

Introduction

When many people first encounter Microsoft Office SharePoint Server (MOSS), they are often confused. Out of the box, a lot of people have trouble figuring out what it does and what it's for. The most important thing to realize about SharePoint is that it isn't intended to be a complete, off-the-shelf, shrink-wrapped product. Rather, MOSS is a *development platform*, upon which powerful and compelling portal applications can be built.

This book provides developers with a thorough, in-depth guide to the internals of writing code for the SharePoint *platform*. SharePoint programming can be divided into four main categories: programming the object model, programming the web services, programming the Web Parts, and programming the enterprise content.

Programming the SharePoint object model involves writing code that physically resides on one of the front-end servers in a SharePoint web farm. Web services expose powerful SharePoint functionality to applications that do *not* reside on the same server as SharePoint, such as smart clients and other remote servers. Web Parts are components that can be dropped onto Web Part pages within a SharePoint site, which provide valuable displays for various types of data and functionality. Finally, enterprise content programming involves working with the Business Data Catalog.

The following is a description of the chapters included in this book:

- ▶ **Chapter 1: Collaborative Application Markup Language (CAML) Primer**—This chapter provides an introduction to the Collaborative Application Markup Language (CAML), an Extensible Markup Language (XML) dialect used throughout SharePoint for defining content, manipulating searches and search results, and much more.
- ▶ **Part I: Programming with the SharePoint Object Model**
 - ▶ **Chapter 2: Introduction to the SharePoint Object Model**—This chapter provides an introduction to writing server-side code that interfaces directly with the SharePoint application programming interface (API).
 - ▶ **Chapter 3: Programming with Features and Solutions**—Features and Solutions are powerful new concepts in this version of SharePoint that allow developers to create reusable packages that can be easily installed and deployed throughout a farm. This chapter shows you how to write code to manipulate and query Features and Solutions.
 - ▶ **Chapter 4: Working with Sites and Webs**—This chapter provides an introduction to programming with the main units of hierarchy within SharePoint—webs and sites.
 - ▶ **Chapter 5: Managing SharePoint Lists**—Virtually every piece of data contained within SharePoint is contained as a list item in a list. As a result, knowing how to program against lists is a vital developer skill and this chapter provides a thorough introduction to managing lists and list items.

- ▶ **Chapter 6: Advanced List Management**—This chapter builds on the previous chapter and provides additional information and samples on working with lists and list items.
- ▶ **Chapter 7: Handling List Events**—This chapter illustrates how to write code that will respond to events that take place on lists and list items. Previous versions of SharePoint limited this functionality to only document libraries, and this chapter shows you how to harness the new power of list events.
- ▶ **Chapter 8: Working with Document Libraries and Files**—Document libraries provide a powerful way to store documents, photos, slide shows, and any other type of file. This chapter shows you how to write code to query and manipulate document libraries, folders, and the files contained within them.
- ▶ **Chapter 9: Working with Meetings**—Meetings are a powerful aspect of the collaboration functionality provided by SharePoint. This chapter gives you thorough coverage of how to work with the object model to manipulate and query meetings and meeting workspaces.
- ▶ **Part II: Enterprise Content Management**
 - ▶ **Chapter 10: Integrating Business Data**—This chapter provides an overview of how to integrate external business data into your SharePoint application.
 - ▶ **Chapter 11: Creating Business Data Applications**—This chapter details how to create an application that can expose its data to a SharePoint application via the Business Data Catalog.
 - ▶ **Chapter 12: Working with User Profiles**—User profiles are an important concept in the enterprise deployment and configuration of SharePoint, and have seen much improvement in this new release. This chapter provides details on how to work with user profiles as a developer.
 - ▶ **Chapter 13: Building Workflows**—Integration with the Windows Workflow Foundation is a critical piece of new functionality in MOSS 2007, and this chapter details how to create workflows that can be used for enterprise content management either through Visual Studio or through the SharePoint Designer.
- ▶ **Part III: Programming SharePoint Web Parts**
 - ▶ **Chapter 14: ASP.NET Server Control Primer**—Before you can grasp the intricacies of building SharePoint Web Parts, you need to know how they work and what makes them possible. SharePoint Web Parts are specialized versions of ASP.NET Web Parts, which are ASP.NET server controls. This chapter provides an overview of the ASP.NET web controls that make Web Parts possible.
 - ▶ **Chapter 15: Introduction to Web Parts**—This chapter provides an overview of building SharePoint Web Parts.

- ▶ **Chapter 16: Developing Full-Featured Web Parts**—This chapter expands on the foundation provided by the previous chapter and gets into more detail on how to create truly powerful and compelling Web Parts.
- ▶ **Chapter 17: Building Web Parts for Maintaining SharePoint 2007 Lists**—Lists are a key part of the data storage facility provided by SharePoint and one of the most common tasks of SharePoint Web Parts is interacting with SharePoint lists—the subject of this chapter.
- ▶ **Chapter 18: Building Connected Web Parts**—One of the most powerful features of Web Parts is their ability to provide and consume data through connections. This chapter shows you how to build connected Web Parts.
- ▶ **Chapter 19: Debugging and Deploying Web Parts**—After you know how to build Web Parts and how to write the code, you need to debug and deploy those Web Parts and harden them for a production environment. This chapter provides you with the information you need to debug and deploy your Web Parts.
- ▶ **Part IV: Programming the SharePoint 2007 Web Services**
 - ▶ **Chapter 20: Using the Document Workspace Web Service**—This chapter illustrates how to use web services to interact with document workspaces and related data.
 - ▶ **Chapter 21: Using the Imaging Web Service**—This chapter illustrates how to use the Imaging Web Service provided by SharePoint, including creating a sample photo browser client application.
 - ▶ **Chapter 22: Using the Lists Web Service**—This chapter details how to interact with lists and list items remotely using the Lists Web Service.
 - ▶ **Chapter 23: Using the Meeting Workspace Web Service**—This chapter provides an overview of interacting with meeting workspaces using the Meeting Workspaces Web Service.
 - ▶ **Chapter 24: Working with User Profiles and Security**—User profiles and security are an important aspect of SharePoint development, and this chapter illustrates how to work with user profiles, security groups, and permissions using web services.
 - ▶ **Chapter 25: Using Excel Services**—This chapter covers the use of Excel Services in SharePoint 2007. Excel Services is a powerful new feature of SharePoint 2007 that allows for centralized storage and management of spreadsheets. This web service allows for session-based query and manipulation of server-side spreadsheets.
 - ▶ **Chapter 26: Working with the Web Part Pages Web Service**—This chapter covers manipulating Web Part Pages via web services. This web service exposes functionality that lets applications remotely manipulate Web Parts and Web Part pages, such as installing, hiding, removing, and changing properties for Web Parts.

- ▶ **Chapter 27: Using the Business Data Catalog Web Services**—This chapter covers utilizing some of the functionality of the Business Data Catalog from remote client applications via Web Services.
- ▶ **Chapter 28: Using the Workflow Web Service**—This chapter discusses the Workflow Web Service, which exposes functionality for initiating workflows, changing workflow properties, and manipulating workflow tasks.
- ▶ **Chapter 29: Working with Records Repositories**—This chapter deals with the Official File Web Service. Records repositories allow for the storage of files and their associated metadata in a read-only location that can satisfy compliance regulations and audit rules.
- ▶ **Chapter 30: Additional Web Services**—This chapter provides details on several other web services that might be handy for developers.

In addition, you can download example code for this book from www.sampublishing.com.