

# Advanced Web Application Technologies with Microsoft Visual Studio 2005

Workshop 2544: Two days; Instructor-Led

## Introduction

This two-day instructor-led workshop provides students with the knowledge and skills to develop Microsoft ASP.NET 2.0 Web applications using Microsoft Visual Studio 2005. The workshop focuses on advanced user interfaces, Web site functionality, and implementation details using the advanced features of ASP.NET 2.0 and Visual Studio 2005.

## 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 Web application development.

## Objectives

After completing this workshop, students will be able to:

- Build dynamic Web applications.
- Create controls for Web applications.
- Optimize Web applications.
- Build customizable Web applications.
- Build Web Part pages and Web Parts.

## Prerequisites

Before attending this workshop, students must:

- Have attended or studied Workshop 2543A, Core Web Application Technologies with Visual Studio 2005, or possess equivalent knowledge and skills.
- Know how to use delegates and events.
- Know how to improve the security of .NET Framework 2.0 applications.
- Be able to use instrumentation in code.

## Workshop Outline

### Unit 1: Building Dynamic Web Applications

This unit introduces many different aspects of dynamic Web applications. It includes discussions on creating and configuring controls at run time. It then explains how to build dynamic globalization features into a Web application to ensure that it is localizable, including using localized resources and applying different master page layouts in response to culture and language settings. It concludes with explanations about how to enable dynamic configuration for site administrators.

## **Unit 2: Creating Controls for Web Applications**

This unit explains how developers create different types of controls for different scenarios. The different types of controls include user controls, custom Web server controls, composite Web server controls, and templated controls.

## **Unit 3: Optimizing Web Application Performance**

This unit introduces topics that will help you improve the performance of Web applications. It describes how the Page Scripting Object Model can help reduce the number of round trips for communication between the server and the browser, and then explains how tracing and instrumentation can be used to monitor and, therefore, improve the performance of a Web application. The unit discusses how caching and asynchronous processing can help increase Web application performance; it then highlights some considerations that developers must address if the Web application is to be deployed in a Web farm environment.

## **Unit 4: Implementing Personalization and Themes in Web Applications**

This unit introduces building customizable functionality into a Web application by adding personalization support. It discusses using the personalization features of ASP.NET 2.0 to provide this functionality. In addition, it discusses applying themes to Web applications and allowing users to choose color schemes to personalize their experience in using the Web application. It concludes by explaining how to include features that enable users to personalize themes.

## **Unit 5: Building Web Part Pages and Web Parts**

This unit introduces the concept of a Web part, and describes how it is used in portal pages and other scenarios. It introduces the concept of a Web part page, and discusses how a Web part page contains some Web parts that provide the user interface, along with other controls that manage the Web part infrastructure. Additionally, it introduces the advanced features of connected Web parts and discusses scenarios where they are typically used.