



## Visual Studio 2008 Update for .NET Developers

*Five days – Instructor led*

### Overview

This five-day course will explore the new features in Visual Studio 2008 and the .NET Framework 3.5. Far from being a mere interface update or simple language enhancements, Visual Studio 2008 and the .NET Framework 3.5 provides revolutionary tools that require new approaches to software development with huge rewards.

### Audience

This course is intended for programmers already working with Visual Studio .NET 2003 or 2005. It is a dual-language course for both Visual Basic and C# programmers.

### Course Highlights

- Automatic Properties
- Object Initializers
- Collection Initializers
- Anonymous Types
- Lambda Expressions
- Multi-targeting .NET Applications
- Unit Testing with MSTest
- LINQ to Objects
- LINQ to XML
- LINQ to SQL
- Deferred Execution in LINQ
- Using LINQ in Windows and Web Applications
- Understanding Windows Presentation Foundation (WPF) Applications
- Using XAML in WPF Application
- Using Containers in WPF Application
- Sequential Workflow Applications
- State Machine Workflow Applications
- Using Workflow Activities



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- Custom Workflow Activities
- Workflow Rule Sets
- Hosting a Workflow
- Distributed Applications using Windows Communication Framework (WCF)
- Designing WCF Contracts
- Designing Remotable Objects
- Hosting WCF Servers
- WCF Clients
- Integrating WCF in Workflow
- Using JavaScript in Web Applications
- AJAX Enabled ASP.NET Applications
- Using JSON and WCF in ASP.NET



## Outline

### **0 – Introductions / Overview of the Course**

- Student and Instructor Introductions
- Course Outline

### **1 – Language and IDE Enhancements**

- Automatic Properties
- Object Initializers
- Collection Initializers
- *Var* Keyword
- Anonymous Types
- Extension Methods
- Lambda Expressions
- Delegates
- Anonymous Methods
- Lambda Expressions
- Expression Trees
- Multi-targeting
- Integrated Unit Testing
- Test Driven Development
- Creating a Test Harness Project
- Writing Unit Tests
- Running Tests
- Refactoring with Tests

### **2 – Language Integrated Query (LINQ)**

- Overview of LINQ
- Data and Programming
- Higher Level of Abstraction
- Language Features
- LINQ and Collection Classes
- *From/Select/Where/GroupBy/Order*
- LINQ and SQL Server
- DataContext Object
- Generating Entity Classes
- Select/Insert/Update/Delete
- LINQ and ASP.NET Applications
- LINQ as a Data Tier
- LINQ and SQL Server 2008



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## **3 – Windows Presentation Foundation (WPF)**

- Overview of WPF
- Introduction to XAML
- WPF Reach (Windows, Browsers, Silverlight)
- Creating a WPF Project
- Integrating Media
- Hyperlink Navigation

## **4 – Workflow (WF)**

- Introduction to Workflow
- Why Workflow?
- Workflow Examples
- Workflow Integrated Into Applications
- XAML and Workflow
- Designing Workflow
- Workflow Activities
- Designing Rules/Policies
- Integrating Code
- Declarative Rules
- Sequential Workflow
- State Machine Workflow
- Workflow and ASP.NET Applications

## **5 – Windows Communication Framework (WCF)**

- Writing Distributed Applications
- Web Services/SOA
- Writing a Server
- Designing the Contract
- Implementing the Contract
- WCF Plumbing
- Configuring Communication Programmatically
- Using Configuration Files to Configure Communications
- Hosting the Service (Windows Service, Console, IIS)
- Implementing the Client
- Generating the Proxy
- Testing
- Configuration Files
- Calling a Service from ASP.NET
- Calling a Service from Workflow



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## **6 – ASP.NET**

- Web Projects
- CSS Support
- AJAX Controls
- JavaScript in the IDE
- Extending Controls
- AJAX Toolkit

## **7 – Finishing Up**

- What does this mean for your process?
- Test Driven Development Review
- Review Key Changes
- LINQ/Workflow/WCF Example
- Further Resources
- Post Class Evaluations