

RSS



Really Simple Syndication

- A textual format used on the web for “news feeds” or “web feeds” is **RSS**
 - Uses XML to represent information that is frequently updated (e.g., news, weather, sports scores, blogs), generally in summary form with links to originals
 - Became a *de facto* standard in the early 2000s
 - Actually, two standards; we will use RSS 2.0, a.k.a. RSS 2.*

Relationship of RSS to XML

- An RSS 2.0 feed is well-formed XML
- An RSS 2.0 feed meets additional specifications beyond being XML: certain tags, certain required/optional attributes, certain required/optional elements, etc.

Example RSS Feed

```
<rss version="2.0">
  <channel>
    <title>Yahoo! News</title>
    <link>http://news.yahoo.com</link>
    <description>The latest news and headlines from Yahoo! News.
      </description>
    <item>
      <title>Apple seeks to stop...</title>
      <link>http://news.yahoo.com/...</link>
      <description>Apple Inc will seek a...</description>
      <pubDate>Mon, 27 Aug 2012 14:40:49</pubDate>
      <source url="http://www.reuters.com">Reuters</source>
    </item>
    ...
  </channel>
</rss>
```

Example RSS Feed

```
<rss version="2.0">
```

```
<channel>
```

```
<title>Yahoo! News</title>
```

```
<link>http://news.yahoo.com</link>
```

```
<description>The latest news and  
</description>
```

```
<item>
```

```
<title>Apple seeks to stop...</title>
```

```
<link>http://news.yahoo.com/...</link>
```

```
<description>Apple Inc will seek a...</description>
```

```
<pubDate>Mon, 27 Aug 2012 14:40:49</pubDate>
```

```
<source url="http://www.reuters.com">Reuters</source>
```

```
</item>
```

```
...
```

```
</channel>
```

```
</rss>
```

The top-level element is `rss`, and it has a required `version` attribute whose value must be `"2.0"`.

Example RSS Feed

```
<rss version="2.0">
  <channel>
    <title>Yahoo! News</title>
    <link>http://news.yahoo.com</link>
    <description>The latest news and headlines from Yahoo! News.
    </description>
    <item>
      <title>Apple seeks to stop...
      <link>http://news.yahoo.com/
      <description>Apple Inc will
      <pubDate>Mon, 27 Aug 2012 14
      <source url="http://www.reuters.com/news/story, source
    </item>
    ...
  </channel>
</rss>
```

There is exactly one required `channel` element inside the `rss` element.

Example RSS Feed

```
<rss version="2.0">
  <channel>
    <title>Yahoo! News</title>
    <link>http://news.yahoo.com</link>
    <description>The latest news and headlines from Yahoo! News.
      </description>
    <item>
      <title>Apple seeks to stop...</title>
      <link>http://news.yahoo.com</link>
      <description>Apple Inc will
      <pubDate>Mon, 27 Aug 2012 14
      <source url="http://www.reut
    </item>
    ...
  </channel>
</rss>
```

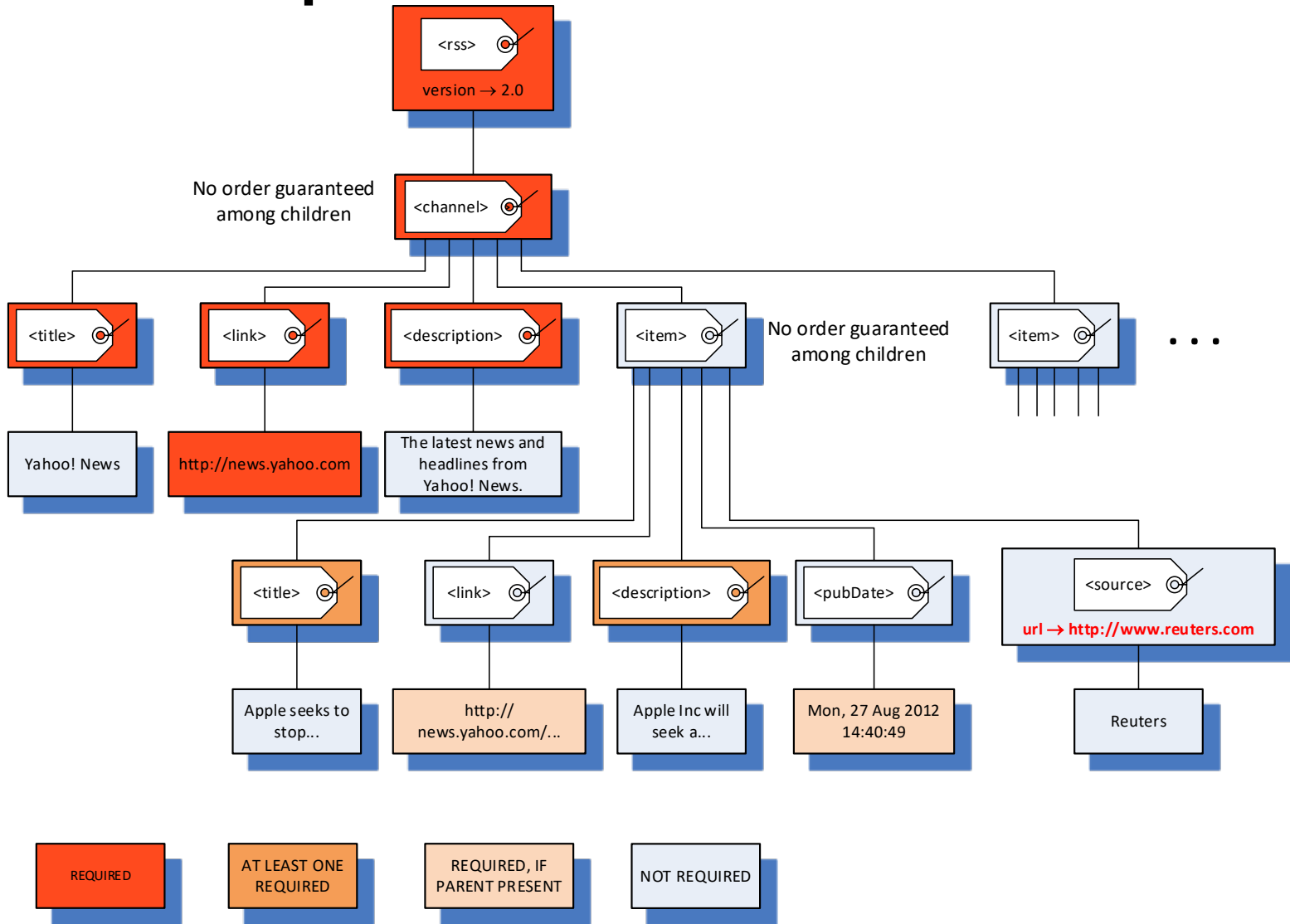
These three elements are required, but may appear in any order.

Example RSS Feed

```
<rss version="2.0">
  <channel>
    <title>Yahoo! News</title>
    <link>http://news.yahoo.com</link>
    <description>The latest news</description>
    <item>
      <title>Apple seeks to stop</title>
      <link>http://news.yahoo.com/...</link>
      <description>Apple Inc will seek a...</description>
      <pubDate>Mon, 27 Aug 2012 14:40:49</pubDate>
      <source url="http://www.reuters.com">Reuters</source>
    </item>
    ...
  </channel>
</rss>
```

There can be zero or more `item` elements within `channel`; each has at least a `title` or `description` element within it, but these may appear in any order.

Example XMLTree Created



Summary of XMLTree Features

- Properties of the XMLTree from an RSS 2.0 feed:
 - The root node is an `rss` node with a `version` attribute whose value is "2.0"
 - There is one `channel` node as a child of the root
 - The `channel` node has certain required child nodes: one `title`, one `link`, and one `description`, in no particular order; it can also have zero or more `item` child nodes plus other optional children
 - No particular order is required among the children of an `item` node, but for each `item` node at least one of its children must be a `title` or `description` node

Resources

- Wikipedia: RSS
 - <http://en.wikipedia.org/wiki/RSS>
- Wikipedia: Web Feed
 - http://en.wikipedia.org/wiki/Web_feed
- Wikipedia: Web Syndication
 - http://en.wikipedia.org/wiki/Web_syndication
- RSS 2.0 Specification
 - <http://www.rssboard.org/rss-specification>