

ANATS: Audacity Session

19 June 2010

Remove vocals

Create a Karaoke-style CD using Audacity 1.3.12. You can download Audacity 1.3.12 from here:
<http://audacity.sourceforge.net/>

Before we start

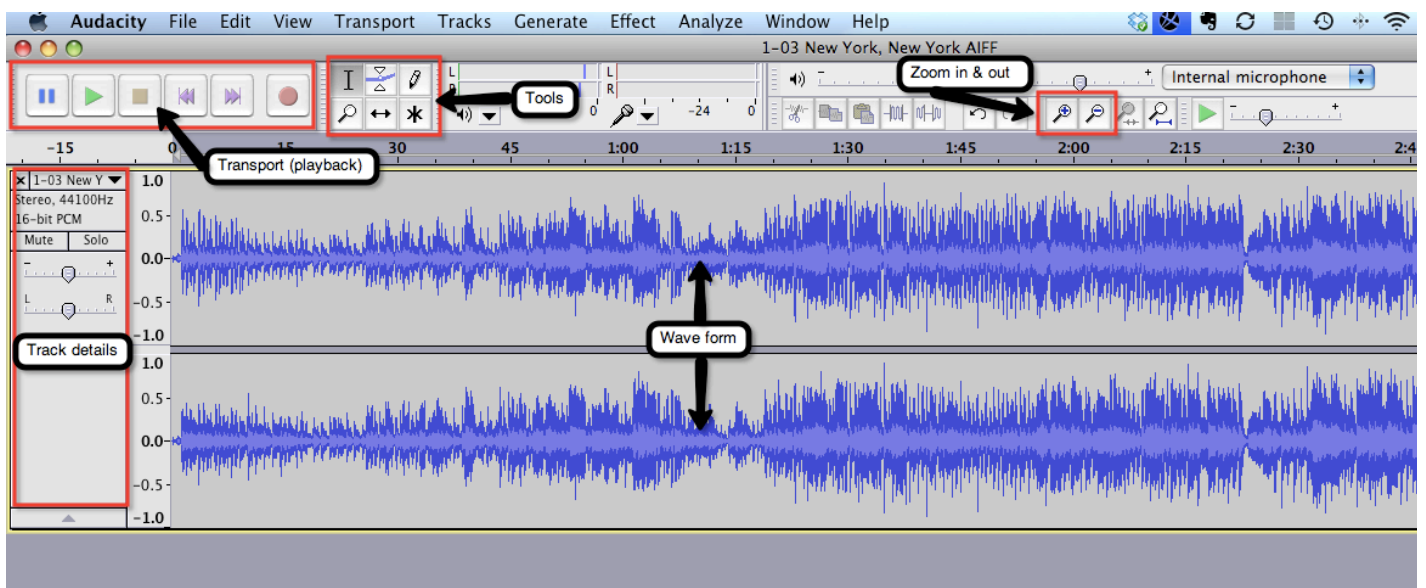
You can't import a song into Audacity directly from a CD. You need to "rip" the required track from the CD using a separate audio extractor program. Try:



- iTunes (Mac and PC)
- Windows Media Player
- Audiograbber
- CDex

The best formats to use are WAV files (PC & Mac) or AIFF files (Mac only). MP3 files are also readable by Audacity but their quality is not as high as WAV or AIFF files.

Audacity Screen



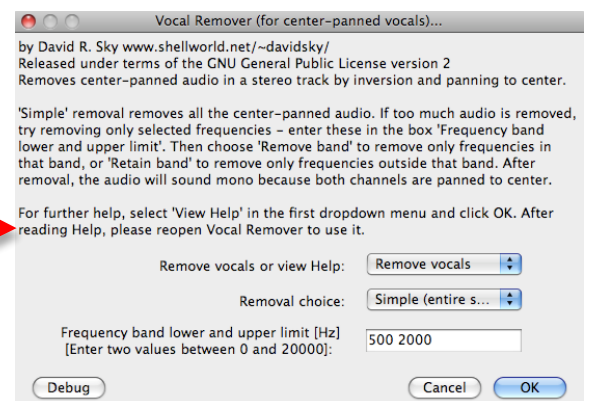
Removing vocals using Audacity 1.3.12 (beta version)

Removing vocals from a recording is a common desire and there are numerous software packages available for purchase that will do this – with varying success. The latest release of Audacity also includes a Vocal Remover effect, so you can test out this function for free.

A word of warning: the title “Vocal remover” can be a little misleading. Any program that claims to remove vocals really only reduces the level of the original vocals. There will always be some residual vocal sound on the track. However, using such an effect may create a backing track that is good enough for your purposes.

Step-by-step:

1. Extract the song from the CD in a WAV or AIFF format
2. Open Audacity 1.3.12 and go to **File > Import > Audio**
3. Locate the song and click **OK**. The song will appear in Audacity and you can play it back by using the playback controls in the top left-hand corner
4. Tip: You can also drag the song straight from the iTunes window into Audacity
5. To remove the vocals, go to **Effect > Vocal Remover (for centre-panned vocals)**. Leave the settings as they are and click **OK**
6. Play back song to test the results. If you get a poor result, try running the effect again with different settings
7. More information can be found in [this article](#) about removing vocals in Audacity

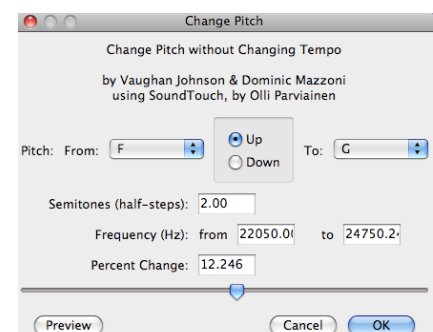


Changing Key

You can transpose the song in Audacity using the **Change Pitch** effect. It's best not to transpose the song by more than 2 or 3 semitones, since the quality of the recording will be reduced and the change too obvious.

Step-by-step:

1. Open the audio file in Audacity as before
2. Go to **Effect > Change pitch**
3. Choose whether you'd like to transpose **Up** or **Down** and then adjust the key of the song in the **Pitch: From** and **To** drop-down menu or type in the number of semitones

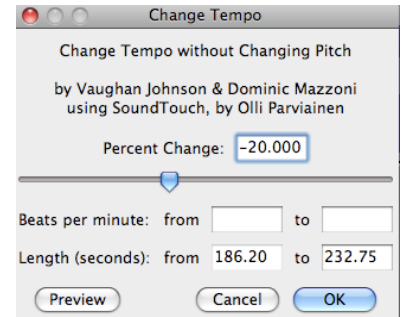


Changing Tempo

You can use Audacity to slow the song down for rehearsal purposes and you can change the tempo without affecting the pitch of the song.

Step-by-step:

1. Open the audio file in Audacity as before
2. Go to **Effect > Change tempo**
3. Drag the slider in the Change tempo dialogue to the left (try -20.00 percent or so) to make the track play slower without losing pitch. You can also speed up the song by dragging the slider to the right



Recording Vocals over a backing track

Hardware:

Buy the best you can afford, but don't forget that you can still make recordings on a tight budget. Hardware choices depend largely on:

- What it is you want to record (speaking, singing, class ensemble performance, VCE student performances)
- How good the quality needs to be
- Budget

What do I need?:

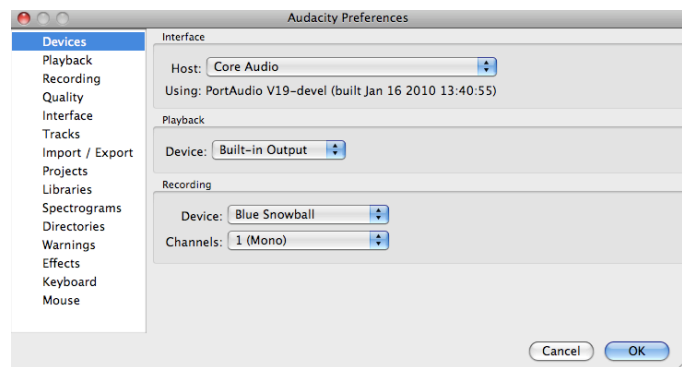
1. Computer
 - Laptop or desktop, the more RAM the better
2. Microphone
 - Inbuilt laptop mic
 - Gaming headphones with microphone (best for speaking/stories/podcasts)
 - iPod with microphone or iPhone
 - Handheld microphone (Microtrack II, Edirol R09, Zoom H4N)
 - USB microphone
 - Dynamic microphone (ie. Shure SM58)
 - Condenser microphone (good quality, but more expensive. Need phantom power)
3. Audio interface
 - Only needed if using a dynamic or condenser mic that does not plug into your computer via USB
4. Headphones to monitor the recording
 - Use the best you can afford

Setting up Audacity for recording

Open up Audacity's Preferences dialogue:

- PC: go to **File > Preferences**
- Mac: go to **Audacity > Preferences**

Click on **Devices** in the list on the left and check that your microphone is selected in the **Recording Device** drop-down menu. Click **OK**



Recording & Importing Audio

To start recording, simply click on the record button. Audacity will start a new audio track and when you start speaking/singing/playing, you'll see a wave file appear.

If you use a handheld recording device (such as an iPod, Edirol R09, Microtrack II), you will record your audio on to that device and then import it into Audacity. The steps:

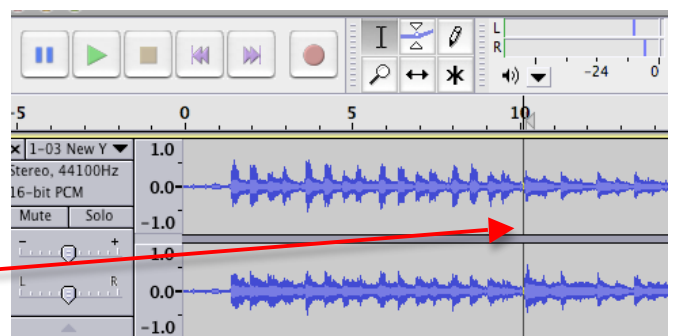
- Create your recording
- Plug the device into your computer and save the recording on to your hard drive. Instructions for this step vary depending upon the device you're using
- Open Audacity and go to **File > Import > Audio**
- Navigate to the place you saved your recording on your computer and click **Open**
- The audio file will appear in Audacity ready for you to edit it

Editing Song Length and Format

There are times when you need to shorten the length of a song, or even chop out a chorus and verse in the middle.

Step-by-step:

1. Open the audio file in Audacity as before
2. **Zoom in** a lot so you can see the track in detail (go to **View > Zoom In** or click the **Zoom in** tool)
3. Shorten the intro: play the song and choose the place you're going to cut the intro. Click on the wave form to place the playback line in the correct position (hint: you can press **[** during playback to stop the playback line at the correct place)



4. Select the part you want to cut by going to **Edit > Select > Track start to cursor**

5. Click on the **Cut** button (it looks like a pair of scissors and is located in the middle of the toolbar area at the top). The remainder of the track will move up to the start



6. Cut the end using the same method (but leave a little material for the fade-out): place the cursor (playback line) where you want to cut and go to **Edit > Select > Cursor to track end**. Click on the **Cut** button to delete the selected part

7. Create fade out by selecting the last section of audio (click and drag the mouse to select) and then go to **Effect > Fade out**

Now what?...Sharing the backing track with your students

We'll need to save this file in a format that can be played back with Windows Media Player or iTunes, or be burnt to CD.

- Go to **File > Export**. The Edit Meta Data dialog will open: leave the settings as they are and click **OK**
- In the next window, give the track a title, select the location and choose the file format: WAV or AIFF (large files) or MP3 (smaller)
- In order to save (export) files in the MP3 format, you'll need to download the LAME encoder. Click on this link and follow the instructions: <http://audacity.sourceforge.net/help/faq?s=install&i=lame-mp3>
- Lastly, you can play the track back on your computer using your chosen media player or you can burn it to CD

Contact Details

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