



XSLT & XPath for Developers

Overview

The XSLT & XPath for Developers course will provide attendees with a detailed overview of the Extensible Stylesheet Language Transformations (XSLT) and the XMLPath Language (XPath) family of recommendations.

The objectives of this course are to understand the role and utility of the recommendations; provide an overview of the key constructs; to design and develop XSLT scripts; to efficiently navigate the available resources and documentation; to discuss XSLT data model and various transformation techniques and the role of XPath within XSLT.

The relationship of XSLT to XSL is explained, however, XSL Formatting Object (XSL-FO) semantics will not be covered.

This course is complemented by practical demonstrations and hands-on exercises.

Objectives

On completion of this course, attendees will be able to:

- understand the role and the scope of XSLT and XPath in XML document processing;
- gain an understanding of the elements, attributes and functions of XSLT 1.0 and XPath 1.0
- write push- and pull-oriented XSLT stylesheets
- sort and group information
- gain an understanding of the different types of programming languages.

Who should attend?

This course is aimed at people needing to understand both conceptual and practical aspects of the XSLT and XPath languages and the available tools.

Prerequisites:	Attendees must have some understanding of XML concepts and syntax as these are not covered explicitly in the two days. Students with no programming experience may not get maximum value from the course.
Course tool:	Topologi Markup Editor
Duration:	2 days
Fee:	\$1100 + GST

Topics include:

Introduction to XML:

- What is XML?
- A typical XML document
- What is XPath?
- What is XSLT?

XML document syntax:

- Two kinds of XML document
- What kind of XML is for me?
- XML processor
- Markup in XML
- Character data in XML
- XML declaration
- Which encoding do you use?
- What is UTF-8?
- Comments
- Elements
- Names and tags in elements
- Attributes
- Numeric character references
- Named character references
- CDATA sections
- Processing instructions (PIs)
- What is an Infoset?

XML Namespaces:

- URIs and URLs
- XML's PUBLIC and SYSTEM identifiers
- What are XML namespaces?
- XML names can have three parts
- What you need to know
- Why are namespaces needed?
- How XML namespaces work
- Element name mapping
- Attribute name mapping
- Explicit declaration of namespaces
- Default declaration of namespaces

XPath 1.0

Data model:

- XPath in XSLT
- The XPath data model
- What the tree model excludes
- Node properties/relationships
- XPath expression
- XPath syntax
- XPath location path syntax
- Axes
- Abbreviated syntax
- Expressions
- Predicates
- Multiple predicates
- Current vs. context
- Forward and reverse axes
- Operators in XPath
- Schema languages and XPath

Functions:

- Function groups include: Node-set, String, Boolean, Number and XSLT.

XSLT 1.0

- XSLT overview
- Stylesheet structure
- Elements
- Programming techniques