

Course 2728 — Instructor-led

Course Length: 4 days

At the end of this course, students will be able to:

- Identify the need for BizTalk Server 2002 in business-to-business (B2B) and enterprise application integration scenarios.
- Create document specifications by using BizTalk Editor.
- Create maps between document specifications by using BizTalk Mapper.
- Manage the exchange of documents to and from BizTalk Server 2002 by using BizTalk Messaging Manager.
- Write receive functions to enable BizTalk Server 2002 to receive documents posted to a file location, a message queue, or an HTTP URL.
- Build business-process implementations by using BizTalk Orchestration Designer.
- Integrate external applications with BizTalk Server 2002 by creating application integration components.

- Integrate BizTalk Server 2002 with XML Web services.
- Extend the capabilities of BizTalk Server 2002 solutions to integrate with existing systems and processes by using Accelerators and adapters.
- Deploy and manage BizTalk Server 2002 solutions.
- Use the Methodology for BizTalk Projects to successfully plan and implement BizTalk Server 2002 solutions.

Prerequisites:

Before attending this class, students must have:

- Knowledge of Extensible Markup Language (XML) document structure.
- Awareness of Extensible Stylesheet Language Transformations (XSLT) concepts.
- Experience programming with Microsoft Visual Basic .NET.
- Experience using Microsoft Visual Studio .NET developer environment.

Course Outline

Module 1: Introduction to BizTalk Server 2002

This module provides students with an introduction to BizTalk Server 2002. Students will learn about the problems that face organizations as they seek to integrate applications and interchange business documents. Students will then learn how BizTalk Server 2002 helps to solve these problems.

Lessons

- The Need for BizTalk Server 2002
- BizTalk Server 2002 Tools and Services
- Working with BizTalk Server 2002

Module 2: Creating a Specification by Using BizTalk Editor

This module describes how to use BizTalk Editor to create specifications. A specification describes the format and allowable content in business documents.

Lessons

- Overview of BizTalk Editor and Document Specifications

- Creating Specifications
- Working with Instance Documents

Lab 2.1: Creating a Specification for an Organization

- Exercise 1: Adding Records to a Specification
- Exercise 2: Adding Fields to a Specification
- Exercise 3: Setting Properties of Records and Fields
- Exercise 4: Saving the Specification and Storing it to WebDAV
- Exercise 5: Creating an XML Instance
- Exercise 6: Testing the Instance

Lab 2.2: Creating a Custom Flat-File Specification

- Exercise 1: Adding Records to a Specification
- Exercise 2: Adding Fields to a Specification
- Exercise 3: Setting Basic Properties of Records and Fields
- Exercise 4: Configuring the Specification Structure
- Exercise 5: Saving the Specification and Storing it to WebDAV
- Exercise 6: Creating a Native Instance
- Exercise 7: Testing the Instance

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Module 3: Mapping Data by Using BizTalk Mapper

This module describes how to use BizTalk Mapper to map documents from one format to another. Students learn how to create a map file, which defines transformations that map records and fields in a source specification to corresponding records and fields in a destination specification.

Lessons

- Creating Maps
- Saving, Compiling, and Verifying Maps
- Using Functoids in Maps

Lab 3: Creating a Map

- Exercise 1: Creating Links in a Map
- Exercise 2: Adding a Functoid to a Map
- Exercise 3: Testing a Map
- Exercise 4: Saving the Map and Storing it to Web-DAV

Module 4: Managing the Exchange of Documents by Using BizTalk Messaging Manager

This module describes how to use BizTalk Messaging Manager to control the flow of business documents to and from BizTalk Server 2002. Students will learn how to create and configure organizations, applications, document definitions, envelopes, messaging ports, channels, and distribution lists within BizTalk Messaging Manager.

Lessons

- BizTalk Messaging Services
- Organizations and Applications
- Document Definitions and Envelopes
- Messaging Ports, Channels, and Distribution Lists

Lab 4: Using BizTalk Messaging Manager

- Exercise 1: Configuring Organizations
- Exercise 2: Creating Document Definitions
- Exercise 3: Creating an Envelope
- Exercise 4: Creating a Messaging Port
- Exercise 5: Creating a Channel
- Exercise 6: Testing the Channel and Messaging Port

Module 5: Submitting Documents to BizTalk Server 2002

This module describes how to submit business documents to BizTalk Server 2002 by using receive functions, and by using the Interchange COM object.

Students will be introduced to the different receive functions: File receive functions; Message Queuing receive functions; and HTTP receive functions. Students will also learn the best way to submit documents from an ASP.NET page.

Lessons

- Using Receive Functions
- Submitting Documents Programmatically

Lab 5: Submitting Documents

- Exercise 1: Creating a File Receive Function
- Exercise 2: Posting Documents to an ASP.NET Application
- Exercise 3: Writing an ASP.NET Application that Receives Documents and Sends them to a Microsoft Message Queue (MSMQ)
- Exercise 4: Writing a Message Queuing Receive Function

Module 6: Building Business-Process Implementations by Using BizTalk Orchestration Designer

This module describes how to create an XLANG schedule drawing by using BizTalk Orchestration Designer. An XLANG schedule drawing defines the business processes of an organization.

Lessons

- Describing the BizTalk Orchestration Designer Environment
- Describing a Business Process
- Configuring Implementation Shapes
- Executing an XLANG Schedule
- Defining and Using Transactions

Lab 6.1: Creating an XLANG Schedule Drawing

- Exercise 1: Adding Flowchart Shapes to an XLANG Schedule Drawing
- Exercise 2: Connecting Flowchart Shapes in an XLANG Schedule Drawing

Lab 6.2: Binding Implementation Shapes to Action Shapes in an XLANG Schedule Drawing

- Exercise 1: Adding BizTalk Messaging Shapes to an XLANG Schedule Drawing
- Exercise 2: Adding a Message Queuing Shape to an XLANG Schedule Drawing
- Exercise 3: Adding a Script Component Shape to an XLANG Schedule Drawing
- Exercise 4: Assigning Data Flow in an XLANG

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Schedule

Lab 6.3: Executing an XLANG Schedule

- Exercise 1: Defining a Messaging Port and Channel to Activate a New XLANG Schedule
- Exercise 2: Configuring the BizTalk Receive Function to use the New Channel
- Exercise 3: Testing the XLANG Schedule

Module 7: Developing Application Integration Components

This module describes how to create and use Application Integration Components (AICs), to integrate custom objects with BizTalk solutions. Students are introduced to the two types of AICs: lightweight AICs and pipeline components. Students will then see how to configure a messaging port to make use of an AIC.

Lessons

- Introducing AICs
- Lightweight AICs
- Pipeline Components
- Using AICs with BizTalk Messaging

Lab 7: Creating, Registering, and Using an Application Integration Component

- Exercise 1: Creating a Pipeline Application Integration Component (AIC) Project
- Exercise 2: Implementing Behavior in the Pipeline AIC
- Exercise 3: Registering the Pipeline AIC
- Exercise 4: Integrating the AIC into a BizTalk Solution
- Exercise 5: Testing the AIC

Module 8: Integrating BizTalk Server 2002 with Web Services

This module shows how to integrate BizTalk Server 2002 solutions with Web Services.

Lessons

- Review of Web Services
- Calling a Web Service from BizTalk
- Calling BizTalk from a Web Service

Lab 8: Integrating XML Web Services with BizTalk Server

- Exercise 1: Creating an XML Web Service
- Exercise 2: Creating a COM Interop Assembly to

Call the XML Web Service

- Exercise 3: Using XML Web Services in an XLANG Schedule
- Exercise 4: Testing the XLANG Schedule, COM Interop Assembly, and XML Web Service

Module 9: BizTalk Accelerators and Adapters

This module introduces students to BizTalk Accelerators and Adapters. Accelerators and Adapters are designed to reduce the time, effort, and costs associated with building BizTalk solutions.

Lessons

- Using BizTalk Accelerators
- Using BizTalk Adapters

Module 10: Deploying and Managing BizTalk Server 2002 Solutions

This module shows students how to deploy and manage an automated business process between trading partners by using BizTalk Server 2002.

Lessons

- Deploying an Automated Business Process
- Managing Databases and Queues

Lab 10: Using BizTalk Server Databases

- Exercise 1: Optimal Location of BizTalk Server Databases

Module 11: Methodology for BizTalk Projects

This module introduces students to the Methodology for BizTalk Projects, which is based upon the Microsoft Solutions Framework (MSF). Students will learn how to plan and implement BizTalk Server 2002 projects, and see how the various cycles of project development interact.

Lessons

- Understanding the Methodology for BizTalk Projects
- Working in Teams
- Planning BizTalk Projects
- Operating BizTalk Solutions