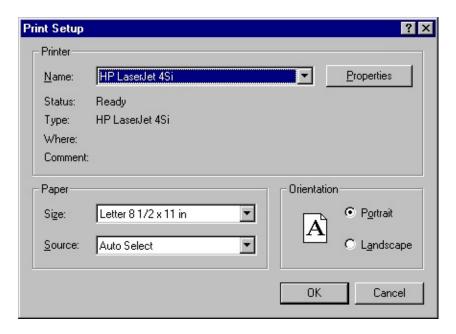
Lists the tabbed pages in order from the left to the right.

Move Up

Moves the selected page up one place in the list each time you click it.

Move Down

Moves the selected page down one place in the list each time you click it.



Appears whenever you select Setup from the **Print** dialog box.

Use the **Print Setup** dialog box to select the printer, page orientation, and paper size.

Dialog box options

Printer

Allows you to specify the printer. If you don't select a printer, Visual Basic will print to the Windows default printer.

Name — Displays a list of available printers.

Status — Displays the status of the printer and whether it is ready to print.

Type — Displays the type of printer.

Where — Displays the location of the printer. If the printer is on a network, displays the path to the server.

Comment — Displays the physical location of the printer and additional information.

Properties — Opens the **Properties** dialog box specific to the printer where you can choose additional options such as paper and the way graphics are printed.

Paper

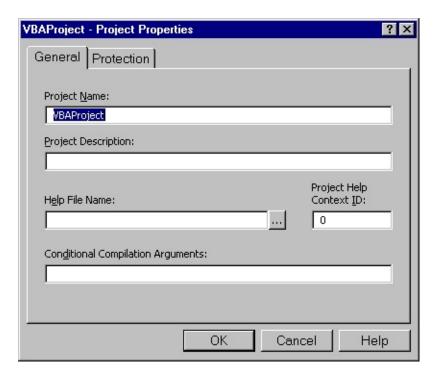
Allows you to select the paper size and source (from among those available for the printer). The sizes and sources available depend on the printer you have selected and they change when you change printers.

Size — Displays a list of the available paper sizes.

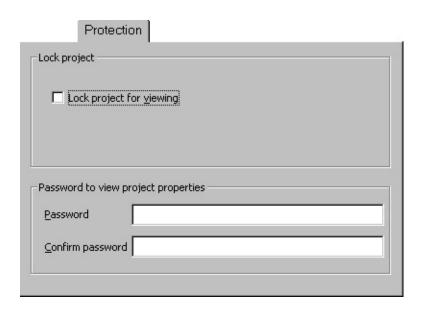
Source — Displays the available source of paper for the printer you choose.

Orientation

Allows you to specify whether the program is to print in Portrait or Landscape orientation.



Specifies the settings for a specific project.



Sets the protection for your project.

Dialog Box Options

Lock Project

Provides a way to lock your project and prevent someone from changing it.

Lock project for viewing — Locks the project so that it cannot be viewed or edited.

Password to view project properties

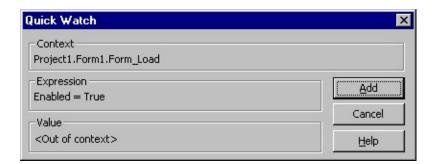
Sets the passwords that allow someone to view the project properties.

Password — Sets the password for the project. If you do not check the Lock

Project for Viewing option but set a password, you will be required to enter a password to open the **Property** window the next time you open the project.

Confirm password — Confirms the password typed in the Password box. The contents of the **Confirm** Password box and the Password box must match when you press OK or you get an error.

Quick Watch Dialog Box



Displays the current value of a selected expression. This functionality is useful when debugging your code if you want to see the current value of a variable, property, or other expression.

Dialog Box Options

Current Context

Lists the names of the project, <u>module</u>, and procedure where the <u>watch</u> <u>expression</u> resides.

${\bf Expression}$

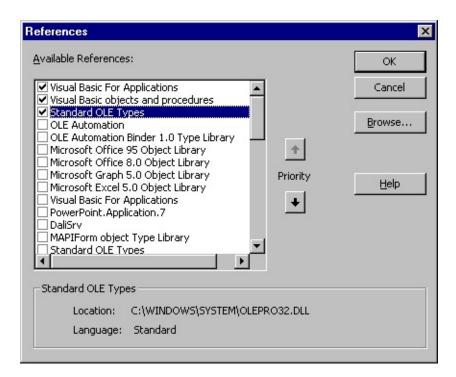
Shows the selected expression.

Value

Shows the value of the selected expression. The current value isn't displayed if the expression context isn't within a procedure listed in the **Calls** dialog box.

Add

Adds the expression to the **Watch** window.



Allows you to select another application's objects that you want available in your code by setting a reference to that application's <u>object library</u>.

Available References

Lists the references available to your project.

After you set a reference to an object library by selecting the check box next to its name, you can find a specific object and its methods and properties in the <u>Object Browser</u>.

If you are not using any objects in a referenced library, you should clear the check box for that reference to minimize the number of object references Visual Basic must resolve, thus reducing the time it takes your project to compile. You can't remove a reference for an item that is used in your project.

If you remove a reference to an object that your are currently using in your project, you will receive an error the next time you refer to that object.

References not in use are listed alphabetically.

Note You can't remove the "Visual Basic For Applications" and "Visual Basic objects and procedures" references, because they are necessary for running Visual Basic.

Priority Buttons

Moves references up, , and down, , on the list. When you refer to an object in code, Visual Basic searches each referenced library selected in the **References** dialog box in the order the libraries are displayed. If two referenced libraries contain objects with the same name, Visual Basic uses the definition provided by the library listed higher in the Available References box.

Result

Displays the name and path of the reference selected in the Available References box, as well as the language version.

Browse

Displays the **Add Reference** dialog box so that you can search other directories for and add references to the Available Resources box for the following types:

ActiveX Controls (*.ocx)

Γhe **Add References** dialog box is the **Open** common dialog box.

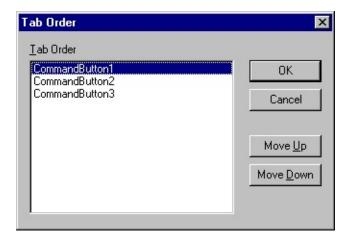


Allows you to rename your custom toolbars.

Dialog Box Option

Toolbar name

Type a new name for your toolbar.



Lists the tab order for the objects and allows you to change the order.

Dialog Box Options

Tab Order

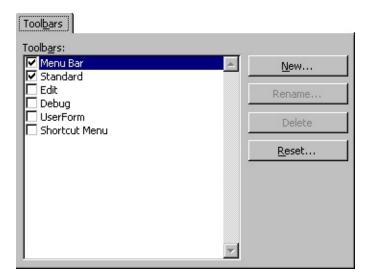
Lists the objects, in their current order, on the form.

Move Up

Moves the selected object up one position in the tab order each time you click it.

Move Down

Moves the selected object down one position in the tab order each time you click it.



Allows you to create, rename, delete, and reset your toolbars,

Tab Options

Toolbars box

Displays the toolbars built into Visual Basic and any toolbars you create. When you show a toolbar, a check mark appears to the left of it.

Note The **Menu** bar cannot be hidden. It can only be reset.

New

Opens the **New Toolbar** dialog box where you type the name for your new toolbar in the Toolbar Name box.

Rename

Opens the **Rename Toolbar** dialog box where you type the new name for your toolbar. Only available if you select a user-defined toolbar.

Delete

Deletes a user-defined toolbar from your project. Only available if you select a user-defined toolbar.

Reset

Removes any changes to the built-in toolbars and resets them to their original state. Only available if you select a built-in toolbar.

Debug Toolbar



Contains buttons that are shortcuts to some commonly used menu items frequently used in debugging code.

You can click a toolbar button once to carry out the action represented by that button. You can select the Show ToolTips option in the **General** tab of the **Options** dialog box if you want to display **ToolTips** for the toolbar buttons.

Toolbar Buttons

Design Mode

Turns design mode off and on.

Run Sub/UserForm or Run Macro

Runs the current procedure if the cursor is in a procedure, runs the **UserForm** if a **UserForm** is currently active, or runs a macro if neither the **Code** window nor a **UserForm** is active.

Break

Stops execution of a program while it is running and switches to break mode.

Reset

Clears the execution stack and module level variables and resets the project.

Toggle Breakpoint

Sets or removes a breakpoint at the current line.

Step Into

Executes code one statement at a time.

Step Over

Executes code one procedure or statement at a time in the **Code** window.

Step Out

Executes the remaining lines of a procedure in which the current execution point lies.

Locals Window

Displays the Locals window.

Immediate Window

Displays the **Immediate** window.

Watch Window

Displays the **Watch** window.

Quick Watch

Displays the Quick Watch dialog box with the current value of the selected

expression.

B Call Stack

Displays the Calls dialog box, which lists the currently active procedure calls (procedures in the application that have started but are not completed).

Edit Toolbar



Contains buttons that are shortcuts to some commonly used menu items. Frequently used when editing code.

You can click a toolbar button once to carry out the action represented by that button. You can select the Show ToolTips option in the **General** tab of the **Options** dialog box if you want to display ToolTips for the toolbar buttons.

Toolbar Buttons

List Properties/Methods

Opens a box in the code window that contains the properties and methods available for the object that precedes the period (.).

List Constants

Opens a box in the **Code** window that contains the constants that are valid choices for the property you typed and that precede the equals sign (=).

Quick Info

Provides the syntax for a variable, function, method, or procedure based on the location of your pointer within the name of the function, method, or procedure.

Parameter Info

Shows a popup in the **Code** window that contains information about the parameters of the function in which the pointer is located.

Complete Word

Accepts the characters that Visual Basic automatically adds to the word you are typing.

Indent

Shifts all lines in the selection to the next tab stop.

Outdent

Shifts all lines in the selection to the previous tab stop.

Toggle Breakpoint

Sets or removes a breakpoint at the current line.

Comment Block

Adds comment character to the beginning of each line of a selected block of text.

Uncomment Block

Removes the comment character from each line of a selected block of text.

▲ Toggle Bookmark

Toggles a bookmark on or off for the active line in the **Code** window.

Next Bookmark

Moves the focus to the next bookmark in the bookmark stack.

Previous Bookmark

Moves the focus to the previous bookmark in the bookmark stack.

Clear All Bookmarks

Removes all bookmarks.





Contains buttons that are shortcuts to some commonly used menu items.

You can click a toolbar button once to carry out the action represented by that button. You can select the Show ToolTips option in the **General** tab of the **Options** dialog box if you want to display **ToolTips** for the toolbar buttons.

Toolbar Buttons

View <host application>

Toggles between the host application and the active Visual Basic document.

Insert

Opens a menu so that you can insert one of the following objects to your active project. The icon changes to the last object you added. The default is the form.

- 🛅 UserForm
- 🌉 <u>Module</u>
- Class Module
- Procedure
- Save <host document name>

Saves the host document including the project and all of its components — forms and modules.

& Cut

Removes the selected control or text and places it on the **Clipboard**.

Copy

Copies the selected control or text onto the **Clipboard**.

Paste

Inserts the contents of the **Clipboard** at the current location.

M Find

Opens the **Find** dialog box and searches for the specified text in the Find What box.

Undo <last editing action>

Reverses the last editing action.

Redo <last editing action>

Restores the last text editing Undo actions if no other actions have occurred since the last **Undo**.

Run Sub/UserForm or Run Macro

Runs the current procedure if the cursor is in a procedure, runs the **UserForm** if a **UserForm** is currently active, or runs a macro if neither the **Code** window nor a **UserForm** is active.

Break

Stops execution of a program while it's running and switches to <u>break mode</u>.

Reset <project>

Clears the execution stack module level variables and resets the project.

Design Mode

Turns design mode off and on.

Project Explorer

Displays the **Project Explorer**, which displays a hierarchical list of the currently open projects and their contents.

Properties Window

Opens the **Properties** window so you can view the properties of the selected control.

Object Browser

Displays the <u>Object Browser</u>, which lists the <u>object libraries</u>, the <u>type library</u>, <u>classes</u>, methods, properties, events, and constants you can use in code, as well as the modules and procedures you defined for your project.

Toolbox

Displays or hides the **Toolbox** which contains all of the <u>controls</u> and <u>insertable</u> <u>objects</u> (such as a Microsoft Excel Chart) available to your application. This is only available when a **UserForm** is active.

Office Assistant

Opens the **Office Assistant** where you can get help for the command, dialog box, or window that is active.



Contains buttons that are shortcuts to some commonly used menu items that are useful for working with forms.

You can click a toolbar button once to carry out the action represented by that button. You can select the Show ToolTips option in the **General** tab of the **Options** dialog box if you want to display ToolTips for the toolbar buttons.

Toolbar Buttons

Bring To Front

Moves the selected objects to the front of all other objects on a form.

Send To Back

Moves the selected objects behind all other objects on a form.

Group

Creates a group of the selected objects.

Ungroup

Ungroups the objects that were previously grouped.

Align

Lefts — Aligns the horizontal position of the selected objects, putting the left-most edges in line.

Centers — Aligns the horizontal position of the selected objects, putting the centers in line.

Rights — Aligns the horizontal position of the selected objects, putting the right-most edges in line.

Tops — Aligns the vertical position of the selected objects, putting the tops in line.

Middles — Aligns the vertical position of selected objects, putting the middles in line.

Bottoms — Aligns the vertical position of the selected objects, putting the bottoms in line.

to Grid — Aligns the top left of the selected object to the closest grid. The object is not resized.

Center

Horizontally — Centers the selected objects horizontally.

Vertically — Centers the selected objects vertically.

Make Same Size

Width — Adjusts width.

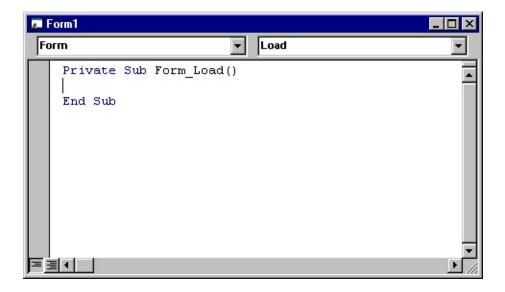
Height — Adjusts height.

Both — Adjusts both the width and the height.



Reduces or enlarges the display of all controls on the **UserForm**. You can set any magnification between 10 and 400 percent.

Code Window



Use the **Code** window to write, display, and edit Visual Basic code. You can open as many **Code** windows as you have modules, so you can easily view the code in different forms or <u>modules</u>, and copy and paste between them.

You can open a **Code** window from:

The **Project** window, by selecting a form or module, and choosing the **View Code** button.

A **UserForm** window, by double-clicking a <u>control</u> or form, choosing **Code** from the **View** menu, or pressing F7.

You can drag selected text to:

A different location in the current **Code** window.

Another **Code** window.

The **Immediate** and **Watch** windows.

The **Recycle Bin**.

Object Box

Displays the name of the selected object. Click the arrow to the right of the list box to display a list of all objects associated with the form.

Procedures/Events Box

Lists all the events recognized by Visual Basic for a form or control displayed in the Object box. When you select an event, the event procedure associated with that event name is displayed in the **Code** window.

If (General) is displayed in the Object box, the Procedure box lists any declarations and all of the <u>general procedures</u> that have been created for the form. If you are editing module code, the Procedure box lists all of the general procedures in the module. In either case, the procedure you select in the Procedure box is displayed in the **Code** window.

All the procedures in a module appear in a single, scrollable list that is sorted alphabetically by name. Selecting a procedure using the drop down list boxes at the top of the **Code** window moves the cursor to the first line of code in the procedure you select.

Split Bar

Dragging this bar down, splits the **Code** window into two horizontal panes, each of which scrolls separately. You can then view different parts of your code at the same time. The information that appears in the Object box and Procedures/Events box applies to the code in the pane that has the <u>focus</u>. Dragging the bar to the top or the bottom of the window or double-clicking the bar closes a pane.

Margin Indicator Bar

A gray area on the left side of the **Code** window where <u>margin indicators</u> are displayed.

Procedure View Icon

Displays the selected procedure. Only one procedure at a time is displayed in the **Code** window.

■ Full Module View Icon

Displays the entire code in the module.

Immediate Window



Allows you to:

Type or paste a line of code and press ENTER to run it.

Copy and paste the code from the **Immediate** window into the **Code** window but does not allow you to save code in the **Immediate** window.

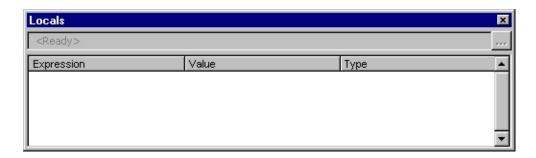
The **Immediate** window can be dragged and positioned anywhere on your screen unless you have made it a dockable window from the **Docking** Tab of the **Options** dialog box.

You can close the window by clicking the Close box. If the Close box is not visible, double-click the Title bar to make the Close box visible, then click it.

Note In break mode, a statement in the Immediate window is executed in the

context or <u>scope</u> that is displayed in the Procedure box. For example, if you type **Print** *variablename*, your output is the value of a local variable. This is the same as if the **Print** method had occurred in the procedure you were executing when the program halted.

Locals Window



Automatically displays all of the declared variables in the current procedure and their values.

When the **Locals** window is visible, it is automatically updated every time there is a change from Run to <u>Break mode</u> or you navigate in the stack display.

You can:

Resize the column headers by dragging the border to the right or the left.

Close the window by clicking the Close box. If the Close box is not visible, double-click the **Title** bar to make the Close box visible, then click it.

Window Elements

Calls Stack Button

Opens the **Call Stack** dialog box which lists the procedures in the call stack.

Expression

Lists the name of the variables.

The first variable in the list is a special module variable and can be expanded to display all module level variables in the current module. For a class module, the system variable <me>is defined. For standard modules, the first variable is the <name of the current module>. Global variables and variables in other projects are not accessible from the Locals window.

You cannot edit data in this column.

Value

List the value of the variable.

When you click on a value in the Value column, the cursor changes to an I-beam. You can edit a value and then press ENTER, the UP ARROW key, the DOWN ARROW key, TAB, SHIFT+TAB, or click on the screen to validate the change. If the value is illegal, the Edit field remains active and the value is highlighted. A message box describing the error also appears. Cancel a change by pressing ESC.

All numeric variables must have a value listed. String variables can have an empty Value list.

Variables that contain subvariables can be expanded and collapsed. Collapsed variables do not display a value but each subvariable does. The expand icon, \blacksquare and the collapse icon, \blacksquare appear to the left of the variable.

Type

Lists the variable type. You cannot edit data in this column.

Object Browser



Displays the <u>classes</u>, properties, methods, events, and constants available from <u>object libraries</u> and the <u>procedures</u> in your project. You can use it to find and use objects you create, as well as objects from other applications.

You can get Help for the **Object Browser** by searching for Object Browser in Help.

Window Elements Project/Library Box

Displays the currently referenced libraries for the active project. You can add libraries in the **References** dialog box. <All Libraries> allows all of the libraries to be displayed at one time.

Search Text Box

Contains the string that you want to use in your search. You can type or choose the string you want. The Search Text box contains the last 4 search strings that you entered until you close the project. You can use the standard Visual Basic wildcards when typing a string.

If you want to search for a whole word, you can use the **Find Whole Word Only** command from the shortcut menu.

Go Back Button

Allows you to go back to the previous selection in the Classes and Members of lists. Each time you click it you move back one selection until all of your choices are exhausted.

Go Forward Button

Allows you to repeat your original selections in the Classes and Members of lists each time you click it, until you exhaust the list of selections.

Copy to Clipboard Button

Copies the current selection in the Members of list or the Details pane text to the Clipboard. You can then paste the selection into your code.

View Definition Button

Moves the cursor to the place in the **Code** window where the selection in the Members of list or the Classes list is defined.

Help Button

Displays the online Help topic for the item selected in the Classes or the Members of list. You can also use F1.

M Search Button

Initiates a search of the libraries for the class or property, method, event or constant that matches the string you typed in the Search Text box, and opens the **Search Results** pane with the appropriate list of information.

Show/Hide Search Results Button

Opens or hides the **Search Results** pane. The **Search Results** pane changes to show the search results from the project or library chosen in the Project/Library list. Search results are listed alphabetically from A to Z.

Search Results List

Displays the library, class, and member that corresponds to the items that contain your search string. The **Search Results** pane changes when you change the selection in the Project/Library box.

Classes List

Displays all of the available classes in the library or project selected in the Project/Libraries box. If there is code written for a class, that class appears in bold. The list always begins with <globals>, a list of globally accessible members.

If you select a Class and do not specify a member, you will get the default member if one is available. The default member is identified by an asterisk (*) or by the default <u>icon</u> specific to the member.

Members of List

Displays the elements of the class selected in the **Classes** pane by group and then alphabetically within each group. Methods, properties, events, or constants that have code written for them appear bold. You can change the order of this list with the **Group Members** command on the **Object Browser** shortcut menu.

Details Pane

Shows the definition of the member. The **Details** pane contains a jump to the class or library to which the element belongs. Some members have jumps to their parent class. For example, if the text in the **Details** pane states that Command1 is declared as a command button type, clicking on command button takes you to the Command Button class.

You can copy or drag text from the **Details** pane to the **Code** window.

Split Bar

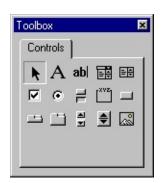
Splits the panes so that you can adjust their size. There are splits between the:

Classes box and the Members of box.

Search Results list and the Classes and Members of boxes.

Classes and Members of boxes and the **Details** pane.

Toolbox



Displays the standard Visual Basic controls plus any ActiveX controls and insertable objects you have added to your project.

You can customize the **Toolbox** by adding pages to it or by adding controls using the **Additional Controls** command from the **Tools** menu.

When you add a page, a **Select Objects** tool is always available on the page.

Standard Toolbox Controls

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Select Objects

Select Objects is the only item in the **Toolbox** that doesn't draw a control. When you select it, you can only resize or move a control that has already been drawn on a form.

A

Label

Allows you to have text that you do not want the user to change, such as a caption under a graphic.

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TextBox

Holds text that the user can either enter or change.

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ComboBox

Allows you to draw a combination list box and text box. The user can either choose an item from the list or enter a value in the text box.

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ListBox

Use to display a list of items from which the user can choose. The list can be scrolled if it has more items than can be displayed at one time.

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CheckBox

Creates a box that the user can easily choose to indicate if something is true or false, or to display multiple choices when the user can choose more than one.

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OptionButton

Allows you to display multiple choices from which the user can choose only one.



ToggleButton

Creates a button that toggles on and off.

Frame

Allows you to create a graphical or functional grouping for controls. To group controls, draw the frame first, and then draw controls inside the frame.

CommandButton

Creates a button the user can choose to carry out a command.

TabStrip

Allows you to define multiple pages for the same area of a window or dialog box in your application.

MultiPage

Presents multiple screens of information as a single set.

ScrollBar

Provides a graphical tool for quickly navigating through a long list of items or a large amount of information, for indicating the current position on a scale, or as an input device or indicator of speed or quantity.

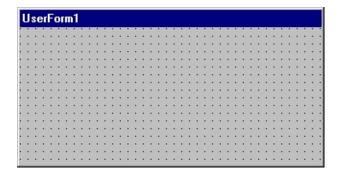
SpinButton

A spinner control you can use with another control to increment and decrement numbers. You can also use it to scroll back and forth through a range of values or a list of items.

Image

Displays a graphical image from a <u>bitmap</u>, <u>icon</u>, or <u>metafile</u> on your form. Images displayed in an **Image** control can only be decorative and use fewer resources than a **PictureBox**.

UserForm Window



Allows you to create the windows or dialog boxes in your <u>project</u>. You draw and view <u>controls</u> on a <u>form</u>.

While you are designing a form:

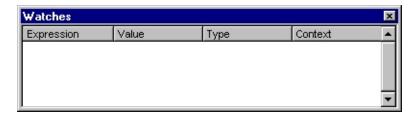
Each form window has a **Maximize**, **Minimize**, and **Close** button.

You can view the form grid and determine the size of the gridlines from the **General** tab of the **Options** dialog box.

Use the buttons in the **Toolbox** to draw controls on the form. You can set your controls to align with the grid of your form from the **General** tab of the

Options dialog box.

Watch Window



Appears automatically when watch expressions are defined in the project.

You can:

Change the size of the column headers by dragging its border to the right to make it larger or to the left to make it smaller.

Drag a selected variable to the **Immediate** window or the **Watch** window.

Close the window by clicking the Close box. If the Close box is not visible, double-click the **Title** bar to make the Close box visible, then click it.

Window Elements

Expression

Lists the watch expression with the **Watch** icon, **a** on the left.

Value

List the value of the expression at the time of the transition to break mode.

You can edit a value and then press ENTER, the UP ARROW key, the DOWN ARROW key, TAB, SHIFT+TAB, or click somewhere on the screen to validate the change. If the value is illegal, the Edit field remains active and the value is highlighted. A message box describing the error also appears. Cancel a change by pressing ESC.

Type

Lists the expression type.

Context

Lists the context of the watch expression.

If the context of the expression isn't in <u>scope</u> when going to break mode, the current value isn't displayed.

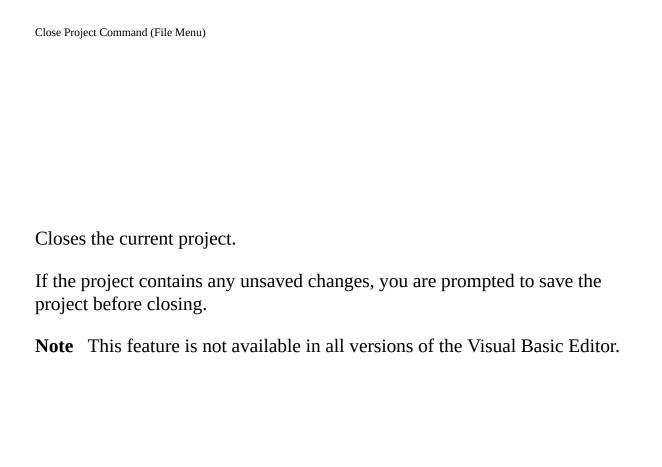
You can close the window by clicking the Close box. If the Close box is not visible, double-click the **Title** bar to make the Close box visible, then click it.



Open Project Command (File Menu)

Closes the current project or group project, if one is loaded, and opens an existing project or group of projects.

You can open as many projects as your system resources permit.



Make <project> Command (File Menu)</project>
Opens the Make Project dialog box so that you can build your project into a DLL.
Note This feature is not available in all versions of the Visual Basic Editor.
Title This feature is not available in an versions of the visual Basic Barton.

Components Command (Insert Menu)
Displays the Components dialog box from which you can add designers to the Insert menu.
Note This feature is not available in all versions of the Visual Basic Editor.

Run Project and Stop Project Commands (Run Menu)

Run Project

Puts the project into a mode in which it can be used by other applications. This is used to debug and test the stand-alone project before building a <u>dynamic-link</u> <u>library (DLL)</u> (DLL) from it. The current project is registered, replacing any existing registration information for the project (the registry information for an existing DLL version of the project, for example).

Stop Project

Unregisters the project, and restores any previous registry information. This makes the in-memory project no longer able to be called from other applications.

Note The **Run Project** and **Stop Project** commands are available only to the current stand-alone project. They are not available to <u>host application</u> document projects.

Note This feature is not available in all versions of the Visual Basic Editor.

Digital Signatures Command (Tools Menu)
Displays the Digital Signature dialog box where you can set the digital signature certificate for your project.