Recording & Publishing a Podcast with Audacity 1.2.6

& Windows XP

Recording and Publishing a Podcast with Audacity
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http://www.jakeludington.com/podcasting/20050222_recording_a_podcast.html

Recording voice audio can be a complicated process, but it doesn't need to be. I'm getting frequent questions about how to record a podcast and ultimately share the end result with people. Ideally, you want to invest in some audio recording gear to make your podcast sound good, but to get started, you don't need anything fancy.

Required Tools:

An application to record your podcast: Audacity

Audacity is a great application. It's free. It works for Windows, Mac and Linux users, and it offers a solid compliment of editing features. In addition, it outputs MP3 format audio for distributing your podcast.

1. **Download and install Audacity** from http://audacity.sourceforge.net .
2. **You also need to download a copy of the LAME MP3 encoder** which is available at the same web location as Audacity. Adding LAME to Audacity allows you to save your podcast as an MP3 file instead of uncompressed WAV format audio or OGG.
   ♦ To add LAME support to Audacity first download the latest stable version of the LAME codec and unzip the files to a folder on your hard drive. For simplicity, putting the files in a folder like C:\LAME makes them easy to find.
   ♦ We will connect this file to Audacity in the Preparing to Record section of this guide.

A microphone
If your PC came with a Creative or Labtec microphone, start with that. Ultimately getting a good microphone should be the first upgrade on your list, but start out with something cheap to be sure you plan to stick with podcasting before investing a ton of money. If you don't own a microphone at all, there are several cheap solutions available from the local computer store for under $15 compatible with any platform.

Headphones
Headphones are important because you need to monitor the levels of your recording but you don't want to have the sound coming from a set of speakers being recorded by the microphone. Ideally, using headphones that cover your ears will do the best job of isolating sound in your recording from other audio distractions, but the ear bud headphones that came for your portable music player will work just fine.

A noise-canceling headset can be substituted for the microphone and headphones with better results.

Before You Record

There are a few steps required in setting up to record a podcast.

1. Connect the microphone to the microphone-in connection on your PC.

2. Connect your headphones to the stereo line out or headphone jack. This is often the same jack.

Note: A USB headset with microphone like those made by Altec Lancing or LogiTech enables you to record without using a separate headphone and microphone.

Configure the microphone as your recording source

1. Either **double-click the speaker icon** in the task bar **or** go to **Start ➔ Control Panel ➔ Sounds and Audio Devices**. Click the **Advanced** button in the Device Volume section of the Sounds and Audio Devices control panel.

2. With the Volume Control open choose **Options ➔ Properties** from the menu and click the button next to recording.
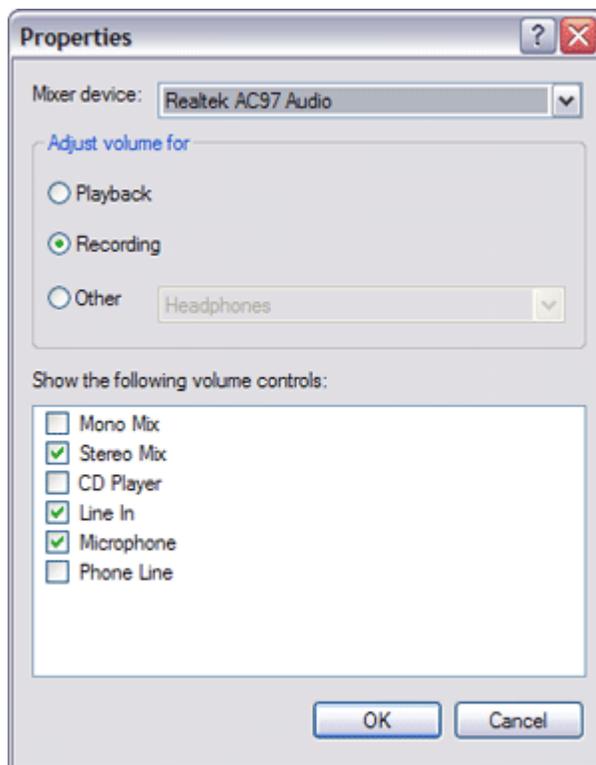

3. Make sure the Select box under the Microphone column is checked and the volume is above zero or you won't be recording anything. Leave the Recording Control open so you can make adjustments during the recording process.
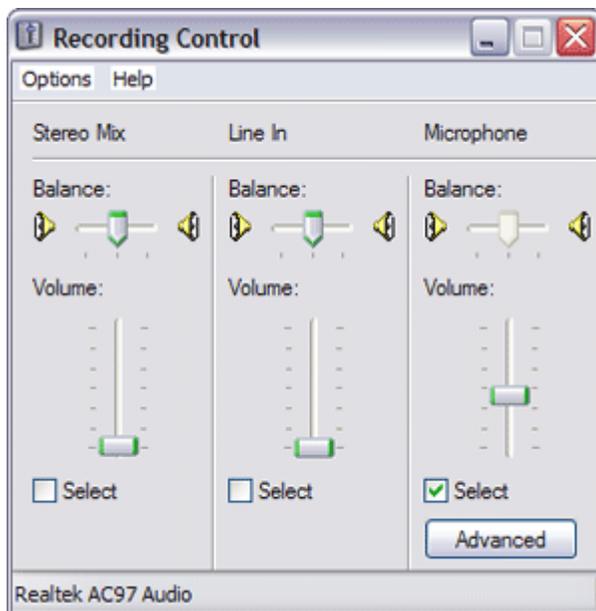
Preparing to Record

1. **Open Audacity** and then open the preferences from **Edit ➜ Preferences**
2. On the **Audio I/O tab**:
   a. Verify your sound card is selected as the device for both playback and recording and your microphone is selected as well.
   b. In the channels dropdown box under Recording choose 1 (Mono). Unless you've got two microphones stereo simply doubles the same track, making the file size bigger.
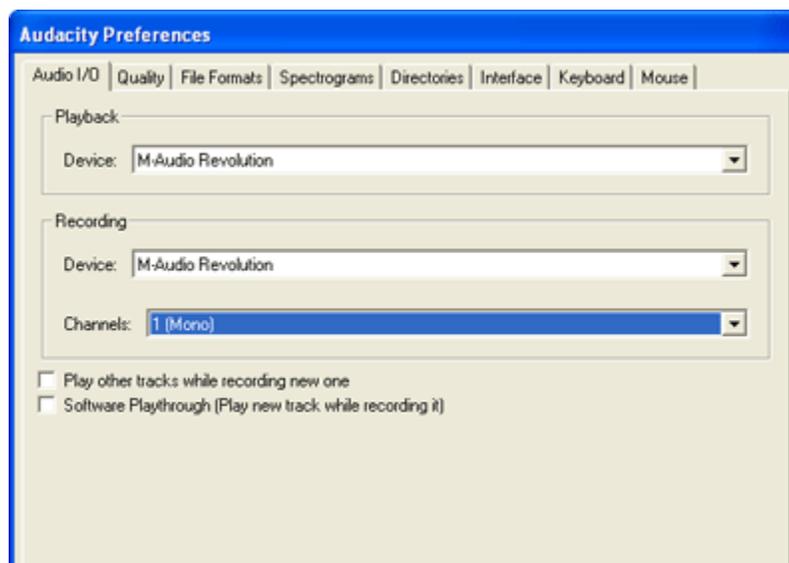
3. From the **Quality** tab
    a. Choose **44,100 Hz** as the **Default Sample Rate**
    b. Choose **16-bit** as the **Default Sample Format**.
        If you're just recording voice, anything higher than 44.1KHz and 16-bit sampling is
        overkill for most noncommercial purposes. If music factors heavily into your podcast,
        however, consider higher rates, but keep in mind the resulting file will be larger.
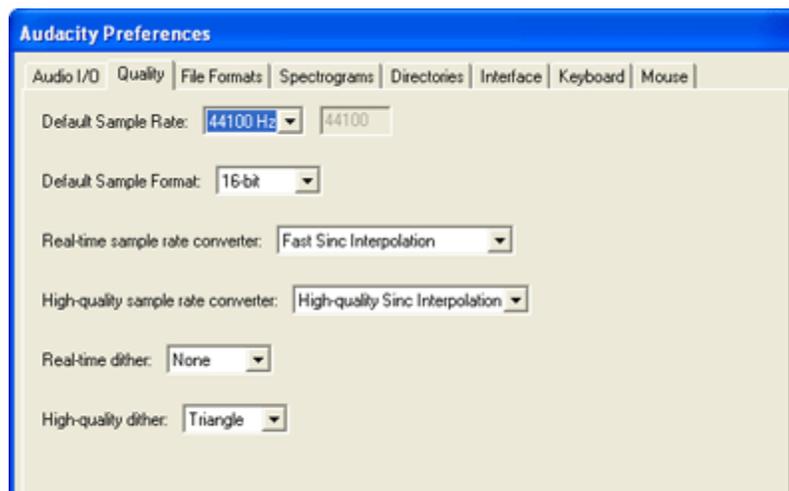
4. From the **File Formats** tab
    a. To avoid accidentally overwriting your audio files, select **Make a copy of the file
        before editing**
    b. Choose **WAV (Microsoft 16 bit PCM)** as the Uncompressed Export Format
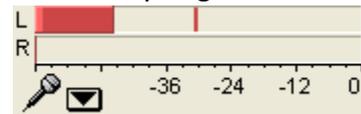   c. Under MP3 Export Setup, click on **Find Library** to link to the LAME Encoder
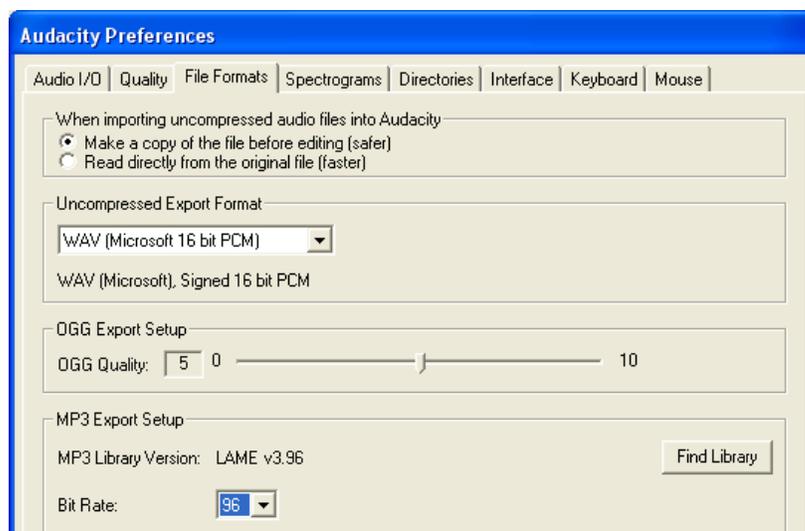
    d. Click **Yes** to locate the lame_enc.dll file, browse to the location where you
        extracted LAME, click on it and click **Open**.

e.   Set the **bitrate** to **64kbps** for most podcasts. Some recommend **64kbps** for talk only, **96kbps** for talk with some music, and **128kbps** for mostly music & click **OK**.

5.   Open the Volume Control Panel on your computer by double-clicking on the Speaker icon in the Task bar or by opening up the **Control Panel** and double-clicking on **Sounds and Audio Devices** and then on **Adjust the System Volumes**.

6.   Click on the **Audio tab**.

7.   Make sure the Sound Recording and Sound Playback are set to the correct device.

8.   Click on the **Volume** button in the **Sound Recording** section. Make sure the volume is set to an adequate level for recording.

9.   Close the Audio windows when done.

Recording

1.   Have your Script ready.

2.   From the main program window **verify Microphone is selected as the recording input option** on the Audacity Mixer Toolbar.

3.   **Click on the microphone icon** on the Audacity Meter Toolbar to turn on monitoring. You should see a red level indicator moving slightly as it picks up room noise.

4.   **Talk into the microphone** and make adjustments to the volume until you get a level that bounces close to the top of the right edge without ever turning the far right solid red (which indicates you are clipping the audio). Once the level is adjusted, you're ready to record.

5.   Push the **record button** and start talking. When you finish recording press the stop button.

6.   The Choose **File ➔ Save Project**. **Saving is important so you don't lose your recording.**

7.   To import sound effects or music, choose **Project ➔ Import Audio** or you can drag and drop the file into Audacity. Make sure the sounds/music you import is podsafe (can be legally used in a podcast and freely distributed online for others to download).

To download free music loops go to:

http://www.flashkit.com/loops   http://freesound.iua.upf.edu/index.php

http://royaltyfreemusic.com   http://partnersinrhyme.com/

http://macaudioguy.com   http://www.findsounds.com/types.html

8.   Navigate to your **sound file**, **click on it** and click **Open**. The file will be imported into a new track in Audacity.

9.   At this point, it's time to edit the audio file and save it as an MP3 for distribution as your first podcast.

Editing

1. To move a track of music, click on the Time Shift Tool in the toolbar at the top of the screen. Then press and drag the music.
2. To make the sound fade in or out, **select the sound** and choose **Effect ➔ Fade In** or **Effect ➔ Fade Out**.
3. If you need to delete a section, **press and drag to highlight** the section and press the **Delete** key on your keyboard.
4. To adjust the volume of an entire track, **press and drag the Gain slider** in the navigation menu to the left of the track.
5. To adjust the volume of a section of the recording, press and drag to highlight it. Then choose **Effect ➔ Amplify**. Drag the Amplification slider to raise or lower the volume and then click **OK**.
6. To silence a section of the recording, press and drag to select the section and then choose **Edit ➔ Silence**.
7. To reduce noise:
   a. Record 10 to 15 seconds of silence.
   b. Select a portion of that silence and then choose **Effect ➔ Noise Removal**. Click on the **Get Noise Profile button.**
   c. Then select a section of the recording in which you wish to remove noise and choose **Effect ➔ Noise Removal.** Adjust the slider and then click **Remove Noise**.
8. Optional: To bring all your audio levels up to the same level, you need to normalize them. Select the low audio you want to amplify, and then choose **Effect ➔ Amplify.** Drag the Amplification slider to raise or lower the volume and click OK. Then select all the music and choose **Effect ➔ Normalize** and **click OK.**

Preparing for Publishing

1. Press and drag to Choose **File ➔ Export as MP3**.
2. Edit in the ID3 tags for the MP3 file.
   a. For the **title**, put the **name** of the podcast, the **Episode #** and maybe the **date**.
   b. For the **Artist**, put **your name** and **your web address**.
   c. For the **Album**, put the **name of the podcast**.
   d. For the **Track Number**, put the **Episode #**
   e. For the **Genre**, you need to put **Podcast**. You can't do that here. You will need to change that when you load it into iTunes.
   f. For **Comments**, put a **reduced version of the show notes**.
   g. Click **OK**.
3. Navigate out to the file you just saved and double-click on it to open it in Microsoft Media Player. Notice the title you added in the ID3 tags shows.
4. *You want to be sure that any listener can look at the information from their media player or on their iPod and know what your podcast is and where it came from. ID3 tags are used for this. To edit **ID3 tags in iTunes:**
   a. **Import** the file into **iTunes**.
   b. **Right-click** on the file and **choose Get Info**.
   c. **Click** on the **Info tab** and fill in the data.
   d. It's important to use your tags properly so that if someone is listening to the MP3 can immediately see what they're listening to and where they got it.
   e. If you don't use the tags correctly (or worse not at all) then it's more likely for your podcast file to get lost in the middle of all your listener's other MP3s.
5. Now your podcast is ready to be published to the internet. First we need to find hosting for your podcast audio files.

*Most music players, like Windows Media Player have built in tag editing. I personally like the shell extension AudioShell for editing MP3 files because I can right-click the file and quickly edit the Title, Artist, Album, Genre, Year and add comments about the file. AudioShell is available for download at http://www.topdrawerdownloads.com/download/104066.

Publishing a Podcast

Publishing your podcast will vary slightly depending on which tools you use for blogging and where you host your audio files. At the most basic level you need enough storage space to host the podcast audio file, enough bandwidth to support the subscribers to your podcast, and an RSS 2.0 feed for people to subscribe to. Hosting options become complicated when you reach a large audience of subscribers. Most of the cheap Web hosting services aren't designed to handle transfer of large files.

Before You Upload

One of the most important things to do prior to uploading your podcast is to edit the ID3 tags in the MP3 file to add identifying information. ID3 tags tell your media player and portable audio player things like artist, title of the track, and genre which listeners use to sort audio files.

If you have access to an FTP server, just create a new folder and upload your MP3. If you don't have an FTP server, you'll need to find a site that will host your podcast. A good place to start is Ourmedia.org or Podomatic.com. For now, they are free and don't limit file bandwidth, but the sites screen all podcasts and will remove any content it deems inappropriate.

Some of the managed blog services, like Typepad, offer storage space and could be used for podcasting, but the amount of file transfer available quickly runs out with just a few subscribers to your podcast. Blogger offers free accounts but doesn't currently support enclosing media files in a syndication format. If you have a hosting provider where you already upload audio and video files, you may be able to use FeedBurner to create the necessary RSS feed for distributing your podcast. FeedBurner is free and offers a simple wizard driven interface for generating the podcast feed. It is a great program to use to make you RSS feed iTunes-compatible. This is good to use no matter what program you use to generate your RSS feed.