

XML Parsing Using C# and .NET

(2 Days)

Custom Training Institute

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**XML Parsing Using C# and .NET
(CTI 441)**

This course teaches the different types of XML parsing available in .NET. We start with an overview of the .NET Framework and XML classes found in the System namespace. We then explore the different parsing methodologies available from Microsoft.

Prerequisites: Introduction to XML, or similar. Ability to read and write well-formed XML. Ability to read a DTD not required but preferred. A working knowledge of programming C# such as from Object-Oriented Programming Essentials with C# and .NET; Object-Oriented Programming in C#, or C# Essentials.

Minimum software requirements: Microsoft Windows XP with Service Pack 2, Visual Studio 2005.

Minimum hardware requirements for all machines: Pentium PC running at 600 MHz; 256 Mb RAM; 4 GB free hard disk space before installation; Internet access.

Microsoft PowerPoint and Internet access on instructor's workstation for presentation purposes.

Module 1: .NET Framework XML Overview

- XML in the .NET Framework
- .NET XML Namespaces and Classes
- .NET XmlReader and XmlWriter
- .NET DOM Parser
- XML Serialization
- XML and ADO.NET
- XPath and XSLT
- XML and the Web

Module 2: Reading XML Streams in .NET

- XML Document Streams
- The XmlReader Class
- Accessing Node Properties with the .NET XML Classes
- Accessing Attribute Values
- Traversing the XML Document
- Catching XmlExceptions
- The XmlNodeReader Class
- Using XmlReader with .NET 2.0

Module 3: Validating XML Streams

- Specifying Valid Documents with XML Schema and DTD
- Using Visual Studio 2005 to Create Schemas
- Validating XML with XmlReader

Module 4: Writing XML Streams in .NET

- The XmlWriter Class
- WriteXXX Methods
- XmlWriter States
- Writing Elements
- Writing Attributes
- Writing Namespaces
- Using XmlWriter with .NET 2.0

Module 5: The Document Object Model in .NET

- Origins of the DOM
- DOM Levels
- DOM2 Structure
- The XmlDocument Class
- DOM Tree Model
- DOM Interfaces
- XmlDocument, XmlNode and XmlNodeList Classes
- XmlElement and XmlText Interfaces
- Finding Elements by Name
- Walking the Child List
- The XmlAttribute Interface

Module 6: Manipulating XML Information with the DOM

- Creating and Modifying Documents
- Modifying Elements
- Error Handling
- Managing Children
- Cloning
- Splitting Text and Normalizing
- Modifying Attributes

Appendix A: Zenith Courseware Case Study**Appendix B: Learning Resources**