

Advanced Distributed Application Development with Microsoft Visual Studio 2005

Workshop 2549: Two days; Instructor-Led

Introduction

This two-day instructor-led workshop provides students with the knowledge and skills to develop advanced distributed applications using Microsoft Visual Studio 2005. The workshop focuses on advanced features of Web Services Enhancements (WSE) 3.0 and message queuing.

Audience

This workshop is intended for corporate or independent software vendor (ISV) application developers who have a desire to learn more about specific technology areas in Microsoft Windows application development.

Objectives

After completing this workshop, students will be able to:

- Implement WSE 3.0 security and policy
- Implement WSE 3.0 custom policy assertions
- Handle large data transfer by using WSE 3.0
- Implement WSE 3.0 SOAP messaging
- Implement SOAP headers and extensions
- Implement WSE 3.0 routing
- Optimize and protect Microsoft Message Queuing client and server applications

Prerequisites

Before attending this workshop, students must:

- Must have attended or studied Workshop 2548A, Core Distributed Applications or possess equivalent knowledge and skills.
- Must be able to create Web services.
- Must be able to write applications that use Web services.
- Be able to send and receive messages by using Message Queuing

Workshop Outline

Unit 1: Implementing WSE 3.0 Security and Policy

This unit introduces Web Services Enhancements (WSE) 3.0. It explains the Web service WS-* standards implemented by WSE and the WSE 3.0 architecture. The unit also shows how to protect Web services with WSE using policies, encryption, digital signing, and security credentials.

Unit 2: Implementing WSE 3.0 Custom Policy Assertions

This unit introduces the WSE 3.0 custom policy assertion mechanism. It shows the architecture of the custom policy assertions in WSE 3.0 and how to use custom policy assertions in a Web service.

Unit 3: Handling Large Data Transfer by Using WSE 3.0

This unit describes how to send and receive large files by using WSE 3.0. It discusses the Message Transmission Optimization Mechanism (MTOM) protocol, how to send and receive files, and how to handle bulky data in binary format in SOAP messages.

Unit 4: Implementing WSE 3.0 SOAP Messaging

This unit describes how to implement SOAP messaging. It describes how to send and receive SOAP messages in Web services by using different sets of protocols.

Unit 5: Implementing SOAP Headers and Extensions

This unit describes SOAP headers and extensions. It explains what a SOAP header is, and how a Web service processes a SOAP extension.

Unit 6: Implementing WSE 3.0 Routing

This unit discusses the routing mechanisms supported in WSE 3.0. It explains how to route Web method calls and how to implement content-based routing.

Unit 7: Optimizing and Protecting Message Queuing

This unit discusses techniques for improving the security and optimizing the performance of applications that use the queuing mechanisms. It also describes how to verify whether messages posted to a queue are delivered successfully and how to correlate a message reply posted to a queue with the original message.