

Advanced WCF 4.x

Course Summary Table

Duration:	32 hours instructor-led course
Target Audience:	.NET Software developers, software architects and team leaders
Objectives:	The participant will gain practical knowledge of the entire WCF programming model and understand the features and possibilities in service oriented design altogether
Pre Requisites:	At least one year of experience with .NET and C#, as well as experience with basic WCF development.

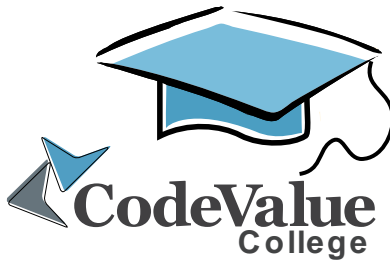
Abstract

Windows Communication Foundation (WCF) is Microsoft's unified, extensible communication framework for building service-oriented applications, easing the fairly complicated development process of distributed systems. For building truly service oriented application – WCF is the tool of choice!

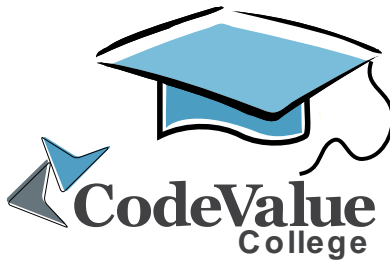
In this course you will learn how you can leverage WCF to build powerful distributed systems best suited for your needs, as well as how to extend the WCF stack and provide solutions to common scenarios.

Syllabus

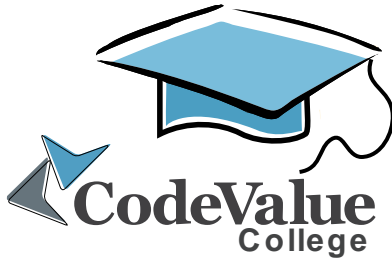
- ✔ Module 1: WCF Basics – Brief Overview (3 hours)
 - ✔ WCF Basics ('ABC')
 - ✔ WCF Architecture
 - ✔ Implementing WCF Services
 - ✔ Hosting WCF Services
 - ✔ Configuration and Endpoints
 - ✔ Consuming WCF Services



- ✔ Module 2: Service Control (2 hours)
 - ✔ Instance Management
 - ✔ Concurrency
 - ✔ Throttling
- ✔ Module 3: WCF Advanced Scenarios (6 hours including labs)
 - ✔ Asynchronous Programming
 - ✔ Reliability
 - ✔ Bi-directional (Duplex) communications
 - ✔ Streaming data for high-throughput scenarios
 - ✔ Queued Services
 - ✔ Transactional Services
 - ✔ Service Discovery
 - ✔ Routing
- ✔ Module 5: Serialization and Service Versioning (2 hours)
 - ✔ From objects to messages
 - ✔ Serializers and Encoders
 - ✔ Contract identification and modeling
 - ✔ Breaking Changes
 - ✔ Best Practices
- ✔ Module 6: Error Handling and Troubleshooting (4 hours including labs)
 - ✔ Understanding service exceptions
 - ✔ Fault Contracts
 - ✔ Handling service errors and debugging
 - ✔ Tracing and Message Logging
 - ✔ Tooling
- ✔ Module 7: HTTP Programming and REST (4 hours including labs)
 - ✔ Implementing and Hosting RESTful Services
 - ✔ Controlling the URI Template and Formatting



- ✔ Using the Web Operation Context
- ✔ Caching
- ✔ Syndication
- ✔ ASP.NET Web API
- ✔ Client Model
- ✔ Module 8: Security (4 hours)
 - ✔ Core Concepts
 - ✔ WCF Security Overview
 - ✔ WCF Security Programming
 - ✔ .NET Security Model & Role-based security
 - ✔ Impersonation
 - ✔ Encryption and Signing
 - ✔ Federated Claim-based Security
- ✔ Module 9: WCF Extensibility (4 hours)
 - ✔ Understanding the WCF Description Model
 - ✔ Customize the service layer using custom behaviors
 - ✔ Understanding the WCF Dispatcher and Client Runtimes
 - ✔ Discovering the Extensibility Points and Interceptors
 - ✔ Building Extensions as a Platform
 - ✔ Using Headers and Contexts
- ✔ Module 10: WCF and Beyond (3 hours)
 - ✔ WCF Data Services
 - ✔ WCF in Azure
 - ✔ Microsoft Service Bus



Course Compatibility Questionnaire

Please answer the following questions as accurately as possible:

Name: _____ Email: _____
 Company: _____ Phone: _____

Language / Technology / Platform	Years of Experience						Level of Familiarity				
C#	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5
.NET 4.0	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5
Web Services	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5
Enterprise Services	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5
HTTP, TCP/IP	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5
Windows Azure	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5
Distributed Systems	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5
Other _____	0-1	1-2	2-3	3-4	4-5	5+	1	2	3	4	5

What are your expectations from the course?

Which transport channels are you familiar with? Which ones have you used before?

Thanks!

<http://college.codevalue.net/>