

BizTalk Server 2020 Developer Deep Dive

Course Summary

Description

As a BizTalk Server developer, you know that learning BizTalk Server can be difficult. You've seen the power of BizTalk Server and know that there's more waiting for you to tap into. QuickLearn Training can take you from novice to expert in just five days of training!

This course is designed specifically for experienced BizTalk Server developers and focuses on best practices & pattern-based design while pulling back the curtain on some of BizTalk Server's eccentricities. This course gives the deepest coverage of the BizTalk Server development topics that you need to know. We guarantee to challenge the way you think about BizTalk Server application design and development.

In this 5-day course, you will learn how to apply best practices and design patterns to build smarter BizTalk Server applications. Furthermore, this course provides extensive coverage of BizTalk Server's extensibility, including such topics as: custom functoids, custom pipeline components, and invoking external .NET methods.

This course is intended for previous attendees of our BizTalk Server Developer Immersion course who have at least one year of hands-on experience developing BizTalk Server application solutions and wish to deepen their existing skill and knowledge.

In this course, attendees will receive live instruction from one of our expert trainers, in-classroom demonstrations, challenging hands-on labs, and an electronic copy of the presentation materials and lab guide with hands-on activities.

This is an advanced-level course. Attendees are expected to have working experience as BizTalk Server application developers. The lectures and labs in this course assume that attendees have been through the typical lifecycle of a BizTalk Server application at least once.

Objectives

After taking this course, students will be able to:

- Create and implement custom simple and complex types in schemas
- Call external assemblies using the Scripting Functoid
- Create custom functoids
- Test BizTalk Server code artifacts using Visual Studio tests
- Create messaging solutions that de-batch flat-file & XML interchanges
- Build processes that subscribe to failed messages
- Create custom pipeline components
- Publish and host RESTful APIs using the WCF-WebHttp adapter
- Integrate with SQL Server databases using the WCF-SQL adapter
- Create loosely coupled orchestrations using direct-bound ports
- Properly utilize the Call Orchestration and Start Orchestration shapes
- Develop applications that utilize dynamic send ports
- Implement complex orchestration patterns, including: external code invocation, convoys, transactions and compensation, and exception handling
- Aggregate message instances using an orchestration & send pipeline
- Create a role- and party-based integration solution
- Create business-rule vocabularies and polices
- Create EDI-based solutions to receive, send, and batch messages
- Create custom tracking solutions using Business Activity Monitoring
- Extend visibility to custom .NET application using the BAM API

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Course Summary (cont'd)

Topics

- Review of BizTalk Server Fundamentals
- Inner Workings of the Messaging Engine
- Designing and Testing Schemas
- Data Translation and Transformation
- Working with Message Interchanges
- Advanced Concepts of WCF Adapters
- Publishing and Consuming WCF and RESTful Services
- Advanced Orchestration Communication Patterns
- Bridging the Synchronous/Asynchronous Gap Across Multiple Channels
- Handling Orchestration Faults and Exceptions
- Implementing Transactions and Compensation
- Designing Custom Tracking Models for BizTalk Applications
- Building Declarative Logic Using the Business Rules Engine
- Advanced Concepts of the Business Rules Engine
- Integrating Across Business Boundaries Using Parties, Roles, and EDI

Audience

This course is designed for experienced BizTalk Server Developers who have at least one year of hands-on experience developing BizTalk Server applications.

Prerequisites

Students should have experience with core BizTalk Server development concepts and skills. The course assumes that attendees already know how to create schemas, maps, pipelines, and orchestrations, and are looking to enrich their understanding of these components, applying patterns and best practices to build smarter applications.

Duration

Five days

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Course Outline

I. Review of BizTalk Server Fundamentals

- A. The BizTalk Server Architecture

II. Inner Workings of the Messaging Engine

- A. Messaging Engine Deep Dive
- B. Two-way Messaging Without Orchestrations

III. Designing and Testing Schemas

- A. Schema Design
- B. Enabling Unit Testing for BizTalk Projects

IV. Data Translation and Transformation

- A. Custom Data Transformation
- B. Creating Custom Pipeline Components

V. Working with Message Interchanges

- A. Debatching Message Interchanges

VI. Advanced Concepts of WCF Adapters

- A. Connecting to External Systems
- B. Using WCF LOB Adapters in BizTalk Server

VII. Publishing and Consuming WCF and RESTful Services

- A. Overview of Service Integration Using WCF
- B. Implementing WCF Services
- C. Preprocessing Messages with IIS Modules
- D. Consuming Services

VIII. Advanced Orchestration Communication Patterns

- A. Orchestration Engine Deep Dive
- B. Splitting and Aggregating Messages using Orchestrations
- C. Orchestration Communication

IX. Bridging the Synchronous/Asynchronous Gap Across Multiple Channels

- A. Correlating Messages in Orchestration Instances
- B. Building Convoy Orchestrations

X. Handling Orchestration Faults and Exceptions

- A. Exception Handling in Orchestrations

XI. Implementing Transactions and Compensation

- A. Creating Transactional Processes

XII. Designing Custom Tracking Models for BizTalk Applications

- A. Introduction to Business Activity Monitoring
- B. Enabling Business Activity Monitoring
- C. Extending BAM Beyond BizTalk

XIII. Building Declarative Logic Using the Business Rules Engine

- A. Concepts of Declarative Logic
- B. Fundamentals of BizTalk BRE
- C. Integrating Policies with BizTalk

XIV. Advanced Concepts of the Business Rules Engine

- A. Advanced Business Rule Concepts
- B. Working with Advanced Facts

XV. Integrating Across Business Boundaries Using Parties, Roles, and EDI

- A. Port Binding Option Review
- B. Role-Based Integration
- C. What is EDI?
- D. Enabling EDI-Based Messaging