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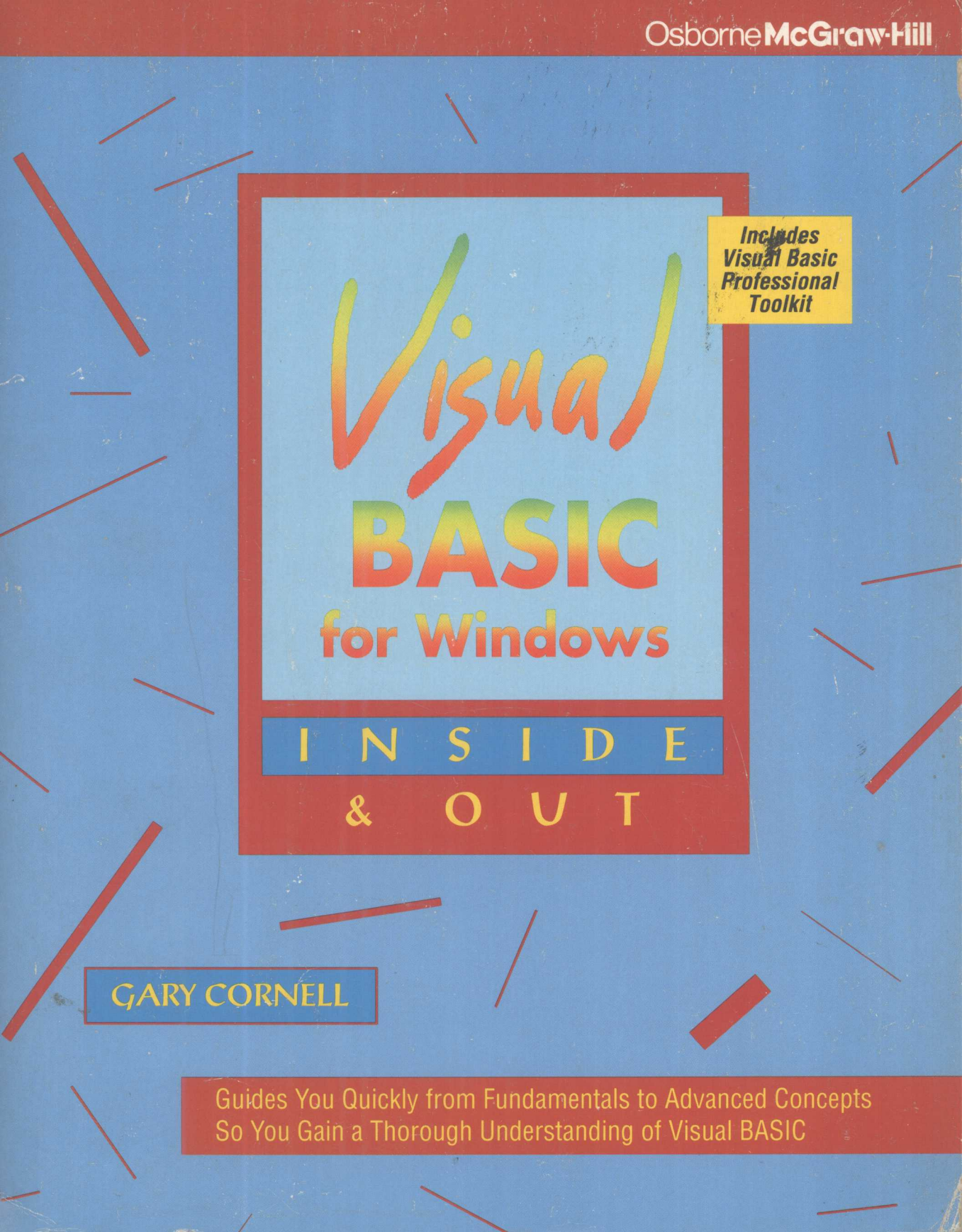

Visual Basic for Windows Inside & Out

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Finally, thanks to all my friends who put up with my strange ways and my occasionally short temper for lo these many months. In particular, thanks to Ann, David, and Fran for their special friendship and support.

About This Book

This book is a comprehensive hands-on tutorial to all the ins and outs of Visual Basic programming that doesn't assume you've programmed before. (Although people familiar with QuickBASIC or another structured programming language will, of course, have an easier time of it.) You'll start out at the beginning and quickly move along the road to mastery. Soon you'll be writing sophisticated Windows programs that take full advantage of Visual Basic's exciting and powerful event-driven nature.

I've tried hard to stress the new ways of thinking needed for Visual Basic programming. I hope even expert programmers can benefit from this approach because trying to force Visual Basic into the framework of older programming languages is ultimately self-defeating—you can't take advantage of its power if you continue to think within an older paradigm.

How This Book Is Organized

This book can be used in a variety of ways depending on your background and needs. People familiar with structured programming techniques can skim the complete discussions of the programming constructs like loops and Sub procedures that Visual Basic inherited from QuickBASIC 4.5 in Chapters 5 through 9. Beginners will want to work through this material more carefully.

Here are short descriptions of what the chapters cover:

Chapters 1 and 2 show you how to install Visual Basic and help you become familiar with the Visual Basic environment.

Chapters 3 and 4 start you right off with the notion of a customizable window (called a form) that is the heart of every Microsoft Windows (and so Visual Basic) application. You'll see how to add command buttons, text boxes, and labels to your windows.

Chapters 5 through 9 cover the core programming techniques needed to release Visual Basic's powers. You'll see how to take full advantage of Visual Basic's many built-in functions as well as learn how to add your own. You'll learn how to isolate bugs (programming errors) and then

eradicate them. You'll see how to sort and search through data and use modular programming techniques to make your programs more flexible, powerful, and easier to debug.

Chapter 10 takes you through most of the rest of the controls you can add to your forms. You'll see how to add list boxes, radio (option) buttons, check boxes, scroll bars, and all the other controls that Microsoft Windows users expect in their Windows applications—and make Windows applications so much easier to use than their counterparts running under DOS.

Chapter 11 introduces you to the world of graphics. Since Microsoft Windows is a graphically based environment, the powers of Visual Basic in this arena are pretty spectacular.

Chapter 12 shows you how to analyze how a user is manipulating his or her mouse.

Chapter 13 shows you how to handle files within Visual Basic, including sophisticated methods for encrypting (i.e. keeping the contents of files safe from casual probes).

Chapter 14 introduces you to the world of Dynamic Data Exchange (DDE). DDE lets you automate the transferring of information between Windows applications—and you'll be able to have Visual Basic coordinate the transfers!

Chapter 15 is an extensive treatment of recursion. Recursion is one of the most powerful programming tools available, and it's too often slighted in introductory treatments. In addition to powerful methods for sorting data, this chapter gives you a short introduction to recursive graphics (fractals). Fractals are one of the most powerful tools in graphics—for example, they were used in the Genesis sequence in *Star Trek II: The Wrath of Khan*.

Chapter 16 is an introduction to Microsoft's Professional Toolkit for Visual Basic. This chapter gives you an overview of this important add-on to Visual Basic so you can make an informed decision on whether you want to upgrade your Visual Basic system to include its capabilities.

Conventions Used in This Book

Keystrokes are set in small capital letters in the text. For example, keys such as CTRL and HOME appear as shown here. Arrow and other direction keys are spelled out and also appear in small capital letters. For example, if you need to press the right arrow key, you'll see: "Press RIGHT ARROW."

When you need to use a combination of keystrokes to activate a menu item, the first two keys will be separated by a hyphen and the entire key combination will appear in small capital letters. For example, "Press CTRL-A B" indicates that you should hold down the key marked "Ctrl" on your keyboard while pressing first an "A" and then a "B."

DOS commands, file names, and file extensions are given in full capital letters: COMMAND.COM, .TXT, and so on. Keywords in Visual Basic appear with the first letter of each word capitalized, for example, Print, DeBug, FontSize, and so on.

The syntax for a command in Visual Basic is set in ordinary type except that items the programmer can change are given in italics. For example, the Name command used to rename a file would appear as:

Name *OldFileName* As *NewFileName*

Finally, programs are set in a monospaced font, as shown here.

```
Sub Form_Click()
  Print "Hello world!"
End Sub
```

Special Offer

There are (I hope) many useful and interesting programs and Sub and Function procedures in this book. You may not want to go through the trouble of keying them in—and perhaps having to deal with the seemingly unending cycle of entering code, proofing the code—only to have to re-enter it yet again. For this reason I am offering the source code for all the code contained in this book in ASCII format. I've even included a bonus of over a dozen useful financial and mathematical functions—including ones for calculating depreciation, annuities, and net present value. The cost is $20.00 and includes shipping, handling, and any applicable tax. (Foreign orders should add $5.00 for shipping and handling.)

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