

Hands-On XSL: Transforming and Styling XML - 3 Days

Course 549 Overview

- You Will Learn How To**
- Transform XML data using Extensible Stylesheet Language (XSL)
 - Search and filter XML documents with XPath
 - Build structured stylesheets with Extensible Stylesheet Language Transformation (XSLT) elements
 - Design and debug XSL documents
 - Publish PDF documents using XSL Formatting Objects (XSL-FO)
 - Convert XML data into HTML and other document formats
- Course Benefits** XML is an essential tool for application developers, allowing for the interchange of data between disparate systems. To effectively integrate systems, XSL is needed for transforming and styling XML data. In this hands-on course, you gain the skills needed to exploit XSL components to manipulate and analyse XML data. You also learn how to create, debug and troubleshoot XSL transformations and publish HTML pages and PDF reports.
- Who Should Attend** Those interested in working with XSL. Experience with XML at the level of Course 542, "XML Comprehensive Introduction", is assumed.
- Hands-On Training** Exercises throughout this course offer immediate, hands-on reinforcement of the ideas you are learning:
- Applying a transformation
 - Testing XPath expressions
 - Debugging XSL with XMLSpy
 - Creating a stylesheet from scratch
 - Publishing a PDF report with XSL-FO
 - Leveraging advanced XPath functions
 - Merging data sources
 - Generating HTML from XML data

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Course 549 Outline

Introducing XSL

XSL recommendations

- XML Path Language (XPath)
- XSL Transformations (XSLT)
- Formatting objects (XSL-FO)
- Fundamental XSL concepts

XSL applications

- Developing XSL
- Applying a stylesheet
- Utilising XSL in production

Leveraging XPath Expressions

Analysing the key components of XPath

- Writing primary expressions
- Constructing sequences
- Evaluating the context item

Selecting content with path expressions

- Navigating with Axis points
- Choosing targets with node tests
- Filtering results by predicates

Comparing nodes in XPath

- Value and general comparisons
- Arithmetic expressions
- Invoking functions

Building Stylesheets with XSLT

XSLT stylesheet fundamentals

- Source and result trees
- Template-driven approach
- Transforming XML-to-XML

Creating an XSLT stylesheet

- Following best practices
- Defining template rules
- Applying templates
- Extracting data values
- Implementing templates out-of-order
- Copying input nodes

Designing XSLT stylesheets effectively

- Leveraging built-in rules
- Resolving conflicts
- Referencing the changing context

Publishing Reports with XSL-FO

XSL Formatting Objects

- XSL-FO Formatters
- XSL-FO Editors/Designers
- Relationship to DSSSL and CSS

Building the XSL-FO document

- Defining layout master sets
- Creating page masters
- Specifying regions

Transforming XML to XSL-FO

- Designing a report stylesheet
- Constructing page sequences
- Repeating headers and footers

Optimising Stylesheets with XPath

Leveraging intricate expressions

- Specifying complex axes
- Comparing nodes and kinds
- Creating ranges and filters

Harnessing the power of XPath

- Referencing variables
- Looping and conditions
- Working with sequences
- Exploring built-in functions
- Merging data sources

Achieving Complex Transformations

Maximising template effectiveness

- Defining variables
- Passing parameters

Incorporating XSLT elements

- Generating new content
- Transforming XML-to-HTML
- Extending XSL with custom functions
- Including language extensions

Producing Professional Documents from XML Data

Embedding content

- Employing external images and links
- Incorporating dynamic page numbering

Applying advanced formatting techniques

- Creating lists and tables
- Alternating page layouts