

## Sony | Media Software

### PSP™ (Playstation®Portable) Media Manager

#### Specifications for Feed Providers and Feed Publishers

##### Revision History

<b>Date</b>	<b>Version</b>	<b>Changes</b>	<b>Author</b>
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## 1. Overview

PSP™ (Playstation®Portable) Media Manager is PC companion software for owners of PSP™ systems. The application's primary purpose is to allow users to transfer music, photos, videos, and game saves between a PC and a PSP. One of the software features is the ability to download RSS feeds for transfer to the PSP. This document describes how to make RSS feeds available within PSP™ Media Manager.

Please see the following page for more information about PSP™ Media Manager:

- <http://www.mediasoftwareapps.com/productinfo.asp?product=pspmm>

There are many ways for users to subscribe to feeds within PSP™ Media Manager:

- Subscribe to a feed from the software's feed Directory.
- Click the Add button, and then paste a URL into the provided input box.
- Drag a link to the RSS feed from a web browser, and drop it onto the software GUI.
- Import an OPML list created by a different RSS aggregator.

The audience for this document: anyone interested in delivering feeds (podcasts, and video blogs, photos, and PSP-formatted magazines) to users of PSP™ Media Manager software.

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## 3. Deliverables

An RSS feed can be delivered by itself or as part of an OPML file. Both the RSS feeds and the OPML file reside on a Web server, and the application checks the server for updates and changes.

The OMPL file is not required if you're interested in publishing a single RSS feed. Publishers who are interested in delivering multiple RSS feeds can organize them using an OPML file.

### 3.1. Feeds available via Web pages

If you plan to post your RSS feed on your Web site, simply create an RSS feed using Section 3.34 as a guideline. If you follow those guidelines, users can easily add your RSS feed to the "My Feeds" section of PSP™ Media Manager.

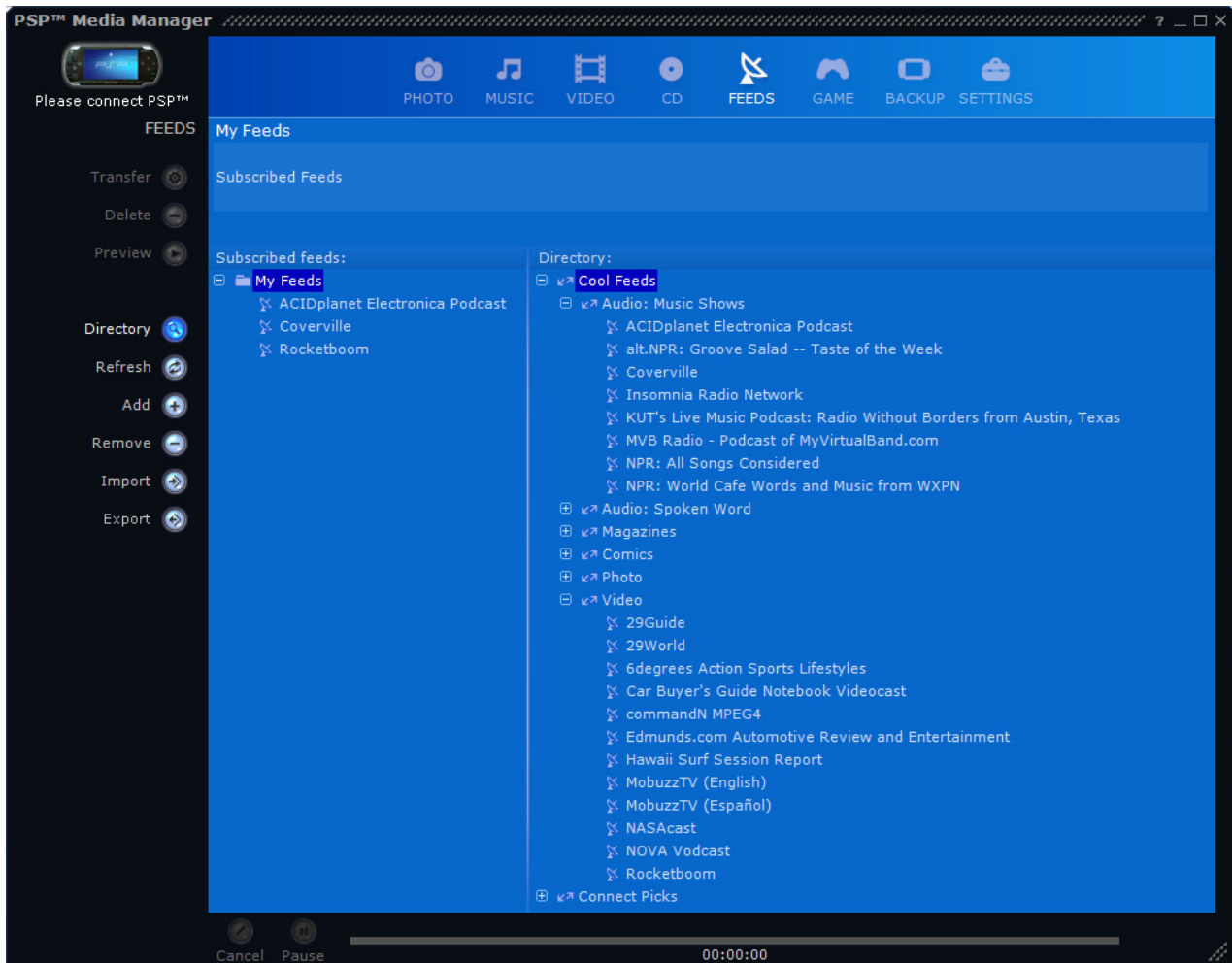
### 3.2. Feeds available via the Feeds Directory

To make feeds available to the software via the Directory, Sony Media Software needs the following:

- The URL that links to the RSS file
- Contact information for the feed publisher

Please contact Sony Media Software for information about including your feed in the software's feed Directory. The email contact is: [MD-Feeds@sonyconnect.com](mailto:MD-Feeds@sonyconnect.com)

### 3.3. Feeds Directory screenshot



### 3.4. Additional Requirements

This section describes what Sony Media Software expects of the Web feed publisher.

- The URL to the feed file is publicly available. It cannot have password protection or employ any type of authentication mechanism.
- The required elements and attributes within the XML file update whenever the content changes. Section 3 describes required elements and attributes.
- The feed publisher has previously reviewed the RSS feeds for valid format and content. This ensures that the application always displays audience-appropriate content and in the correct format. For example, if your feed contains explicit content or bad language, please make the indication clear in your feed description.

## 4. Specification Details

### 4.1. What is RSS? What is OPML?

RSS stands for “really simple syndication” and is an XML document that allows publishers to share episodic information with users who have an Internet connection and software that can parse the XML into a human-friendly format. The Feeds section of PSP™ Media Manager parses RSS documents so that users can transfer music, video, and image content to the PSP™ system for playback.

Version 1 of the software supports RSS 2.0 feeds with enclosures. There are other RSS and ATOM formats that deliver media to a PC. However, other formats (including text-only feeds) are not supported at this time.

OPML is a file format, not a protocol, used to collect logical elements into an outline form. In this case, the logical elements are RSS feeds.

Section 5 includes a complete list of helpful Web sites for understanding the RSS and OPML structure and specifications.

## 4.2. Sample RSS file for PSP™ Media Manager

This section describes the contents of the RSS feed and how it is used in PSP™ Media Manager. Let's start with a sample RSS feed found at <http://acidplanet.com>.

```
<?xml version="1.0" encoding="utf-8" ?>
<rss version="2.0" xmlns:itunes="http://www.itunes.com/DTDs/Podcast-1.0.dtd">
<channel>
  <title>ACIDplanet Electronica Podcast</title>
  <link>http://www.acidplanet.com/podcasts?xml=1</link>
  <description>ACIDplanet.com has gone portable, with new weekly podcasts that you can download and listen to at your leisure. Each podcast contains five songs by ACIDplanet.com artists, with a brief introduction containing each song's title and the artist's name. Use the links below to get more information on the artists and their music.</description>
  <copyright>2005 ACIDplanet.com</copyright>
  <language>en-us</language>
  <docs>http://blogs.law.harvard.edu/tech/rss</docs>
  <lastBuildDate>Fri, 31 Mar 2006 19:01 GMT</lastBuildDate>
  <pubDate>Fri, 31 Mar 2006 19:01 GMT</pubDate>
  <image>
    <title>ACIDplanet Electronica Podcast</title>
    <uri>http://www.acidplanet.com/Pictures/0230000/17432-226160.gif</uri>
    <link>http://www.acidplanet.com/podcasts?xml=1</link>
    <width>120</width>
    <height>92</height>
  </image>
  <item>
    <title>ACIDplanet Electronica Podcast No. 51</title>
    <link>http://www.acidplanet.com/podcasts?xml=1</link>
    <guid isPermaLink="false">http://www.acidplanet.com/podcasts/714</guid>
    <pubDate>Fri, 31 Mar 2006 19:01 GMT</pubDate>
    <description>FRIDAY, MARCH 31, 2006: This week's cast dives through the world of Minimal and Acid Techno. From start to finish the whirrs, beeps, blips, clicks, whomps, and all the other noises will undoubtedly keep you tapping your feet. Approx 30-35 minutes, mixed Electronica. ( Rating: Squeaky Clean (G) / 25.5MB / 125Kbps / 27min 49sec )</description>
    <enclosure url="http://www.acidplanet.com/mediaserver/casts/0003000/ap-20060331-714.mp3" length="26713763" type="audio/mpeg" />
  </item>
  <item>
    <title>ACIDplanet Electronica Podcast No. 50</title>
    <link>http://www.acidplanet.com/podcasts?xml=1</link>
    <guid isPermaLink="false">http://www.acidplanet.com/podcasts/702</guid>
    <pubDate>Fri, 24 Mar 2006 22:01 GMT</pubDate>
    <description>FRIDAY, MARCH 24, 2006: This week's cast shows off some of ACIDplanet's best in Melodic Trance, with enough synths to make your eyes water, and driving beats to keep you grooving all night long. Approx 30-35 minutes, mixed Electronica ( Rating: Squeaky Clean (G) / 26.9MB / 125Kbps / 29min 24sec )</description>
    <enclosure url="http://www.acidplanet.com/mediaserver/casts/0003000/ap-20060324-702.mp3" length="28235517" type="audio/mpeg" />
  </item>
</channel>
</rss>
```

The RSS specification does an excellent job of defining each node, so this document describes how they are used in PSP™ Media Manager.

In many cases, the RSS feeds found on the Internet are slightly out of spec. If PSP™ Media Manager cannot read an RSS feed, compare its contents to the following recommended specification. Differences can be reported to the feed publisher for correction.

The XML document contains elements and attributes. Elements and attributes are case sensitive.

<b>Name</b>	<b>Parent</b>	<b>Elements</b>	<b>Attributes</b>	<b>Required in PSP™ Media Manager?</b>	<b>Notes</b>
<rss>	None, root level	channel	version		version="2.0"
<channel>	rss	title link description language copyright .. and, many other optional elements	None	Yes	Language is important for creating versions of PSP™Media Manager for various languages
<title>	channel	None	None	Yes	Appears in GUI The title is the name of the channel.
<link>	channel	None	None	Yes	Appears in GUI The link is a URL to the HTML Web site associated with the channel.
<description>	channel	None	None	Yes	Appears in GUI A description of the feed, usually used to outline the purpose of the feed
<language>	channel	None	None	Yes	Not yet used in GUI Use the format "en-US" (language-region) to indicate language
<copyright>	channel	None	None	No	Not yet used in GUI
<docs>	channel	None	None	No	Not yet required for the software
<pubDate>	channel	None	None	Yes	Date-times in RSS conform to the Date and Time Specification of RFC 822. Date and time syntax appears in the Appendix of the document. W3C date formats are also acceptable.

<lastBuildDate>	channel	None	None	Yes	Date-times in RSS conform to the Date and Time Specification of RFC 822.  Date and time syntax appears in the Appendix of the document.  W3C date formats are also acceptable.
<image>	channel	title  url: location of the JPG to display for the channel.  link: optional for PSP™ Media Manager  width: width of the image  height: height of the image	None	No	Appears in GUI  Image dimensions: Width: 120 pixels Height: 92 pixels  The RSS specification recommends a 4:3 or 1:1 aspect ratio.
<item>	channel	title link guid pubDate description enclosure	None	Yes	Typically, the <item> element contains several child elements, some from the RSS specification, and some from extended specifications like those provided for iTunes.  The document focuses on child elements used in PSP™ Media Manager software.
<managingEditor>	channel	None	None	No	Displays in software GUI if available from the RSS document.  Contains an email address in this format:  <managingEditor>editor@mysite.com </managingEditor >
<webMaster>	channel	None	None	No	Displays in software GUI if available from the RSS document.  Contains an email address in this format:  <webMaster>webmaster@myblog.com </webMaster>
<title>	item	None	None	Yes	Appears in GUI.  This is the title for the item, also known as an episode, within the feed.

<link>	item	None	None	No	Not yet used in GUI This is typically the link to a description of the item.
<guid>	item	None	None	Yes	Not yet used in GUI or software, but recommended to include in the feed
<pubDate>	item	None	None	Yes	Critical for knowing whether the item is newer than another. date-times in RSS conform to the Date and Time Specification of RFC 822, with the exception that the year may be expressed with two characters or four characters (four preferred). Date and time syntax appears in the Appendix of the document.
<description>	item	None	None	No	Not yet used in GUI
<enclosure>	item	None	url length type	Yes	See section below for details.  Accurate information is important for the best display of information to the user.

#### 4.2.1. Details for <enclosure> attributes

Sample node:

```
<enclosure url="http://www.acidplanet.com/mediaserver/casts/0003000/ap-20050907-247.mp3" length="35131722" type="audio/mp3" />
```

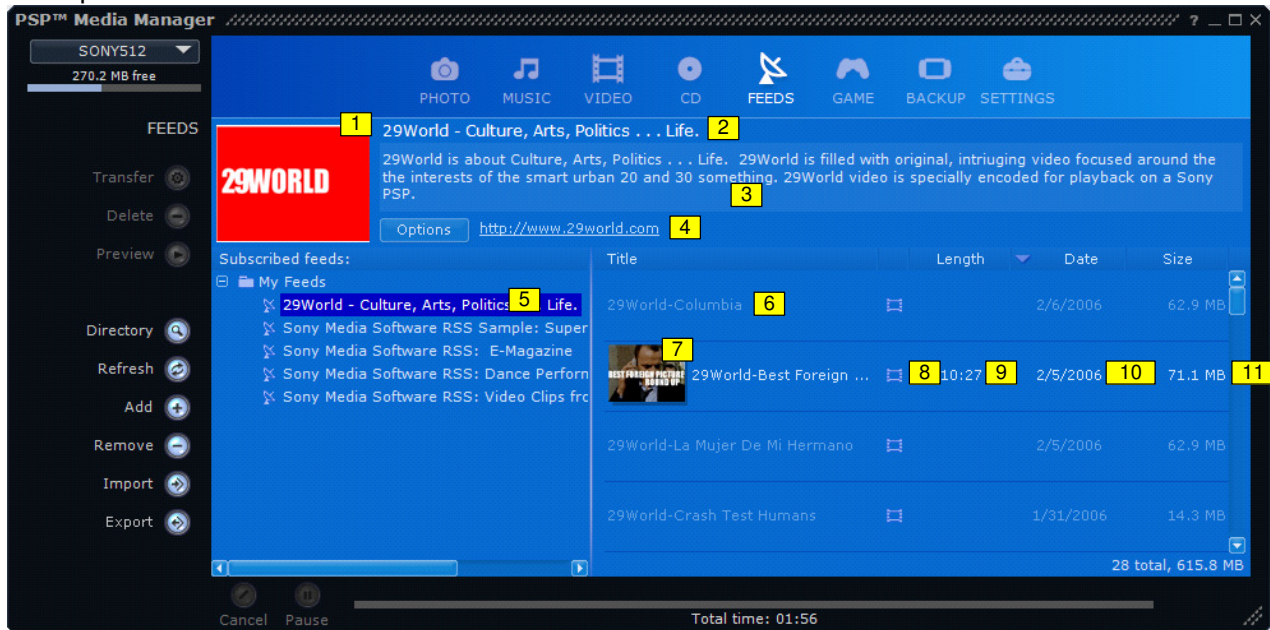
- url: the complete URL to the actual media file.
- length: the actual length of the items for download, in bytes
- type: the mime type of the item that will be downloaded. There are several resources for mime type syntax available on the Web. See section 5 for Web references.

The table below lists mime types for the supported formats, as of PSP™ software update 2.0. Section 6 of the document contains a Web link to a comprehensive list.

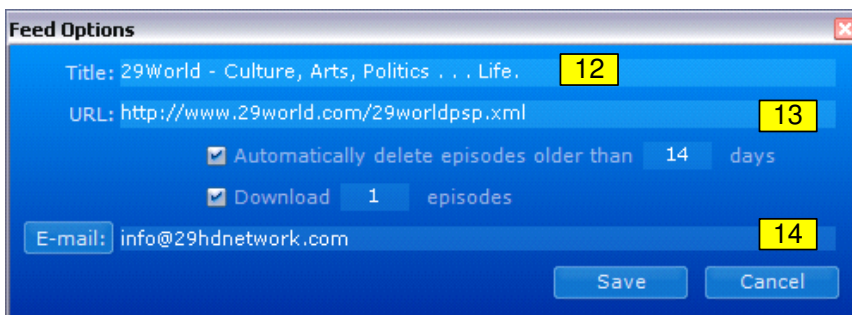
- **Note:** PSP™ Media Manager will encode files from many source formats. If your feed is currently using QuickTime files for video, you can continue to do so and still deliver content via PSP™ Media Manager software. For a complete list of supported source formats, visit this link: <http://www.mediasoftwareapps.com/productinfo.asp?product=pspmm>.

File Format	Mime type
.MP3 audio files	audio/mpeg audio/mp3
.JPG image files	image/jpeg
.MP4 video files	video/mpeg video/mpeg4
.ZIP files for PSP-formatted magazines, slideshows, for video files containing both MP4 and THM files	image/zip video/zip

Here is how the RSS elements appear in PSP™ Media Manager, using the 29world.com feed as an example.



1. channel.image
2. channel.title
3. channel.description
4. channel.link
5. channel.title
6. item.title
7. This is the video thumbnail from a downloaded media file. It is NOT the same as channel.image.
8. Media type, derived from item.enclosure "type" attribute.
9. Length may not be available via RSS. This is also known as Duration, and displays once the item is downloaded.
10. Date is derived from item.pubDate.
11. Size is derived from item.enclosure "length" attribute. If the actual media file is larger than the reported size, correct size displays once the item is downloaded.



12. channel.title.
13. The URL that points to the RSS feed.
14. channel.managingEditor or channel.webMaster (if available).

### 4.3. Sample OPML list for PSP™ Media Manager

Here is an example OPML that contains several OPML lists. Element descriptions are provided below. Again, an OPML file is a good way to organize and distribute several feeds at once, but is not a mandatory part of Web feed delivery.

```
<opml version="1.1">
<head>
  <title>Directory – Master</title>
  <dateCreated>Wed, 10 Aug 2005 00:08:00 GMT</dateCreated>
</head>
<body>
  <outline text="Audio: Spoken Word" title="Audio: Spoken Word" type="opml" xmlUri="http://www.acidplanet.com/Audio_spokenword.opml" />
  <outline text="Photo" title="Photo" type="opml" xmlUri="http://www.acidplanet.com/Photo.opml" />
  <outline text="Audio: Music Shows" title="Audio: Music Shows" type="opml" xmlUri="http://www.acidplanet.com/Audio_musicshows.opml" />
  <outline text="Video" title="Video" type="opml" xmlUri="http://www.acidplanet.com/Video.opml" />
  <outline text="Popular Lists" title="Popular Lists" type="opml" xmlUri="http://www.acidplanet.com/PopularLists.opml" />
</body>
</opml>
```

Here is an example OPML that contains several feeds. Element descriptions are provided below.

```
<?xml version="1.0" encoding="utf-8" ?>
<opml version="1.1">
<head>
  <title>Directory - Spoken Word</title>
  <dateCreated>Wed, 10 Aug 2005 00:08:00 GMT</dateCreated>
</head>
<body>
  <outline text="Revision3 - Diggation Audio" title="Revision3 - Diggation Audio" type="rss" xmlUri="http://revision3.com/dig/feed/high.mp3.xml" />
  <outline text="SciQ: Science Revealed Podcasts" title="SciQ: Science Revealed Podcasts" type="rss" xmlUri="http://www.sciq.ca/podcasts/index.xml" />
  <outline text="science friday podcast" title="science friday podcast" type="rss" xmlUri="http://www.sciencefriday.com/audio/scifriaudio.xml" />
  <outline text="The Radio Adventures Of Dr. Floyd" title="The Radio Adventures Of Dr. Floyd" type="rss" xmlUri="http://www.drflloyd.com/blog/rss.xml" />
  <outline text="The Daily Idiom" title="The Daily Idiom" type="rss" xmlUri="http://englishcaster.com/blogs/wp-rss2.php" />
</body>
</opml>
```

The table illustrates how the OPML structure is used in the software. Elements and attributes are case sensitive. All elements are required for PSP™ Media Manager.

Name	Elements	Attributes
<opml>	head body	None required
<head>	title dateCreated: format in GMT format. Change this date whenever the OMPL list is updated.	
<body>	Outline	
<outline>	None required	text: include both text and title for compatibility with other RSS aggregators. title: include both text and title for compatibility with other RSS aggregators. type: always "opml" or "rss" Among other things, the type determines the shape of the icon that appears next to the title in the GUI. xmlURL: xmlURL: a URL to an OPML list, or a URL to an RSS feed.

#### 4.4. Samples for testing and review

Type the following URLs into your browser or into PSP™ Media Manager to review a working example.

Item	Sample URL
OPML	<a href="http://www.mediasoftwareapps.com/feeds/FeedList.ompl">http://www.mediasoftwareapps.com/feeds/FeedList.ompl</a>
RSS for PHOTO	<a href="http://www.mediasoftwareapps.com/feeds/PhotoExample.asp">http://www.mediasoftwareapps.com/feeds/PhotoExample.asp</a>
RSS for MUSIC	<a href="http://www.mediasoftwareapps.com/feeds/MusicExample.asp">http://www.mediasoftwareapps.com/feeds/MusicExample.asp</a>
RSS for VIDEO: H.263	<a href="http://www.mediasoftwareapps.com/feeds/H263VideoExample.asp">http://www.mediasoftwareapps.com/feeds/H263VideoExample.asp</a>
RSS for VIDEO: H.264	<a href="http://www.mediasoftwareapps.com/feeds/H264VideoExample.asp">http://www.mediasoftwareapps.com/feeds/H264VideoExample.asp</a>

To see how the OPML list works in the software, copy the file to a local drive. Open PSP™ Media Manager and select FEEDS mode. Then click the Import button to add the items in the OPML list to "My Feeds."

To see the RSS feeds in the software, copy the URL from this document. Open PSP Media Manager and select FEEDS mode. Click the Add button, and then type the URL in the input box. Click OK, and the feed appears under "My Feeds."

##### 4.4.1. PHOTO Details

The RSS feed includes an enclosure that is a ZIP file. The zip file contains an ordered set of JPG images, sized for playback on the PSP™ system.

The ZIP file is a great way to deliver e-magazines or comics for reading on the PSP™ system.

**Note:** The PSP™ system displays image files by file creation date order. Edit the file creation date as needed for optimal playback. Once the set of JPG files are ready, put them into a ZIP file and use the URL to the ZIP file as the RSS enclosure. The software preserves the file creation dates when it extracts images from the ZIP file.

##### 4.4.2. MUSIC Details

The RSS feed includes several MP3 enclosures.

This feed delivers music as feed episodes, but the audio content you deliver is only limited by the content provider's imagination.

##### 4.4.3. Video: H.264 Details

The RSS feed includes several ZIP file enclosures.

The zip file contains two items:

- the MP4 video file using the correct naming convention
- the THM image file using the correct naming convention

You can use Vegas or PSP™ Media Manager to create the H.264 video and its corresponding THM file. Once ready, put them into a ZIP file and use the URL to the ZIP for the RSS enclosure.

**Note:** only include one video file per ZIP file

#### **4.4.4. Video: H.263 Details**

The RSS feed includes several ZIP file enclosures.

The zip file contains two items:

- the MP4 video file using the correct naming convention
- the THM image file using the correct naming convention

Create the H.263 video and its corresponding THM file. Once ready, put them into a ZIP file and use the URL to the ZIP for the RSS enclosure.

**Note:** only include one video file per ZIP file

#### **4.4.5. OPML Details**

The OMPL URL illustrates how to organize several RSS feeds into a logical group. This is an optional method for a group of several feeds to end users.

### **4.5. Server side settings**

Web servers hosting OMPL and RSS files may want to update mime types from text/xml to the more correct "application/opml+xml" for OPML files and "application/rss+xml" for RSS feeds.

## **5. Technical Reference & Contacts**

### **5.1. RSS and OMPL Resources**

**RSS Specification:** <http://blogs.law.harvard.edu/tech/rss>

**OPML Specification:** <http://www.opml.org/spec>

**RFC 822** (for date format): <http://asq.web.cmu.edu/rfc/rfc822.html>

**Mime type syntax:** <http://www.webmaster-toolkit.com/mime-types.shtml>

### **5.2. Helpful links from other Feed Creators**

**Images:** <http://www.nyc2123.com/blog/2005/11/free-software-for-psp-image-sequencing.html>

### **5.3. Video creation tools**

Sony Media Software provides two software programs, Vegas<sup>®</sup> and PSP<sup>™</sup> Media Manager, that create PSP-ready AVC video and the corresponding thumbnail images.

Please note that the PSP<sup>™</sup> system requires firmware 2.0 or higher to play AVC video files.

Information about the software:

- **Vegas:**  
<http://www.mediasoftwareapps.com/productinfo.asp?product=vegas>
- **PSP<sup>™</sup> Media Manager:**  
<http://www.mediasoftwareapps.com/productinfo.asp?product=pspmm>

### **5.4. Memory Stick Specifications**

This is the link to the Memory Stick Developer's Site:

<http://www.memorystick.org>

Registration at this site gives you access to technical specifications for video, audio, and image playback from the Memory Stick.

## 5.5. Sony Media Software Contacts

### **Mailing address:**

Sony Media Software  
1617 Sherman Ave  
Madison WI, 53704

### **Email:**

MD-PMMSDK@sonyconnect.com

### **Web site:**

<http://www.sony.com/mediasoftware>

### **Feed Submissions:**

If you have an existing feed to submit for inclusion in the feed Directory, send an email to:  
md-Feeds@sonyconnect.com

## 6. Appendix

### 6.1. 6.1 Date Formats

Extracted from: <http://asq.web.cmu.edu/rfc/rfc822.html>  
Standard for ARPA Internet Text Messages

#### 5 DATE AND TIME SPECIFICATION

##### 5.1 SYNTAX

```
date-time = [ day "," ] date time           ; dd mm yy
           ; hh:mm:ss zzz

day        = "Mon" / "Tue" / "Wed" / "Thu"
           / "Fri" / "Sat" / "Sun"

date       = 1*2DIGIT month 2DIGIT         ; day month year
           ; e.g. 20 Jun 82

month      = "Jan" / "Feb" / "Mar" / "Apr"
           / "May" / "Jun" / "Jul" / "Aug"
           / "Sep" / "Oct" / "Nov" / "Dec"

time       = hour zone                     ; ANSI and Military

hour       = 2DIGIT ":" 2DIGIT [":" 2DIGIT] ; 00:00:00 - 23:59:59

zone       = "UT" / "GMT"                 ; Universal Time
           / "EST" / "EDT"                 ; North American : UT
           / "CST" / "CDT"                 ; Eastern: - 5/ - 4
           / "MST" / "MDT"                 ; Central: - 6/ - 5
           / "PST" / "PDT"                 ; Mountain: - 7/ - 6
           / 1ALPHA                        ; Pacific: - 8/ - 7
           ; Military: Z = UT;
           ; A:-1; (J not used)
           ; M:-12; N:+1; Y:+12
           / ( ("+" / "-") 4DIGIT )        ; Local differential
           ; hours+min. (HHMM)
```

##### 5.2 SEMANTICS

If included, day-of-week must be the day implied by the date specification. Time zone may be indicated in several ways. "UT" is Universal Time (formerly called "Greenwich Mean Time"); "GMT" is permitted as a reference to Universal Time. The military standard uses a single character for each zone. "Z" is Universal Time. "A" indicates one hour earlier, and "M" indicates 12 hours earlier; "N" is one hour later, and "Y" is 12 hours later. The letter "J" is not used. The other remaining two forms are taken from ANSI standard X3.51-1975. One allows explicit indication of the amount of offset from UT; the other uses common 3-character strings for indicating time zones in North America.

<end of document>