



Visual Basic .NET: Intermediate

Overview: This course teaches the fundamentals of Visual Basic programming, including syntax, event-driven programming, compiling applications with the native code compiler, working with controls, handling run-time errors, manipulating form and control properties. Further coverage teaches how to manage data with ActiveX Data Objects (ADO), create your own objects, manipulate object collections, add status bars and toolbars, optimize your interfaces and VBA code, and create benchmarks to test your application's speed.

Prerequisites: Fundamentals of Visual Basic .NET - Level 1.

Course Length: Three Days, 9:00 a.m. – 4:00 p.m.

Lesson 1: Classes and Objects

- Using Objects to Organize a Complex World
- Defining Classes
- Constructing Objects
- Creating and Using Properties
- Creating and Using Methods
- Raising and Handling Events

Lesson 2: Windows Forms Controls

- TabControl, Context Menu, TrackBar
- NumericUpDown, DomainUpDown
- Label, CheckBox, RadioButton
- ListBox
- Adding Controls Dynamically
- Other List Controls
- Anchoring and Docking
- Using the Splitter Control
- Dialog Controls

Lesson 3: Inheritance and Interfaces

- Object Oriented Programming
- Supporting Inheritance
- Creating a Derived Class
- Overriding in Action
- Customizing Controls with Inheritance
- Using Interfaces
- Implementing IComparable to Enable Sorting

Lesson 4: Working with Strings and Dates

- Working with Text: The String Class
- Manipulating Text with the StringBuilder Class
- Working with Dates and Times
- Handling Elapsed Times with the TimeSpan

Lesson 5: Exception Handling

- Perspectives on Exception Handling
- Adding a Simple Try/Catch Block
- Using an Exception Object
- Catching Specific Exceptions
- Using the Throw Keyword
- Using the Finally Block

Lesson 6: Debugging your Applications

- Configuring the Debugging Environment
- Debugging Syntax Errors
- Configuring Debugging in Visual Studio .NET
- Setting Breakpoints and Stepping through Code
- Exploring the Debugging Windows
- Writing to the Windows Event Log

Lesson 7: Handling Input/Output Tasks

- Introducing the System.IO Namespace
- Selecting Files
- Handling Path Information
- Working with Directories and Files
- Reading and Writing Text Files

Lesson 8: Investigating .NET Data Structures

- Introducing the System.IO Namespace
- Selecting Files
- Handling Path Information
- Working with Directories and Files
- Reading and Writing Text Files

Lesson 9: Accessing Data

- Overview of ADO.NET
- The DataTable Object
- Using the Connection and Command Objects
- Using the DataReader Object
- Managing Data with the DataAdapter and DataSet Objects
- Choosing an ADO.NET Provider
- Writing Code for Multiple Providers

Lesson 10: Interoperability

- Use COM Components in .NET
- Work with Platform Invocation Services
- Call .NET Assemblies from Visual Basic 6.0

