

Panurgy

Course Syllabus

Developing Microsoft .NET Applications for Windows (Visual Basic .NET)

Course 2565 • Five Days • Instructor-led

Introduction

This five-day instructor-led course provides students with the skills required to build Microsoft Windows Forms applications by using the Microsoft .NET Framework. This course is a part of the Microsoft Visual Basic .NET curriculum and is intended to provide Visual Basic programmers with the skills required to create Windows Forms applications by using the .NET Framework. The course will cover the major topics for Windows client application programming on the .NET Framework. These topics include: Windows Forms, GDI+, simple data access, interoperating with unmanaged code, threading and asynchronous programming issues, simple remoting, Web access, XML Web services consumption, debugging, security, and deployment issues for desktop applications.

Audience

This course is intended for the intermediate programmer who is responsible for designing and building Windows-based applications with the .NET Framework. It is designed for developers who have Visual Basic development skills. Students are required to have the following skills:

- Experience with a .NET language such as Visual Basic .NET
- Experience developing basic applications with MFC and/or Microsoft Visual Basic 6.0

Typically, these individuals perform the following key activities:

- Help create functional specifications.
- Design and develop user interfaces.
- Create and test prototypes.
- Write Windows Forms applications.

At Course Completion

After completing this course, students will be able to:

- Create and populate Windows Forms.
- Organize controls on Windows Forms.
- Create menus in a Windows Forms application.
- Add code to form and control event procedures in a Windows Forms application.
- Create Multiple Document Interface (MDI) applications.
- Use dialog boxes in Windows Forms applications.
- Validate user input in a Windows Forms application.
- Create and use user controls in a Windows Forms application.
- Create licenses for controls.
- Bind Windows Forms applications to various data sources by using Microsoft ADO.NET.
- Consume XML Web services from Windows Forms applications.
- Use .NET and COM components in a Windows Forms application.
- Call Microsoft Win32 APIs from a Windows Forms application.
- Migrate Visual Basic 6.0 applications to Visual Basic .NET.

- Print documents in a Windows Forms application.
- Make asynchronous calls to methods from a Windows Forms application.
- Debug a Windows Forms application.
- Incorporate accessibility features in a Windows Forms application.
- Localize a Windows Forms application.
- Add support for Help to localize a Windows Forms application.
- Create Help files in a Windows Forms application.
- Deploy a Windows Forms application.
- Implement code access and role-based security in a Windows Forms application.
- Add deployment flexibility to applications by using shared assemblies.

Prerequisites

The course assumes that students have the following skills:

- Understanding of Visual Basic programming
- Experience building applications

The following prerequisites are recommended for this course:

- Course 2559A—Introduction to Visual Basic .NET programming
Or Equivalent knowledge

Microsoft Certification exams

This course helps you prepare for the following Microsoft Certified Professional exam:

- Exam 70-306

Student Materials

The student kit includes a comprehensive workbook and other necessary materials for this class.

Course Outline

Module 1: Introducing Windows Forms

- Creating a Form
- Adding Controls to a Form
- Creating an Inherited Form
- Organizing Controls on a Form
- Creating MDI Applications

Module 2: Working With Controls

- Creating an Event Handler for a Control
- Using Windows Forms Controls
- Using Dialog Boxes in a Windows Forms Application
- Adding Controls at Run Time
- Creating Menus
- Validating User Input

Module 3: Building Controls

- Extending and Creating Controls
- Adding Design-Time Support for Controls
- Licensing a Control

Module 4: Using Data in Windows Forms Applications

- Adding ADO.NET Objects to and Configuring ADO.NET Objects in a Windows Forms Application
- Accessing and Modifying Data by Using DataSets

- Binding Data to Controls
- Overview of XML Web Services
- Creating a Simple XML Web Services Client
- Persisting Data

Module 5: Interoperating with Managed Objects

- Using .NET and COM Components in a Windows Forms Application
- Calling Win32 APIs from Windows Forms Applications
- Upgrading Visual Basic 6.0 Applications to Visual Basic .NET

Module 6: Printing and Reporting in Windows Forms Applications

- Printing From a Windows Forms Application
- Using the Print Preview, Page Setup, and Print Dialogs
- Constructing Print Document Content by Using GDI+
- Creating Reports by Using Crystal Reports

Module 7: Asynchronous Programming

- The .NET Asynchronous Programming Model
- The Asynchronous Programming Model Design Pattern
- How to Make Asynchronous Calls to Any Method
- Helping to Protect State and Data in a Multithreaded Environment

Module 8: Enhancing the Usability of Applications

- Adding Accessibility Features
- Adding Help to an Application
- Localizing an Application

Module 9: Deploying Windows Forms Applications

- .NET Assemblies
- Deploying Windows Forms Applications

Module 10: Securing Windows Forms Applications

- Security in the .NET Framework
- Using Code Access Security
- Using Role-Based Security