

## Programming SharePoint® 2010 Applications with .NET: Hands-On - 4 Days

*Course 2615 Overview*

- You Will Learn How To**
- Build effective SharePoint 2010 applications with Visual Studio 2010
  - Create and link custom Web Parts
  - React to user events using receivers and custom workflows
  - Design and deploy custom site and application pages
  - Access and manipulate site data from server and client code
  - Simplify deployments with solutions

**Course Benefits** The SharePoint .NET object model gives developers the freedom to customise any aspect of site look or behaviour. Organisations can leverage the seamless integration of SharePoint 2010 with Visual Studio 2010 to easily create the exact application required. In this course, you learn to build custom SharePoint applications, create Web Parts, employ receivers and workflows, access data and simplify application deployment.

**Who Should Attend** Anyone who is interested in customising SharePoint applications with .NET. Experience at the level of Course 503, "Visual Basic Programming for .NET", or Course 419, "C# Programming", as well as general SharePoint knowledge, are assumed.

**Hands-On Training** Through an evolving case study, you gain practical experience building SharePoint 2010 applications using Visual Basic or C#. Exercises include:

- Programming and installing SharePoint Features
- Creating ghostable custom ASP.NET pages
- Developing and deploying a custom SharePoint Web Part
- Coding a custom list event for validation
- Automating list item processing with a workflow
- Creating installable solutions
- Querying a list using CAML and user input

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## Course 2615 Outline

### SharePoint 2010 Application Essentials

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

### Manipulating the SharePoint Interface

#### Programming the SharePoint UI

- Exploring UI architecture
- Leveraging existing ASP.NET experience
- Customising options, server and client
- Considering application and content pages

#### Site collection and Webs

- Implementing SPWeb and SPWeb
- Creating sites and subsites
- Working with SPFiles
- Applying site branding

#### Developing custom navigation

- Creating navigation with CAML
- Controlling navigation through code
- Adding custom actions
- Employing the Dialog Framework

### Creating Web Parts and Controls

#### Building Web Parts

- Assembling Web Part pages
- Applying Render and CreateChildControls correctly
- Personalising with properties
- Debugging techniques for Web Parts
- Putting the Web Part life cycle to work
- Inserting and configuring intrinsic Web Parts

#### Considering controls

- Identifying control types
- Creating and using ASCX files
- Extending existing controls
- Connecting Web Parts
- Incorporating SharePoint specific controls

### Coding Events and Workflows

#### Responding to SharePoint notifications

- Triggering list and document events
- Working with event properties
- Creating tasks and sending e-mails
- Evaluating synchronisation state options
- Attaching event receivers

### Applying Workflow Foundation

- Considering standard Workflow actions
- Leveraging workflow initiation properties
- Creating tasks
- Assembling SharePoint specific workflow

- Associating Workflows with sites and lists

### Creating Custom Pages and Business Connectivity Services

#### Collecting input with custom pages

- Programming site and application pages
- Ghosting for performance
- Templating with Master Pages

#### Leveraging the Business Connectivity Service (BCS)

- Interpreting the BCS model
- Defining inserts, updates and deletes
- Building custom entities

### Organising SharePoint Data

#### Incorporating SharePoint Lists and Document Libraries

- Developing and manipulating lists and libraries with code
- Manipulating data fields programmatically
- Adding documents and working with versions

#### Accessing server-side data

- Generating and using content types
- Querying list data with LINQ
- SPQuery
- CAML
- Iterating SPListItems
- Coding ADO.NET data services
- Optimising network performance with lambda expressions

#### Accessing client-side data

- Interpreting the Client Object Model
- Comparing JavaScript, .NET and Silverlight
- Restricting results with CAML
- Retrieving data from RESTFUL services

### Deploying Applications as Solutions

- Designing features and packaging solutions
- Deploying solutions with STSADM and PowerShell
- Analysing application configuration options
- Building sandboxed solutions