Building solutions with XML and XSL
Detailed course contents

Introduction
- Representing data with XML
- Transforming XML documents with XSLT
- Using XML and XSLT to build solutions

XSL Toolset
- Overview of freeware tools
- Examples with XT
- XMLSpy usage for making XSL solutions
- Excelon usage for graphical XSL generation
- Internet explorer 6: a validating parser

Selecting and Navigating Nodes Using XPath
- Introducing XPath
- Accessing Node Information
- Navigating a document using location paths
- What are Axes?
- Node navigation using Axes
- Using operators and Functions in location paths
- Node functions
- Positional functions
- Numeric functions
- Boolean functions
- Exercise: hands-on examples of XPath statements
- XPath wrap-up: why do we need XPath?

XSL and CSS
- What is CSS?
- Using CSS properties in a XSL style sheet
- XML and XSS used in combination
- Browser compatibility for CSS and XSL
- CSS functionality in XSL(FO)
- How to use FO (Formatting Objects)
- Transforming XML to *.pdf files (Acrobat)
- Exercise: transforming XML to pdf
- Transforming XML to postscript

Introducing XSL
- Introducing XSLT
- Template Rules
- The copy over principle
- The usage of templates
- Exercise: testing behavior of the default template
- Hidden stuff: the default template
- Enhancing template rules

Refining and Combining Style Sheets
- Sorting document content
- Controlling document output
- Including and importing style sheets
- Exercise: combining data out of 2 XML files

From XML to HTML, TXT or EDI
- Transformation of XML files for browser viewing
- From XML to text
- Issues when transforming to -and from EDI
- VB and Java scripting inside an XML style sheet
- Extensibility mechanisms inside an XSL style sheet
- Making your own XSL functions
- Exercise: transforming text to XML

Programming with XSLT
- Named templates
- Variables and Parameters
- Performing repetition and conditional processing
- Using XSLT extension elements and functions
- Using recursion
- Loop structures in a style sheet
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- If-then statements and choose issues
- Programming tips and tricks

Manipulating XML Documents Using DOM
- Overview of DOM
- Validating and non-validating parsers
- Contrasting DOM with SAX
- DOM for transformation and presentation
- When to use DOM instead of scripting?
- Exercise: a simple transformation with DOM
- DOM drawbacks

XML, XSL and ASP usage
- Presenting data out of a SQL database
- Server or Client side processing?
- How to use browser sniffing?
- Exercise: see server processing in action
- Dynamically transform XML into HTML
- Exercise: getting data out of a DB with XSL
- ASP, ADO and HTML used in combination
- Client and Server processing

XSL Usage in a B2B environment
- XSL for B2B integration
- Usage of Maps and transformations
- Mapping data from inbound to outbound spec
- Adding transformations or functoids to the map
- Case study: 2 companies with different XML files
- Industry-standard adaptors
- Managing XML files from business partners
- Translating business documents
- XSL for Enterprise Application Integration (EAI)
- Exercise: translate XML from English to your language

Preprocessors
- From non-XML to XML
- XSL needs XML input!
- What is a preprocessor?
- Components of a preprocessor
- Building your own preprocessor
- Exercise: a preprocessor from text to XML
- Industry-standard preprocessors

Other XSL Usages
- SVG transformation to 3D objects, based on XML
- XSL support in Middleware tools
- A full-blown solution using XSL
- Exercise: combing XML Schemas and style sheets
- XML support in Office tools
- Exporting data from Access or Excel to XML
- XSL wrap-up
- Conclusions