

# Windows Forms Using C#

(5 Days) CTI 415

*This course is an introduction to GUI development using Windows Forms and C#. It covers database programming in Windows and new Windows Forms features such as new controls, new data binding, and ClickOnce deployment for creating smart client applications.*

*Prerequisites: Experience programming the .NET Framework using C#.*

*Minimum software requirements: Microsoft Visual Studio 2005 and MSDN on Windows 2000 or XP. SQL Server 2005; IIS.*

*Minimum hardware requirements: Pentium PC running at 1GHz; 512 Mb RAM; 4 GB free hard disk space before installation; Internet access; machines must be networked.*

*Microsoft PowerPoint on instructor's workstation for presentation purposes.*

## **Module 1: Introduction to Windows Forms**

- What are Windows Forms?
- Windows Forms Class Hierarchy
- Building a Form
- The Application Class
- Trapping Events
- Buttons
- Labels and Textbox Controls

## **Module 2: Visual Studio and the Forms Designer**

- Using the Forms Designer
- Code Generated by Forms Designer
- Adding Event Handlers
- Creating Attractive Forms
- Creating Easy to Use Forms

## **Module 3: Using Controls**

- Checkbox, Radio Button and Group Box
- Numeric Up/Down
- Trackbar
- Progress
- MonthCalendar
- DateTimePicker

## **Module 4: List Controls**

- Listbox and Combo Box
- DomainUpDown
- Listview
- Storing Objects in List Controls

## **Module 5: Working with Dialogs**

- Modal vs Modeless Dialogs
- Message Boxes
- Common Dialogs
- Creating a Modal Dialog
- Configuring the Dialog Result
- Access Data from the Dialog
- Validating Data
- Error Provider Control
- Model Dialogs
- Creating a Modeless Dialog

## **Module 6: Menus, Toolbars and Status Bars**

- Main Menu
- Context Menus
- Building a Status Bar
- Building a Toolbar
- Using the Timer Control

## **Module 7: Advanced Windows Forms Topics**

- Parent/Child Relationships
- Owner/Owned Relationships
- Top-Most Forms
- Multiple Document Interface
- Managing Parent/Child Menus
- Programming the Clipboard
- Visual Inheritance

## **Module 8: Using Advanced Controls**

- Panel
- TreeView
- Splitter
- Tab Control

## **Module 9: Resources**

- Image Resources
- Resource Files
- String Resources
- Working with Resources in Visual Studio
- Resource Managers
- Cultures and Internationalization
- Building Localizable Forms

## **Module10: Applications and Settings**

- Application Class
- Processing and Filtering Windows Messages
- Application Lifetime and Events
- Configuration Files
- Windows Registry

## **Module11: Data Access and Data Binding**

- ADO.NET Overview
- .NET Data Providers
- Using DataReaders
- Data Sets
- Data Tables
- Data Views
- Data Binding
- Interacting with XML Data

## **Module12: Windows Forms in .NET 2.0**

- ToolStrip Control
- SplitContainer Control
- Web Browser Control
- DataGridView Control
- Other New .NET 2.0 Controls
- New Data Binding
- Application Settings
- BackgroundWorker Component
- ClickOnce Deployment

## **Appendix A. Learning Resources**