

Visual Basic Essentials (VS2008) (2 Days) CTI 4202

This course is designed to help experienced VB programmers quickly come up to speed on the Visual Basic language. It is current to Visual Studio 2008 and .NET 3.5, which introduces important new features such as local type inference, extension methods, lambda expressions and Language-Integrated Query (LINQ).

Prerequisites: The student should be an experienced application developer or architect, with a background in object-oriented programming.

Minimum software requirements: Microsoft Windows XP, Visual Studio 2008 Standard Edition or higher.

Minimum hardware requirements for all machines: Pentium PC running at 2 GHz; 512 Mb RAM; 4 GB free hard disk space before installation; Internet access; machines must be networked.

Microsoft PowerPoint and Internet access on instructor's workstation for presentation purposes.

Module 1: .NET: What You Need to Know

.NET Executables and the CLR
A .NET Testbed for Visual Basic Programming
Visual Studio 2008

Module 2: VB.NET for the Sophisticated Programmer

First Visual Basic Console Application
Namespaces
Data Types
Conversions
Control Structures
Subroutines and Functions
Strings
Arrays
Console I/O
Formatting
Exception Handling

Module 3: Object-Oriented Programming in Visual Basic

Classes
Access Control
Methods and Properties

Module 3: Object-Oriented Programming in Visual Basic - continued

Shared Data and Methods
Inheritance
Overriding Methods
Polymorphism
Operator Overloading

Module 4: Visual Basic and the .NET Framework

Components
Interfaces
System.Object
.NET and COM
Collections
IEnumerable and IEnumerator
Copy Semantics in Visual Basic
Generic Types
Type-Safe Collections

Module 5: Delegates and Events

Delegates
Random Number Generation
Events

Module 6: Introduction to Windows Forms

Creating Windows Applications Using Visual Studio 2008
Partial Classes
Buttons, Labels and Textboxes
Handling Events
Listbox Controls

Module 7: New Features in Visual Basic 2008

Local Type Inference
Object Initializers
Array Initializers
Anonymous Types
Partial Methods
Extension Methods
Lambda Expressions
Query Keywords

Appendix A: Using Visual Studio 2008

Versions of Visual Studio
Overview of Visual Studio 2008
Creating a Console Application
Project Configurations
Debugging
Multiple-Project Solutions

Appendix B: Learning Resources