

## XML Transformations with XSLT/XPath

### A Two Day Training Course

#### Course Aims:

This course provides a practical, in-depth introduction to XSLT and XPath for IT developers operating in the XML environment (browser or non-browser).

It is specifically aimed at those who wish to transform XML documents from one format to another (eg XML, HTML, text).

#### Course Outline:

##### Introducing XSLT

- XSLT Explained (history, context, use of)
- When to use XSLT
- Transforming to XHTML and HTML

##### XSLT Processing

- Using XSLT Processors (server, browser, independent)
- MSXML 4.0 and Other Processors
- The XML Document and the Node Tree
- Using the Node Tree
- The Root Element and the Document Root
- The Transformation Process

##### Using XSLT Stylesheets

- XSLT and CSS Compared
- The Structure of a Stylesheet
- Linking a Document to its Stylesheet
- Processing Stylesheets

##### Introducing XPath

- Tree Structures and Node Types
- XPath Context
- Location Paths and Location Steps

##### Key XPath Elements

- Relative and Absolute Paths
- Variables and Operators
- Using XPath Patterns
- Axes
- Predicates
- Comparison and Union

##### Using XPath Functions

- string()
- number()
- boolean()

##### Using XSLT Templates

- Templates and Node Trees
- Transformation Instructions
- Creating Templates
- Applying Templates
- Working with The Root Template

##### Outputting Content

- Using `xsl:value-of`
- Content and Output
- About Attributes
- The Need for `xsl:for-each`
- Using `xsl:for-each`

##### Conditional Processing

- Using `xsl:if`
- Using `xsl:choose`

##### Using Modes

- Data Used Multiple Times

##### Sorting

- About `xsl:sort`
- Using `xsl:sort`
- `xsl:sort` Attributes
- Data-type
- Lang
- Order
- Case-order

#### Target Audience:

Previous programming experience (in any language) would be beneficial.

#### Assumed Knowledge:

Attendees should have a good understanding of XML basics, in particular the concept of well-formedness and XML namespaces (see [XML Development: A Foundation Course](#)).