XML & RSS
Really Quick
by James Reynolds
Why XML and RSS?

- This presentation is really about RSS
- It is very hard to understand RSS without understanding XML
- RSS is probably the most visible use of XML
- Some sites use "XML" for "RSS" for feeds
- So you get 2 for 1
What is XML?

Very similar to HTML (well-written)

Except

• Errors are **NOT TOLERATED**
  • Page will not load if there is just ONE error
  • Tags must be lowercase
  • All tags must be opened/closed in order
    • `<tag1><tab2></tag2></tab1>`
What is XML?

More Exceptions

• All tags MUST be closed
  • `<tag>bla</tag> <tag params=""/> <tag params="" />`

• Entities must be used: `&amp; &lt; &gt;` etc

• Attributes must be in double quotes
  • `<img src="..." width="..." height="..."`
What is XML?

More Exceptions

- XML can have any tags
  - In HTML, `<hr>` *means* something and `<bla>` is wrong
  - In XML, neither are right or wrong
    - The application reading it must know what the tags mean
    - XML files have “definitions” (DTD)

```xml
<!DOCTYPE plist PUBLIC "-//Apple Computer//DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd"/>
```
Examples of XML

XML files that have well established DTD’s

- Mac OS X PLIST files
- XHTML
- RDF
- RSS
- MathML
- XSIL
- SVG
Valid XML

NO - how many errors can you find?

<BODY>
<p>
<i><b><img src=</i></b>& that
&lt/body>
Valid XML

YES (there were 6 errors):

```xml
<body>
  <p>
    <i>
      <b>
        <img src="this.gif"/>
      </b>
      <b>&amp; that</b>
    </i>
  </p>
</body>
```
Cool things about XML

**CSS**
- CSS files can tailor how XML files are viewed

**XPath**
- Accesses an XML “path”
  - /html/head/title = <html><head><title>this
  - /html/body/p/* = everything in all <p></p> blocks
  - /html/body[length('p')<10] = paragraphs < 10 chars
Cool things about XML

XQuery
- XML query language (like what SQL does)

XSLT
- Uses XPath to convert an XML document to anything else, a text file, an html file, whatever
- Used by FileMaker Pro Advanced Server 7 Custom Web Publishing
Learning XML Stuff

www.w3schools.com/xml is excellent

- Just ignore all the ads, there is real content there
- XML tutorial
- XPath tutorial
- XSLT tutorial
What is RSS?

Really Simple Syndication (RSS 2.x)

- XML file on a web server
- RSS Readers
  - Act like mini web-browser that refreshes on its own
  - Let users know of new content
Why RSS?

- Well, it is fun
- It is an EASY way to learn of news and site updates
- Podcasting is cool
- Appcasting, is, er... interesting!
A Simple RSS File

```xml
<?xml version="1.0" encoding="utf-8"?>
<rss version="2.0">
  <channel>
    <title>Bogus Macintosh News</title>
    <link>http://bogusmn.com</link>
    <description>Fake Mac news site!</description>
    <item>
      ....
    </item>
  </channel>
</rss>
```
A Simple RSS File

<item>
  <title>...</title>
  <link>...</link>
  <description>...</description>
</item>

<item>
  <title>...</title>
  <link>...</link>
  <description>...</description>
</item>

...... more items ......
<item>
  <title>Headless Macs Found in Dumpster</title>
  <link>http://bogusmn.com/article56/</link>
  <description>At least a hundred bloodied headless Macs were found in a dumpster in Redmond, WA, confirming suspicions that anti-Mac frenzy from loyal users of non-Mac computers is now turning violent.</description>
</item>
A Simple RSS File

Wait, but there is more

- Descriptions can be long, some people put the whole article there...
- Insert html into descriptions (including images)
- Use `<enclosure/>` tag to send...
  - Files, including
    - MP3 files (“Podcasting”)
    - Applications (“Appcasting”)
    - Video (not really named yet...)
How to create RSS

- RSS is usually a feature of a CMS solution
- A few good utilities exist
  - Feeder
  - FeedMe
- By hand
  - Unless you know XML real well, don’t do this
  - Unless you validate it at feedvalidator.org
  - Even I messed up, and I took an XML class...
How to create RSS

By Hand (cont)

• Learn XML
  • http://www.w3schools.com/xml

• The definition of RSS is very simple, go learn it
  • http://blogs.law.harvard.edu/tech/rss

• Validate your files!
  • http://feedvalidator.org
<table>
<thead>
<tr>
<th>Item #</th>
<th>Author</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Someone &lt;someone@boc</td>
<td>If You Are Reading</td>
<td>3/8/05 4:27</td>
</tr>
<tr>
<td>2</td>
<td>Someone &lt;someone@boc</td>
<td>Headless Macs Found in Dumpster</td>
<td>3/8/05 4:06</td>
</tr>
</tbody>
</table>

**Headless Macs Found in Dumpster**

by Someone on 3/8/05 4:06:27 PM

At least a hundred bloodied headless Macs were found in a dumpster in Redland, WA, confirming suspicions that anti-Mac frenzy from loyal users of non-Mac computers is now turning violent.
How to read RSS

- Mac RSS readers (aka aggregators)
  - Wait for Safari RSS (Mac OS 10.4 “Tiger”)
  - NetNewsWire (top rated)
  - Firefox
  - Opera
  - AmphetaDesk
  - NewsFire
  - Many more, just search versiontracker.com

- (Windows: SharpReader; Linux: Straw)
Headless Macs Found in Dumpster

At least a hundred bloodied headless Macs were found in a dumpster in Redland, WA, confirming suspicions that anti-Mac frenzy from loyal users of non-Mac computers is now turning violent.
Interesting Links

- RSS feeds
  - www.apple.com/rss/ (almost 50 feeds)
  - www.rssfeeds.com/
  - feedster.com
  - blogs.law.harvard.edu/tech/directory/5/feeds
- www.ipodderx.com
- www.podcasters.net
Questions & Answers
Any questions or answers?