Podcasting

101

PODCASTING 101

Instructional Technology Center

Podcasting 101

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Workshop Resources are online at:
http://itc.gsu.edu/podcast/pc.htm

Podcasting Defined

Podcasting is a way of publishing files to a web site that allows users to subscribe to the site and receive new files as they are posted. Most podcasts are spoken word audio created by individuals, often on a particular theme such as technology or movies. Because new files are downloaded automatically by subscribers, podcasting allows individuals to have a self-published, syndicated radio show.

Users subscribe to podcasts using podcast reader software called a podcatcher, which periodically checks for and downloads new content. It can then sync these to the user's portable music player or be listened to on the user's computer.

What You'll Need to Get Started

This tutorial assumes that you are working on a PC with Windows as an operating system. If you are working on computers within the ITC, all computers have the necessary hardware and software.

Hardware

PC | Sound Card | Headset | Microphone

Software

Audacity - http://audacity.sourceforge.net

LAME encoder - http://lame.sourceforge.net/download.phpl

Windows Internet Explorer

Windows Notepad

iTunes -http://www.apple.com/itunes/download.

Recording Your Podcast

Hardware

To record a podcast you'll need a computer, headphones and a microphone. Your computer will need to have a soundcard. Connect the microphone to the microphone-in connection on your PC. Connect your headphones to the stereo line out or headphone jack.

To configure your hardware:

1. Go to Start > Control Panel > Sounds and Audio Devices.
2. Click the Advanced button in the Device Volume section of the Sounds and Audio Devices control panel.
3. With the Volume Control open choose Options > Properties from the menu and click the button next to recording.
4. Make sure the Select box under the Microphone column is checked and the volume is above zero or you won't be recording anything. Leave the Recording Control open so you can make adjustments during the recording process.

Software

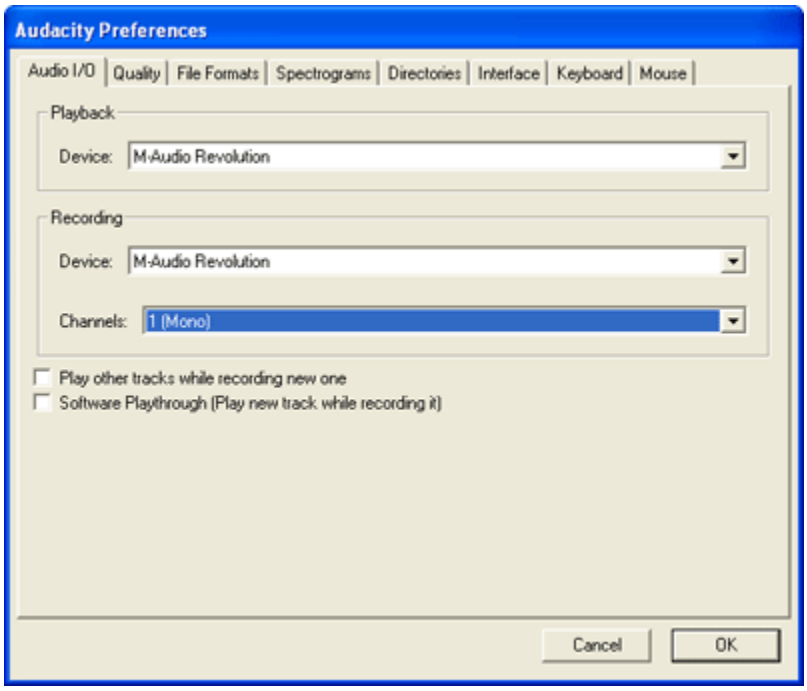
The ITC uses Audacity to record and edit podcasts. Audacity is free, open source software for recording and editing sounds. It is available for Mac OS X, Microsoft Windows, GNU/Linux, and other operating systems. Audacity is available for download at http://audacity.sourceforge.net.

Podcasts are recorded using Audacity, but must be exported as an MP3 file. Because of software patents, Audacity cannot distribute MP3 encoding software. Go to http://www-users.york.ac.uk/~raa110/audacity/lame.html and download the LAME encoder. Follow the instructions found at http://www-users.york.ac.uk/~raa110/audacity/AudacityHelp.html#LAME. use the free LAME encoder to export MP3 files with Audacity. Plug a USB headset with a microphone into your computer.

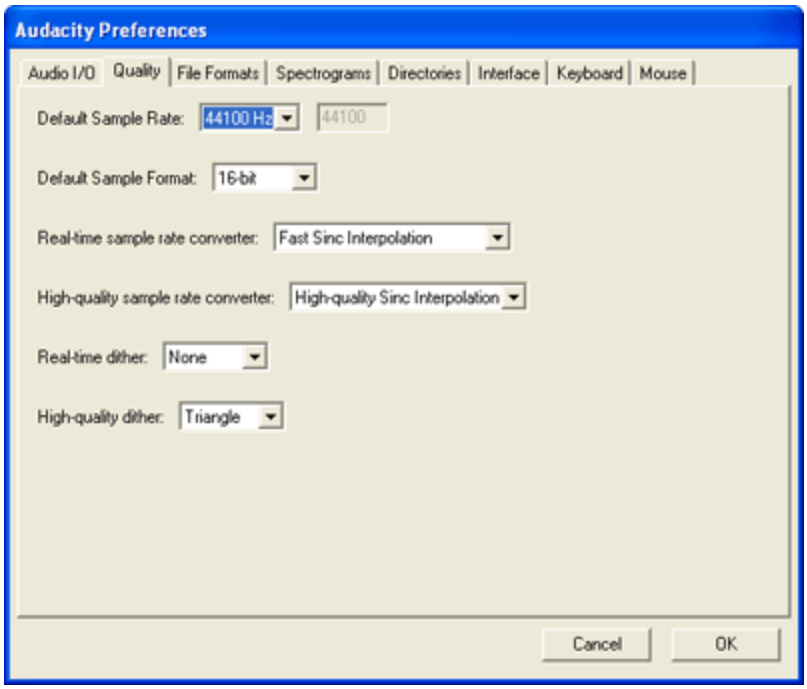
To record your podcast:

Open Audacity and then open the preferences from File > Preferences

On the Audio I/O tab, verify your sound card is selected as the device for both playback and recording. In the channels dropdown box under Recording choose 1 (Mono).

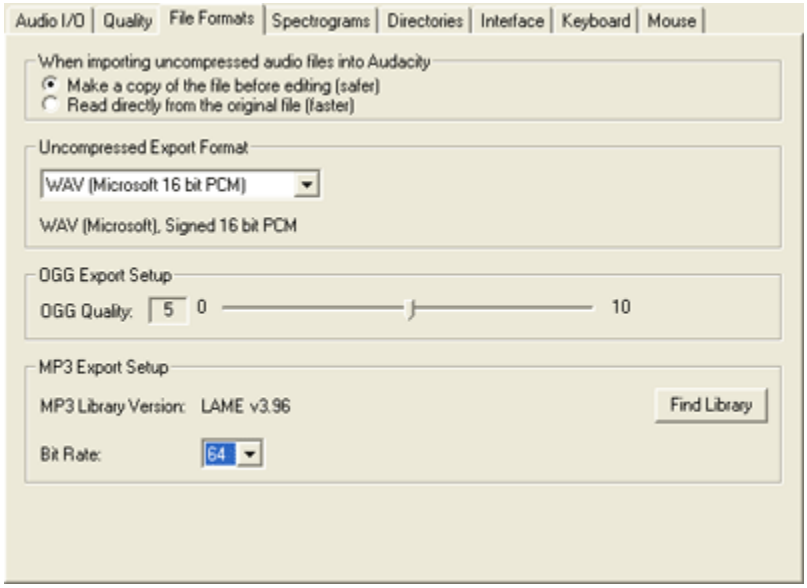


From the Quality tab choose 44,100 Hz as the Default Sample Rate and 16-bit as the Default Sample Format.

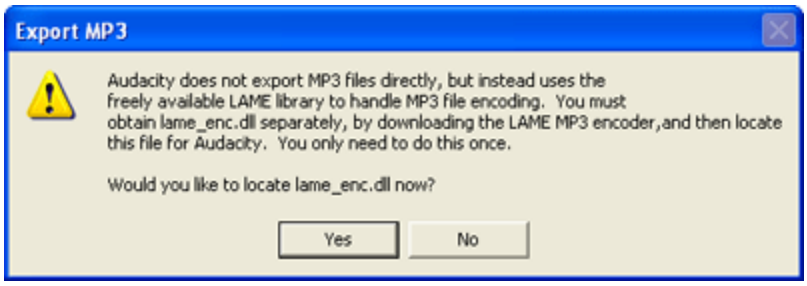


The File Formats tab controls the output formats for your audio. To avoid accidentally overwriting your audio files, select Make a copy of the file before editing under the When importing uncompressed audio files into Audacity options.

Choose WAV (Microsoft 16 bit PCM) as the Uncompressed Export Format, Leave the OGG Export Setup



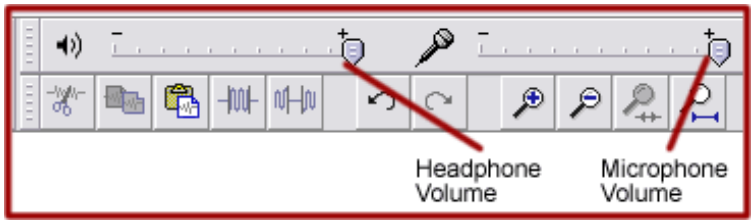
Click the Find Library button to locate the lame_enc.dll file and browse to the location where you extracted LAME.



With the LAME encoder linked to Audacity you can configure which bitrate to use for encoding MP3 files. 64 is a good level for podcasts that are primarily talk.

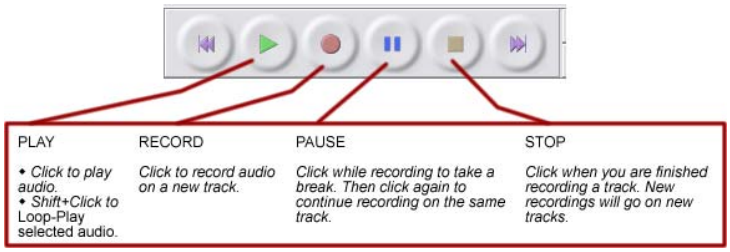
Click the OK button to close the preferences dialog box.

Adjust Volume Levels

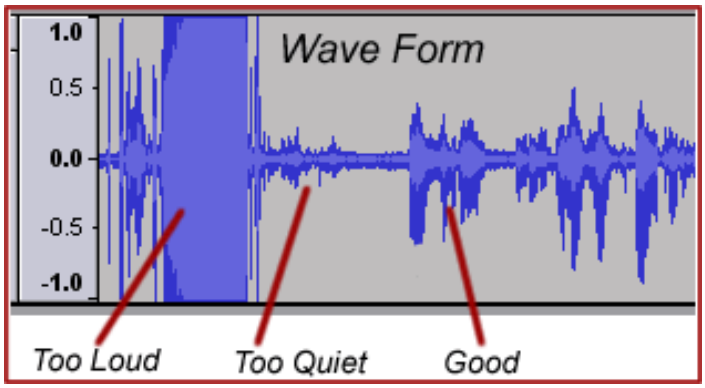


To test microphone levels:

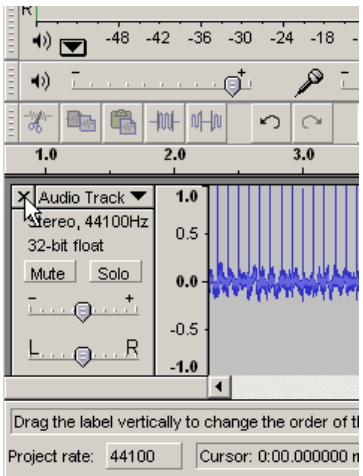
1. Press RECORD.
2. Speak into the microphone
3. If necessary, adjust the microphone volume.
4. Press STOP when you have the correct levels.



A waveform is graphic representation of the shape of a sound wave. The waveform determines some of the physical characteristics of the sound. Examine your waveform do determine your microphone levels.



5. Delete your practice track by clicking the X in the audio track window.

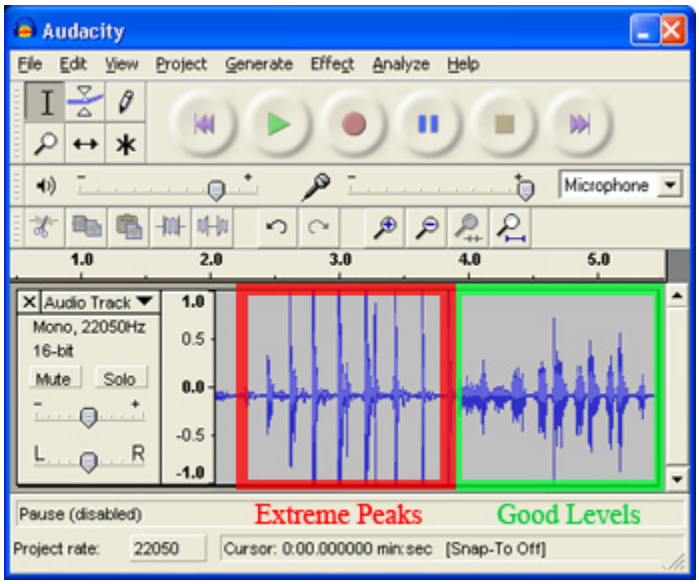


To Record Audio

Press the Record button in the Audacity program to begin recording.

If you would like to pause before continuing, press the Pause button. To continue when you are ready, press the Record button.

As you're recording, you'll see the levels of your voice being recorded. They should look similar to the levels shown.



When you've finished recording, press Stop.

Select File > Export As MP3. A window will pop up explaining that your tracks will be combined. Click OK. (Figure 6)

Editing Your Podcast

Add Audio

To add audio, click the selection tool then click the point on the timeline where you would like your recording to begin and click Record. This will create a new track.

Move Audio

Move the audio on a track to the left or right along the timeline by using the

Time Shift Tool

Delete Audio

In order to delete unwanted sections of audio, highlight the part you want to remove using the mouse and press the Delete key.

Insert Silence

If you want to replace the selection with silence, select Edit > Silence. If you want to create silence for a section of the track, select that section using the mouse and select Generate >

Silence. (Note: Unlike Edit > Silence, Generate > Silence does not replace the selected portion, it adds equivalent time in silence.)

Save to a location on your hard drive. A window will pop up asking you to label the artist/track information of your file. You may leave this blank.

Saving Your Podcast

Before you save your podcast, you need to save your project.

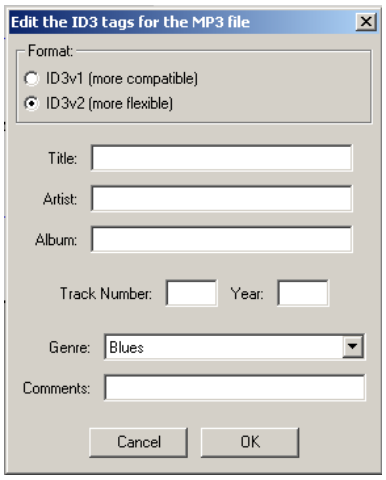
To save a project:

1. Select File from the menu bar.
2. Select Save Project.
3. Select a directory.
4. Name the file.
5. Click the Save button.

When you save a project, Audacity saves everything in the window into an Audacity-specific format so that you can save and quickly continue your work later. An Audacity project consists of a project file, ending in ".aup" ,and a project data folder, ending in "_data". For example, if you name your project "Composition", then Audacity will create a file called "Composition.aup" and a folder called Composition_data.

Export Your Podcast as an MP3 File

1. Select File from the menu bar.
2. Select Export as MP3t.
3. Select a directory.
4. Name the file.
5. Click the Save button.
6. Fill in the ID3 tag.
7. Click OK.



Creating the ID3 Tag

An MP3 file contains information about the artist, album, genre, etc. This info is stored in what is called ID3 tags. iTunes and Windows Media Player use these tags to organize your MP3s.

Title = Name of Your Podcast

Artist = Your Name

Album = Your Web Address

Genre = Speech

Comments = Describe the podcast contents.

Uploading Your Podcast

You can podcast to any Web space. Simply place your MP3 file within your Web directory, and provide the listener with the URL.

At GSU, students are given a Web directory named “public_html.”

To save a file to your student Web directory:

1. Right click on the file you want to save to the Web.
2. Select copy from the fly out menu.
3. Double-click on My Computer.
4. Double-click on your Student Drive.
5. Double-click on the public_html folder.
6. Select File > New > Folder from the menu bar.
7. Name the New Folder Podcast
8. Double-click on he Podcast folder.
9. Select Edit from the menu bar.
10. Select Paste.

The address to share your podcast file would be:
http://www.student.gsu.edu/~username/podcast/filename.mp3

Syndicating Your Podcast

If you would like people to subscribe to your podcast so that they can automatically download it with an iTunes-like product, you will have to create an RSS feed.

What is RSS?

Rich Site Summary / Really Simple Syndication is a method to syndicate your site content. This is done by creating an XML document which summarizes specific you specific podcast content.

An RSS feed is easy to create using an online tool called **Podcast RSS Feed Generator** from tdscrips.com available at http://www.tdscripts.com/webmaster_utilities/podcast-generator.php

Using RSS Headliner

1. Open Internet Explorer and go to http://www.tdscripts.com/webmaster_utilities/podcast-generator.php
2. In the textbox where it says “**Blog / Website Title**” enter the name of your podcast.
3. In the **Blog /Website URL** textbox, type the address of your podcast folder (http://www.student.gsu.edu/~username/podcast/
4. In the **Blog / Web Site Description** box, type a generic description of your podcast(s). An example might be, “Sue Husted discusses technology and learning at Georgia State University.”
5. The default **Language** is en-us.
6. Type your copyright information in the **Copyright** textbox (ex: Sue Husted 2009)

7. Enter your email address in the **Webmaster email address** text box.
8. In the **Enclosure Title,** type the name of your podcast.
9. In the **Enclosure description** textbox, type a brief description of the podcast.
10. In the **Enclosure link** text box, type the URL of your podcast. This is the exact location of your podcast file: http://www.student.gsu.edu/~username/podcast/filename.mp3
11. Select the enclosure type from the dropdown: **MP3**
12. Type your name in the **Author** textbox.
13. Click the **Create RSS 2.0 feed (first time)** button.
14. A new window will appear.

Create new podcast

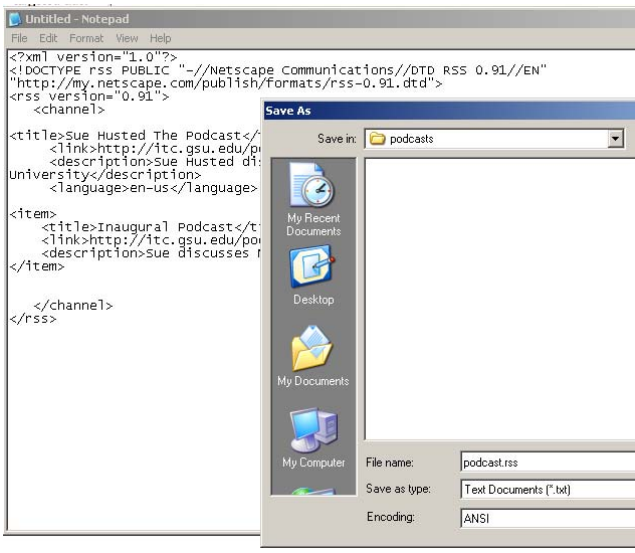
Congratulations!

Your podcast was successfully generated.

```
<?xml version="1.0" encoding="UTF-8"?>
<rss xmlns:itunes="http://www.itunes.com/DTDs/Podcast-1.0.dtd" version="2.0">
<channel>
     <title>Sue Husted Podcasts</title>
     <itunes:author>Sue Husted</itunes:author>
     <itunes:link rel="image" type="video/jpeg" href=""></itunes:link>
     <itunes:explicit>no</itunes:explicit>
     <category>Education</category>
     <link>http://www.student.gsu.edu/~bpounce/podcast/</link>
     <description>Sue Husted attemps podcasting.</description>
     <language>en-us</language>
     <copyright>Sue Husted  2006</copyright>
     <lastBuildDate>Thu, 9 Nov 2006 16:27:27 GMT</lastBuildDate>
     <ttl>60</ttl>
     <item>
          <title>Husted&apos;s View</title>
          <link>http://www.student.gsu.edu/~bpounce/podcast/husted.mp3</link>
          <itunes:author>Sue Husted</itunes:author>
          <category>Education</category>
          <itunes:duration>00:25</itunes:duration>
          <itunes:explicit>no</itunes:explicit>
          <description>Sue Husted shares her views on educational technology
|Running Time 00:25| </description>
          <pubDate>Tue, 24 Oct 2006 18:30:22 GMT</pubDate>
          <enclosure url="http://www.student.gsu.edu/~bpounce/podcast/husted.mp3"
length="204871" type="audio/mpeg"/>
     </item>
</channel>
</rss>
```

In order to create a podcast follow these steps:
1. Create a plain text file on your computer (i.e. TXT file if you are on Windows. Note, DOC or other will not work).
2. Copy and past the podcast XML code into the new file.
3. Rename the file to "podcast.xml" and upload to your server.

15. Click in the code box and select all the text (CTRL + A)
16. Copy the Text (CTRL + C)
17. From the Start Menu in Windows, select Start > Programs > Accessories
18. Choose Notepad.
19. In the Notepad window paste the text (CTRL + V).
20. In Notepad, from the menu bar, select **File > Save**



In the Save As dialogue box, Select your directory, name your file **podcast.xml** and click the **Save** button.

Upload or copy this file to your Web site folder titled **podcast.**

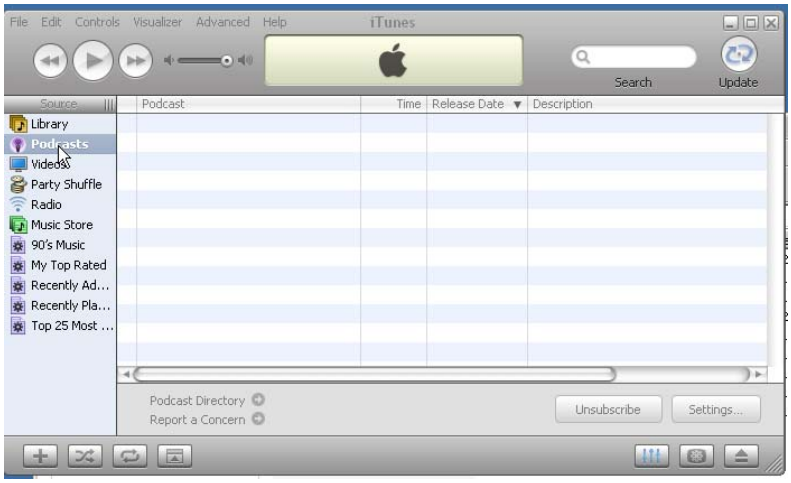
Subscribing/Listening to Your Podcast

Now that you have created a feed to syndicate your podcast, you want to provide people the ability to subscribe to the feed. They subscribe to a feed using a Podcatcher. A podcatcher is a computer program used to automatically download podcasts.

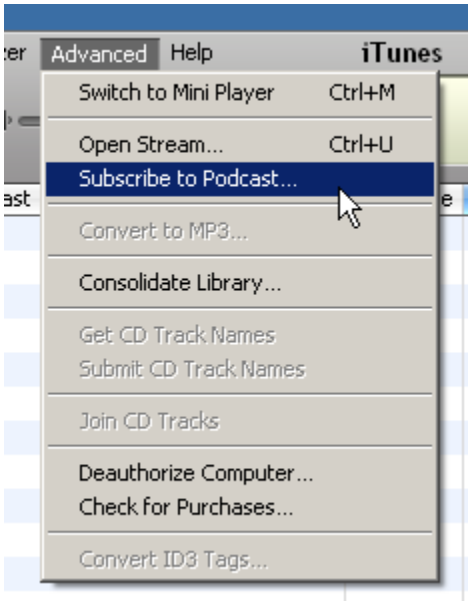
iTunes is one of the most popular FREE podcatcher in the world. With iTunes users can list to or download podcasts to their iPod or other MP3 player. iTunes is available at http://www.apple.com/itunes/download.

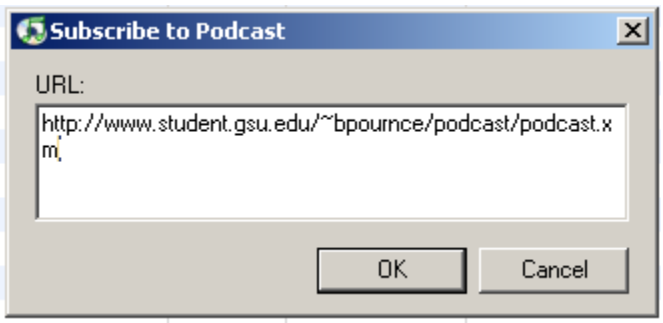
Listening to Your Podcast with iTunes

1. Open iTunes



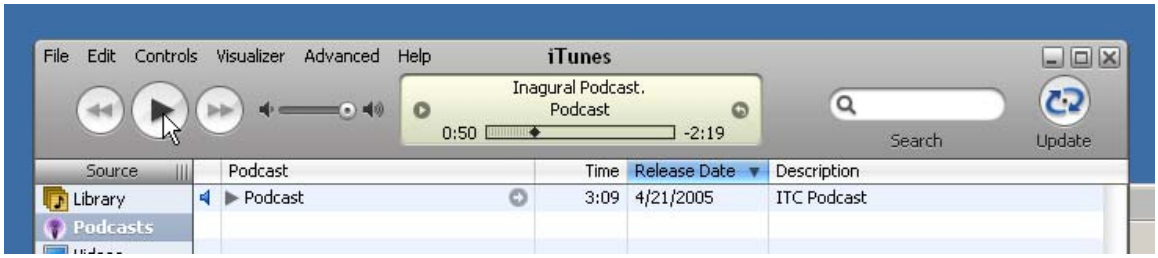
2. Click on **Podcasts** in the Source menu.





3. Click on **Advanced** in the Menu bar, and select **Subscribe to Podcast**.
4. Type in the URL of the rss feed.
   (http://www.student.gsu.edu/~username/podcast/
   podcast.xml)
5. Click on the OK

To play the podcast, click on the Play button.



Additional Podcasting Resources

Audacity User's Manual Online

http://audacity.sourceforge.net/manual-1.2/

How to Podcast by Jason Vanorden

http://www.how-to-podcast-tutorial.com/00-podcast-tutorial-four-ps.htm

PodOMatic

http://www.podomatic.com/about

PodOmatic, Inc. is the leading provider of free, web-based tools and services that enable anyone to easily find, create, distribute, promote and listen to podcasts and videocasts.

Radio WillowWeb – Student Guide for Great Podcasts

http://www.learninginhand.com/podcasting/RadioWillowWeb.pdf