UNIVERSITY OF UTAH
STUDENT COMPUTING LABS

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: & < > 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)

<!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=this.gif></i></b>
& that
</body>
```

Valid XML

- YES (there were 6 errors):

```
<body>
    <p>
        <i>
            <b>
                <img src=“this.gif”/>
            </b>
        </i>
        &amp; that
    </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 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 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 .....
```

A Simple RSS File

```
<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

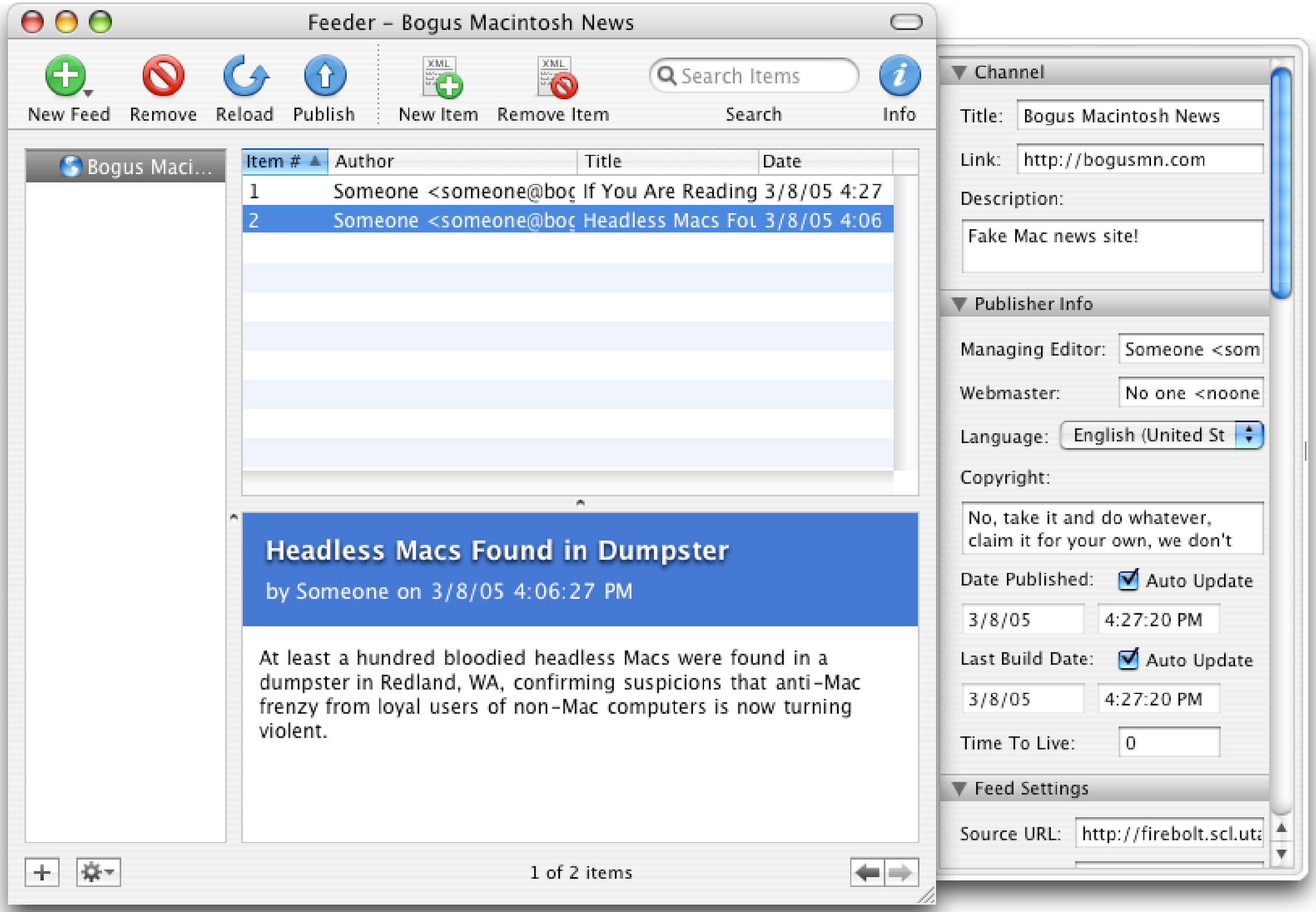
- Wait, but there is more
  - Descriptions can be long, some people put the whole article there...
  - Insert html into descriptions (including images)
  - Use <enclosure/> tag to send...
    - Files, including
      - MP3 files (“Podcasting”)
      - Applications (“Appcasting”)
      - Video (not really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

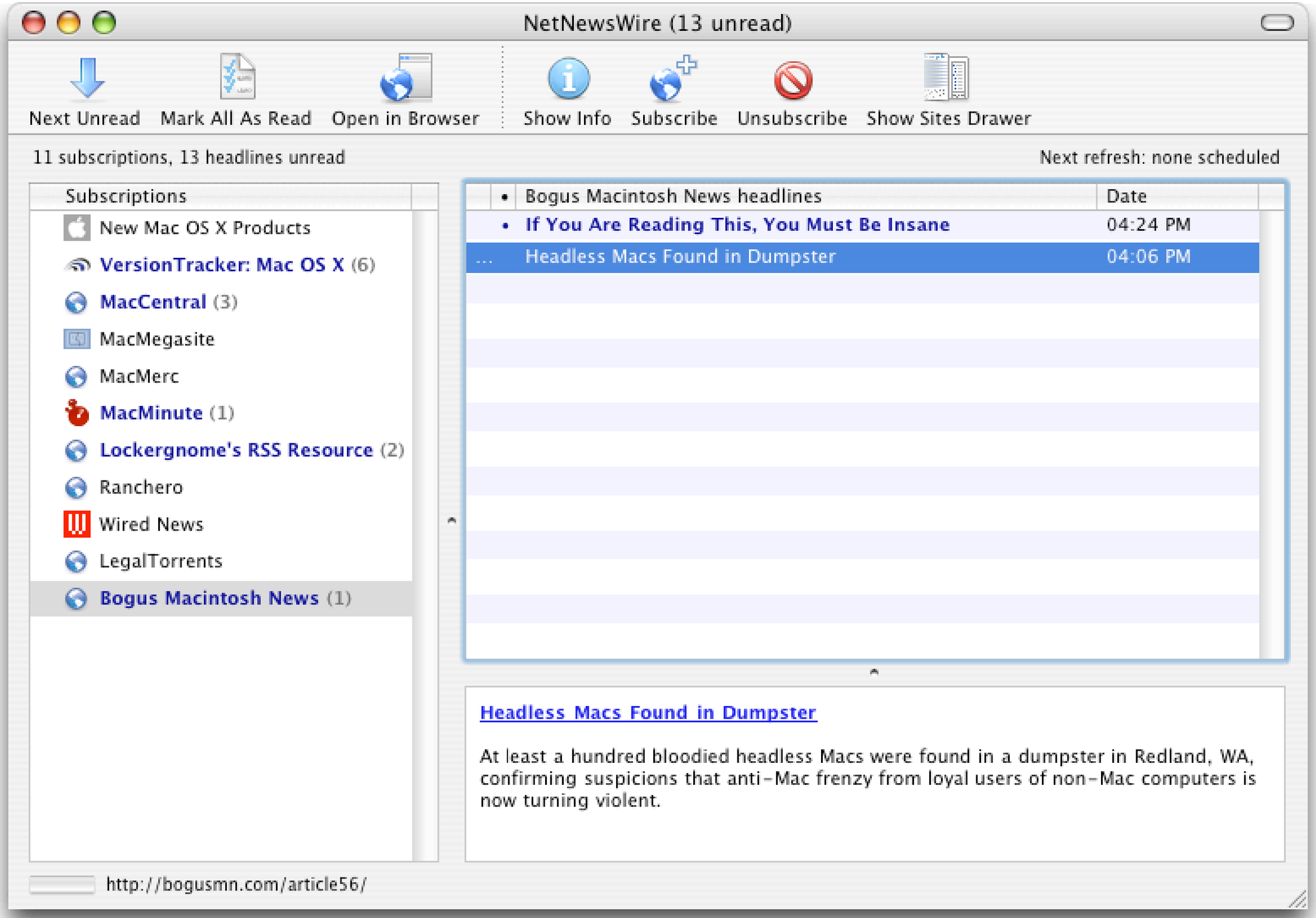
How to create RSS

- 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


Feeder – Bogus Macintosh News
New Feed
Remove
Reload
Publish
New Item
Remove Item
Search Items
Search
Info
Bogus Maci...
Item #
Author
Title
Date
1
Someone <someone@boc
If You Are Reading
3/8/05 4:27
2
Someone <someone@boc
Headless Macs Fou
3/8/05 4:06
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.
1 of 2 items
Channel
Title:
Bogus Macintosh News
Link:
http://bogusmn.com
Description:
Fake Mac news site!
Publisher Info
Managing Editor:
Someone <som
Webmaster:
No one <noone
Language:
English (United St
Copyright:
No, take it and do whatever, claim it for your own, we don't
Date Published:
Auto Update
3/8/05
4:27:20 PM
Last Build Date:
Auto Update
3/8/05
4:27:20 PM
Time To Live:
0
Feed Settings
Source URL:
http://firebolt.scl.uta

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)


NetNewsWire (13 unread)
Next Unread
Mark All As Read
Open in Browser
Show Info
Subscribe
Unsubscribe
Show Sites Drawer
11 subscriptions, 13 headlines unread
Next refresh: none scheduled
Subscriptions
New Mac OS X Products
VersionTracker: Mac OS X (6)
MacCentral (3)
MacMegasite
MacMerc
MacMinute (1)
Lockergnome's RSS Resource (2)
Ranchero
Wired News
LegalTorrents
Bogus Macintosh News (1)
Bogus Macintosh News headlines
Date
If You Are Reading This, You Must Be Insane
04:24 PM
Headless Macs Found in Dumpster
04:06 PM
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.
http://bogusmn.com/article56/

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

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Questions & Answers

Any questions or answers?