

Submission and Feedback Processes

Podcasting on iTunes requires several steps:

Creating your first episode, which can be an audio recording, video, or even a text document. Supported file formats include .m4a, .mp3, .mov, .mp4, .m4v, .pdf and .epub.

Posting your episode file(s) on a server with byte-range support enabled and a publicly accessible URL. Byte-range support allows users to stream your episodes.

Creating an RSS feed (an XML file) that:

- conforms to the [RSS 2.0 specification](#)
- includes the recommended iTunes RSS tags,
- contains pointers to your episode.

Posting the RSS file on a server.

Submit the URL for your RSS feed to iTunes.

The rest of this section covers the submission process. The remainder of this document focuses on technical aspects of preparing your RSS feed.

[Back to top](#)

Creating Your Feed and the Importance of Good Metadata.

There are a number of applications and online services that will assist you in the creation of your podcast's XML feed; you can even create one by hand using nothing but a text editor. Refer to those services or other documentation for the details of creating a feed. However, here are a few tips:

Pay very close attention to the title, author, description, and keywords tags at the `<channel>` and `<item>` level of your podcast feed, because these are the fields that iTunes indexes for search. This metadata, along with your podcast art, is your product packaging. It will affect whether your podcast shows up in relevant searches, and whether users who find your podcast are likely to click the Subscribe button.

Make your title specific. A podcast entitled "Our Community Bulletin" is too vague and will attract no subscribers, no matter how compelling the content.

Take advantage of the `<itunes:summary>` tag. The `<itunes:summary>` tag (or the `<description>` tag if `<itunes:summary>` is not present) is your chance to tell potential subscribers all about your podcast. Describe your subject matter, media format, episode schedule, and other relevant info so that they know what they'll

be getting when they subscribe. In addition, make a list of the most relevant search terms that you want your podcast to match, then build them into your description. Note that iTunes removes podcasts that include lists of irrelevant words in the `<itunes:summary>`, `<description>`, or `<itunes:keywords>` tags.

Minimize keyword usage. Almost nothing belongs in the keywords tag that isn't better handled in the title or `<itunes:summary>` tag. The best use for keywords is to include common misspellings of your name or title, to ensure your podcast is still searchable despite a misspelling. To prevent keyword abuse, iTunes indexes only the first 12 keywords found in this tag.

Be sure to include a valid `<itunes:category>`. Podcasts that have a category can appear in more places in iTunes and are more likely to be found by users. Your category should be in English in your feed, but will be localized in iTunes Store.

Pick a reliable podcast host. Too many podcasters create a feed and then find that their ability to move or edit the feed later is limited by the podcast's host. Make sure your podcast is hosted in a place where you are in control of the content.

Create a graphic for your podcast that is easy to recognize when scaled down to 50x50 pixels. Good art communicates the value of the podcast with a simple picture and a few words. Before you create your podcast art, go to the Podcast page in the iTunes Store, click on Top Podcasts, and note which art works best and why. We recommend a 1400 x 1400 pixel JPG for cover art. You can also use images at the episode level.

[Back to top](#)

Understanding the iTunes Client and the iTunes Store.

"iTunes" is one word that is used to refer to two things: 1) a client application that people install on their Mac, PC or device to manage their music, podcasts, movies, TV shows, etc., and 2) a server-side online site called the iTunes Store (iTS). Before you submit your feed to the iTunes Store, it's critical to understand this difference. Most misunderstandings regarding iTunes and podcasting stem from a failure to clearly distinguish between the client and the Store.

When you submit your podcast, you are notifying iTS that you have a podcast feed that is located in a particular location (the feed URL). If your feed is accepted, iTS simply reads your feed each day and updates the podcast directory with any new or changed information about your podcast. Note that iTS does not cache or make a copy of your feed, nor does it cache or make a copy of your episode files. For podcasts, iTS is acting in a capacity similar to a web directory.

When users find interesting podcasts in iTS, they click the Subscribe button, causing the podcast feed URL to be copied from iTS to the user's iTunes client. The iTunes client reads the podcast feed that is located at the feed URL, then downloads the media file for the podcast's most recent episode from the web server where it is hosted.

There are two important consequences of the subscriber's iTunes client reading directly from the web server where the podcast is hosted rather than accessing the podcast via iTunes:

The user's iTunes client does not look to iTunes for new information about your podcast. If iTunes is not yet showing your most recent episode, that doesn't mean your subscribers can't download the episode. Furthermore, if you move your podcast to a new location, you need to communicate the new location not only to iTunes, but also to all of the iTunes clients that are subscribed to your feed. For more information, see the "Changing Your Feed URL" section below.

The user's iTunes client does not report any information about episode downloads to iTunes, and it does not tell iTunes if the user unsubscribes from your feed. Just as a web directory can't tell you how much traffic your web site has, iTunes can't tell you how many users have downloaded your podcast episodes. This information can only come from the server on which your podcast feed and (more important) episode files are hosted.

Throughout the remainder of this document, we will refer to the iTunes client as "iTunes" and the iTunes Store as "iTunes."

[Back to top](#)

Testing Your Feed.

When you have created your RSS feed and posted it to a server with a publicly addressable URL (i.e., not behind a firewall), you should test your feed to see if it works with iTunes:

Launch iTunes.

In the Advanced menu, select Subscribe to Podcast.

Enter your feed URL in the text box and click OK.

iTunes displays your Podcast playlist, which shows all of the podcasts to which you have subscribed. Next to the new podcast subscription, you should see an orange circle, which indicates that iTunes is downloading your most recent episode. When the orange circle disappears, you should be able to see your podcast title, a list of all the episodes referenced in your feed, and a check next to the most recent episode, indicating that it has been successfully downloaded. Double-click on the episode to play it in iTunes. If you can successfully play the episode, then your feed is working and you can submit your podcast to iTunes. Use the Apple iBooks application to view your books and ensure they are displaying properly.

If the orange circle is replaced by an exclamation point (!) in a black circle, iTunes encountered a problem with your feed or episode. You should troubleshoot your episode and feed before submitting it. Please do not submit your feed until you can successfully subscribe using the Advanced menu.

[Back to top](#)

Submitting Your Podcast to the iTunes Store.

If you can successfully subscribe to your feed using the Advanced menu in iTunes, you're ready to submit your feed:

Launch iTunes.

In the left navigation column, click on iTunes Store to open the store.

Once the store loads, click on Podcasts along the top navigation bar to go to the Podcasts page.

In the right column of the Podcasts page, click on the Submit a Podcast link.

Follow the instructions on the [Submit a Podcast](#) page.

Note that to submit a podcast you will need a valid iTunes account, and you will need to be logged into iTunes. If you are not logged in, iTunes will prompt you to do so before accepting your submission. By requiring you to log in, iTunes increases the likelihood of valid contact information for each submission. Your credit card will not be charged for submission of a podcast.

If you have created an RSS feed with all of the recommended iTunes tags, you will see a summary page immediately after you submit your feed URL. If you have not included `<language>`, `<itunes:category>`, and `<itunes:explicit>` tags in your feed, you will see a second screen prompting you for this information. Please note that you can change this information at a later date by including the tags in your feed. Your RSS feed is considered the current and authoritative source for information about your podcast.

[Back to top](#)

Submission Errors and Duplicate Feeds.

There are a variety of errors that iTunes can encounter when you submit your feed. Almost all of them can be avoided by testing your feed using the Advanced menu prior to submitting your feed.

In some cases, when you submit your feed URL, iTunes will respond by saying that the feed has already been submitted. There are two possible causes:

Someone has already submitted the same feed URL.

Someone has already submitted a feed with the same content in the `<title>` and `<link>` fields.

In either case, iTunes blocks your feed to avoid listing duplicate podcasts.

If the submission is blocked because the feed URL has already been submitted, and you are in control of the RSS feed, then you don't have a problem: your podcast is in iTunes

and you can control it by editing your feed.

If you are the feed owner and the feed that is listed in iTunes is not under your control, you can attempt to contact the owner by finding the feed URL and examining the code for contact information. You can also contact iTunes by navigating to the podcasts page (where all of episodes for the podcast are listed) and selecting the Report a Concern link. In the Choose Reason list, select "is mine and I would like it removed from the Music Store" and provide a detailed explanation of the problem as well as contact information. See the [Frequently Asked Questions](#) page for how to determine the feed URL currently used by iTunes.

[Back to top](#)

The Submission Queue.

Upon submission, your podcast is placed in a queue for review by the iTunes staff. Your podcast may be rejected for a variety of reasons, including but not limited to:

- Technical problems, usually the lack of episodes or the inability to download or play episodes. These problems can almost always be avoided by testing your feed using Subscribe to Podcast in the Advanced menu prior to submission.
- Requirement of a login or password to access the feed or any of the episodes.
- Strong prevalence of sexual content.
- Use of explicit language in the title, description or cover art of the podcast.
- Use of explicit language in the podcast when the `<explicit>` tag is not set to "yes".
- Apparent misuse of copyrighted material or other violation of third party rights.
- Inclusion of offensive material, such as racist content or child pornography.
- Misrepresentational use of Apple copyright, including "iPod," "iPhone," "iPad," "Apple TV" and "iTunes."

In general, if there's something that you want to convey about your feed, please do so in the summary field in your RSS feed, not in the content of an episode.

Normally, podcasts that are added to iTunes will appear first in iTunes search, and later in iTunes browse. Appearing in the browse category that you specified can take up to five days. The image associated with your podcast may also require additional time to appear, because images are edge-cached by iTunes and must propagate across the caching servers.

[Back to top](#)

Linking to Your Podcast.

If your podcast is accepted, customers will be able to discover it in the iTunes Store via search or browse. But you can also create links directly to your podcasts and share those on your website or in email. There are two linking methods:

iTunes Store Link: The following link goes directly to your podcast page in iTunes, where users will have the opportunity to subscribe to the podcast. This link can be found for any podcast by control + clicking (or right clicking in Windows) the podcast's art on its page in the iTunes Store:

<http://phobos.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=FEEDID>

Note that a shorter but functionally identical link is also available:

<http://www.itunes.com/podcast?id=FEEDID>

This is the preferred method among podcasters, because it results in an action (the user clicking on the Subscribe button in the iTunes Store) that is registered by iTS and will drive your podcast up the various automated charts.

Furthermore, by linking back to iTS you have the opportunity to earn money through the iTunes affiliate revenue sharing program. Learn more about the [iTunes Affiliate Program](#)

Direct Subscribe Link: The following link automatically subscribes the user to the podcast in iTunes. Note that this method fails for Windows users who do not have iTunes installed, so it should be clearly noted that the link is intended for subscription with iTunes.

itpc://FEEDURL

Also note that this method will not push your podcast up the various charts in the iTunes Store and it is not eligible for the iTunes Affiliate Program. It is a direct call to the user's iTunes client software and sends no information to the iTunes Store. If you want to increase the visibility of your podcast and earn money through the iTunes Affiliate Program, we recommend that your web site and other marketing materials use the iTunes Store link described above.

[Back to top](#)

Adding Episodes.

Whenever you create a new podcast episode, you should add a new `<item>` section to your podcast feed. The iTunes directory will list the episode the next time it reads your feed. The order in which the episodes appear is based on the `<pubDate>` for each item, with the most recent episodes appearing at the top of the list.

By default, the iTS directory reads every feed once per day. The subscriber's iTunes client picks up new episodes based on the preferences set by the user.

[Back to top](#)

Troubleshooting Your Feed.

iTS should update your listing at least once every 24 hours. If you made changes more than 24 hours ago that are not yet reflected in your iTunes listing, there is a good chance that your feed has broken. When iTS encounters a broken feed, it ignores the feed and continues to display the old data.

Here is a set of recommended steps to fix your feed:

Review the technical spec, particularly the example feed, to ensure that every detail of your podcast's feed is supported by iTunes.

Use a feed validation service like <http://www.feedvalidator.org> to check for particular problems. This may be helpful in determining a specific problem with syntax.

If you used a software or online-based feed creation service, check to ensure your settings there are correct and iTunes-compliant. Review the section on [iTunes Formatting](#) below.

Subscribe to the feed in iTunes to see if it works. Open iTunes, go to the Advanced menu, choose "Subscribe to Podcast" and enter your feed's URL.

[Back to top](#)

Removing or Blocking Your Feed.

If you are no longer creating a podcast and you want it removed from iTS, you should:

Log into iTS.

Find and select your podcast.

Click on Report a Concern under the Links heading on the far left.

Select "Remove a Podcast" from the Choose a Reason menu.

Explain why you want the podcast removed.

In most cases, we will remove the podcast from iTS, especially if we find that the podcast is no longer available at the feed URL.

If you want to remove your feed temporarily, you can use the `<iTunes:block>` tag described in the iTunes RSS Tags section below.

[Back to top](#)

Changing Your Feed URL.

Podcasters occasionally need to move their feed from one location to another. To do so without losing subscribers, you must convey the change directly to all users who are subscribed to your feed. If possible, you should do two things:

- You should use the `<itunes:new-feed-url>` tag described in the iTunes RSS Tags section below. The tag will cause iTunes to be updated with the new feed URL, as well as all iTunes client versions that support podcasting.
- You should set your web server to return an HTTP 301 response and redirect when receiving a request for the old feed. Doing so will cause both the iTunes and most (but not all) iTunes clients that have subscribed to your podcast to pick up the new feed URL.
- The `<itunes:new-feed-url>` tag will work for iTunes and all versions of the iTunes client that support podcasting. The 301 redirect will work for most of your subscribers who do not use the iTunes client. We recommend that you use both methods to update the greatest possible number of subscribers with your new feed URL.
- Be sure to maintain the `<itunes:new-feed-url>` tag and the 301 redirect for at least two weeks to ensure that most subscribers have attempted to download your most recent episode and have thereby received the new URL.
- If you are not able to use both methods, you may want to include an audio note in your podcast, informing your subscribers that your podcast has changed locations.

[Back to top](#)

Being Featured on iTunes Store.

At iTunes, we're constantly on the lookout for podcasts that are breaking new ground with this medium, have new or unusual content, or just capture our interest. When we find them, we like to feature them on the Podcasts home page. While there are no sure-fire ways to get your podcast featured (and no, we do not accept payments or gifts for promotion), there are some minimum requirements. To be featured by iTunes, podcasts must have:

An attractive, original image that does not include the iPod or other Apple-branded content. For image specs, see the iTunes Image section below.

A robust and accurate description for the podcast and all related episodes.

A valid author listed.

Proper language, category, and explicit tagging.

In addition, featured podcasts must be regularly updated with new episodes. We occasionally feature a podcast after its first episode, but we generally like to see podcasts with at least 3 episodes, and we like to see that the most recent episode has been added in the past month. Ideally, the episodes should be released on a regular and predictable basis. More than 100 podcasts are submitted every day, so it is impossible to feature all of the good ones.

[Back to top](#)

Tracking Usage.

Please note that iTunes does not provide usage statistics, because we do not host feeds or episodes. Some podcasters have created mechanisms for tracking the number of times that each episode has been downloaded. iTunes does not provide support in how to track downloads, but the following notes may be helpful:

- 302s will be followed to a depth of 5 redirects and will not update the feed URL in the directory.
- The URL before the GET-style form values (before the first ?) must end in a media file extension (e.g. mp3). To work around this, the feed provider can alter their URL from this:

<http://www.podcaster.com/load.php?f=&Wipeout.php>

to this:

<http://www.podcaster.com/load.mp3?f=&Wipeout.mp3>

Notice how it says load.mp3 instead of load.php. It should be possible to accomplish this via various means, such as web server rewrites. iTunes looks at the extension of the path part of the url, i.e. the part before the "?".

[Back to top](#)

Pausing a Subscription.

iTunes automatically pauses a subscription and won't download further episodes if the following conditions are both met:

The user has not played any episode downloaded in the past 5 updates (there may be more than one episode downloaded per update).

More than 5 days have elapsed since an episode was played.

In addition to minimizing unnecessary bandwidth costs for both the user and the podcaster, the unsubscribe logic built into the iTunes client makes it more likely that episode downloads, as reported by a podcaster to a sponsor, are roughly in line with actual plays of the episode.

[Back to top](#)

Formatting Video for the iPod Touch, iPhone, iPad or Apple TV

Although iTunes can play a variety of .mp4, .m4v, and .mov video formats, iPod, iPhone, iPad and Apple TV all require more specific formats.

The maximum video size supported by each device is:

- iPhone 3GS: 640x480
- iPod Touch, iPhone 4, iPhone 4S: 960x640
- iPad 2: 1024x768
- iPad: 2048x1536
- Apple TV: 1920x1080

To optimize for all Apple platforms, we recommend that your source file is at least 640 pixels wide and that you use the built-in iPod converters in Compressor ("H.264 for iPod"), QuickTime X (Save in iPod/iPhone/Apple TV format) or iTunes ("Create iPod/iPhone/iPad/Apple TV Version"). Each of these maintains the aspect ratio of your source file and results in an M4V file containing H.264 video (Low Complexity version of the Baseline profile) and AAC-LC audio. If you want to maximize the screen area of a wide-screen TV, your source file should have an aspect ratio of 16:9 (e.g., 640x360). If you want to maximize the screen area on the iPod Touch & iPhone, your source file should have an aspect ratio of 4:3 (e.g., 640x480).

Refer to the specifications below if you are not using the built-in converters in Compressor, QuickTime X, or iTunes.

iPhone 3GS can play the following video formats:

- H.264 video, up to 1.5 Mbps, 640 x 480, 30 frames per sec., Low-Complexity version of the Baseline Profile with AAC-LC audio up to 160 kbps, 48 Khz, stereo audio in .m4v, .mp4, and .mov file formats
- H.264 video, up to 768 kbps, 320 x 240, 30 frames per sec., Baseline Profile up to Level 1.3 with AAC-LC audio up to 160 kbps, 48 Khz, stereo audio in .m4v, .mp4, and .mov file formats
- MPEG-4 video, up to 2.5 Mbps, 640 x 480, 30 frames per sec., Simple Profile with AAC-LC audio up to 160 kbps, 48 Khz, stereo audio in .m4v, .mp4, and .mov file formats

iPod Touch & iPhone 4 can play the following video formats:

- H.264 video up to 720p, 30 frames per second, Main Profile level 3.1 with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats
- MPEG-4 video, up to 2.5 Mbps, 640 by 480 pixels, 30 frames per second, Simple Profile with AAC-LC audio up to 160 Kbps per channel, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats
- Motion JPEG (M-JPEG) up to 35 Mbps, 1280 by 720 pixels, 30 frames per second, audio in ulaw, PCM stereo audio in .avi file format

iPhone 4S can play the following video formats:

- H.264 video up to 1080p, 30 frames per second, High Profile level 4.1 with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats;
- MPEG-4 video up to 2.5 Mbps, 640 by 480 pixels, 30 frames per second, Simple Profile with AAC-LC audio up to 160 Kbps per channel, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats;
- Motion JPEG (M-JPEG) up to 35 Mbps, 1280 by 720 pixels, 30 frames per second, audio in ulaw, PCM stereo audio in .avi file format

iPad 2 & iPad can play the following video formats:

- H.264 video up to 1080p, 30 frames per second, High Profile level 4.1 with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats
- MPEG-4 video up to 2.5 Mbps, 640 by 480 pixels, 30 frames per second, Simple Profile with AAC-LC audio up to 160 Kbps per channel, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats
- Motion JPEG (M-JPEG) up to 35 Mbps, 1280 by 720 pixels, 30 frames per second, audio in ulaw, PCM stereo audio in .avi file format

Apple TV can play the following video formats:

- H.264 video up to 1080p, 30 frames per second, High or Main Profile level 4.0 or lower, Baseline profile level 3.0 or lower with AAC-LC audio up to 160 Kbps per channel, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats
- MPEG-4 video up to 2.5 Mbps, 640 by 480 pixels, 30 frames per second, Simple Profile with AAC-LC audio up to 160 Kbps, 48kHz, stereo audio in .m4v, .mp4, and .mov file formats
- Motion JPEG (M-JPEG) up to 35 Mbps, 1280 by 720 pixels, 30 frames per second, audio in ulaw, PCM stereo audio in .avi file format

[Back to top](#)

An Example Feed

```
<?xml version="1.0" encoding="UTF-8"?>
<rss xmlns:itunes="http://www.itunes.com/dtds/podcast-1.0.dtd"
version="2.0">
<channel>
<title>All About Everything</title>
```

```
<link>http://www.example.com/podcasts/everything/index.html</link>

<language>en-us</language>

<copyright>&#x2117; &amp; &#xA9; 2005 John Doe &amp; Family</copyright>

<itunes:subtitle>A show about everything</itunes:subtitle>

<itunes:author>John Doe</itunes:author>

<itunes:summary>All About Everything is a show about everything. Each
week we dive into any subject known to man and talk about it as much as
we can. Look for our Podcast in the iTunes Store</itunes:summary>

<description>All About Everything is a show about everything. Each week
we dive into any subject known to man and talk about it as much as we
can. Look for our Podcast in the iTunes Store</description>

<itunes:owner>

<itunes:name>John Doe</itunes:name>

<itunes:email>john.doe@example.com</itunes:email>

</itunes:owner>

<itunes:image
href="http://example.com/podcasts/everything/AllAboutEverything.jpg" />

<itunes:category text="Technology">

<itunes:category text="Gadgets"/>

</itunes:category>

<itunes:category text="TV &amp; Film"/>

<item>

<title>Shake Shake Shake Your Spices</title>

<itunes:author>John Doe</itunes:author>

<itunes:subtitle>A short primer on table spices</itunes:subtitle>

<itunes:summary>This week we talk about salt and pepper shakers,
comparing and contrasting pour rates, construction materials, and
overall aesthetics. Come and join the party!</itunes:summary>

<itunes:image
href="http://example.com/podcasts/everything/AllAboutEverything/Episode
1.jpg" />

<enclosure
url="http://example.com/podcasts/everything/AllAboutEverythingEpisode3.
m4a" length="8727310" type="audio/x-m4a" />

<guid>http://example.com/podcasts/archive/aae20050615.m4a</guid>
```

```
<pubDate>Wed, 15 Jun 2005 19:00:00 GMT</pubDate>

<itunes:duration>7:04</itunes:duration>

<itunes:keywords>salt, pepper, shaker, exciting</itunes:keywords>

</item>

<item>

<title>Socket Wrench Shootout</title>

<itunes:author>Jane Doe</itunes:author>

<itunes:subtitle>Comparing socket wrenches is fun!</itunes:subtitle>

<itunes:summary>This week we talk about metric vs. old english socket
wrenches. Which one is better? Do you really need both? Get all of your
answers here.</itunes:summary>

<itunes:image
href="http://example.com/podcasts/everything/AllAboutEverything/Episode
2.jpg" />

<enclosure
url="http://example.com/podcasts/everything/AllAboutEverythingEpisode2.
mp3" length="5650889" type="audio/mpeg" />

<guid>http://example.com/podcasts/archive/aae20050608.mp3</guid>

<pubDate>Wed, 8 Jun 2005 19:00:00 GMT</pubDate>

<itunes:duration>4:34</itunes:duration>

<itunes:keywords>metric, socket, wrenches, tool</itunes:keywords>

</item>

<item>

<title>Red, Whine, & Blue</title>

<itunes:author>Various</itunes:author>

<itunes:subtitle>Red + Blue != Purple</itunes:subtitle>

<itunes:summary>This week we talk about surviving in a Red state if you
are a Blue person. Or vice versa.</itunes:summary>

<itunes:image
href="http://example.com/podcasts/everything/AllAboutEverything/Episode
3.jpg" />

<enclosure
url="http://example.com/podcasts/everything/AllAboutEverythingEpisode1.
mp3" length="4989537" type="audio/mpeg" />

<guid>http://example.com/podcasts/archive/aae20050601.mp3</guid>
```

```
<pubDate>Wed, 1 Jun 2005 19:00:00 GMT</pubDate>
<itunes:duration>3:59</itunes:duration>
<itunes:keywords>politics, red, blue, state</itunes:keywords>
</item>
</channel>
</rss>
```

[Back to top](#)

iTunes RSS Tags

iTunes uses [RSS 2.0](#) plus some additional tags. Note that the additional tags are not required (except to be eligible for featured placement on the iTunes Podcast page), but are recommended where needed in order to provide the best possible user experience.

[Back to top](#)

Defining Tags with the iTunes Podcasting Namespace.

When using the iTunes tags, you must add a namespace declaration as the second line in your feed xml, like this:

```
<rss xmlns:itunes="http://www.itunes.com/dtds/podcast-1.0.dtd"
version="2.0">
```

The namespace declaration points to a document that defines the iTunes tags. Without the declaration, the tags are meaningless.

Note that the namespace definition is case sensitive, and the previous location of the namespace had capital letters in it. The old namespace definition is still supported, but the new (all lowercase) definition is preferred.

[Back to top](#)

Text Encoding.

Please use UTF-8 encoding for your feed. Other encodings are not guaranteed to work in iTunes.

All values should be plain text (no markup or HTML). Values are limited to 255 characters, except for [<itunes:summary>](#) which can be up to 4000 characters. Whitespace in values is significant, i.e. it will show in iTunes, so don't add leading or trailing whitespace to your values. CDATA sections are strongly discouraged.

[Back to top](#)

Use and Display of Common Tags in Channel and Item Sections.

The following table shows which tags apply to the channel (podcast) as a whole and which tags apply to individual items (episodes). The table also shows where the tag contents appear in iTunes:

xml tag	channel	item	where content appears in iTunes
<title>	Y	Y	Name column
<link>	Y		website link and arrow in Name column
<copyright>	Y		not visible
<pubDate>		Y	Release Date column
<itunes:author>	Y	Y	Artist column
<itunes:block>	Y	Y	prevent an episode or podcast from appearing
<itunes:category>	Y		Category column and in iTunes Store Browse
<itunes:image>	Y	Y	Same location as album art
<itunes:duration>		Y	Time column
<itunes:explicit>	Y	Y	parental advisory graphic in Name column
<itunes:isClosedCaptioned>		Y	Closed Caption graphic in Name column
<itunes:order>		Y	override the order of episodes on the store
<itunes:complete>	Y		indicates completion of podcasts; no more episodes
<itunes:keywords>	Y	Y	not visible but can be searched
<itunes:new-feed->	Y		not visible, used to inform iTunes of new feed URL

url			location
<itunes:owner>	Y		not visible, used for contact only
<itunes:subtitle>	Y	Y	Description column
<itunes:summary>	Y	Y	when the "circled i" in Description column is clicked

<enclosure>

The <enclosure> tag has three attributes: URL, length, and type. An enclosure from the example feed above:

```
<enclosure
url="http://example.com/podcasts/everything/AllAboutEverythingEpisode2.mp3" length="5650889" type="audio/mpeg"/>
```

The file extension of the URL attribute of this tag is used to determine if an item should appear in the Podcast directory. Supported extensions include "m4a", "mp3", "mov", "mp4", "m4v", "pdf", and "epub".

The length attribute is the file size in bytes. Find this information in the files properties (on a Mac, "Get Info" and refer to the size row).

The type element depends upon the type of file the enclosure refers to. Common files and their MIME type extensions are listed in the following table.

File	Type
.mp3	audio/mpeg
.m4a	audio/x-m4a
.mp4	video/mp4
.m4v	video/x-m4v
.mov	video/quicktime
.pdf	application/pdf
.epub	document/x-epub

<guid>

Every <item> should have a **globally unique identifier** that never changes. When you add episodes to your feed, guides are compared in case sensitive fashion to determine which episodes are new. If you omit the guid for an episode, the episode url will be used instead.

<pubDate>

This tag specifies the date and time when an episode was released. The format for the content should be per [RFC 2822](#); e.g.:

Wed, 15 Jun 2005 19:00:00 GMT

<itunes:author>

The content of this tag is shown in the Artist column in iTunes. If the tag is not present, iTunes uses the contents of the `<author>` tag. If `<itunes:author>` is not present at the feed level, iTunes will use the contents of `<managingEditor>`.

<itunes:block>

Use this inside a `<channel>` element to prevent the entire podcast from appearing in the iTunes Podcast directory. Use this inside an `<item>` element to prevent that episode from appearing in the iTunes Podcast directory. For example, you may want a specific episode blocked from iTunes if its content might cause the feed to be removed from iTunes.

If this tag is present and set to "yes" (case insensitive), that means to block the feed or the episode. If the tag's value is any other value, including empty string, it's indicated as a signal to unblock the feed or episode. At the feed level, if there is no block tag, then the block status of the feed is left unchanged. At the episode level, if there is no block tag, it is the same as if a `block=no` were present.

<itunes:category>

There are two ways to browse podcast subject categories on iTunes: click Browse in the Quick Links box or click a selection in the Category box. The former method leads to a text-based table, while the latter leads to pages that include the podcast art.

All iTunes Store-supported categories and subcategories are listed at the end of this document. For placement within the older, text-based browse system, podcast feeds may list up to 3 category/subcategory pairs. (For example, "Music" counts as 1, as does "Business > Careers.") For placement within the newer browse system based on Category links, however, and for placement within the Top Podcasts and Top Episodes lists that appear in the right column of most podcast pages, only the first category listed in the feed is used.

Categories and subcategories can be specified as follows. Use a top level `<itunes:category>` to specify the browse category, and a nested `<itunes:category>` to specify the browse subcategory. Choose from the existing categories and subcategories in iTunes. Be sure to properly escape ampersands. A complete list is included at the end of this document.

Examples:

Single category:

```
<itunes:category text="Music" />
```

Category with ampersand:

```
<itunes:category text="TV & Film" />
```

Category with Subcategory:

```
<itunes:category text="Society & Culture">  
    <itunes:category text="History" />  
</itunes:category>
```

Entry with multiple categories:

```
<itunes:category text="Society & Culture">  
    <itunes:category text="History" />  
</itunes:category>  
    <itunes:category text="Technology">  
    <itunes:category text="Gadgets" />  
</itunes:category>
```

<itunes:image>

This tag specifies the artwork for your podcast. Put the URL to the image in the href attribute. iTunes prefers square .jpg images that are at least 1400 x 1400 pixels, which is different than what is specified for the standard RSS image tag. In order for a podcast to be eligible for an iTunes Store feature, the accompanying image must be at least 1400 x 1400 pixels.

iTunes supports images in JPEG and PNG formats with a RGB color space (CMYK is not supported). The URL must end in ".jpg" or ".png". If the tag is not present, iTunes will use the contents of the RSS image tag.

If you change your podcast's image, also change the file's name. iTunes may not change the image if it checks your feed and the image URL is the same.

Spend some time developing an attractive, original image that represents your podcast well. Potential subscribers will see it on your podcast's page and a much smaller version of the image in search results and feature placements. Make sure your design is effective in both sizes.

The <itunes:image> tag is also supported at the episode level. For best results, we recommend using the <itunes:image> tag at the item level as well as embedding the same art within the media file's metadata. To embed art within an individual episodes' metadata using iTunes, highlight the episode and select "Get Info" from the "File" menu. Click the Artwork tab. Then click "Add," navigate to and select the image file, and click "Choose."

<itunes:duration>

The content of this tag is shown in the Time column in iTunes.

The tag can be formatted HH:MM:SS, H:MM:SS, MM:SS, or M:SS (H = hours, M = minutes, S = seconds). If an integer is provided (no colon present), the value is assumed to be in seconds. If one colon is present, the number to the left is assumed to be minutes, and the number to the right is assumed to be seconds. If more than two colons are present, the numbers furthest to the right are ignored.

<itunes:explicit>

This tag should be used to indicate whether or not your podcast contains explicit material. The three values for this tag are "yes", "no", and "clean".

If you populate this tag with "yes", an "explicit" parental advisory graphic will appear next to your podcast artwork on the iTunes Store, and in the Name column in iTunes. If the value is "clean", the parental advisory type is considered Clean, meaning that no explicit language or adult content is included anywhere in the episodes, and a "clean" graphic will appear. If the explicit tag is present and has any other value (e.g. "no") you see no indicator — blank is the default advisory type.

<itunes:isClosedCaptioned>

This tag should be used if your podcast includes a video episode with embedded closed captioning support. The two values for this tag are "yes" and "no".

This tag is only supported at an <item> level. If you populate this tag with "yes", an closed caption icon will appear next to corresponding episode in the Name column in iTunes. If the closed caption tag is present and has any other value (e.g. "no") you see no indicator.

<itunes:order>

This tag can be used to override the default ordering of episodes on the store.

This tag is used at an <item> level by populating with the number value in which you would like the episode to appear on the store. For example, if you would like an <item> to appear as the first episode in the podcast, you would populate the <itunes:order> tag with "1". If conflicting order values are present in multiple episodes, the store will use default ordering (pubDate).

<itunes:complete>

This tag can be used to indicate the completion of a podcast.

This tag is only supported at a <channel> level. If you populate this tag with "yes", you are indicating that no more episodes will be added to the podcast. If the <itunes:complete> tag is present and has any other value (e.g. "no"), it will have no effect on the podcast.

<itunes:keywords>

This tag allows users to search on a maximum of 12 text keywords. Use commas to separate keywords.

<itunes:new-feed-url>

This tag allows you to change the URL where the podcast feed is located. It is added at the <channel> level. The feed format is:

```
<itunes:new-feed-url>http://newlocation.com/example.rss</itunes:new-feed-url>
```

After adding the tag to your old feed, you should maintain the old feed for 48 hours before retiring it. At that point, iTunes will have updated the directory with the new feed URL. For more information, please see the "Changing Your Feed URL" section above.

<itunes:owner>

This tag contains information that will be used to contact the owner of the podcast for communication specifically about their podcast. It will not be publicly displayed.

Put the email address of the owner in a nested <itunes:email> element.

Put the name of the owner in a nested <itunes:name> element.

<itunes:subtitle>

The contents of this tag are shown in the Description column in iTunes. The subtitle displays best if it is only a few words long.

<itunes:summary>

The contents of this tag are shown in a separate window that appears when the "circled i" in the Description column is clicked. It also appears on the iTunes page for your podcast. This field can be up to 4000 characters. If <itunes:summary> is not included, the contents of the <description> tag are used.

<language>

Because iTunes operates sites worldwide, it is critical to specify the language of a podcast. Accepted values are those in the [ISO 639-1](#) Alpha-2 list (two-letter language codes, some with possible modifiers, such as "en-us").

[Back to top](#)

Common Mistakes

Wrong <pubDate> Format.

The date and time format in <pubDate> must conform to [RFC 2822](#).

The date must be "day-of-week, day month year". The time must be in 24 hour format (no AM or PM) and must include the time zone offset.

```
<! - date and time not in RFC 2822 format - >
<pubDate>7/6/2005 1:00:00 PM</pubDate>
```

```
<! - valid date and time format - >
<pubDate>Wed, 6 Jul 2005 13:00:00 PDT</pubDate>
<pubDate>Wed, 6 Jul 2005 13:00:00 -0700</pubDate>
```

Failure to Escape Ampersands.

```
<! - illegal xml - >
<title>Food & Wine</title>
```

```
<! - valid xml - >
<title>Food &#amp; Wine</title>
```

Using HTML Named Character Entities.

```
<! - illegal xml - >
<copyright>&copy; 2005 John Doe</copyright>
```

```
<! - valid xml - >
<copyright>&#xA9; 2005 John Doe</copyright>
```

Unlike [HTML](#), XML supports only five "named character entities":

character	name	xml
&	ampersand	&
<	less-than sign	<
>	greater-than sign	>
'	apostrophe	'
"	quotation	"

The five characters above are the only characters that require escaping in XML. All other characters can be entered directly in an editor that supports UTF-8. You can also use numeric character references that specify the Unicode for the character, for example:

character	name	xml
©	copyright sign	©
Ⓢ	sound recording copyright	℗

™

trade mark sign

™

For further reference see [XML Character and EntityReferences](#).

[Back to top](#)

Additional Resources

General Information.

- [Wikipedia Article on Podcasting](#)
- [Ποδχαστς ον Ποδχαστινγ](#)

Help.

- [Apple Producing Podcasts discussion forum](#)
- [Φεεδ ραλιδατορ](#)

[Back to top](#)

iTunes Categories for Podcasting

iTunes Supported Categories	Corresponding Programming
Arts	Arts
Design	Design
Fashion & Beauty	Fashion & Beauty
Food	Food
Literature	Literature
Performing Arts	Performing Arts
Visual Arts	Visual Arts
Business	Business
Business News	Business News
Careers	Careers
Investing	Investing
Management & Marketing	Management & Marketing
Shopping	Shopping

Comedy	Comedy
Education	Education
Education	Education
Education Technology	Education Technology
Higher Education	Higher Education
K-12	K-12
Language Courses	Language Courses
Training	Training
Games & Hobbies	Games & Hobbies
Automotive	Automotive
Aviation	Aviation
Hobbies	Hobbies
Other Games	Other Games
Video Games	Video Games
Government & Organizations	Government & Organizations
Local	Local
National	National
Non-Profit	Non-Profit
Regional	Regional
Health	Health
Alternative Health	Alternative Health
Fitness & Nutrition	Fitness & Nutrition
Self-Help	Self-Help
Sexuality	Sexuality
Kids & Family	Kids & Family
Music	Music
News & Politics	News & Politics

Religion & Spirituality

Buddhism

Christianity

Hinduism

Islam

Judaism

Other

Spirituality

Science & Medicine

Medicine

Natural Sciences

Social Sciences

Society & Culture

History

Personal Journals

Philosophy

Places & Travel

Sports & Recreation

Amateur

College & High School

Outdoor

Professional

Technology

Gadgets

Tech News

Podcasting

Software How-To

Religion & Spirituality

Buddhism

Christianity

Hinduism

Islam

Judaism

Other

Spirituality

Science & Medicine

Medicine

Natural Sciences

Social Sciences

Society & Culture

History

Personal Journals

Philosophy

Places & Travel

Sports & Recreation

Amateur

College & High School

Outdoor

Professional

Technology

Gadgets

Tech News

Podcasting

Software How-To

TV & Film

TV & Film