



Visual Studio 2008: Windows Workflow Foundation

Days: 2
Format: Instructor-Led
Class Code: 6462
Certification Exams: None
Certification Track: None

Recommended Course Sequence

Knowledge of prerequisites
noted below.

*Course content is subject to change
without notice.*

Course Description:

This two-day instructor-led course provides students with the knowledge and skills to build and configure a Windows Workflow Foundation (WF) solution.

Target Student:

This course is intended for application developers who know how to create applications in Visual Studio 2005 or 2008. The course does not require previous experience creating workflow-based solutions.

Prerequisites:

Before attending this course, students should have:

- Intermediate experience developing applications by using previous versions of Microsoft Visual Studio at level 200.

At Course Completion:

After completing this course, students will be able:

- Explain Windows Workflow Foundation concepts and features
- Create sequential workflows
- Create state machine workflows
- Modify workflows at run time
- Implement conditional branching in a workflow
- Define and execute rule sets
- Forward chain rules
- Change rules at run time
- Call methods on the host process
- Handle events from the host process
- Consume services from a workflow
- Publish a workflow as a service
- Create a custom activity
- Create a custom composite activity
- Define custom activity layout
- Customize activity serialization
- Create a custom runtime service
- Hydrate and dehydrate workflows
- Monitor workflows
- Track workflows
- Handle faults in a workflow
- Handle cancellations in a workflow
- Create and manage transactions in a workflow
- Create and handle compensations

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Course Outline

Module 1: Creating and Hosting Workflows

This module explains how to create and host Windows Workflow Foundation (WF) workflows.

Lessons
<ul style="list-style-type: none">■ Overview of Windows Workflow Foundation■ Creating Sequential Workflows■ Creating State Machine Workflows■ Modifying Workflows at Runtime
Lab : Creating and Hosting Workflows
<ul style="list-style-type: none">■ Creating and hosting a simple sequential workflow■ Passing parameters into a workflow■ Creating a state machine workflow■ Hosting the state machine workflow

Module 2: Applying Conditions and Rules

This module explains how to apply conditions and rules in a workflow.

Lessons
<ul style="list-style-type: none">■ Implementing Flow Control■ Defining and Executing Rule Sets■ Forward Chaining of Rules■ Changing Rules at Run Time■ Creating Custom Activities■ Creating Custom Composite Activities■ Customizing Activity Serialization■ Defining Custom Activity Layout
Lab : Creating and Configuring Custom Activities
<ul style="list-style-type: none">■ Creating a Custom Activity■ Validating a Custom Activity■ Developing a Custom Activity Designer■ Creating a Custom Composite Activity

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Module 3: Communicating with Workflows

This module explains how to communicate between workflows, host processes, and services.

Lessons
<ul style="list-style-type: none">■ Calling Methods on the Host Process■ Handling Events from the Host Process■ Consuming Services from a Workflow■ Publishing a Workflow as a Service
Lab : Communicating with Workflows
<ul style="list-style-type: none">■ Invoking a Method on the Host Process■ Handling Events from the Host Process■ Consuming Services from a Workflow■ Publishing a Workflow as a Service

Module 4: Creating and Configuring Custom Activities

This module explains how to create and configure custom activities.

Lessons
<ul style="list-style-type: none">■ Creating Custom Activities■ Creating Custom Composite Activities■ Customizing Activity Serialization■ Defining Custom Activity Layout
Lab : Creating and Configuring Custom Activities
<ul style="list-style-type: none">■ Creating a Custom Activity■ Validating a Custom Activity■ Developing a Custom Activity Designer■ Creating a Custom Composite Activity

Module 5: Creating and Managing Runtime Services

This module explains how to create and manage runtime services.

Lessons
<ul style="list-style-type: none">■ Creating a Custom Runtime Service■ Hydrating and Dehydrating Workflows■ Monitoring Workflows■ Tracking Workflows
Lab : Creating and Managing Runtime Services
<ul style="list-style-type: none">■ Creating a Custom Runtime Service■ Hydrating and Dehydrating Workflows■ Monitoring Workflows■ Tracking Workflows

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Module 6: Managing Faults, Cancellations, Transactions, and Compensations

This module explains how to manage faults, cancellations, transactions, and compensations in a workflow.

Lessons
<ul style="list-style-type: none">■ Handling Faults■ Handling Cancellations■ Creating and Managing Transactions■ Creating and Handling Compensations
Lab : Managing Faults, Transactions, and Compensations
<ul style="list-style-type: none">■ Handling Faults■ Implementing Transactional Behavior■ Implementing Compensation Behavior