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About the Tutorial

RSS is a protocol that provides an open method of syndicating and aggregating Web content. Technically, RSS is a Syndication Standard based on a type of XML file that resides on an internet server.

This tutorial gives a complete understanding on RSS.

Audience

This tutorial will be of immense help for all the readers who wish to write RSS Feed for their website and publish it on the Web.

Prerequisites

This tutorial requires the readers to have a basic knowledge of XML and webbased applications.

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1. OVERVIEW

RSS is an open method for delivering regularly changing web content. Many news-related sites, weblogs, and other online publishers syndicate their content as an RSS Feed to whoever wants it.

Anytime you want to retrieve the latest headlines from your favorite sites, you can access the available RSS Feeds via a desktop RSS reader. You can also make an RSS Feed for your own site if your content changes frequently.

In brief:

- RSS is a protocol that provides an open method of syndicating and aggregating web content.
- RSS is a standard for publishing regular updates to web-based content.
- RSS is a Syndication Standard based on a type of XML file that resides on an Internet server.
- RSS is an XML application, which conforms to the W3C's RDF specification and is extensible via XML.
- You can also download RSS Feeds from other sites to display the updated news items on your site, or use a desktop or online reader to access your favorite RSS Feeds.

What does RSS stand for? It depends on what version of RSS you are using.

- RSS Version 0.9 Rich Site Summary
- RSS Version 1.0 RDF Site Summary
- RSS Versions 2.0, 2.0.1, and 0.9x Really Simple Syndication

What is RSS Feed?

- RSS Feed is a text XML file that resides on an Internet server.
- An RSS Feed file includes the basic information about a site (title, URL, description), plus one or more item entries that include at a minimum a title (headline), a URL, and a brief description of the linked content.
- There are various flavors of RSS Feed depending on RSS Version. Another XML Feed format is called ATOM.
- RSS Feeds are registered with an RSS registry to make them more available to viewers interested in your content area.



- RSS Feeds can have links back to your website, which will result in a high traffic to your site.
- RSS Feeds are updated hourly (Associated Press and News Groups), some RSS Feeds are updated daily, and others are updated weekly or irregularly.

How Does RSS Work?

This is how RSS works:

- A website willing to publish its content using RSS creates one RSS Feed and keeps it on a web server. RSS Feeds can be created manually or with software.
- A website visitor will subscribe to read your RSS Feed. An RSS Feed will be read by an RSS Feed reader.
- The RSS Feed reader reads the RSS Feed file and displays it. The RSS reader displays only new items from the RSS Feed.
- The RSS Feed reader can be customized to show you content related to one or more RSS Feeds and based on your own interest.

News Aggregators and Feed Readers

RSS Feed readers and news aggregators are essentially the same thing; they are a piece of software. Both are used for viewing RSS Feeds. News aggregators are designed specifically to view news-related Feeds, but technically, they can read any Feeds.

Who can Use RSS?

RSS started out with the intent of distributing news-related headlines. The potential for RSS is significantly larger and can be used anywhere in the world.

Consider using RSS for the following:

- **New Homes** Realtors can provide updated Feeds of new home listings on the market.
- **Job Openings** Placement firms and newspapers can provide a classified Feed of job vacancies.
- **Auction Items** Auction vendors can provide Feeds containing items that have been recently added to eBay or other auction sites.
- **Press Distribution** Listing of new releases.
- **Schools** Schools can relay homework assignments and quickly announce school cancellations.



- **News & Announcements** Headlines, notices, and any list of announcements.
- **Entertainment** Listings of the latest TV programs or movies at local theatres.

RSS is growing in popularity. The reason is fairly simple. RSS is a free and easy way to promote a site and its content without the need to advertise or create complicated content sharing partnerships.



2. ADVANTAGES

RSS is taking off so quickly because people are liking it. RSS is easy to use and it has advantages for a publisher as well as for a subscriber. Here we have listed out a few advantages of RSS for subscribers as well as for publishers.

Advantages for Subscribers

RSS subscribers are the people who subscribe to read a published Feed. Here are some of the advantages of RSS Feeds for subscribers:

- All news at one place: You can subscribe to multiple news groups and then you can customize your reader to have all the news on a single page. It will save you a lot of time.
- News when you want it: Rather than waiting for an e-mail, you go to your RSS reader when you want to read a news. Furthermore, RSS Feeds display more quickly than information on websites, and you can read them offline if you prefer.
- **Get the news you want:** RSS Feed comes in the form of headlines and a brief description so that you can easily scan the headlines and click only those stories that interest you.
- Freedom from e-mail overload: You are not going to get any email for any news or blog update. You just go to your reader and you will find updated news or blog automatically whenever there is a change on the RSS server.
- **Easy republishing:** You may be both a subscriber and a publisher. For example, you may have a website that collects news from various other sites and then republishes it. RSS allows you to easily capture that news and display it on your site.

Advantages for Publishers

RSS publishers are the people who publish their content through RSS Feed. We would suggest you to use RSS:

- if you want to get your message out and easily,
- if you want people to see what you publish, and
- if you want your news to bring people back to your site.



Here are some of the advantages of RSS if you publish on the Web:

- Easier publishing: RSS is really simple publishing. You don't have to maintain a database of subscribers to send your information to them, instead they will access your Feed using a reader and will get updated content automatically.
- A simpler writing process: If you have a new content on your website, you only need to write an RSS Feed in the form of titles and short descriptions, and link back to your site.
- An improved relationship with your subscribers: Because people subscribe from their side, they don't feel as if you are pushing your content on them.
- The assurance of reaching your subscribers: RSS is not subject to spam filters, your subscribers get the Feeds, which they subscribe to and nothing more.
- **Links back to your site:** RSS Feeds always include links back to a website. It directs a lot of traffic towards your website.
- **Relevance and timeliness:** Your subscribers always have the latest information from your site.



3. VERSION HISTORY

RSS was first invented by Netscape. They wanted to use an XML format to distribute news, stories, and information. Netscape refined the version of RSS and then dropped it.

Later Userland Software started controlling RSS specifications and releasing newer RSS versions. They continued development of their own version of RSS and eventually UserLand released RSS v2.

RSS has been released in many different versions.

- **12/27/97** Dave Winer at Userland developed scriptingNews. RSS was born.
- **3/15/99** Netscape developed RSS 0.90 (which supported scriptingNews). This was simply XML with an RDF Header and it was used for my.netscape.com.
- **6/15/99** Dave Winer at UserLand develops scriptingNews 2.0b1, which included Netscape's RSS 0.90 features also.
- **7/10/99** Netscape developed RSS 0.91. In this version they removed the RDF header, but included most features from scriptingNews 2.0b1.
- **7/28/99** UserLand deprecated scriptingNews formats and adopted only RSS 0.91.
- Netscape stops their RSS development.
- **6/4/00** UserLand releases the official RSS 0.91 specification.
- **8/14/00** A group led by Rael Dornfest at O'Reilly, developed RSS 1.0. This format uses RDF and namespaces. This version is often confused as being a new version of 0.91, but this is a completely new format with no ties to RSS 0.91.
- **12/25/00** Dave Winer at UserLand develops RSS 0.92, which is 0.91 with optional elements.
- **04/20/01** RSS0.93 was discussed but never deployed.
- **03/14/02** MetaWeblog API merged RSS 0.92 with XML-RPC to provide a powerful blogging API.
- **09/18/02** Dave Winer developed RSS 2.0 after leaving Userland. This is 0.92 with optional elements. MetaWeblog API updated for RSS 2.0. While in development, this format was called 0.94.



• **07/15/03** - Official Spec RSS 2.0 was released through Harvard under a Creative Commons license.

Which RSS Version Should be Used?

There is no consensus on using RSS Feed version. It's up to you, which version you want to use. We would suggest to use the latest one, which is RSS2.0. This is simple enough to use and easy to learn.

- About 50 % of all RSS Feeds use RSS 0.91.
- About 25 % use RSS 1.0.
- The last 25 % is split between RSS 0.9x versions and RSS 2.0.

We will see Feed formats for these versions in the next chapter.



4. FEED FORMATS

RSS has been released in many different versions in the last 10 years. Here we will give you detail about three most commonly used RSS version.

RSS v0.91 Feed Format

- RSS v0.91 was originally released by Netscape in 1999.
- RSS v0.91 does not have RDF header.
- RSS v0.91 is called Rich Site Summary (RSS).
- RSS v0.91 has features from Dave Winer's RSS version scriptingNews 2.0b1.
- RSS v0.91 has support for international languages and encodings.
- RSS v0.91 has support for image height and width definitions.
- RSS v0.91 has support for description text for headlines.

RSS v0.91 Tags and Syntax

Here is the structure of an RSS v0.91 document:



```
<docs>...</docs>
      <managingEditor>...</managingEditor>
      <webMaster>...</webMaster>
      <skipHours>
          <hour>...</hour>
      </skipHours>
      <skipDays>
          <day>...</day>
      </skipDays>
      <image>
      <title>...</title>
      <url>...</url>
      k>...</link>
      <width>...</width>
      <height>...</height>
      <description>...</description>
      </image>
      <item>
          <title>...</title>
          <link>...</link>
          <description>...</description>
      </item>
      .....More item tags.....
      <textInput>
          <title>...</title>
          <description>...</description>
          <name>...</name>
          k>...</link>
      </textInput>
   </channel>
</rss>
```

Here is the detail of all the optional and mandatory tags related to RSS 0.91. Check out the given example to prepare an RSS v0.91 Feed for your website.



NOTE: All the tags are case-sensitive and should be used carefully.

Here is the list of all the optional and mandatory tags related to RSS 0.91.

XML Version Identifier

As an XML application, an RSS document is not required to begin with an XML declaration. It should start with XML version identifier tag.

Syntax

```
<?xml version="1.0"?>
or
<?xml version="1.0" encoding="[ encoding code here ]"?>
```

Here is a list of RSS v0.91 Supported Encodings.

- ANSI_X3.4-1968 or US-ASCII
- ISO_8859-1:1987 or ISO-8859-1
- ISO_8859-2:1987 or ISO-8859-2
- ISO_8859-5:1988 or ISO-8859-5
- ISO_8859-7:1987 or ISO-8859-7
- ISO_8859-9:1989 or ISO-8859-9
- Shift JIS
- EUC-JP
- GB2312
- EUC-KR
- Big5
- windows-1250
- windows-1251
- UTF-8
- x-mac-roman

If you do not specify the encoding attribute, then by default, it is assumed UTF-8.

Required

Always and exact. Optional encoding attribute (default is UTF-8).



Document Type Identifier

Similar to a valid XHTML document, it is required to specify a document type.

Syntax

<!DOCTYPE rss PUBLIC "-//Netscape Communications//DTD RSS 0.91//EN"
"http://my.netscape.com/publish/formats/rss-0.91.dtd">

Required

Always and exact.

Max Length

500 characters.

RSS Version Identifier

Syntax

<rss version="0.91">

Required

Always and exact.

Max Length

500 characters.

Start Channel Tag

There should be one channel start tag in each RSS0.91 File.

Syntax

<channel>

Required

Required. Maximum 1 per RSS file.

Channel Title

An identifying string for a resource. When used in an item, this is the name of the item's link. When used in an image, this is the Alt text for the image. When used in a channel, this is the channel's title. When used in a textinput, this is the textinput's title.



Syntax

<title>TutorialsPoint</title>

Required

Required.

Max Length

1-100 characters.

Channel Description

A channel will have a description tag as described below:

Syntax

<description>

Your source for tutorials, references and manuals!

</description>

Required

Required.

Max Length

1-500 characters.

Channel Title Link (URL)

This is the link to your homepage and required for a channel.

Syntax

<link>http://www.tutorialspoint.com</link>

Required

Required.

Max Length

1-500 characters.

Channel Language

It specifies the language of your channel (website).



Syntax

<language>[language code here]</language>

Here is a list of RSS v0.91 Supported Languages.

RSS 0.91 requires that you specify a language for your content.

You need to specify just the language code inside <language>...</language> tag.

Language	Code	Language	Code
Afrikaans	af	Indonesian	in
Albanian	sq	Irish	ga
Basque	eu	Italian	it
Belarusian	be	Italian (Italy)	it-it
Bulgarian	bg	Italian (Switzerland)	it-ch
Catalan	ca	Japanese	ja
Chinese (Simplified)	zh-cn	Korean	ko
Chinese (Traditional)	zh-tw	Macedonian	mk
Croatian	hr	Norwegian	no
Czech	cs	Polish	pl
Danish	da	Portuguese	pt
Dutch	nl	Portuguese (Brazil)	pt-br
Dutch (Belgium)	nl-be	Portuguese (Portugal)	pt-pt
Dutch (Netherlands)	nl-nl	Romanian	ro



English	en	Romanian (Moldova)	ro-mo
English (Australia)	en-au	Romanian (Romania)	ro-ro
English (Belize)	en-bz	Russian	ru
English (Canada)	en-ca	Russian (Moldova)	ru-mo
English (Ireland)	en-ie	Russian (Russia)	ru-ru
English (Jamaica)	en-jm	Serbian	sr
English (New Zealand)	en-nz	Slovak	sk
English (Phillipines)	en-ph	Slovenian	sl
English (South Africa)	en-za	Spanish	es
English (Trinidad)	en-tt	Spanish (Argentina)	es-ar
English (United Kingdom)	en-gb	Spanish (Bolivia)	es-bo
English (United States)	en-us	Spanish (Chile)	es-cl
English (Zimbabwe)	en-zw	Spanish (Colombia)	es-co
Faeroese	fo	Spanish (Costa Rica)	es-cr
Finnish	fi	Spanish (Dominican Republic)	es-do
French	fr	Spanish (Ecuador)	es-ec
French (Belgium)	fr-be	Spanish (El Salvador)	es-sv
French (Canada)	fr-ca	Spanish (Guatemala)	es-gt



French (France)	fr-fr	Spanish (Honduras)	es-hn
French (Luxembourg)	fr-lu	Spanish (Mexico)	es-mx
French (Monaco)	fr-mc	Spanish (Nicaragua)	es-ni
French (Switzerland)	fr-ch	Spanish (Panama)	es-pa
Galician	gl	Spanish (Paraguay)	es-py
Gaelic	gd	Spanish (Peru)	es-pe
German	de	Spanish (Puerto Rico)	es-pr
German (Austria)	de-at	Spanish (Spain)	es-es
German (Germany)	de-de	Spanish (Uruguay)	es-uy
German (Liechtenstein)	de-li	Spanish (Venezuela)	es-ve
German (Luxembourg)	de-lu	Swedish	SV
German (Switzerland)	de-ch	Swedish (Finland)	sv-fi
Greek	el	Swedish (Sweden)	sv-se
Hungarian	hu	Turkish	tr
Icelandic	is	Ukranian	uk

Required

Required.

Max Length

2-25 characters.



Channel Rating

For a complete detail on how to use Channel Rating, let us now check **how to use PICS Ratings**.

Using PICS Ratings

The Platform for Internet Content Selection, or PICS, enables users of Communicator and other Internet software to filter internet content through the use of content ratings. There are several ratings services that you can use to obtain a rating label for your channel.

To rate your site through these services, you simply visit the organization's web site and describe the type of content in your channel. You can use the following site to get your channel's PICS rating.

- SafeSurf: http://www.safesurf.com/ (click on the 'Rate Your Site' link).
- More organizations (W3C listing): http://www.w3.org/PICS/raters.

After you rate your channel content, the ratings organization will provide you with a META tag with the appropriate rating label. To use the rating label in your channel, you extract only the *content*= attribute and paste it into the *<rating>* tag.

For example, if you have received this META tag from a ratings organization:

```
<META http-equiv="PICS-Label" content='(PICS-1.1
"http://www.classify.org/safesurf/" 1 r (SS~~000 1))'>
```

Then, you would paste only the *content*= attribute into the *<rating>* tag, so that it would look like this:

```
<rating>(PICS-1.1 "http://www.classify.org/safesurf/" 1 r (SS~~000
1))</rating>
```

Note that My Netscape does not currently use PICS ratings, although other sites might. If you use Communicator and would like to filter the content based on PICS ratings, refer to the Netscape's Netwatch page.

Syntax

```
<rating>[ PICS rating here ]</rating>
```

Required

Optional. Maximum 1 per channel.



Max Length

20-500 characters.

Copyright Identifier

This tag is allowed in an RSS 0.91 file, but Netcenter does not actually use this tag or its data. The RSS 0.91 format supports this tag for the benefit of other sites that might make use of the tag and its data.

Syntax

<copyright>Copyright 2007, TutorialsPoint</copyright>

Required

Optional and ignored by Netcenter. Maximum 1 per channel.

Max Length

1-100 characters.

Publication Date

This tag is allowed in an RSS 0.91 file, but Netcenter does not actually use this tag or its data. The RSS 0.91 format supports this tag for the benefit of other sites that might make use of the tag and its data.

Syntax

<pubDate>Thu, 19 Jul 2007 07:00:00 GMT</pubDate>

Required

Optional and ignored by Netcenter. Maximum 1 per channel.

Max Length

1-100 characters.

Last Build Date

This tag is allowed in an RSS 0.91 file, but Netcenter does not actually use this tag or its data. The RSS 0.91 format supports this tag for the benefit of other sites that might make use of the tag and its data.

Syntax

<lastBuildDate>Thu, 19 Jul 2007 16:20:26 GMT </lastBuildDate>.



Required

Optional and ignored by Netcenter. Maximum 1 per channel.

Max Length

1-100 characters.

External Channel Description File (URL)

This tag is allowed in an RSS 0.91 file, but Netcenter does not actually use this tag or its data. The RSS 0.91 format supports this tag for the benefit of other sites that might make use of the tag and its data.

Syntax

<docs>http://my.userland.com/stories/storyReader\$11</docs>

Required

Optional and ignored by Netcenter. Maximum 1 per channel.

Max Length

1-500 characters.

Managing Editor

This tag is allowed in an RSS 0.91 file, but Netcenter does not actually use this tag or its data. The RSS 0.91 format supports this tag for the benefit of other sites that might make use of the tag and its data.

Syntax

<managingEditor>mohtashim@tutorialspoint.com</managingEditor>

Required

Optional and ignored by Netcenter. Maximum 1 per channel.

Max Length

1-100 characters.

Webmaster

This tag is allowed in an RSS 0.91 file, but Netcenter does not actually use this tag or its data. The RSS 0.91 format supports this tag for the benefit of other sites that might make use of the tag and its data.



Syntax

<webMaster>mohtashim@tutorialspoint.com</webMaster>

Required

Optional and ignored by Netcenter. Maximum 1 per channel.

Max Length

1-100 characters.

Start Skip Hours Tag

A list of <hours> indicating the hours in the day, GMT, when the channel is unlikely to be updated. If this sub-item is omitted, the channel is assumed to be updated hourly.

Syntax

<skipHours>

Required

Optional, Ignored by Netcenter. Maximum 1 per channel.

Hour

If you are using skipHours tag, then it is required to use this tag as well.

Syntax

<hour>7</hour>

Required

Required, if <skipHours>. Maximum 24 per <skipHours>. element.

Max Length

Numeric Value: 0 - 23

End Skip Hours

If you are using skipHours tag, then it is required to use this tag as well.

Syntax

</skipHours>



Required

Required, if <skipHours>.

Start Skip Days Tag

A list of <days> of the week, in English, indicating the days of the week when your channel will not be updated.

Syntax

<skipDays>

Required

Optional, Ignored by Netcenter. Maximum 1 per channel.

Day

If you are using skipDays tag, then it is required to use this tag as well.

Syntax

<day>Monday</day>

Required

Required, if <skipDays>. Maximum 7 per <skipDays>. element.

Max Length

1-10 characters.

End Skip Days

If you are using skipDays tag, then it is required to use this tag as well.

Syntax

</skipDays>

Required

Required, if <skipDays>.

Start Image Tag

You can have one image start tag inside a channel.



Syntax

<image>

Required

Optional. Maximum 1 per channel.

Image ALT Text

If you are using image tag, then it is required to use this tag as well.

Syntax

<title>TutorialsPoint Logo</title>

Required

Required, if <image> tag is available.

Max Length

1-500 characters.

Image Location (URL)

Location to load a resource from. Note that this is slightly different from the link tag, which specifies where a user should be re-directed to if a resource is selected.

Syntax

<url>http://www.tutorialspoint.com/images/to-logo.gif</url>

Required

Required, if <image> tag is available.

Max Length

1-500 characters.

Image Link (URL)

If you are using image tag, then it is required to use this tag as well.

Syntax

<link>http://www.tutorialspoint.com/</link>



Required

Optional, if <image> tag is available.

Max Length

1-500 characters.

Image Width

If you are using image tag, then it is optional to use this tag.

Syntax

<width>[numeric value here]</width>.

Required

Optional, if <image> tag is available.

Max Length

Numeric Value: 1-144 (Default is 88).

Image Height

It is an optional tag.

Syntax

<height>[numeric value here]</height>

Required

Optional, if <image> tag is available.

Max Length

Numeric Value: 1-400 (Default is 31).

Image Description

If you are using image tag, then it is optional to use this tag.

Syntax

<description>Articles, discussions, builds, and more...</description>

Required

Optional, if <image> tag is available.



Max Length

1-100 characters.

End Image Tag

If you are using image tag, then it is required to use this tag as well.

Syntax

</image>

Required

Required, if <image> tag is available.

Start Item Tag

This is an optional tag and you can have 0-15 item tags within a channel tag.

Syntax

<item>

Required

Optional. 0-15 items allowed per channel.

Item Title

If you are using title tag, then it is required to use this tag as well.

Syntax

<title>Learning RSS</title>

Required

Required, if <title> tag is available.

Max Length

1-100 characters.

Item Link (URL)

If you are using title tag, then it is required to use this tag as well.

Syntax

<link>http://www.tutorialspoint.com/rss/index.htm</link>



Required

Required, if <title> tag is available.

Max Length

1-500 characters.

Item Description

If you are using title tag, then it is optional to use this tag as well.

Syntax

<description>

RSS Tutorials Online. Read more about it in this discussion...</description>

Required

Optional, if <title> tag is available.

Max Length

1-500 characters.

End Item Tag

If you are using title tag, then it is required to use this tag as well.

Syntax

</item>

Start Text Input Tag

An input field for the purpose of allowing users to submit queries back to the publisher's site. This element should have a title, a link (to a cgi or other processor), a description containing some instructions, and a name, to be used as the name in the HTML tag <input type=text name="[name]">.

Syntax

<textInput>

Required

Optional. Maximum 1 per channel.



Text Input Title (Label of Submit Button)

If you are using textInput tag then it is required to use this tag as well.

Syntax

<title>Send</title>

Required

Required, if <textInput> tag is available.

Max Length

1-100 characters.

Text Input Description

If you are using textInput tag, then it is required to use this tag as well.

Syntax

<description>Comments about TutorialsPoint?</description>

Required

Required, if <textInput> tag is available.

Max Length

1-500 characters.

Text Input Name

If you are using textInput tag then it is required to use this tag as well.

Syntax

<name>[value of name= attribute of input tag here]

Required

Required, if <textInput> tag is available.

Max Length

1-20 characters.

Text Input Link

This is the link to the script, which will process the passed data. If you are using textInput tag, then it is required to use this tag as well.



Syntax

<link>http://www.tutorialspoint.com/cgi-bin/sampleonly.cgi</link>

Required

Required, if <textInput> tag is available.

Max Length

1-500 characters.

End Text Input Tag

If you are using textInput tag, then it is required to use this tag as well.

Syntax

<textInput>

Required

Required, if <textInput> tag is available.

End Channel Tag

One end channel is required for a channel start tag.

Syntax

</channel>

Required:

Required.

End RSS Tag

This is the closing tag for an RSS0.91 document.

Syntax

</rss>

Required

Required.



Using Special Characters and HTML Entities

Although an RSS 0.91 file is an XML document, RSS 0.91 extends XML by supporting a full set of HTML entities. If you want to use special characters such as ampersands (&) in <url> or link> tags, you must substitute the appropriate decimal or HTML entities for those characters.

Check for a complete set of **HTML entities** in our HTML tutorial.

RSS v0.91 Example Feed

Here is an example that shows how to write RSS Feed using version 0.91.

```
<?xml version="1.0"?>
<!DOCTYPE rss PUBLIC "-//Netscape Communications//DTD RSS 0.91//EN"</pre>
"http://my.netscape.com/publish/formats/rss-0.91.dtd">
<rss version="0.91">
<channel>
   <title>TutroialsPoint</title>
   <link>http://www.tutorialspoint.com</link>
   <description>
      Online Tutorials and Reference Manuals.
   </description>
   <language>en-us</language>
   <rating>
      (PICS-1.1 "http://www.rsac.org/ratingsv01.html" l
      gen true comment "RSACi North America Server" for
      "http://www.rsac.org" on "1996.04.16T08:15-0500"
      r (n 0 s 0 v 0 1 0))
   </rating>
   <image>
      <title>TutroialsPoint</title>
      <url>http://www.tutorialspoint.com/images/to-logo.gif</url>
      <link>http://www.tutorialspoint.com</link>
```



```
<width>88</width>
   <height>31</height>
   <description>
   Tutorials, Articles, discussions, and more...
   </description>
</image>
<item>
   <title>RSS Tutorials</title>
   <link>http://www.tutorialspoint.com/rss/index.htm</link>
   <description>
   Learn RSS in simple and easy steps.
   </description>
</item>
<item>
   <title>PHP Tutorials</title>
   <link>http://www.tutorialspoint.com/php/index.htm</link>
   <description>
   Learn PHP in simple and easy steps.
   </description>
</item>
<textInput>
   <title>Send</title>
   <description>Comments about TutoprialsPoint</description>
   <name>responseText</name>
   k>
       http://www.tutorialspoint.com/cgi-bin/tp-contact.cgi
   </link>
</textInput>
</channel>
```



```
</rss>
```

RSS 0.91 File Extension

A specific file-extension for an RSS 0.91 document is not required. Either .rdf or .xml is recommended, the former being preferred.

RSS 0.91 DTD

Check the following link RSS 0.91 DTD.

RSS v1.0 Feed Format

RSS 1.0 is the only version that was developed using the W3C RDF (Resource Description Framework) standard. This version of RSS is called *RDF Site Summary*. RSS 0.91 and RSS 2.0 are easier to understand than RSS 1.0.

RSS v1.0 Tags and Syntax

Here is the structure of an RSS 1.0 document:

```
<?xml version="1.0"?>
<rdf:RDF>
   <channel>
      <title>...</title>
      k>...</link>
      <description>...</description>
      <image />
      <items>...</items>
      <textInput />
   <image>
      <title>...</title>
      <url>...</url>
      k>...</link>
   </image>
   <item>
      <title>...</title>
      <link>...</link>
      <description>...</description>
   </item>
```



Here is the detail of all the optional and mandatory tags related to RSS 1.0. Check out the given example to prepare an RSS v1.0 Feed for your website.

NOTE: All the tags are case-sensitive and should be used carefully.

XML Version Identifier

As an XML application, an RSS document is not required to begin with an XML declaration. It should start with an XML version identifier tag.

Syntax

```
<?xml version="1.0"?>
or
<?xml version="1.0" encoding="[ encoding code here ]"?>
```

Here is a list of RSS v1.0 Supported Encodings.

- ANSI_X3.4-1968 or US-ASCII
- ISO_8859-1:1987 or ISO-8859-1
- ISO_8859-2:1987 or ISO-8859-2
- ISO_8859-5:1988 or ISO-8859-5
- ISO_8859-7:1987 or ISO-8859-7
- ISO_8859-9:1989 or ISO-8859-9
- Shift JIS
- EUC-JP
- GB2312
- EUC-KR
- Big5



- windows-1250
- windows-1251
- UTF-8
- x-mac-roman

If you do not specify encoding attribute, then by default, it is assumed UTF-8.

Required

Always and exact. Optional encoding attribute (default is UTF-8).

rdf:RDF Tag

The outermost level in every RSS 1.0 compliant document is the RDF element. The opening RDF tag associates the rdf: namespace prefix with the RDF syntax schema and establishes the RSS 1.0 schema as the default namespace for the document.

Syntax

```
<rdf:RDF xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"xmlns="http://purl.org/rss/1.0/">
```

Required

Always and exact.

Start Channel Tag

The channel element contains metadata describing the channel itself, including a title, brief description, and URL link to the described resource (the channel provider's home page, for instance).

The {resource} URL of the channel element's rdf:about attribute must be unique with respect to any other rdf:about attributes in the RSS document and is a URI, which identifies the channel. Most commonly, this is either the URL of the homepage being described or a URL where the RSS file can be found.

Syntax

```
<channel rdf:about="{resource}">
```

Required

Required. Maximum 1 per RSS file.



Channel Title

An identifying string for a resource. When used in an item, this is the name of the item's link. When used in an image, this is the Alt text for the image. When used in a channel, this is the channel's title. When used in a textinput, this is the textinput's title.

Syntax

<title>TutorialsPoint</title>

Required

Required.

Max Length

1-40 characters.

Channel Link (URL)

The URL to which an HTML rendering of the channel title will link, commonly the parent site's home or news page.

Syntax

<link>http://www.tutorialspoint.com</link>

Required

Required.

Max Length

1-500 characters.

Channel Description

A channel will have a description tag as described below:

Syntax

<description>

Your source for tutorials, references and manuals!

</description>

Required

Required.



Max Length

1-500 characters.

Channel Image Tag

Establishes an RDF association between the optional image element and this particular RSS channel. The rdf:resource's {image_uri} must be the same as the image element's rdf:about {image_uri}.

Syntax

```
<image rdf:resource="{image_uri}" />
```

Required

Required only if the image element is present in the document body.

Channel Item Tag

An RDF table of contents, associating the document's items with this particular RSS channel. Each item's rdf:resource {item_uri} must be the same as the associated item element's rdf:about {item_uri}.

An RDF Seq (sequence) is used to contain all the items rather than an RDF Bag to denote item order for rendering and reconstruction.

Note that items appearing in the document but not as members of the channel level items sequence are likely to be discarded by the RDF parsers.

Syntax

```
<items><rdf:Seq><rdf:li resource="{item_uri}" /> ... </rdf:Seq></items>
```

Required

Required.

Channel textInput Tag

Establishes an RDF association between the optional textinput element and this particular RSS channel. The {textinput_uri} rdf:resource must be the same as the textinput element's rdf:about {textinput_uri}.

Syntax

```
<textinput rdf:resource="{textinput_uri}" />
```

Required

Required only if the texinput element is present.



End Channel Tag

One end channel is required for a channel start tag.

Syntax

</channel>

Required

Required.

image Start Tag

An image to be associated with an HTML rendering of the channel. This image should be of a format supported by the majority of Web browsers. While the later 0.91 specification allowed for a width of 1-144 and height of 1-400, convention (and the 0.9 specification) dictate 88x31.

Syntax

<image rdf:about="{image_uri}">.

Required

Optional; if present, must also be present in the channel element.

image title Tag

The alternative text ("alt" attribute) associated with the channel's image tag when rendered as HTML.

Syntax

<title>{image_alt_text}</title>

Required

Required if the image element is present.

Max Length

1-40 characters.

image url Tag

The URL of the image to used in the "src" attribute of the channel's image tag when rendered as HTML.



Syntax

<url>{image_url}</url>

Required

Required if the image element is present.

Max Length

1-500 characters.

image link Tag

The URL to which an HTML rendering of the channel image will link. This, as with the channel's title link, is commonly the parent site's home or news page.

Syntax

<link>{image_link}</link>

Required

Required if the image element is present.

Max Length

1-500 characters.

image End Tag

Closing tag for image tag.

Syntax

</image>

Required

Required; if image tag is present.

Item Start Tag

While commonly a news headline, with RSS 1.0's modular extensibility, this can be just about anything: discussion posting, job listing, software patch -- any object with a URI. There may be a minimum of one item per RSS document. While RSS 1.0 does not enforce an upper limit, for backward compatibility with RSS 0.9 and 0.91, a maximum of fifteen items is recommended.

{item_uri} must be unique with respect to any other rdf:about attributes in the RSS document and is a URI, which identifies the item. {item_uri} should be



identical to the value of the <link> sub-element of the <item> element, if possible.

Recommended number of items per Feed are 1-15.

Syntax

```
<item rdf:about="{item_uri}">
```

Required

Required 1 or more.

Item Title Tag

The item's title.

Syntax

```
<title>{item_title}</title>
```

Required

Required; with each item tag.

Max Length

1-100 characters.

Item Link Tag

The item's URL.

Syntax

```
<link>{item_link}</link>
```

Required

Required; with each item tag.

Max Length

1-500 characters.

Item Description Tag

A brief description/abstract of the item.

Syntax

<description>{item_description}</description>



Required

Optional; with an item tag.

Max Length

1-500 characters.

Item End Tag

Closing tag for item tag.

Syntax

</item>

Required

Required; for each item tag.

Start Text Input Tag

An input field for the purpose of allowing users to submit queries back to the publisher's site. This element should have a title, a link (to a cgi or other processor), a description containing some instructions, and a name, to be used as the name in the HTML tag <input type=text name="[name]">

Syntax

<textinput rdf:about="{textinput uri}">

Required

Optional; if present, must also be present in channel element.

Textinput Title Tag

A descriptive title for the textinput field. For example: "Subscribe" or "Search!".

Syntax

<title>{textinput_title}</title>

Required

Required if textinput is present.

Max Length

1-40 characters.



Textinput Description Tag

A brief description of the textinput field's purpose. For example: "Subscribe to our newsletter for..." or "Search our site's archive of...".

Syntax

<description>{textinput_description}</description>

Required

Required if textinput is present.

Max Length

1-100 characters.

Textinput Name Tag

The text input field's (variable) name.

Syntax

<name>{textinput_varname}</name>

Required:

Required if textinput is present.

Max Length

1-500 characters.

Textinput Link Tag

The URL to which a textinput submission will be directed (using GET).

Syntax

<link>{textinput_action_url}</link>

Required

Required if textinput is present.

Max Length

1-500 characters.

Textinput End tag

CLosing tag for textInput.



Syntax

```
</textInput>
```

Required

Required with textinput.

rdf:RDF End Tag

This is closing tag for an RSS1.0 document.

Syntax

```
</rdf:RDF>
```

Required

Required.

Using Special Characters and HTML Entities

Although an RSS 1.0 file is an XML document, RSS 0.91 extends XML by supporting a full set of HTML entities. If you want to use special characters such as ampersands (&) in <url> or link> tags, you must substitute the appropriate decimal or HTML entities for those characters.

Check for a complete set of **HTML entities** in our HTML tutorial.

RSS version 1.0 Example Feed

Here is the example Feed file, which shows how to write RSS Feed using version 1.0.

```
<?xml version="1.0"?>

<rdf:RDF

xmlns:rdf="http://www.w3.org/1999/02/22-rdf-syntax-ns#"

xmlns="http://purl.org/rss/1.0/">

<channel rdf:about="http://www.tutorialspoint.com">

        <title>TutorialsPoint</title>
        link>http://tutorialspoint.com/rss</link>
        <description>

        Online Tutorials and Reference Manuals
```



```
</description>
 <image rdf:resource=</pre>
  "http://tutorialspoint.com/images/tp-logo.gif" />
 <items>
    <rdf:Seq>
    <rdf:li resource="http://tutorialspoint.com/rss/index.htm" />
    <rdf:li resource="http://tutorialspoint.com/php/index.htm" />
    </rdf:Seq>
 </items>
 <textinput rdf:resource=
  "http://www.tutorialspoint.com/cgi-bin/tp-contact.cgi" />
</channel>
<image rdf:about="http://tutorialspoint.com/images/tp-logo.gif">
 <title>TutorialsPoint Logo</title>
 <link>http://tutorialspoint.com</link>
 <url>http://tutorialspoint.com/images/tp-logo.gif</url>
</image>
<item rdf:about="http://tutorialspoint.com/rss/index.htm">
 <title>A simple RSS tutorial</title>
 <link>http://tutorialspoint.com/rss/index.htm</link>
 <description>
     Learn RSS in simple and easy steps.
 </description>
</item>
<item rdf:about="http://tutorialspoint.com/php/index.htm">
```



```
<title>A complete guide for PHP Programmers</title>
   <link>http://tutorialspoint.com/php/index.htm</link>
   <description>
       A free online guide for PHP. Learn PHP in very easy steps.
   </description>
  </item>
  <textinput rdf:about=
    "http://www.tutorialspoint.com/cgi-bin/tp-contact.cgi">
   <title>Contact TutorialsPoint</title>
   <description>
      Contact TutorialsPoint for more detail
   </description>
   <name>s</name>
   k>
       http://www.tutorialspoint.com/cgi-bin/tp-contact.cgi
   </link>
  </textinput>
</rdf:RDF>
```

RSS 1.0 File Extension

A specific file-extension for an RSS 1.0 document is not required. Either .rdf or .xml is recommended, the former being preferred.

RSS 1.0 modules

RSS 1.0 modules are maintained in separate documents, available online at RSS 1.0 modules.

RSS v2.0/2.01 Feed Format

RSS 2.0/2.01 is very similar to RSS 0.9x. RSS 2.0/2.01 adds namespace modules and six optional elements to RSS 0.9x.

RSS 2.0/2.01 specification was written by Dave Winer of Radio UserLand. The copyright was later transferred to Harvard University.



RSS v2.0 Tags and Syntax

Here is the structure of an RSS 2.0 document:

```
<?xml version="1.0"?>
<rss version="2.0">
   <channel>
      <title>...</title>
      k>...</link>
      <description>...</description>
      <language>...</language>
      <rating>...</rating>
      <copyright>...</copyright>
      <pubDate>...</pubDate>
      <lastBuildDate>...</lastBuildDate>
      <generator>....</generator>
      <docs>...</docs>
      <cloud>...</cloud>
      <ttl>...</ttl>
      <managingEditor>...</managingEditor>
      <webMaster>...</webMaster>
      <skipHours>
          <hour>...</hour>
      </skipHours>
      <skipDays>
          <day>...</day>
      </skipDays>
      <image>
      <title>...</title>
      <url>...</url>
      k>...</link>
      <width>...</width>
      <height>...</height>
      <description>...</description>
      </image>
```



```
<item>
          <title>...</title>
          k>...</link>
          <description>...</description>
          <author>....</author>
          <category>....</category>
          <comments>....</comments>
          <enclosure ..../>
          <guid>....</guid>
          <pubDate>....</pubDate>
          <source>....</source>
      </item>
      .....More item tags.....
      <textInput>
          <title>...</title>
          <description>...</description>
          <name>...</name>
          k>...</link>
      </textInput>
   </channel>
</rss>
```

Here is the detail of all the optional and mandatory tags related to RSS 2.0. Check out the given example to prepare an RSS v2.0 Feed for your website.

NOTE: All the tags are case sensitive and should be used carefully.

XML Version Identifier

As an XML application, an RSS document is not required to begin with an XML declaration. It should start with an XML version identifier tag.

Syntax

```
<?xml version="1.0"?>
```



or

<?xml version="1.0" encoding="[encoding code here]"?>

Here is the list of RSS v2.0 Supported Encodings.

- ANSI_X3.4-1968 or US-ASCII
- ISO_8859-1:1987 or ISO-8859-1
- ISO_8859-2:1987 or ISO-8859-2
- ISO_8859-5:1988 or ISO-8859-5
- ISO_8859-7:1987 or ISO-8859-7
- ISO 8859-9:1989 or ISO-8859-9
- Shift_JIS
- EUC-JP
- GB2312
- EUC-KR
- Big5
- windows-1250
- windows-1251
- UTF-8
- x-mac-roman

If you do not specify encoding attribute, then by default, it is assumed UTF-8.

Required

Always and exact. Optional encoding attribute (default is UTF-8).

RSS Version Identifier

Syntax

<rss version="2.0">

Required

Always and exact.

Start Channel Tag

There should be one channel start tag in each RSS2.0 File.



Syntax

<channel>

Required

Required. Maximum 1 per RSS file.

Channel Title

The name of the channel. It's how people refer to your service. If you have an HTML website that contains the same information as your RSS file, the title of your channel should be the same as the title of your website.

Syntax

<title>TutorialsPoint</title>

Required

Required.

Channel Description

A channel will have a description tag as described below:

Syntax

<description>

Your source for tutorials, references and manuals!

</description>

Required

Required.

Channel Title Link (URL)

This is the link to your home page and required for a channel.

Syntax

<link>http://www.tutorialspoint.com</link>

Required

Required.



Channel Language

This specifies the language of your channel (website).

Syntax

<language>[language code here]</language>

Here is the list of **RSS v2.0 Supported Languages**.

RSS 2.0 requires that you specify a language for your content.

You need to specify just language code inside <language>...</language> tag.

Language	Code	Language	Code
Afrikaans	af	Indonesian	in
Albanian	sq	Irish	ga
Basque	eu	Italian	it
Belarusian	be	Italian (Italy)	it-it
Bulgarian	bg	Italian (Switzerland)	it-ch
Catalan	са	Japanese	ja
Chinese (Simplified)	zh-cn	Korean	ko
Chinese (Traditional)	zh-tw	Macedonian	mk
Croatian	hr	Norwegian	no
Czech	cs	Polish	pl
Danish	da	Portuguese	pt
Dutch	nl	Portuguese (Brazil)	pt-br
Dutch (Belgium)	nl-be	Portuguese	pt-pt



		(Portugal)	
Dutch (Netherlands)	nl-nl	Romanian	ro
English	en	Romanian (Moldova)	ro-mo
English (Australia)	en-au	Romanian (Romania)	ro-ro
English (Belize)	en-bz	Russian	ru
English (Canada)	en-ca	Russian (Moldova)	ru-mo
English (Ireland)	en-ie	Russian (Russia)	ru-ru
English (Jamaica)	en-jm	Serbian	sr
English (New Zealand)	en-nz	Slovak	sk
English (Phillipines)	en-ph	Slovenian	sl
English (South Africa)	en-za	Spanish	es
English (Trinidad)	en-tt	Spanish (Argentina)	es-ar
English (United Kingdom)	en-gb	Spanish (Bolivia)	es-bo
English (United States)	en-us	Spanish (Chile)	es-cl
English (Zimbabwe)	en-zw	Spanish (Colombia)	es-co
Faeroese	fo	Spanish (Costa Rica)	es-cr
Finnish	fi	Spanish (Dominican Republic)	es-do



French	fr	Spanish (Ecuador)	es-ec
French (Belgium)	fr-be	Spanish (El Salvador)	es-sv
French (Canada)	fr-ca	Spanish (Guatemala)	es-gt
French (France)	fr-fr	Spanish (Honduras)	es-hn
French (Luxembourg)	fr-lu	Spanish (Mexico)	es-mx
French (Monaco)	fr-mc	Spanish (Nicaragua)	es-ni
French (Switzerland)	fr-ch	Spanish (Panama)	es-pa
Galician	gl	Spanish (Paraguay)	es-py
Gaelic	gd	Spanish (Peru)	es-pe
German	de	Spanish (Puerto Rico)	es-pr
German (Austria)	de-at	Spanish (Spain)	es-es
German (Germany)	de-de	Spanish (Uruguay)	es-uy
German (Liechtenstein)	de-li	Spanish (Venezuela)	es-ve
German (Luxembourg)	de-lu	Swedish	SV
German (Switzerland)	de-ch	Swedish (Finland)	sv-fi
Greek	el	Swedish (Sweden)	sv-se
Hungarian	hu	Turkish	tr
Icelandic	is	Ukranian	uk



Required

Optional.

Channel Rating

For a complete detail on how to use the Channel Rating, check **Using PICS Ratings** discussed above.

Syntax

<rating>[PICS rating here]</rating>

Required

Optional.

Copyright Identifier

This tag is allowed in an RSS 2.0 file.

Syntax

<copyright>Copyright 2007, TutorialsPoint</copyright>

Required

Optional.

Publication Date

This tag is allowed in an RSS 2.0 file. The publication date for the content in the channel.

Syntax

<pubDate>Thu, 19 Jul 2007 07:00:00 GMT</pubDate>

Required

Optional.

Last Build Date

This tag is allowed in an RSS 2.0 file. The last time the content of the channel changed.

Syntax

<lastBuildDate>Thu, 19 Jul 2007 16:20:26 GMT </lastBuildDate>



Required

Optional.

Channel Category

Specify one or more categories that the channel belongs to.

Syntax

<category>Newspapers </category>

Required

Optional.

Channel docs

A URL that points to the documentation for the format used in the RSS file. It's probably a pointer to this page.

Syntax

<docs>http://tutorialspoint.com/rss </docs>

Required

Optional.

Channel cloud

Allows processes to register with a cloud to be notified of updates to the channel, implementing a lightweight publish-subscribe protocol for RSS Feeds.

Syntax

```
<cloud>domain="rpc.sys.com" port="80" path="/RPC2"
registerProcedure="myCloud.rssPleaseNotify" protocol="xml-rpc"</cloud>
```

In this example, to request notification on the channel it appears in, you would send an XML-RPC message to rpc.sys.com on port 80, with a path of /RPC2. The procedure to call is myCloud.rssPleaseNotify.

Required

Optional.

Channel ttl

ttl stands for **time to live**. It is the number of minutes that indicates how long a channel can be cached before refreshing from the source.



Syntax

<tt1>60</tt1>

Required

Optional.

Managing Editor

Email address for person responsible for editorial content.

Syntax

<managingEditor>mohtashim@tutorialspoint.com</managingEditor>

Required

Optional.

Webmaster

Email address for person responsible for technical issues relating to channel.

Syntax

<webMaster>mohtashim@tutorialspoint.com</webMaster>

Required

Optional.

Start Skip Hours Tag

A list of <hour>s indicating the hours in the day, GMT, when the channel is unlikely to be updated. If this sub-item is omitted, the channel is assumed to be updated hourly.

Syntax

<skipHours>

Required

Optional.

Hour

If you are using skipHours tag then it is required to use this tag as well.

Syntax



<hour>7</hour>

Required

Required, if <skipHours>. Maximum 24 per <skipHours> element.

Max Length

Numeric Value: 0 - 23.

End Skip Hours

If you are using skipHours tag then it is required to use this tag as well.

Syntax

</skipHours>

Required

Required, if <skipHours>.

Start Skip Days Tag

A list of <day>s of the week, in English, indicating the days of the week when your channel will not be updated.

Syntax

<skipDays>

Required

Optional.

Day

If you are using skipDays tag, then it is required to use this tag as well.

Syntax

<day>Monday</day>

Required

Required, if <skipDays>. Maximum 7 per <skipDays>. element.

Max Length

1-10 characters.



End Skip Days

If you are using skipDays tag, then it is required to use this tag as well.

Syntax

</skipDays>

Required

Required, if <skipDays>.

Start Image Tag

You can have one image start tag inside a channel. Syntax is as follows:

Syntax

<image>

Required

Optional.

Image ALT Text

If you are using image tag, then it is required to use this tag as well.

Syntax

<title>TutorialsPoint Logo</title>

Required

Required, if <image> tag is available.

Image Location (URL)

Location to load a resource from. Note that this is slightly different from the link tag, which specifies where a user should be re-directed to if a resource is selected.

Syntax

<url>http://www.tutorialspoint.com/images/to-logo.gif</url>

Required

Required, if <image> tag is available.



Image Link (URL)

If you are using image tag, then it is required to use this tag as well.

Syntax

<link>http://www.tutorialspoint.com/</link>

Required

Optional, if <image> tag is available.

Image Width

If you are using image tag, then it is optional to use this tag as well.

Syntax

<width>[numeric value here]</width>

Required

Optional, if <image> tag is available.

Max Length

Numeric Value: 1-144 (Default is 88).

Image Height

If you are using image tag, then it is optional to use this tag as well.

Syntax

<height>[numeric value here]</height>

Required

Optional, if <image> tag is available.

Max Length

Numeric Value: 1-400 (Default is 31).

Image Description

If you are using image tag, then it is optional to use this tag as well.

Syntax



<description>Articles, discussions, builds, and more...</description>

Required

Optional, if <image> tag is available.

End Image Tag

If you are using image tag, then it is required to use this tag as well.

Syntax

</image>

Required

Required, if <image> tag is available.

Start Item Tag

This is an optional tag and you can have any number of item tags within a channel tag.

Syntax

<item>

Required

Optional.

Item Title

The title of the item. It is optional to use this tag.

Syntax

<title>Learning RSS</title>

Required

Optional, but better to use if <title> tag is available.

Item Link (URL)

The URL of the item. It is optional to use this tag.

Syntax



<link>http://www.tutorialspoint.com/rss/index.htm</link>

Required

Optional, but better to use if <title> tag is available.

Item Description

The item synopsis. It is optional to use this tag.

Syntax

```
<description>
```

RSS Tutorials Online. Read more about it in this discussion... </description>

Required

Optional, but better to use if <title> tag is available.

Item Author

It's the email address of the author of the item. If you are using title tag then it is optional to use this tag.

Syntax

<author>AmberYasin@hotmail.com</author>

Required

Optional, but better to use if <title> tag is available.

Item Category

Includes the item in one or more categories. This is an optional sub-element of item.

It has one optional attribute, domain, and a string that identifies a categorization taxonomy.

Syntax

<category>Grateful Dead</category>

<category omain="http://www.fool.com/cusips">Grateful Dead</category>

Required



Optional, you may include as many category elements as you need to, for different domains, and to have an item cross-referenced in different parts of the same domain.

Item Comments

This is an optional sub-element of item. If present, it is the url of the comments page for the item.

Syntax

```
<comments>http://example.com/rss/comments</comments>
```

Required

Optional.

Item enclosure

<enclosure> is an optional sub-element of item. It has three required attributes. url says where the enclosure is located, length says how big it is in bytes, and type says what its type is, a standard MIME type.

Syntax

```
<enclosure
url="http://www.tutorialspoint.com/mp3s/tutorial.mp3"
length="12216320" type="audio/mpeg" />
```

Required

Optional.

Item guid

<guid> is an optional sub-element of item. The guid stands for globally unique identifier. It's a string that uniquely identifies the item. When present, an aggregator may choose to use this string to determine if an item is new.

Syntax

```
<guid>http://some.server.com/weblogItem3207</pubDate>
```

There are no rules for the syntax of a guid. Aggregators must view them as a string. It's up to the source of the Feed to establish the uniqueness of the string.

Required

Optional.



Item Publication Date

<pubDate> is an optional sub-element of item. Its value is a date, indicating
when the item was published. If it's a date in the future, aggregators may
choose not to display the item until that date.

Syntax

<pubDate>Sun, 22 July 2007 15:21:36 GMT</pubDate>

Required

Optional.

Item Source

<source> is an optional sub-element of item. Its value is the name of the RSS channel that the item came from, derived from its <title>. It has one required attribute, url, which links to the XMLization of the source.

The purpose of this element is to propagate credit for links, to publicize the sources of news items. It can be used in the Post command of an aggregator. It should be generated automatically when forwarding an item from an aggregator to a weblog authoring tool.

Syntax

<source url="http://www.tomalak.org/links2.xml">Tomalak's Realm</source>

Required

Optional.

End Item Tag

If you are using title tag, then it is required to use this tag as well.

Syntax

</item>

Start Text Input Tag

A channel may optionally contain a <textInput> sub-element, which contains four required sub-elements.

The purpose of the <textInput> element is something of a mystery. You can use it to specify a search engine box. Or to allow a reader to provide feedback. Most aggregators ignore it.



Syntax

<textInput>

Required

Optional. Maximum 1 per channel.

Text Input Title (Label of Submit Button)

If you are using textInput tag, then it is required to use this tag as well.

Syntax

<title>Send</title>

Required

Required, if <textInput> tag is available.

Text Input Description

If you are using textInput tag, then it is required to use this tag as well.

Syntax

<description>Comments about TutorialsPoint?</description>

Required

Required, if <textInput> tag is available.

Text Input Name

If you are using textInput tag, then it is required to use this tag as well.

Syntax

<name>[value of name = attribute of input tag here]

Required

Required, if <textInput> tag is available.

Text Input Link

This is the link to the script, which will process passed data. If you are using textInput tag then it is required to use this tag as well.



Syntax

<link>http://www.tutorialspoint.com/cgi-bin/sampleonly.cgi</link>

Required

Required, if <textInput> tag is available.

End Text Input Tag

If you are using textInput tag, then it is required to use this tag as well.

Syntax

<textInput>

Required

Required, if <textInput> tag is available.

End Channel Tag

One end channel is required for a channel start tag.

Syntax

</channel>

Required

Required.

End RSS Tag

This is closing tag for an RSS0.91 document.

Syntax

</rss>

Required

Required.

Using Special Characters and HTML Entities

Although an RSS 2.0 file is an XML document, RSS 2.0 extends XML by supporting a full set of HTML entities. If you want to use special characters such as ampersands (&) in <url> or link> tags, you must substitute the appropriate decimal or HTML entities for those characters.



Check for a complete set of **HTML** entities in our HTML tutorial.

RSS version 2.0 Example Feed

The following example shows how to write RSS Feed using version 2.0.

```
<?xml version="1.0"?>
<rss version="2.0">
   <channel>
      <title>TutorialsPoint</title>
      <link>http://www.tutorialspoint.com</link>
      <description>Tutorials and Reference Manuals</description>
      <language>en-us</language>
     <pubDate>Fri, 30 May 2003 11:06:42 GMT</pubDate>
      <lastBuildDate>Fri, 30 May 2003 11:06:42 GMT</lastBuildDate>
     <docs>http://www.tutorialspoint.com/rss</docs>
      <generator>Weblog Editor 2.0</generator>
      <managingEditor>mohtashim@tutorialspoint.com</managingEditor>
      <webMaster>webmaster@tutorialspoint.com</webMaster>
      <item>
         <title>RSS Tutorial</title>
         <link>http://www.tutorialspoint.com/rss</link>
        <description>Learn RSS in simple steps</description>
        <pubDate>Fri, 30 May 2003 11:06:42 GMT</pubDate>
        <guid>
        http://www.tutorialspoint.com/rss/rss-feed-formats.htm#v0.91
        </guid>
      </item>
      <item>
        <description>RSS Feed Formats</description>
         <pubDate>Fri, 30 May 2003 11:06:42 GMT</pubDate>
        <guid>
        http://www.tutorialspoint.com/rss/rss-feed-formats.htm#v2.0
```



```
</ritem>
</channel>
</rss>
```

RSS 2.0 File Extension

A specific file-extension for an RSS 2.0 document is not required. Either .rdf or .xml is recommended, the former being preferred.



5. READING FEEDS

Many sites offer RSS Feeds, which you can identify by a small yellow button that says either RSS or ML. However, if you click one of these links, you will most likely get a page full of code in your browser.

To properly read the Feed, you need an RSS reader. Here are the steps to get and use RSS Feed readers.

Step 1 – Get an RSS Feed Reader

There are a lot of different RSS readers available. Some work as web services, and some are limited to windows (or Mac, PDA or UNIX). Here are a few, which you can try:

- **NewsGator Online** A free online RSS reader. Includes synchronization with Outlook, viewing TV content with Media Center Edition, and publication of blogs and headlines.
- **RssReader** A free Windows-based RSS reader. Supports RSS versions 0.9x, 1.0, and 2.0 and Atom 0.1, 0.2, and 0.3.
- **FeedDemon** A Windows-based RSS reader. Very easy to use and has a very orderly interface. However, this is not freeware!
- **blogbot** An RSS reader plug-in for Outlook or Internet Explorer. The light-version for Internet Explorer is free.

Step 2 – RSS Reader Installation

All the readers come along with installation instructions. So, use the provided script to install your RSS Reader on your computer.

When you first launch a standalone reader, most often, you will see a toolbar and three window panes arranged much like the preview mode in Microsoft Outlook. The pane on the left side typically displays the RSS Feeds, or channels, to which you are subscribed. These can be organized into categories or folders.

The upper-right panel typically shows a list of articles within whichever channel is selected, and the article content is then displayed in the lower-right panel. To change channel groups, just click the drop-down box at the upper left beneath the menus. Sometimes a brief description will appear in the lower right; if so, click the link in the article to load the complete text.



Some standalone apps can be configured to send you e-mail every time there's a new article on a topic you're interested in.

Step 3 – Add Channels and Channel Groups

To add a channel, i.e., RSS Feed, go to the RSS page of any site using the yellow button that says either RSS or XML. Right-click or use CTRL+C to copy the URL from the address bar of your browser, which should show a page full of XML code.

Now go back to your newsreader, choose the category where you want the new subscription to live (Business, Entertainment, the New York Times), and select New or New Channel from the File menu. In most cases, the URL you copied should automatically be pasted into the URL field in the New Channel wizard. If not, you can cut and paste the URL yourself.

Step 4 – Customize RSS Reader

When you accumulate lots of articles from your various Feeds, it can become difficult to find specific information. Fortunately, newsreaders include useful tools for finding articles.

A Filter tool will show only articles that contain a keyword you specify. This may also be labeled Search. To use it, type a keyword directly into the Filter/Search bar.

Some readers include the ability to set a watch, an automatic search through all your incoming Feeds for a specific keyword. For example, you could enter ICQ as a watch. If any article in any Feed you subscribe to mentions ICQ, the article will be included in the Watch list.

You need to check the help section of your reader to find out more options to customize it according to your needs.

Step 5 – Cleaning Unwanted Feeds

Eventually, you'll probably end up with more Feeds than you want or can read regularly. In most readers, to delete a Feed you're no longer interested in, you simply delete its title. Then your RSS reader won't seek out that information anymore, and you won't get any content from the publisher unless you go to its site or re-subscribe to the Feed.



6. FEED PUBLISHING

Now you are aware how to write an RSS Feed for your site. If you don't know how to prepare RSS Feed file, then please go through the **RSS Feed Formats** chapter.

Uploading an RSS Feed

Here are the simple steps to put your RSS Feed on the web.

- 1. First decide which version of RSS Feed you are going to use for your site. We would recommend you to use the latest version available.
- 2. Create your RSS Feed in a text file with extension either .xml or .rdf. Upload this file on your web server.
- 3. You should validate your RSS Feed before making it live. Check the next chapter on RSS Feed Validation.
- 4. Create a link on your Web Pages for the RSS Feed file. You will use a small yellow button for the link that says either RSS or XML.

Now, your RSS Feed is online and people can start using it. But there are ways to promote your RSS Feed so that more number of people can use your RSS Feed.

Promote Your RSS Feed

- Submit your RSS Feed to the RSS Feed Directories. There are many directories available on the web, where you can register your Feed. Some of them are given here:
 - Syndic8: Over 300,000 Feeds listed.
 - o **Daypop**: Over 50,000 Feeds listed.
 - o **Newsisfree**: Over 18,000 Feeds.
- Register your Feed with the major search engines. Similar to your web pages, you can add your Feed as well with the following major search engines.
 - Yahoo http://publisher.yahoo.com/promote.php
 - o Google http://www.google.com/webmasters/add.html
 - MSN http://rss.msn.com/publisher.armx



Keeping Up-To-Date Feed

As we have explained earlier, RSS Feed makes sense for the site which are changing their content very frequently, for example, any news or blogging sites.

So now, you have got RSS Feed buttons from Google, Yahoo, and MSN. You must make sure to update your content frequently and that your RSS Feed is constantly available.



7. FEED VALIDATIONS AND VALIDATORS

If you have created one RSS Feed for your news group or web blog or for any other purpose, then it is your responsibility to ensure that your RSS Feed file can be parsed by the XML parser of any subscribing site.

Many of the RSS Feed creation softwares validate XML at the time of Feed creation but some don't. Make a note that small errors can make your Feed unreadable by the standard Feed readers.

So we would suggest you to make sure you have done all the required validations before publishing your RSS Feed. You may wish to load your RSS Feed file to your internet server and then enter the URL in one of the following validators to check the syntax.

- **Feed Validator** This validator validates multiple syndication formats: RSS 0.90, 0.91, 0.92, 0.93, 0.94, 1.0, 1.1, and 2.0. It includes validation for common namespaces.
- **RSS Validator** If you are using RSS 0.91 or RSS0.92, then you can use this validator to validate your RSS Feed.
- Experimental Online RSS 1.0 Validator If you are using RSS 1.0, then you can use this validator.
- **Redland RSS 1.0 Validator and Viewer** This is not just a validator, but also it acts as an RSS to HTML converter.



8. ATOM 1.0

Atom is the name of an XML-based Web content and metadata syndication format, and an application-level protocol for publishing and editing Web resources belonging to periodically updated websites.

Atom is a relatively recent spec and is much more robust and feature-rich than RSS. For instance, where RSS requires descriptive fields such as title and link only in item breakdowns, Atom requires these things for both items and the full Feed.

All Atom Feeds must be well-formed XML documents, and are identified with the *application/atom+xml* media type.

Structure of an Atom 1.0 Feed

A Feed consists of some metadata, followed by any number of entries. Here is a basic structure of an Atom 1.0 Feed.

```
<?xml version="1.0"?>
<feed xmlns="http://www.w3.org/2005/Atom">
  <title>...</title>
  k>...</link>
 <updated>...</updated>
  <author>
   <name>...</name>
  </author>
 <id>...</id>
  <entry>
   <title>...</title>
   k>...</link>
   <id>...</id>
   <updated>...</updated>
   <summary>...</summary>
  </entry>
```



</feed>

Atom 1.0 Feed Tags

An Atom 1.0 Feed Document will be constructed of the following two elements:

- <feed> Elements
- <entry> Elements

There are some common construct, which are required for the above two elements and they are explained in: **Common Construct**.

<feed> Elements

Feed ID

It identifies the Feed using a universally unique and permanent URI. If you have a long-term, renewable lease on your Internet domain name, then you can feel free to use your website's address.

Syntax

<id>http://tutorialspoint.com/</id>

Required

Required.

Feed title

It contains a human readable title for the feed. Often the same as the title of the associated website. This value should not be blank.

Syntax

<title>Tutorials and Reference Manuals</title>

Required

Required.

Feed updation Date

It indicates the last time the Feed was modified in a significant way. All timestamps in Atom must conform to RFC 3339.



```
<updated>2007-07-13T18:30:02Z</updated>
```

Required

Required.

Feed Author

It names one author of the Feed. A Feed may have multiple author elements. A Feed must contain at least one author element unless all of the entry elements contain at least one author element.

An author element can have <name>, <email> and <uri> tags.

Syntax

```
<author>
  <name>Mohtashim</name>
  <email>mohtashim@tutorialspoi.com</email>
  <uri>http://tutorialspoint.com/</uri>
</author>
```

Required

Optional, but recommended.

Feed link

This identifies a related Web page. The type of relation is defined by the *rel* attribute. A Feed is limited to one alternate per type and *hreflang*. A Feed should contain a link back to the Feed itself.

Syntax

```
<link>rel="self" href="/feed"</link>
```

Required

Optional, but recommended.

Feed Category

This specifies a category that the Feed belongs to. A Feed may have multiple category elements.



```
<category>category term="sports"</category>
```

Required

Optional.

Feed Contributor

This names one contributor to the Feed. A Feed may have multiple contributor elements.

Syntax

```
<contributor>
  <name>Mohtashim</name>
</contributor>
```

Required

Optional.

Feed generator

This identifies the software used to generate the Feed, for debugging and other purposes. Both the uri and version attributes are optional.

Syntax

```
<generator uri="/myblog.php" version="1.0">
   Example Toolkit
</generator>
```

Required

Optional.

icon Tag

This identifies a small image, which provides iconic visual identification for the Feed. Icons should be square.

Syntax

```
<icon>/icon.jpg</icon>
```



Required

Optional.

logo Tag

This identifies a larger image, which provides visual identification for the Feed. Images should be twice as wide as they are tall.

Syntax

<logo>/logo.jpg</logo>

Required

Optional.

rights Tag

This conveys information about rights, e.g. copyrights, held in and over the Feed.

Syntax

<rights> @ 2007 TutorialsPoint.com </rights>

Required

Optional.

subtitle Tag

This contains a human-readable description or subtitle for the Feed.

Syntax

<subtitle> A sub title </subtitle>

<entry> Elements

An Atom Feed may contain one or more entry elements. Here's a list of the required and optional Feed elements.

Entry ID

This identifies the entry using a universally unique and permanent URI. Two entries in a Feed can have the same value for *id* if they represent the same entry at different points in time.



<id>http://example.com/blog/1234</id>

Required

Required.

Entry Title

This contains a human readable title for the entry. This value should not be blank.

Syntax

<title>Atom 1.0 Tutorial</title>

Required

Required.

Entry updation date

This indicates the last time the entry was modified in a significant way. This value need not change after a typo is fixed, only after a substantial modification. Generally, different entries in a Feed will have different updated timestamps.

Syntax

<updated>2007-07-13T18:30:02-05:00</updated>

Required

Required.

Entry Author

This names one author of the entry. An entry may have multiple authors. An entry must contain at least one author element unless there is an author element in the enclosing Feed, or there is an author element in the enclosed source element.

Syntax

<author>

<name>Mohtashim</name>

</author>



Required

Optional, but recommended.

Entry Content

This contains or links to the complete content of the entry. Content must be provided if there is no alternate link, and should be provided if there is no summary.

Syntax

<content>complete story here</content>

Required

Optional, but recommended.

Entry link

This identifies a related Web page. The type of relation is defined by the *rel* attribute. An entry is limited to one alternate per type and *hreflang*. An entry must contain an alternate link if there is no content element.

Syntax

<link rel="alternate" href="/blog/1234"/>

Required

Optional, but recommended.

Entry summary

This conveys a short summary, abstract, or excerpt of the entry. Summary should be provided if there is either no content provided for the entry, or that content is not inline.

Syntax

<summary>Some text.</summary>

Required

Optional, but recommended.

Entry Category

This specifies a category that the entry belongs to. An entry may have multiple category elements.



```
<category term="education"/>
```

Required

Optional.

Entry ontributor

This names one contributor to the entry. An entry may have multiple contributor elements.

Syntax

```
<contributor>
  <name>Mohtashim</name>
</contributor>
```

Required

Optional.

Published Tag

This contains the time of the initial creation or the first availability of the entry.

Syntax

```
<published>2007-07-13T09:17:51-08:00</published>
```

Required

Optional.

Entry source

If an entry is copied from one Feed into another Feed, then the source Feed's metadata (all child elements of Feed other than the entry elements) should be preserved if the source Feed contains any of the child elements author, contributor, rights, or category and those child elements are not present in the source entry.

Syntax

```
<source>
  <id>http://moretutorials.org/</id>
  <title>Tutorials and Reference Manuals</title>
```



```
<updated>2007-07-13T18:30:02Z</updated>
  <rights>© 2007 More Tutorials.</rights>
</source>
```

Required

Optional.

Entry rights

This conveys information about rights, e.g. copyrights, held in and over the entry.

Syntax

```
<rights type="html">
    @ 2007 TutorialsPoint.com
</rights>
```

Required

Optional.

Common Constructs

Category

<category> has one required attribute, term, and two optional
attributes, scheme and label.

term identifies the category.

scheme identifies the categorization scheme via a URI.

label provides a human-readable label for display.

Content

<content> either contains, or links to, the complete content of the entry.

In the most common case, the *type* attribute is either *text*, *html*, *xhtml*, in which case the content element is defined identically to other text constructs, which are described here.

Otherwise, if the *src* attribute is present, it represents the URI of where the content can be found. The *type* attribute, if present, is the media type of the content.



Otherwise, if the *type* attribute ends in +xml or /xml, then an xml document of this type is contained inline.

Otherwise, if the *type* attribute starts with *text*, then an escaped document of this type is contained inline.

Otherwise, a base64 encoded document of the indicated media type is contained inline.

Link

// is patterned after html's link element. It has one required attribute, href,
and five optional attributes: rel, type, hreflang, title, and length.

href is the URI of the referenced resource (typically a Web page).

rel contains a single link relationship type. It can be a full URI or one of the following predefined values (default=*alternate*):

- alternate: An alternate representation of the entry or Feed, for example a permalink to the html version of the entry, or the front page of the weblog.
- *enclosure*: A related resource, which is potentially large in size and might require special handling, for example an audio or video recording.
- related: A document related to the entry or Feed.
- self: The Feed itself.
- *via*: The source of the information provided in the entry.

type indicates the media type of the resource.

hreflang indicates the language of the referenced resource.

title indicates the human readable information about the link, typically for display purposes.

length indicates the length of the resource, in bytes.

Person

<author> and <contributor> describes a person, corporation, or similar entity. It has one required element, name, and two optional elements: uri, email.

<name> conveys a human-readable name for the person.

<uri> contains a home page for the person.

<email> contains an email address for the person.



Text

<title>, <summary>, <content>, and <rights> contains human-readable text, usually in small quantities. The type attribute determines how this information is encoded (default="text").

If *type="text"*, then this element contains plain text with no entity escaped html.

```
<title type="text">AT&amp; T bought by SBC!</title>
```

If type="html", then this element contains entity escaped html.

```
<title type="html">
 AT&T bought <b&gt;by SBC&lt;/b&gt;!
</title>
```

If type="xhtml", then this element contains inline xhtml, wrapped in a div element.

```
<title type="xhtml">
 <div xmlns="http://www.w3.org/1999/xhtml">
   AT& T bought <b>by SBC</b>!
 </div>
</title>
```

Check complete specification for atom 1.0 RFC4287.

Atom 1.0 Example Feed

The example shows how to write a Feed using Atom 1.0.

```
<?xml version="1.0" encoding="utf-8"?>
<feed xmlns="http://www.w3.org/2005/Atom">
  <title>Example Feed</title>
  <subtitle>Insert witty or insightful remark here</subtitle>
  <link href="http://example.org/"/>
  <updated>2003-12-13T18:30:02Z</updated>
  <author>
     <name>Mohtashim</name>
     <email>mohtashim@example.com</email>
  </author>
```



Atom1.0 File Extension

A specific file-extension for an Atom 1.0 document is not required. But .xml is recommended.



9. FURTHER EXTENSIONS

RSS originated in 1999, and has strived to be a simple, easy to understand format, with relatively modest goals. After it became a popular format, developers wanted to extend it using modules defined in namespaces, as specified by the W3C.

RSS 2.0 adds that capability, following a simple rule. An RSS Feed may contain elements not described on this page, only if those elements are defined in a namespace.

The elements defined in this tutorial are not themselves members of a namespace, so that RSS 2.0 can remain compatible with the previous versions in the following sense – a version 0.91 or 0.92 file is also a valid 2.0 file. If the elements of RSS 2.0 were in a namespace, this constraint would break, a version 0.9x file would not be a valid 2.0 file.

RSS is by no means a perfect format, but it is very popular and widely supported. Having a settled spec is something RSS has needed for a long time.

However, the RSS spec is, for all practical purposes, frozen at version 2.0.1. But you can anticipate the possible 2.0.2 or 2.0.3 versions, etc. only for the purpose of clarifying the specification, not for adding new features to the format.

Subsequent work should happen in modules, using namespaces, and in completely new syndication formats, with new names.



10. SUMMARY

This tutorial has taught you what is RSS and what are its different versions and associated elements. It described in detail all the elements with examples.

You have learnt how to write RSS Feed for your website and how to publish it on the Web. We have listed out various RSS Feed Promotion techniques as well.

You have also learnt how to validate an RSS Feed and how you can read other RSS Feed available on various sites.

What's Next?

The next step is to follow the given steps in this tutorial and upload your RSS Feed online.

Please send us your feedback and suggestions at webmaster@tutorialspoint.com.

