

# Glossary

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

## 32-bit

An application specifically designed for a 32-bit computer running the Microsoft Windows 95 or later or Windows NT operating system. (An application that can work with 32 bits of information at a time.)

## - A -

### About Microsoft Visual Basic

The Help menu command that displays online assistance, copyright information, and version number information.

### Abs

A function that returns the absolute value of  $n$ .

### access key

The letter the user can press to execute the command when the menu is open.

### Add Form

Part of the Visual Basic toolbar, which you use to add forms to your programs.

### Add Project

The File menu command that you use to load additional projects into Visual Basic. When you use this command, outlining symbols that can help you organize and switch between projects appear in the Project window.

### Add Watch

A command on the Debug menu, with which you add variables to the Watch window.

### adding files

Adding individual files to a project by using commands on the Project menu. The changes that you make will be reflected immediately in the Project window.

### adding projects

Loading additional projects into Visual Basic with the File menu Add Project command.

### advanced operators

Symbols used in special-purpose mathematical formulas and text processing applications. Visual Basic uses these advanced operators:

Mathematical Operation	Symbol
Integer (whole number) division	/
Remainder division	Mod
Exponentiation (raising to a power)	^
String concatenation (combination)	&

### algorithm

An ordered list of programming steps that you use to guide your programming efforts.

### argument

A value or an expression used with an operator or passed to a subprogram (subroutine, procedure, or function). The program then carries out operations using the argument(s).

### arithmetic operators

Symbols used to perform arithmetic (numeric) functions-addition, subtraction, multiplication, and division. In Visual Basic, arithmetic operators include:

Mathematical operation	Symbol
Addition	+
Subtraction	-

Multiplication	*
Division	/

**assignment operator**

An operator used to assign a value to a variable.

**Atn**

A function that returns the arctangent, in radians, of *n*.

**Automation**

A technology that allows one application to use the features of another application to do meaningful work.

## - B -

**.BAS file**

The filename extension of Visual Basic standard module files.

**Biblio.mdb**

A sample database included with Visual Basic for demonstration purposes. Biblio.mdb contains a current bibliography of books about database programming and related topics.

**Boolean data**

In Visual Basic, a data type that uses two bytes per variable and that returns a value of True or False.

**BorderColor**

A property that sets the line color to any Visual Basic standard color.

**BorderStyle**

A property that makes a line solid, dotted, or dashed.

**BorderWidth**

A property that adjusts the thickness of the line on your form. This is especially useful when you are creating an underline, or a line that separates one object from another.

**bound control**

A toolbox control that has been linked to a data object with the DataSource property.

**bound object**

An object is bound to a database when its DataSource property is set to a valid database name and its DataField property is set to a valid table in the database. After an object is bound to a database, it displays database information automatically.

**break mode**

A condition during which you interrupt execution at a given spot in your program. Break mode gives you a close-up look at your program while the Visual Basic compiler runs it.

**Break**

A command on the Run menu that temporarily halts the execution of a program and puts the compiler in break mode for debugging.

**by reference**

A variable passed by reference can be modified by a procedure and returned to the program.

**by value**

A variable or literal value (such as a string in quotation marks) passed to a procedure that cannot be modified by the procedure. You can pass a variable by value if you enclose it in parentheses.

**byte**

In Visual Basic, a data type that requires 1 byte per variable and that returns values from 0 through 256.

## - C -

**Caption**

The Visual Basic property that sets the object description that the user will see.

**Case Else**

Part of the Select Case structure that displays a message if none of the earlier cases returns a value of True.

**check box**

A control that displays a list of choices and gives the user the option to pick multiple items (or none at all) from the list.

**child form**

In the hierarchy of Visual Basic forms, a form opened or initiated by another (parent) form.

**Classes list box**

The part of the Object Browser that lists types of Windows-based application objects.

**Clear All Breakpoints**

A command on the Debug menu that removes all debugging breakpoints from your application.

**Close**

When added to program code, this keyword closes the specified Visual Basic object.

**Code window**

A special text editing window designed specifically for Visual Basic program code. You can display the Code window in either of two ways:

® By clicking the View Code button in the Project window.

® By clicking the View Menu Code command.

**Color dialog box**

One of the five standard dialog boxes created by the Common Dialog object. The color dialog box provides user-defined color selection from a palette.

**color palette**

Part of the Visual Basic development environment, with which you choose colors for lines, shapes, and graphics effects.

**combo box**

A data input object created with the ComboBox control. Data items can be added to, removed from, or sorted in a combo box while your program runs.

**CommonDialog**

A Visual Basic control that creates one of five standard dialog boxes in your programs.

**comparison operator**

A symbol or other character that is part of an expression that compares two or more variables, conditions, or values.

**conditional expression**

Part of a complete program statement that asks a True-False question about a property, variable, or other bit of data in program code.

**conditional test**

A true or false question in an If...Then or Select...Case decision structure.

**Connect**

A property that links your program to other applications. Set the Connect property for the application you want to connect to.

**constant**

A variable, the value of which doesn't change while your program runs.

**controls**

Visual Basic tools, with which you add, format, and arrange elements of your program user interface.

**Controls collection**

In Visual Basic terminology, the entire set of objects on a form.

**Cos**

A function that returns the cosine of the angle  $n$ . The angle  $n$  is expressed in radians.

**counter variable**

A variable that keeps a running total of the number of times a loop is repeated. By convention, counter variables are indicated by the letter i, and the first value is usually 1.

**cross**

One of the 16 standard Windows mouse pointer styles.

**currency**

A Visual Basic data type, which uses 8 bytes to store each variable and which returns values that range from -922,337,203,685,477.5808 through 922,337,203,685,477.5807.

**current location**

In Visual Basic animation, the spot on the Form window (as indicated by the x, y coordinate system) at which a selected object is located.

**custom counter**

In a loop, variable with a counter pattern other than 1, 2, 3, 4, and so on.

**- D -****data field**

The property you set to the name of the database field you want to display.

**data object**

An object you create with the data control to search for, add, sort, or delete database information.

**data source**

A property you use to a data object to create a bound control.

**data types**

A particular classification of data in a program. In Visual Basic, you can declare variables with specific data types by using a type declaration character. Data types used in Visual Basic include:

- ® Byte
- ® Integer
- ® Long
- ® Single-precision
- ® Double-precision
- ® Currency
- ® String
- ® Boolean
- ® Date
- ® Variant

**database**

An organized collection of information stored electronically in a file. Microsoft Visual Basic supports a number of popular database formats, including Microsoft Access, Microsoft FoxPro, Btrieve, Paradox, and dBASE. You can also use Open Database Connectivity (ODBC) client-server databases such as Microsoft SQL Server.

**database engine**

An underlying technology that controls information access in a database. The database engine in Visual Basic is Microsoft Jet.

**database formats**

These include Microsoft Access, dBASE, Paradox, FoxPro, and several spreadsheet formats.

**DatabaseName**

A Visual Basic property used to create data objects. For example, setting the DatabaseName property to Pathname types the pathname of the database you want to open.

**Debug toolbar**

A Visual Basic debugging tool, which provides tools devoted entirely to tracking down program code errors.

**debugging a program**

The process of finding and correcting program code errors.

**decision structure**

A special block of statements that use conditional expressions. Visual Basic uses these types of decision structures: If...Then and Select Case.

**declaring a variable**

The process of creating a variable in your Visual Basic program code. You can declare variables explicitly with the Dim keyword or implicitly by typing a new variable name in a program statement.

**declaring data types**

The process of specifying the data types you use in your Visual Basic program code. You can specify some fundamental data types by adding a type-declaration character to the variable name.

**design mode (design time)**

The part of the software development cycle you spend designing your program

**destination path**

A variable, which specifies the pathname of a file you want to create.

**Dim statement**

A program statement with which you declare (dimension) a variable explicitly. You make an explicit declaration by typing a Dim statement and the variable name.

**Do loops**

Program code that executes a group of statements repeatedly until a specified condition is met (until the variable returns a value of True).

**docking windows**

Aligning and attaching windows to make all the elements of the programming system visible and accessible.

**document files**

Files containing formatting codes and other information that can only be displayed by the application that created them (document files created in Microsoft Word, for example).

**document-centered applications**

A type of program design, in which many windows are used to display or edit a document.

**double-precision floating point**

A data type that requires 8 bytes to store a single variable and that returns values that range from -1.79769313486232D308 through 1.79769313486232D308.

**drag and drop**

Moving an object by clicking it, moving the mouse without releasing the mouse button, and releasing the mouse button where you want the object to be.

**DragIcon**

An object property, which you use to specify a drag icon, which appears while the mouse pointer drags the object.

**DragMode**

An object property, which you use to allow the user to drag an object while the program runs.

**DragOver**

An event procedure, which Visual Basic executes when the user drags one object over another.

**dynamic link library (DLL) files**

Executable routines-usually serving a specific function or purpose-that are stored and loaded only when needed by the program that calls them.

- E -

**Else**

A keyword used in multiple-condition If...Then decision structures.

**Elseif**

A keyword used in conditional statements in multiple-condition If...Then decision structures.

**enabled property**

An object property, which turns on a feature or function when the setting is True and turns off a feature or function when the setting is False.

**End**

A program statement that stops the execution of a program in the Visual Basic development environment.

**EndDoc**

A method that signals the end of a printing job.

**EndIf**

Keywords used to end a multiple-condition decision structure.

**endless loop**

A loop test that never evaluates to False. An endless loop executes endlessly and makes the program unable to respond to input.

**EOF**

A keyword that checks for the end of the text file. You use the EOF keyword to load the contents of a text file into a text box.

**error handlers**

Special routines designed to respond to runtime errors.

**event procedures**

Procedures that run when an event (such as a mouse click) occurs.

**event-driven programming**

A style of programming, in which the program tests for and responds to events generated by the user, such as key pressing or mouse clicks.

**executable files**

Files containing coded instructions for the operating system.

**Exit For**

A program statement you use to exit a For...Next loop before the loop has finished executing.

**Exit Sub**

A program statement you use to exit a Sub procedure.

**Exp**

A function that returns the constant *e* raised to the power *n*.

**explicit declaration**

Creating a variable by using the Dim (dimension) statement. You declare the variable by typing a Dim statement and the variable name.

**exponentiation**

An advanced operator, which uses the caret (^) symbol to indicate exponentiation (raising a number to a given power.)

**exposing application features**

Making a set of application features available as a collection of objects with their associated properties, methods, and events. Automation makes it possible to expose Windows application features to Visual Basic programmers.

**expression**

A combination of symbols (identifiers, variables, and operators) that produce a result when they are evaluated.

- F -

**FileCopy**

A statement you use to create a backup copy of one or more files from within a Visual Basic program. FileCopy makes a separate copy of the file.

**filename extension**

A set of characters added to a filename that clarifies the content or function of the file. Visual Basic filenames use these extensions:

- ® .vbp Visual Basic project file
- ® .frm Visual Basic form
- ® .bas Standard module

**filenumber**

An object property, an integer from 1 through 255, used to identify a file in your program. When you use *filename*, the file number will be associated with the file whenever you refer to the file in your program code.

**FillColor**

A Shape control property that specifies the color of a shape.

**FillStyle**

A Shape control property that specifies the fill pattern.

**Font dialog box**

The dialog box that appears when you click the Font property in the properties window.

**FontSize**

The property that specifies the size of text on a form.

**For...Next**

A type of loop that you can use to execute a specific group of program statements in an event procedure a specific number of times.

**Form Layout window**

A visual design tool, with which you can control the placement of the forms in the Windows environment while your program runs.

**Form window**

The Visual Basic window with which you create the user interface and up interface elements. The Form window consists of a default form and a standard grid.

**Frame**

A Visual Basic toolbox control, with which you create frames that group objects on a form.

**FRM**

An object name prefix used in naming form objects, for example, frmMedExpense.

**front end**

A customized database application that takes the fields and records of a database and displays them in a way that is meaningful for a specific group of users. For example, a public library might create a customized version of its card catalog for a group of scientific researchers. In addition to customized information, a front end might also feature customized database tools, including viewing filters, search commands, print commands, and a custom backup tool. With Visual Basic, you can build database front-ends that quickly display just the information your users want, and with only the commands they need to process the data.

**function**

A statement that performs meaningful work and returns a value to the program.

**function procedure**

A group of statements that actually perform the work that a function is assigned in the program.

**function statement**

A block of statements that accomplish the work of the function.

- G -

**general-purpose procedure**

A Sub or Function procedure that performs useful work in your program. Unlike event procedures, general-purpose procedures are not tied to elements in the user interface.

- H -

**Hide**

A method you use to make a form invisible but keep it in memory for use later in the program.

**hierarchy**

A type of object organization, which branches to smaller and smaller units, each of which is owned by the higher-level object immediately above it. A hierarchy provides an organizational framework that reflects logical links or relationships between its elements. (See *also*: parent file and child file.)

**hourglass**

A standard Windows mouse pointer design, which indicates that the user needs to wait.

**I-beam**

A standard Windows mouse pointer design used to indicate cursor position in text-based applications.

**identifier**

A variable or identifier is a special container that holds data temporarily in a program. You create variables to store calculation results, create file names, process input, and so on. Variables can store numbers, names, property values, and references to objects.

**If...Then decision structure**

A set of control statements that executes a block of code if a Boolean expression evaluates to True. If...Then decision structures can use one or several conditional statements (See *also*: multiple-condition decision structures.)

**Image**

A Visual Basic control, with which you create objects that can display graphics as bitmaps, icons, or Windows metafiles.

**image objects**

Objects that can display graphics as bitmaps, icons, or Windows metafiles (electronic artwork that you can resize.)

**Immediate window**

A programming tool that helps you debug a program while you are in break mode. When you type a statement in the Code window, Visual Basic executes it and displays the output in the Immediate window. This quick response makes it easier to test the value of specific key variables as your program runs.

**implicit declaration**

The process of declaring a variable without using the Dim (dimension) statement. To declare a variable implicitly, you simply use the variable on its own without using the Dim statement.

**Index**

A Recordset property that you can use to define the database field that will be used in a data search.

**Input**

A keyword used to indicate the mode (how the file will be used) in the Open statement. Using the Input keyword indicates that you want to read the file that you're opening.

**input box**

A type of data object, with which you gather user input.

**InputBox**

A function that prompts the user to supply input in a dialog box.

**Int**

A function that returns the integer portion of  $n$ . For negative numbers,  $\text{Fix}(n)$  returns a value  $\geq n$ . (See *also*:  $\text{Fix}(n)$ .)

**Integer**

A data type that requires 2 bytes to store each variable and that returns values that range from -32,768 through 32,767.

**integer division**

An advanced arithmetic operation, in which the result is an integer (any remainder is discarded.)



**invisible controls**

Controls that perform special, behind-the-scenes operations in a Visual Basic program and that are not visible to a user while the program runs.

- J -

- K -

**keyword**

Any one of dozens of words and phrases used to create Visual Basic program statements.

**KillDoc**

A printer method that terminates the current print job.

- L -

**Label**

A Visual Basic control, with which you create objects that identify objects on a form (*See also*: Caption.)

**Left measure**

The distance of an object to the right of the form's origin (top left-hand corner), measured in twips.

**Level Up button**

Part of the Open Project dialog box that you click to search files one level higher in the file directory.

**Line control**

A toolbox control that helps you specify line width, color, style, and visibility.

**Line Input**

A keyword that reads a line of input from a text file.

**ListBox**

A toolbox control you use to create a list box object.

**loading a program**

Transferring information from storage (such as your hard disk or CD-ROM) into memory. You load information for processing and program code for execution.

**local variable**

A variable that can be read or changed only in the procedure that it is declared in.

**Locals window**

A window in the development environment used in a debugging session to monitor procedure calls.

**logic error**

An error in reasoning, a programming mistake that makes the program code produce the wrong results.

**logical operator**

An operator designed to work with Boolean (True and False) values. Logical operators include:

® And

® Or

® Not

® Xor

**Long data type**

A data type that requires 4 bytes to store each variable and that returns values that range from -2,147,483,648 through 2,147,483,647.

**Look In drop-down box**

Part of the Open Project dialog box that you click to search for files at the current level in the file directory.

**loops**

A set of statements that a program executes repeatedly.

## - M -

### **Make**

A command on the File menu used to create an executable (.exe) file that is capable of running under Windows 95 or later or Windows NT.

### **mathematical function**

A function in a program that performs a set of mathematical operations and returns a value to the program.

### **maximizing a form**

Resizing a form to its maximum size.

### **MDI form**

A form that can be organized in a Multiple Document Interface hierarchy.

### **Members list box**

The part of the Visual Basic Object Browser that lists the properties, methods, and events you can view.

### **menu bar**

The Visual Basic programming tool that provides access to most of the commands that control the Visual Basic programming environment. You can use these menus and commands by using keyboard commands or the mouse.

### **Menu Editor command**

The Tools menu command, with which you add menus to your programs.

### **Menu Editor**

A graphical tool, with which you add, modify, reorder, and delete menus in your programs.

### **method**

A special statement that performs an action or service for a particular object.

### **Microsoft On the Web**

A Help menu command with which you open a submenu that provides access to the Internet.

### **minimizing a form**

Resizing a form to its smallest size.

### **mod**

A standard object name prefix used as part of standard module names.

### **modal form**

A type of form that remains open until the user responds to a program prompt.

### **mode**

A state of a program or computer.

### **module**

Special files in your project that contain code and variables that you want to be accessible from all the event procedures in your program.

### **MousePointer**

An object property that sets the shape of the mouse pointer. Both standard and custom mouse pointer styles are available.

### **Move**

The method you use to move individual objects or a collection of objects on a form's coordinate system.

### **Move First**

A method that makes the first record in the Recordset object the current record.

### **moving windows**

Changing the position of windows, the toolbox, or the toolbar in the Visual Basic development environment by clicking the title bar and dragging the element to a new location.

### **MsgBox function**

A dialog box function that displays output. MsgBox takes one or more arguments as input. You can assign the

value returned (the results of the function call) to a variable.

**multiple-condition decision structure**

A decision structure that contains two or more conditional expressions.

- **N** -

**Name**

A property that creates an object name, which distinguishes modules in the program code and in the Project window.

**nested loop**

A loop that is embedded in another loop. In a nested Do loop, for example, the nested (inner) loop executes its commands repeatedly until it is finished; then, the other loop continues executing its commands.

**New Project**

The File menu command you click to open a new Visual Basic project. When you click this command, these elements of the Visual basic programming environment appear:

- ® Menu bar.
- ® Toolbar.
- ® Visual Basic toolbox.
- ® Form window.
- ® Properties window.
- ® Project window.
- ® Immediate window.
- ® Form Layout window

**NewPage**

A printer method that starts a new page in a print job.

**NoMatch**

A Recordset property, which is set to True if no match is found in the search.

**nonmodal forms**

Forms that the user can switch away from without having to respond to a prompt. (Also known as *modeless forms*.)

- **O** -

**Object Browser**

A utility program that you can use to explore the wide variety of objects in Windows-based applications.

**object name prefix**

Standard, three-letter prefixes that programmers use to identify the type of object the object names. These prefixes generally form the first part of the object name. For example, the name cboEnglish applies to a combo box that displays information in English.

**object**

A type of user interface element you create on a Visual Basic form by using a toolbox control.

**.OCX file**

An executable file that remains in storage until a program calls it. Unlike DLL files, however, OCX files inform users of the status of a file.

**OLE control**

A Visual Basic control that creates an OLE (Object Linking and Embedding) object, with which you can transfer and share information between applications.

**On Error**

A program statement used to detect a runtime error. The On Error statement sets an event trap by telling Visual Basic where to branch if it encounters an error.

**online Help system**

The online user assistance system.

**Open dialog box**

A dialog box that appears when the user clicks the Open command on the File menu. Open is one of the five dialog boxes you can create with the Common Dialog object.

**Open Project**

The File menu command you click to open an existing Visual Basic project.

**Open statement**

A general-purpose statement used to open files. The Open statement has this syntax:

```
Open pathname For mode As #filenumber
```

where:

*pathname* is a valid Windows pathname.

*mode* is a keyword indicating how the file will be used (*Input* for reading the file, *Output* for adding to the file).

*filenumber* is an integer from 1 through 255, a number that is used to identify the file in program code.

**operator precedence**

The order in which Visual Basic executes operations in an expression.

**operators**

In programming, symbols or other characters that indicates an operation that acts on one or more elements. Visual Basic uses arithmetic, logical, and Boolean operators.

**Output**

A keyword used to indicate the mode (how the file will be used) in the Open statement. Using the Output keyword indicates that you want to add to the file that you're opening.

**- P -****parameter**

A value that is being passed into a procedure from another location. You can determine the type of the parameter by examining the procedure declaration statement at the top of the procedure.

**parent form**

In a hierarchical (branching) data structure, a form that is one level higher (closer to the root) than the related child form. (See *also*: child form.)

**pathname**

In a hierarchical (branching) filing system, a listing of the directories or folders that lead from the current directory to a file.

**Picture**

An image object property that opens a selected image file.

**picture box**

A Visual Basic toolbox control, with which you create image objects on a form.

**pointer**

An onscreen symbol, such as an arrow or I-beam, that is controlled by a mouse or other pointing device.

**Print dialog box**

One of the five types of dialog boxes you can create with the Common Dialog object.

**PrintForm**

A method that you can use to send the entire contents of one or more forms to the printer.

**program code**

The instructions you write using the statements, functions, and special characters of the Visual Basic programming language.

**program crash**

An unexpected event that occurs at runtime that halts execution of a Visual Basic program. (Also known as a

*runtime error.*)

**program flow**

The order in which Visual Basic executes commands in your programs. You control program flow by using standard Visual Basic commands in the program code.

**program statements**

An instruction in program code, the smallest units of executable code in a program. Generally, each line in a program is considered an individual statement.

**programming tools**

The complete set of programming tools that help you construct your Visual Basic programs.

**Project Explorer**

Another name for the Project window, where you can examine and organize the components of your Visual Basic application.

**Project window**

The part of the Visual Basic development environment that helps you switch back and forth between windows and tools as you work on a project.

**property**

A value or characteristic held by a Visual Basic object, such as Caption or ForeColor. Properties can be set at design time by using the Properties window or at runtime by using statements in the program code.

**Properties window**

The Visual Basic window that you use to change the characteristics (property settings) of the user interface elements on a form.

**public variables**

Variables that maintain their values throughout all the event procedures of your program.

**Public**

The keyword you use to create a public variable in a standard module.

- Q -

**Quick Note**

A simple note-taking utility, with which you can take notes and then save them to disk.

**Quick Watch**

A button on the Debug toolbar, which you can use to watch the content of the program code change as it executes, line by line.

- R -

**ReadOnly**

When set to True, this data object property allows users to view but not modify database information. To allow users to make changes to a database, use the Properties window to set the ReadOnly property to False.

**Recordset**

The part of the database you're currently working with. (A table, for example.) You can adjust the Recordset by using the data object's RecordsetType property.

**RecordsetType**

A Recordset (data object) property, which you can set to:

- ® 0 for a table
- ® 1 for a dynaset
- ® 2 for a snapshot

**RecordSource**

A data object property that you use to name the database table that is the source of your data.

**remainder division**

An advanced mathematical operation, whose result is the remainder of a division operation. For example, 17

Mod 3 = 2, because the quotient 17/3 has a remainder of 2.

**removing files**

Removing individual files from a project by using commands on the Project menu. The changes that you make will be reflected immediately in the Project window.

**resizing windows**

Enlarging or shrinking the size of a window by clicking and dragging it along the border. You resize a window to make elements of the programming system visible and accessible.

**Restart**

A toolbar button and command on the Run menu that runs a program currently in break mode.

**Resume**

A keyword used in an error handler, which returns control to the statement that caused the error.

**Resume Next**

Keywords used in an error handler, which returns control to the program statement *following* the one that caused an error.

**retry period**

A specified period of time, during which a program will try repeatedly to execute a command, and after which, the program will continue.

**Rnd**

A function that generates a random number greater than or equal to 0 and less than 1.

**runtime**

The time during which a program runs. You can change some Visual Basic properties during runtime.

**runtime error**

Any error that forces a program to stop running.

**runtime properties**

Object properties that you can set while the program runs. You set runtime properties with program code.

**runtime values**

Variable values that you can set while the program runs. You set runtime values with program code.

- S-

**Save As dialog box**

One of the five types of dialog boxes you can create by using with the common dialog object. The Save As dialog box gets the drive, folder name, and filename for a new file.

**Save project**

The File menu command that you use to save your current project.

**Save Project As**

The File menu command that you use to save your current project with a different name, file location, or both.

**scope**

The extent or range that a variable or procedure holds its value.

**scrollable**

A user interface element that includes too much information to be visible at once. Such elements include vertical or horizontal scroll bars.

**Seek**

A Recordset (data object) method used to search for a database record. To compare the search string to text in the database, use comparison operators.

**Select Case**

A type of decision structure, in which the results of a test case controls the direction of program flow.

**selection criterion**

A test made in an If...Then or Select...Case decision structure to locate or filter information.

**Sgn**

A function that returns a value of:

Ⓜ -1 if  $n$  is less than zero.

Ⓜ 0 if  $n$  is equal to zero.

Ⓜ +1 if  $n$  is greater than zero.

**Shape**

A toolbox control that helps you define the shape, fill color and style, border color, and visibility of an image.

**shortcut keys**

Key combinations that the user can press to run a command without opening a menu.

**Show**

A method you can use to display a loaded form. Show method syntax looks like this:

```
formname.Show mode
```

where

*formname* is the name of the form.

*mode* is: 0 for nonmodal forms (the default).

1 for modal forms.

**Show Next Statement**

A command on the Debug menu (available in break mode) that moves the cursor to the line that will execute next.

**ShowColor**

A method used to display the Color dialog box.

**ShowFont**

A method used to display the Font dialog.

**ShowOpen**

A method used to display the Open dialog box.

**ShowPrinter**

A method used to display the Print dialog box.

**ShowSave**

A method used to display the Save As dialog box

**Sin**

A function that returns the sine of the angle  $n$ . The angle  $n$  is expressed in radians.

**single-condition decision structures**

Decision structures that contain only one conditional statement.

**single-precision floating point**

A data type that requires 4 bytes to store a single variable and that returns values that range from -3.042823E38 through 3.402823E38.

**sizing pointer**

A mouse pointer shape used for sizing objects in a window or form.

**Source**

A parameter used in drag-and-drop operations. Source identifies the object that has been dropped or moved over.

**splash screen**

An introductory or startup graphic, usually the first image you see when you open an application.

**Sqr**

A function that returns the square root of  $n$ .

**standard module**

A special .bas file that you can open in your project. Standard modules contain the public variables and

procedures you want to make accessible to all parts of your program.

**Step Into**

The Debug menu command that helps you isolate program code errors. With the Step Into button on the Debug toolbar, you can watch while Visual Basic executes program instructions one at a time.

**Stop**

A program statement that stops program execution and makes the Code window appear.

**Str**

A function that converts a number to a numeric string value.

**string concatenation**

An advanced mathematical operation that joins the contents of two or more strings into a single string by using the & operator. Concatenating the strings "Thank you, " and "good night." yields the string "Thank you, good night."

**Sub procedure**

A procedure that:

- ® Performs useful work in a program.
- ® Doesn't return a value associated with its name.
- ® Can return many values.

**syntax**

The rules of construction that you must use when you build a program statement.

**syntax error**

A runtime error created by a mistake in the rules of Visual Basic programming.

- T -

**tag**

A piece of descriptive text stored in the Tag property that can be used to identify the state of a particular object.

**Tag property**

An object property, with which you create an identification note (tag). Programmers typically use this property to identify the object that the program works with in an event procedure.

**Tan**

A function that returns the tangent of the angle  $n$ . The angle  $n$  is expressed in radians.

**taskbar**

The part of the Windows operating system that you use to switch between Visual Basic forms as your program runs and to activate other Windows-based programs. You can find the taskbar along the bottom of the screen.

**test case**

The key variable, property, or other expression in a decision structure.

**testing a program**

The process of checking a program against a variety of real-life operating conditions to determine whether it works correctly.

**TextBox**

A Visual Basic control that displays text and receives text as user input.

**text files**

Files containing unformatted numbers, words, or characters.

**timer**

A Visual Basic control that serves as an invisible stopwatch. The Timer control gives your time-related programs access to the system clock.

**toolbar**

A collection of buttons that serve as shortcuts for executing commands and controlling the Visual Basic development environment.



**toolbox controls**

Special tools that you use to add user interface elements to a form.

**Tools menu**

A menu on the Visual Basic menu bar containing commands that let you start the Menu Editor and customize your program.

**top measure**

The distance of an object below the form's origin (upper left-hand corner), measured in twips.

**twip**

The basic unit of measurement used to indicate an object's position on Visual Basic forms. A twip is 1/20 of a printer's point (1/1,440 inch). In the Visual Basic coordinate system, rows of twips are aligned to the x-axis (horizontal axis), and columns of twips are aligned to the y-axis (vertical axis). You can define locations in this coordinate system by identifying the intersection of a row and a column with the notation (x, y).

**type declaration**

A symbol or character used to declare (define) a data type in a program.

**- U -****Unload**

A statement that removes a form from memory and frees up the RAM used to store the objects and graphics on the form.

**unloading**

Removing a program or other information from memory.

**Until**

A keyword you can use in Do loops to repeat commands *until* a certain condition is true.

**Up Level button**

Part of the Open Project dialog box that you click to search for files at higher levels in the file directory.

**user interface form**

The default form and standard grid that appears when you start Visual Basic.

**- V -****Val**

A function that converts a numeric string value to a number.

**variable**

A special container that temporarily holds data in a program. The values that variables return can be numbers, names, or properties.

**variant**

A variable that can hold data of any size or format.

**.VBP**

The filename extension of a Visual Basic project file.

**View Code button**

A Project window button that you use to open the Code window and read program code.

**View Object button**

A Project window button that you use to open a form or other interface object.

**Visual Basic development environment**

The complete set of programming tools and windows, with which you construct your Visual Basic programs.

**Visual Basic for Applications**

An enhanced version of Visual Basic designed especially for application macros. For more information about Visual Basic for Applications in Microsoft Word, read *Microsoft Word 97 Visual Basic Step by Step* (Microsoft Press), by Michael Halvorson and Chris Kinata.

- W -

**.WMF file**

A type of resizable graphic image that takes up very little disk space and has a .wmf filename extension.

**Watch window**

A window in the Visual Basic development environment used to debug applications. You can display the content of one or more variables by using the Watch window.

- X -

**x, y coordinate system**

In the Visual Basic coordinate system, rows of twips are aligned to the x (horizontal) axis, and columns of twips are aligned to the y (vertical) axis. To define locations in the coordinate system, you identify the intersection of a row and column with the notation (x, y).

- Y -

- Z -

**zoom in**

To view a smaller part of an image in greater detail.

**zoom out**

To view a larger part of an image in less detail.

