Week 1 >>

COIN-078B
Internet Programming with XML

An Introduction to XML Basics

Module Objectives

Chapter 1 (html) from "Real World XML" By Steve Holzner (out of print textbook)

- Markup Languages
- What Does XML Look Like?
- What Does XML Look Like in a Browser?
- What's So Great About XML?
- Well-Formed XML Documents
- Valid XML Documents
- Parsing XML Yourself
- XML Resources
- XML Editors
- XML Browsers
- XML Parsers
- XML Validators
- CSS and XSL
- XLinks and XPointers
- URLs Versus URIs
- ASCII, Unicode, and the Universal Character System
- XML Applications

Chapter 1 (pdf) same format as textbook (quicker download)

Reading Assignments:

- **Textbook:** Chapter 1 - 2

Programming Interfaces to XML

Interfaces	Uses
XSLT / XPath	• XML to XML • XML to non-XML
Document Object Module (DOM)	• XML to XML • non-XML to XML • XML to non-XML

Simple API for XML Processing (SAX)	• XML to XML • non-XML to XML • XML to non-XML

XML Browser Support

Nearly all major browsers have support for XML and XSLT.

Internet Explorer

- Microsoft Internet Explorer 5.0 and 5.5 handled XML, processing it by default using a built-in stylesheet written in a Microsoft-specific, obsolete predecessor of XSLT called XSL-Reduced. The output of the stylesheet is DHTML, which, when rendered in the browser, shows a coloured, syntax-highlighted version of the XML document, with collapsible views. If the XML document references a stylesheet, that stylesheet will be used instead, within the limitations of MSIE's incomplete implementation of CSS. MSIE 5.0 and 5.5 can also use stylesheets in another obsolete syntax called WD-xsl (**NOT** compatible with the official W3C XSL Recommendation) which should be avoided. These versions can be upgraded to support real XSLT.
- MSIE 6.0 and later use real XSLT 1.0, XPath, CSS and Namespaces, but can use both the obsolete syntaxes as well.

Mozilla Firefox

- As of version 0.9, Firefox has support for XML and XSLT (and CSS). In general, Firefox is more robust than MSIE, and provides better standards adherence.

Mozilla

- Mozilla includes Expat for XML parsing and has support to display XML + CSS. Mozilla also has some support for XSLT, XPath and Namespaces.

Netscape

- Netscape 6 and 7 (there is no Netscape 5) all have full XML support with XSLT, XPath and CSS. As of version 8, Netscape uses the Mozilla engine, and therefore it has the same XML / XSLT support as Mozilla.

Safari

- All versions of Safari have support for XML, XSLT, XPath (and CSS).

Opera

- As of version 9, Opera has support for XML, XSLT, XPath (and CSS). Version 8 supports only XML + CSS.

XML Applications of Interest

Graphics

- **Vector Markup Language (VML)**

  VML Reference

- **Scalable Vector Graphics (SVG)**

  SVG 1.1 Specification
  SVG Tutorial
  Mozilla SVG Resources

Content Feeds

- **RSS**

  RSS 2.0 Specification

- **Atom**

  Atom Syndication Format

Others

- Google Gadgets
- Google Earth KML
- Yahoo! Blueprint (Mobile Platform)
- Extensible Application Markup Language (XAML)
- Microsoft Office Open XML Formats
- Facebook Markup Language (FBML)
- Apple iTune Podcast

Resources:

XML

- A Technical Introduction to XML
- W3C : Extensible Markup Language (XML) 1.0 (Second Edition)
- OASIS : The XML Cover Pages
- OASIS (the Organization for the Advancement of Structured Information Standards) is a non-profit, international consortium that creates interoperable industry specifications based on public standards such as XML and SGML.
- IDEAlliance (the International Digital Enterprise Alliance)
- XML.ORG : The XML Industry Portal (document model repository and support materials)

- XML.com

More XML Resources

- What is XML, and Why Should You Care by Tommie Usdin
- Papers and Presentations by Mulberry Staff
- Wikipedia: XML
- Browser XML Display Support Chart
- Cross-Browser XML
- Building an XML Based Web Site
- JSON vs XML: The Debate

Hands-on Assignment:

- **Assignment 1** due **Week 2**

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