

Microsoft® Windows® Communication Foundation Using Visual C# 2008



Instructors: Robert Green is a frequent speaker at technology conferences and has authored many articles on Visual Basic and Visual C#. A former program manager and product manager for Microsoft Corporation, Robert now specializes in authoring and presenting using the latest Visual Studio technologies.

Target Audience/Prerequisites: This course is designed for individuals with an intermediate knowledge of Visual C#, of building Windows and Console applications using Visual Studio 2008, and a familiarity with building and calling Web Services. You should also have a strong programming background.

Total Learning Time: 10-30 hours

Media run time is 10+ hours, total learning time could be up to 30 hours if the courseware, labs and exams are utilized. This course can also be used as quick reference material, with the ability to access just the information you need in a matter of minutes.

Course Description: In this course, you'll learn how to use Windows Communication Foundation (WCF) and you'll see how it is a unified programming model for building service-oriented distributed applications. You'll see how to build, host and call WCF services and you'll gain a deep understanding of the basic building blocks of WCF, including endpoints, bindings and contracts. In addition, see how to handle exceptions, maintain state between calls to a service and use transactions. Subsequent topics include the basics of WCF security, integrating WCF with Windows Workflow Foundation and building WCF services that support Representational State Transfer (REST) and syndication. By the time you've completed the course, you'll have a good understanding of how to build and use WCF services in your distributed applications.

Course Outline:

Introduction to WCF

- Review the challenges of building distributed applications
- Examine the concept of service oriented applications
- See a high level overview of Windows Communication Foundation
- Build and host your first WCF service

Hosting and Calling WCF Services

- Understand how to host a WCF service
- Understand how clients communicate with services
- See how to host and call a service using multiple bindings
- See how to configure endpoints in code and in configuration files

Bindings and Contracts

- Understand how to work with bindings
- Explore how to create service and data contracts
- See the implications of modifying service and data contracts

Exceptions, Diagnostics and Message Patterns

- Learn how to handle exceptions in WCF services
- See techniques for diagnosing services
- Explore one-way and duplex communication

Sessions and Transactions

- See how to use sessions to maintain state in WCF services
- Explore options for controlling the lifetime of a service instance
- Learn how to add transactions support to a WCF service

WCF Security

- Explore the basics of WCF security
- See how to authenticate callers of a service
- See how to authorize callers based on roles

Workflow Services

- Learn how to expose a workflow as a WCF service
- See how to call a WCF service from a workflow
- Understand how to build a stateful workflow service

RESTful Services and Syndication

- Explore how to build WCF services that support Representational State Transfer (REST)
- See how to build WCF services that create RSS and Atom feeds

Number of Modules	Media Run Time	Total Learning Time	Printable PDF Courseware*	Hands-on Labs	Sample Code	Pre/Post Exams	Supports Microsoft Exam Number
8 Modules	10+ hours	10-30 hours	850+ Pages	Yes	Yes	Yes	N/A

* Professionally printed, bound courseware (student manuals) are available. Ask for details.