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XML and Tools



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Topics

- Parsers, Validators, Editors, Browsers
- DTD/Schema Tools
- XSLT, XPath Tools
- Misc. Tools
 - Xlink/XPointer
 - XML and Database
 - XML Document Management
 - Publishing framework
 - Java APIs for XML
- Web Service Tools



Licensing Models

- O - Open source
- F - Freely downloadable
- I - IBM Alphaworks Licensing
- C, E - Commercial, Evaluation free
- C -Commercial



When can I get this presentation?

- Send us an email
 - sang.shin@sun.com
 - rags@sun.com
 - sridhar.reddy@sun.com
- Brandeis University XML class website
 - www.plurb.com/misc/xml/brandeis-xml-2001.html
- **Red colored tools** will be demo'ed



Parsers, Validators, Editors, Browsers



Parsers & Validators

- JAXP 1.1 with Crimson (F)
- **Xerces Java 2 from Apache (O)**
- Crimson from Apache (O)
- Oracle XML Parser for Java (F)
- XP from James Clark (F)
- XML4J from IBM (I)
- RXP from Univ. of Edinburgh (O)



Editors

- XMLInstance from TIBCO Software (C, E)
 - DTD, XSD, XSR, others
- Merlot from ChannelPoint (O)
 - DTD
- Xeena from IBM Alphaworks (I)
- XML Spy (C, E)
 - Only for Windows
- Many more



Parsers for Small Devices

- kXML from Enhydra.org(O)
- NanoXML (O)
- TinyXML (O)



XHTML Tools

- Tidy - HTML to XHTML convertor (O)
 - <http://www.w3.org/People/Raggett/tidy/>



Browsers

- Netscape 6.01 and Mozilla (F)
 - XHTML, CSS1, most of CSS2
- IE 5.5 (F)
 - XHTML, CSS1, some CSS2, non-Standard XSLT
- Amaya from W3C (F)
 - XHTML, MathML, SVG, CSS, Annotation (RDF, Xlink, XPointer)
- Opera (F)
 - XHTML, CSS1, most of CSS2, WML



DTD/Schema Tools



DTD/Schema Editors

- XML Authority from TIBCO Soft. (C, E)
 - DTD, XSD, XSR, and other Schema's
- Visual DTD component from IBM Web Services Development Environment (I)
- XML Spy (C, E)
- Near and Far Designer from Microstar (C, ER)
- DTD Explorer (O)



DTD/Schema Tools

- Automatic DTD/XSD generation tools
 - DDbE from IBM Alphaworks (I)
 - XML Authority from TIBCO (C, E)
 - DTD/XSD Generator in XML Spy (C, E)
 - Web-based DTD generator from PaulT.com
- Conversion tools
 - XML Authority from TIBCO (C, E)
 - XML Spy (C, E)
- Syntax checking tools
 - XML Schema (XSD) Checker from IBM Alphaworks (I)



XML Schema Libraries

- XML datatype library (XML Schema Part 2) from Sun (F)
- XML Schema processor for Java from Oracle (F)
- XSV (XML Schema Validator) from Univ. of Edinburgh (O)
- Xerces Java 2 from Apache (O)



DTD Parser

- DTD Parser from Wutka Consulting
- DTD Class from IBM4J (I)



XSLT, XPath Tools



XSLT Processors

- Xalan from Apache (O)
- XT by James Clark (F)
- Saxon by Michael Kay (O)
- Oracle XSLT (F)
- MSXML from Microsoft (F)



XSLT Stylesheet Editors

- XSL Editor from IBM Alphaworks (I)
- Xfinity Designer from B-Bop Associates (Free Beta)
- XML Spy (C, E)
- Xsplit from Percussion



XSLT Stylesheet Generators

- XSL Wiz from IndusLogic (C, E)
- XML Style Wizard from Infoteria (C, E)



XSL-FO Processors

- FOP from Apache -PDF (O)
- Xwave from SAXESS Software Design - Shockwave/Flash (F)
- XSL Formatter from Antenna House Inc (C, E)
- XEP from RenderX - PDF, Postscript (C, E)



Other XSLT Tools

- XSLT Compiler from Sun (F)
 - Generates Java byte code (translet)
 - Fast and lightweight
 - www.sun.com/xml
- XSL Trace from IBM Alphaworks (I)
- XSLT Performance Benchmark
 - XSLTMark (C, E)
 - www.xml.com/pub/a/2001/03/28/xsltmark/index.html



XPath Tools

- Tools
 - ApplyXPath sample program in Xalan (O)
 - XPath visualizer by Dimitre Novatchev (F)
- Programming library
 - XPath package in Xalan (O)



Misc. Tools



XLink and XPointer

- Amaya's annotation feature (F)
 - Uses XPointer for selection
 - Uses XLink for linking annotation (source) with annotated (destination resource)
 - Uses RDF for annotation description



XML and Database

- Relational to XML Conversion
 - XML-DBMS (O)
 - DB2XML by Volker Turau (F)
 - DB/XML Vision from BDI Systems (C, E)
- Native XML database
 - Tamino from Software AG (C)
 - dbXML from dbXML Group (O)
 - Ipedo XML database (C)



XML Document Management

- XML Canon/Developer from TIBCO Software (C, E)
 - Managing XML, DTD, Schema, XSLT...
- eXist by Wolfgang M. Meier (O)
 - Index-based search
- Kweelt by Arnaud Sahugue (O)
 - Querying XML data
- diffmk from Sun (F)
 - diff'ing XML documents



Publishing Framework

- Cocoon from Apache (O)
- Future
 - JSP 1.2 - XML page
 - Servlet 2.3 Filters - XSLT processing
 - Standard Tag library (JSR-52) - Xpath, CSLT



Java APIs for XML (JAX Pak)

- XML Processing (JAXP 1.1, JSR-05)
- XML Data-binding (JAXB, JSR-31)
- XML Messaging (JAXM, JSR-67)
- XML Registries (JAXR, JSR-93)
- XML-based RPC (JAX-RPC, JSR-101)
- XML Trust Service APIs (JSR-104)
- XML Digital Signature (JSR-105)
- XML Digital Encryption (JSR-106)
- Enterprise Web Services (JSR-109)
- WSDL (JSR-110)



Web Services Tools



Web Services Toolkit Features

- Creation and Integration of Legacy services
 - WSDL creation and processing
 - Generating WSDL or SOAP XML for existing components (i.e.EJB, CORBA, JavaBeans)
 - Aggregation and Assembly
- Publication and Discovery
 - UDDI registry
 - UDDI browser
- Deployment
 - Integration with Application server



Web Services Toolkit

- CapeConnect from CapeClear (C,E)
- WASP (Web Applications and Services Platform) from Idox (C, E)
- B2Beyond from Iopsis Software (C, E)
- IBM Web Services Toolkit from IBM (I)
- Forte for Java 3.0 (EA)
- SOAP from Apache (O)



Web Services Tool Future

- Expect Application Servers to support Web services
- Expect IDE's to support Web services
- Expect ebXML implementation tools from Sun and others
- Expect J2EE 1.4 to include WSDL, SOAP, UDDI, ebXML support



Resources



XML Tools/Software WebSites

- www.xmlsoftware.com/xsl/
 - Well organized - the Best XML tool site
- www.xml.com/resourceguide/
 - Very comprehensive listing
- www.sun.com/xml
- www.alphaworks.ibm.com/tech/
- xml.apache.org/

