

introduction

XML (eXtensible Markup Language) is the best thing since sliced bread. What HTML (Hypertext Transport Protocol) did for the World Wide Web and for distributing data around the globe is what XML is doing for eCommerce and data exchange.

We are in the midst of a growing and unprecedented amount of business-to-consumer (known as *B2C*) and business-to-business (known as *B2B*) information exchange. Selling your wares via the web, intelligent agents haggling for the best price, transparent data exchange between businesses—XML makes all of this possible and affordable!

Where will it be used? The short answer is *everywhere*! XML will be used on the Internet in web pages. It will be used in the Microsoft BackOffice to structure your knowledge. It will be used across platforms, across applications, and across languages. It will be the centerpiece in all distributed solutions built in the future.

Not only software developers will use XML; it will be in almost all of the products we use in the future. Wherever there is data exchange or persistence, XML will be there. You may not even know when you are using it. For example, in Microsoft Word (in Office 2000) when you choose the *Save as web page* menu choice, you save your document in an HTML format with XML embedded in it.

Note XML is everywhere: In Microsoft Word 2000, when you choose the *Save as web page* menu choice, you save your document as an XML-HTML hybrid.

XML is an infinitely extensible language with which you can create your own markup languages. This is why XML is also referred to as a metalanguage, or a language in which you can specify other languages. This book does not go into detail on how to create your own markup languages or into the syntax details of XML. (There are thousands of books and web-

sites for that.) What we discuss is how to apply it to your development projects. We show you code examples of how you can use the power of XML in your development projects.

The focus of this book

As more developers become familiar with the promise of XML, the Internet requirements of businesses will move beyond the simple interactive HTML pages. Businesses will want to create more wealth from their information. It has been said many times that *information wants to be free*, and XML will achieve this.

In this book, *XML Programming With VB And ASP*, we will walk you through using XML in your Microsoft IE5 (Internet Explorer 5), Microsoft Visual Interdev, and Microsoft Visual Basic 6.0 applications.

Development projects will enable direct data exchange between objects, between servers, and between remote companies across the Internet. The promise of EDI (Electronic Data Interchange) will become real, and it will be inexpensive to apply. The shift to transparent communication of almost all information will be sudden and widespread.

That is why we think this book is your key to a whole new future as a developer or IT worker. With XML and this book as your roadmap, you will discover how to build truly flexible and powerful solutions.

What will the readers of this book learn?

When you are finished reading *XML Programming With VB And ASP*, you will understand the basic concepts of XML and how best to use it in ASP and VB code.

The following table lists the major topics that we will discuss.

Topic	Major topics presented
Consulting	How your clients can benefit from XML
	Why your company should be using XML in your projects
	How XML will influence the future of the Internet and software development
XML	Understanding and using the XML, DTD, and XSL files
	Understanding and using the Document Object Model document (DOM)
	Understanding Schemas, entities, elements, validation, parsing, and many more XML topics
IE5	Automating the Microsoft IE5 web browser in your code

	Using IE5 object models to expose objects such as tables and DSO 9Data Source Objects9
	Data Islands: how, where, when and why
VB	DOM—using the Document Object Model
	Designing and using webclasses
	Using XML in a multitier solution with business objects
	Communicating between objects using XML
ASP	Various ASP code examples of manipulating an XML file
	Using ASP pages as a central distribution point for your XML data
	Passing parameters to your ASP file and receiving the reply

After reading this book, you are welcome to come to our home website at <http://www.vbxml.com> or <http://www.thespot4.com> to find more training links, articles, and information on discussion groups that you can join.

If you would like to meet the authors, please visit the Manning Publications website. The url <http://www.manning.com/wilson> has a link to the Author Online forum for this book, where you can make comments, ask technical questions, and receive help from the authors and from other users.

Target PC configuration for readers

Often a book with extensive examples of code and solutions (such as this one) can make your life as a reader quite tough by using obscure software components or having different versions of components. Many times a book will use expensive components that readers cannot afford to purchase.

We have intentionally developed these solutions on a PC that has standard, bundled, or free software components. For example, the Microsoft PWS (Personal Web Server) is easy to get a hold of and is free! Ditto for IE5 and the MDAC 2.1 (Microsoft Data Access Components), which has Y2K updates and contains ADO 2.1 (ActiveX data Object), which the code in this book uses.

For ADO 2.1 there is an upgrade if you have the older versions of ADO 1.5 or ADO 2.0. Windows 2000 provides ADO 2.5; however, this book does not cover 2.5 features (although some useful pointers to changes in how the technologies are used are provided).

This code was developed and tested on a PC with the configuration listed here. To execute the examples provided in this book, you must have the same or newer components.

- IE5 web browser
- ADO 2.1 data access components
- Microsoft PWS 1.0a
- PWS has the ASP.EXE extensions installed
- PWS has the Microsoft FrontPage extensions installed

Source code downloads

All source code for the examples posted in *XML Programming with VB and ASP* is available to purchasers of the book from the Manning website. The url <http://www.manning.com/wilson> includes a link to the source code files and to the Author Online forum. The code is also available at www.vbxml.com.

Conventions used in this book

The following typographical conventions are used throughout the book:

Code examples and fragments are set in a fixed-width font. `Courier` is used for VB code. `Letter Gothic` is used for XML code.

Comments in code are set off with an apostrophe at the beginning of each comment line. The comment line or lines precede the line or lines of code being referenced.

Code annotations accompany certain segments of code. Footnotes are tagged with **❶**.

Code line continuations are indented.