

## Programming SharePoint® 2007 Applications with .NET: Hands-On - 4 Days

*Course 515 Overview*

- You Will Learn How To**
- Build robust SharePoint applications with .NET
  - Extend site capabilities with SharePoint Features
  - Optimize site performance through application pages
  - Construct custom Web Parts for drop-in page enhancements
  - Automate list and document processes with events
  - Simplify farm-wide deployments with Solutions
- Course Benefits** SharePoint's .NET object model grants developers full access to customize SharePoint sites. In this course, you gain the skills needed to tailor SharePoint Web applications to fit your organizational needs. You learn to create and enhance new site functionality with SharePoint Features. You also learn to create sophisticated interconnected Web Parts that users can easily integrate with existing Solutions.
- Who Should Attend** Those who are interested in customizing SharePoint Web sites using .NET. Experience at the level of Course 503, "Visual Basic Programming for .NET," or Course 419, "C# Programming," is assumed. Experience with ASP.NET and SharePoint is helpful but not required.
- Hands-On Training** Through an evolving case study, you gain practical experience building SharePoint applications using Visual Basic or C#. Exercises include:
- Programming and installing SharePoint Features
  - Building application pages to improve multisite performance
  - Developing and deploying a custom SharePoint Web Part
  - Coding a custom list event for validation
  - Automating document processing with a workflow
  - Creating installable solutions

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Course 515 Outline

### SharePoint Application Fundamentals

- Features
- Site and application pages
- Web Parts
- Events
- Workflows
- Web services
- ASP.NET

### Extending SharePoint Features

#### Introducing SharePoint Features

- Touring existing Features
- Building reusable functionality
- Enabling and disabling Features

#### Creating new Features

- Authoring Collaborative Application Markup Language (CAML)
- Programming against the Windows SharePoint Services (WSS) object model
- Setting up Visual Studio 2008 for Feature creation

#### Activating developer Features

- Specifying attributes with feature.xml
- Designating elements with ElementManifests
- Installing new Features with Solutions

### Creating SharePoint Pages

#### Optimizing site performance

- Ghosting and unghosting
- Leveraging application pages
- Accessing the content database
- Key classes: SPFile, SPFolder, SPWeb and SPSite

#### Defining page structure

- Building custom WebControls
- Working with user controls
- Tailoring the core style sheet
- Gaining programmatic control of site branding
- Modifying site navigation controls at runtime

### Enabling Page Customization with Web Parts

#### Web Part essentials

- Differentiating ASP.NET and SharePoint Web Parts

- Hosting Web Parts in a WebPartZone
- Orchestrating functionality with SPWebPartManager
- Integrating user controls into SharePoint

### Building custom Web Parts

- Extending the WebPart base class
- Collaborating with the Web Part life cycle
- Activating Web Part editing
- Creating and linking editors
- Key interfaces: IWebPart, IWebActionable and IWebEditable

### Connecting Web Parts

- Choosing the right type of connection: cell, row, list or filter
- Providing and consuming data between Web Parts
- Connecting the provider and consumer

### Debugging and deploying Web Parts

- Attaching to the SharePoint host process
- Stepping through Web Part code
- Simplifying Web Part installation with a custom Feature
- Installing Web Parts into the Global Assembly Cache (GAC)

### Coding Events and Workflows

#### Responding to SharePoint notifications

- Triggering list and document events
- Receiving events with a custom handler
- Modifying lists programmatically with SPList

#### Modeling multistep processes

- Developing custom templates
- Designing workflows with Visual Studio 2008
- Triggering workflows from SharePoint

### Programming Timers and Web Services

#### Scheduling recurring tasks with timers

- Creating timer jobs with code
- Interacting with the timer service

#### Accessing SharePoint with Web services

- Built-in SharePoint Web services: Site Data, Lists and Administration

- Invoking Web services from .NET client applications

### Deploying Your SharePoint Application as a Solution

- Creating the manifest
- Packing the application as a Solution
- Scheduling and deploying Solutions across the farm
- Enabling enterprise deployment of custom SharePoint applications