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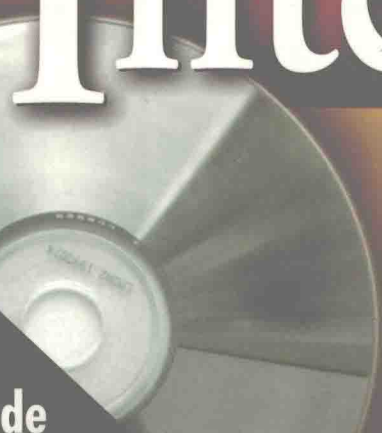
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Visual InterDev™ 6 Bible

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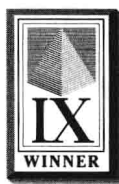
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To Jim Coward, for his friendship.

— Richard Mansfield

To my mother, Jean Revette, for her love and support.

— Debbie Revette

Preface

Visual InterDev is the leading data-driven Web application development environment available today, and version 6, released in the Fall of 1998, includes many significant new features. This book covers in-depth all the utilities, tools, and features included in the Visual InterDev 6 (VI) package. VI is more than a fine-tuned, feature-packed HTML editor. It's a rich integrated design and development environment, boasting a graphical Site Designer, powerful editors (WYSIWYG Page editor, SQL editor, Cascading Style Sheets editor), IntelliSense script statement completion, excellent debuggers (that work seamlessly on both client- and server-side scripts as well as Microsoft SQL Server stored procedures), instant preview of your client-side work, support for cutting-edge technology such as scriptlets and DHTML, and much more. If you're experienced with VI 1.0, you'll find this book invaluable. Not only will it bring you up to speed on the many new features in VI 6, but it's also packed with ideas and shortcuts, tips and techniques.

This book's authors have years of experience with project management, data and process analysis, database management, site design, and programming. Throughout this book, you'll find the information you need to minimize your labor and maximize your results when building logical, attractive, professional Web applications.

Who Should Read This Book

This book is written for developers at all levels of expertise in Web application construction, though the chapters on scripting and connecting databases to Web pages assume some experience with computer programming and databases. We do briefly define basic concepts such as loops and arrays, but this book isn't designed to teach elementary programming. The programming primarily explored here is scripting, writing code that is executable in an Internet browser. Both VBScript and JavaScript are covered, along with techniques for creating stand-alone components. Nevertheless, beginners with an aptitude for programming should be able to follow and understand the many step-by-step examples. The book isn't riddled with computer jargon; obscure concepts and terminology are thoroughly explained in clear, plain language.

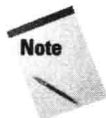
How This Book Is Organized

The book is divided into seven parts:

- I. Visual InterDev Fundamentals
- II. Creating Web Pages
- III. Working on the Client Side
- IV. Working with Active Server Pages
- V. Using the Visual Database Tools
- VI. Using Databases in a Web
- VII. Managing Web Applications

In addition, *Visual InterDev 6 Bible* offers these reference resources:

- ◆ Appendix A describes the physical design of the Register Database.
- ◆ Appendix B serves as a reference to HTML 4.0.
- ◆ Appendix C describes the contents of the accompanying CD-ROM.
- ◆ A glossary supplies definitions for important terms.



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The categories addressed in the book's seven parts cover the entire range of VI's features. This book can be read sequentially by those wanting a thorough education in the uses and features of Visual InterDev. Just as profitably, you can read topics here and there to satisfy an immediate interest. Some chapters are paired tutorials, intended to be read sequentially unless the basics of the topic are familiar to you. For example, Chapter 12 introduces scripting and Chapter 13 explores advanced scripting. Chapters 14 and 15 are similarly structured: 14 covers the basics of DHTML and 15 goes into cutting-edge techniques. However, for the most part, the book's chapters are self-contained tutorials. Brief descriptions of this book's seven categories follow.

Part I: Visual InterDev Fundamentals

In this section you find out what, precisely, Visual InterDev can do for you. All the main features are described in an overview in Chapter 1, and then Chapter 2 gets you up to speed on the process of creating software for the Web. Once you've reviewed each phase in the development process and where Visual InterDev fits in, we take a more detailed look at what's involved in the first phase: planning a Web project. You then learn about the four basic architectural components of Visual InterDev: the Web browser client, the VI client, the Web server, and the database server.

Part II: Creating Web Pages

Now that you've learned to design and spec your site, you're ready to get down to the business of generating professional, effective Web pages. This second section begins with a survey of VI's IDE (Integrated Design Environment). We assume you understand the basics common to most computer applications—we don't explain what the Save As option on the File menu means. We do explain features unique to VI, or features that the average computer user might not easily understand. We also show you how and when to use FrontPage, VI's companion application. You also start actually creating Web pages at this point in the book.

Part III: Working on the Client Side

Now you go down into the engine room and get going with some programming. You find out what tools to use to create objects—reusable components—and how to use script to add computing power to the inherently static and limited page-description capabilities of HTML. Among other issues, you see how to use script to manipulate objects—Java applets or ActiveX components. You'll also understand the differences between JavaScript and VBScript—you can translate between them or choose which scripting language most appeals to you. This section concludes with an introduction to the basics, then the advanced features, of DHTML.

Part IV: Working with Active Server Pages

Now it's time to switch sides and see how to create Web pages that run on the Web server rather than in the user's browser. Until recently, the development of pages with which the user could interact and submit information to the server meant programming in Perl, or other programming languages. With Active Server Pages (ASP), the situation has changed drastically and everyone who can write a client script with VBScript or JavaScript can also write programs that work on the server. As you learn in this section, however, the server is a more complicated environment than a client workstation.

Part V: Using the Visual Database Tools

One of Microsoft's goals in producing the Visual Database Tools, consisting of Data View, Database Designer, Query Designer, and SQL Editor, was to create a single user interface to manage the data objects of every ODBC-compliant database. You'll see as you work with each of these tools that Microsoft has achieved this goal. You learn how to use VI's Project Explorer and Data View—which operate like the familiar Windows Explorer—to find and access each of the database objects in your project. You work with example projects to create data connections and manage the Data View window, which reflects a live connection to a database. You'll go on to work with database diagrams, tables, views, queries, stored procedures, and triggers.

Part VI: Using Databases in a Web

To help developers build robust, data-driven Web applications, Microsoft has defined the Windows Distributed Internet Applications Architecture (DNA). In this section of the book, you'll understand the three-tiered architecture supported by VI tools and distributed operating environments. Universal Data Access is a key component in this architecture because it accesses relational and nonrelational data in place. This capability is of tremendous interest to corporations that have zillions of bytes of data disbursed throughout the organization, in legacy systems, e-mails, and Excel spreadsheets, to name just a few backwaters where data accumulates. As you see in the hands-on chapters in this section of the book, Visual InterDev is one of the first Microsoft tools that delivers on the capabilities envisioned by DNA. You learn more about Microsoft's vision and the associated architectural components in this section. You'll also learn how to connect your Web application to your database and how to use data commands and Design-Time Controls (DTCs) to display data and automatically generate the necessary client or server-side script for you.

Part VII: Managing Web Applications

This section wraps up the job of creating a Web application by examining several important issues. First, you learn to use Link View to maintain a sophisticated, complex site, and to repair links. You also see how VI's built-in features make it easy to transfer a finished Web site from the design location to a public (or intranet) server. Deployment—including re-registration of dependencies and components—has never been this easy. You'll also find out how VI handles the various security concerns that you have on the server side as well as the legitimate concerns of Internet surfers that they might download viruses. You'll see what security features can be adjusted, and how they help reduce the serious fear that a system can be corrupted by a random and senseless act of cyber violence.

This book concludes with Appendix A, which describes the physical design of the sample Microsoft SQL Server database called Register, which you use in the hands-on examples in Chapters 18 through 23. Appendix B is a complete reference to the latest version of HTML, version 4.0, which is supported by Internet Explorer 4.0. Appendix C describes the contents of the book's CD-ROM.

Conventions Used in This Book

Throughout the book, you'll notice text set off by one of the following icons:

**Note**

Sections marked *Note* contain additional explanatory information.

**Tip**

Tips provide useful information that is not immediately obvious and that will make the task easier and/or save you time.

**Caution**

The *Caution* sections are warnings of possible problem situations and how to avoid them.

System Requirements

The minimum requirements to run Visual InterDev are as follows:

- ◆ Pentium 90
- ◆ Windows 95, windows 98, or Windows NT 4.0
- ◆ 24 MB of RAM (32MB recommended)
- ◆ 81MB hard disk space (98MB recommended)

Online Update

Keeping up with new software as it makes its way through development in a never-ending challenge. Bugs are fixed and new ones appear; last-minute features are unveiled and existing ones dropped. IDG Books Worldwide has always been committed to having its popular Bibles on the shelves of your nearest bookstore on or near the day when the products ships. To help ensure that *Visual InterDev 6 Bible* is as up-to-date and accurate as possible when it is published, we have created a special Online Update site at <http://www.idgbooks.com/extras/interdev6.html>. Please visit us there for a free Visual INTERDev online resources we have found valuable.

Feedback, Please!

Your feedback is welcome. Please let us know what you liked and any suggestions you may have for future editions of this book. We would especially like to see the Web applications you create after reading *Visual InterDev Bible*. Please send Debbie Revette an e-mail and let her know the URL. Her e-mail address is drevette@sprynet.com.

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—Richard Mansfield

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—Debbie Revette

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