



Introduction to Audacity

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Introduction to using Audacity

Using Audacity is simple and straightforward, once you understand a few basic principles. This document will give you the necessary information and experience to get you started in the art of creating and editing sound waves.

Audacity is freeware, and is available here:

Main program: <http://audacity.sourceforge.net/download/>

(Download the PC or Mac or Linux version of Audacity)

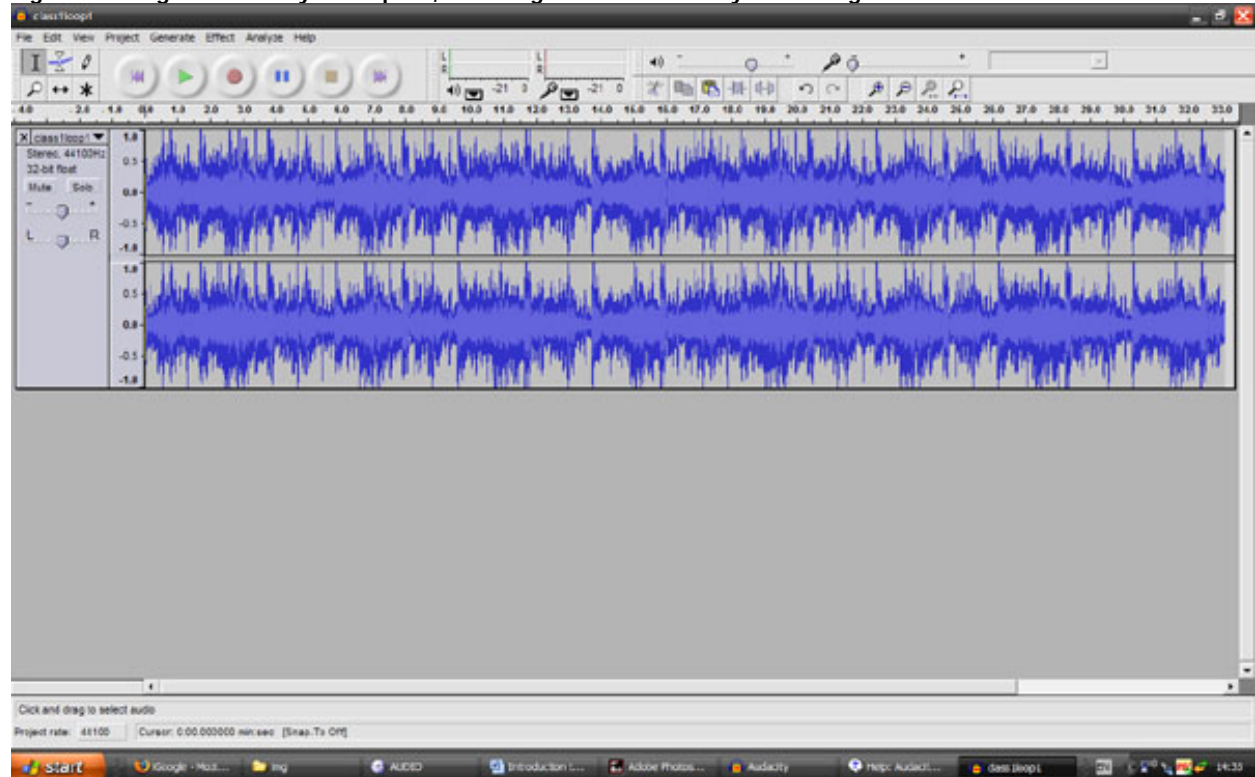
MP3 Plug in: <http://audacity.sourceforge.net/help/faq?s=install&item=lame-mp3>

(Go to the page and follow the relevant link for PC or Mac, to the LAME homepage, then download the LAME plug in)

It can be used with PC, Mac or Linux OS, and with a clever plug in, can also make MP3 files, as well as .wav or .aiff files.

This document refers to procedure using a PC, but smart users will be able to convert that to Mac, if they require.

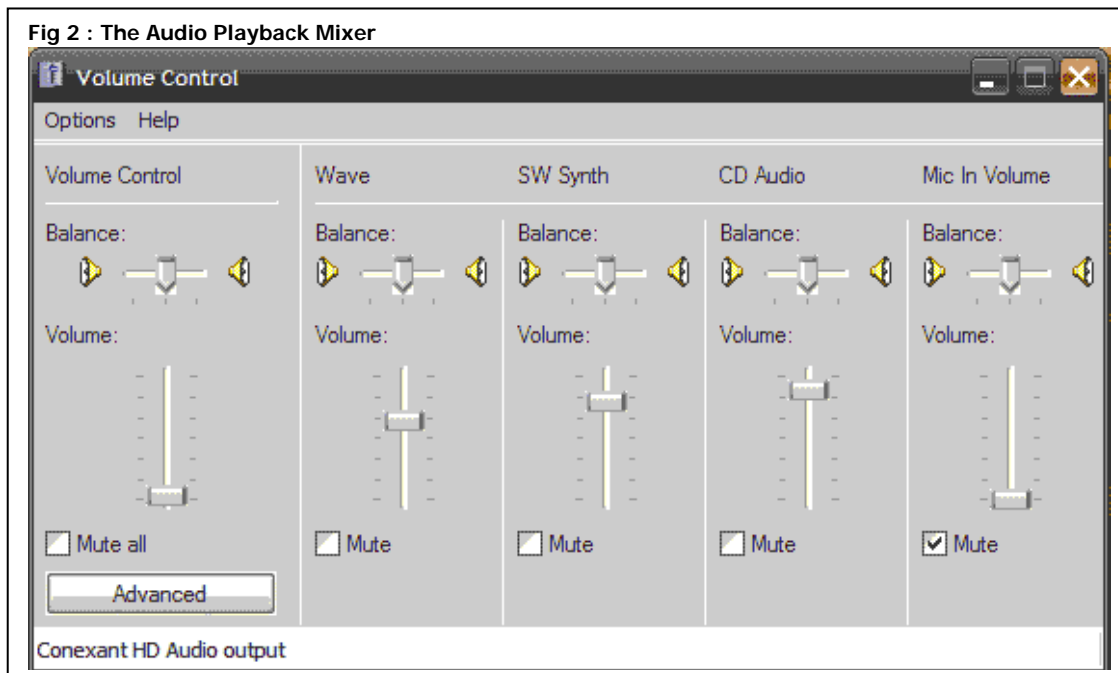
Fig 1: Showing the Audacity workspace, including a sound-file ready for editing.



Setting up the PC for recording

Using a microphone, we can record audio straight into Audacity, and save as either .wav/.aiff or MP3. First, it is important to check that the PC is configured to record sound using a MICROPHONE.

Click on the small speaker icon which is located in the system tray of any PC, and open up the audio playback mixer. You should see a number of channels and faders, including master, wav, Synth, CD Audio, and Mic In Volume.



The default setting for playback is that Mic In volume is muted – you don't normally monitor what you are recording while you record, as this can cause feedback (howling/screeching as sound is double recorded, which makes sound loop and feed back on itself).

Clicking on options will launch a window like Fig 3. This shows the playback and the RECORDING mixer set up, and selecting one or other radio button will display the corresponding settings/mixer.

To allow audio to be recorded, you must make sure that the audio recording mixer has 'Microphone' selected, (or whatever you may be using as an input).

By clicking OK at this point, you will then see the recording mixer. Check that the fader for the Microphone is up, to allow recording to be heard by the soundcard!

To revert back to the playback mixer, simply select the playback radio button and click OK again.



Recording with Audacity

Open Audacity, and make a note of the playback and record buttons on the top of the menu bar. These buttons work exactly like any other playback and record buttons in any audio device. If your mp3 player records, chances are it works in the same way.

Referring back to Fig 1, we can see that the record button is red, the playback is green and the pause is blue. To begin recording, simply click on the red recording button. If your set up is correct, your audio will appear as you record. You can see the wav being created in real time.

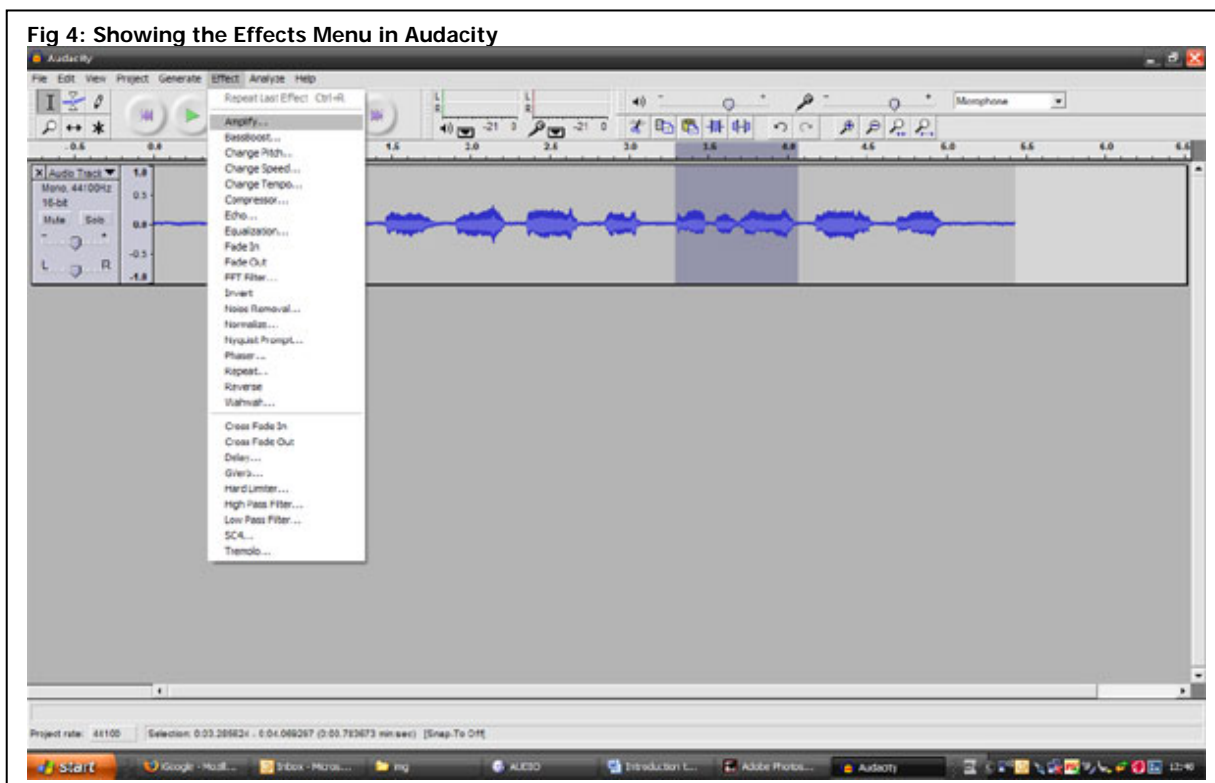
Once your sound wave is in Audacity, you should save your file. Do not wait until you have edited it, as this risks losing it for some reason (crashing!), so save right away.

Topping and Tailing

Topping and Tailing means editing out (deleting) the unnecessary silent bits at the beginning and end of samples. This is very important, as if your sound is to be used in Flash on an event (mouse over for example), you want it to come in straight away, not a few seconds later. Removing the silence at the start, therefore, is crucial.

Applying Effects

Audacity has many effects that can be applied to wav samples. To access these, select the whole wav, or a portion of it, and click on the effects menu at the top.



There are a lot of effects to choose from. The main ones to be aware of are:

- Amplify
- Gverb (reverb)
- Delay
- Echo
- Fade In
- Fade Out
- Cross fade effects (when you want to mix 2 samples together)
AND
- Changing Tempo*
- Changing Pitch*
- Changing Speed*

* It is important to understand the difference between the last three effects. Changing Tempo changes the speed of the sample, but does not affect its pitch. Changing Pitch of the sample does not change its tempo. Changing SPEED of the sample affects both tempo and pitch.

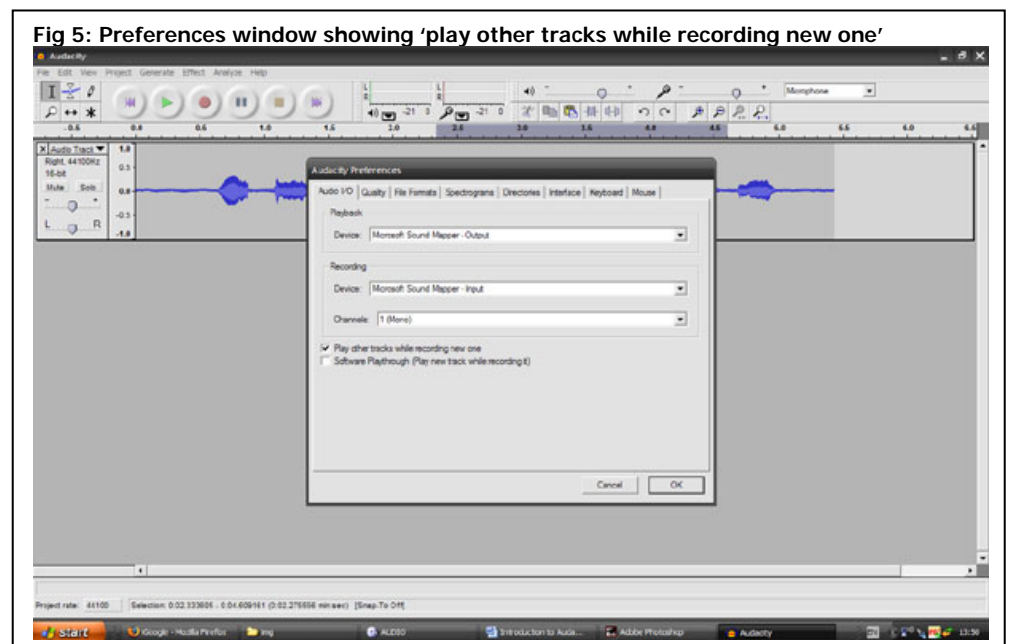
NB: To apply any effect, as mentioned previously, simply select the portion of the sample (or the whole sample) that you want the effect to be applied to, and then select the effect from the Effects menu, in the top toolbar. Control windows will open for each effect, allowing you to control the amount of effect to be applied. A preview button allows you to test your effect before you apply it. When you are satisfied with the result, click 'OK', and the effect will be applied. You can always 'undo' if you don't like it, and try something else.

Copying and Pasting

You can select portions of samples or whole samples and paste them either into each other, or on to separate 'tracks' in Audacity. You can also place them where you want them in the sample timeline using the Move Tool (more later). This is much like multi-tracking, in that they can be placed in order of requirement, or overlaying for multi effects application. Just use the edit menu to copy and paste, like in any other program, or use ctrl C, ctrl V to achieve the same thing.

Recording along to existing samples

You can record live to another sample that is playing in Audacity, in real time. To do this, make sure you are familiar with the preferences window settings.



Go to File/Preferences, and under the Audio I/O tab, tick the 'Play other Tracks while recording new one' box (see Fig 5). This will allow live accompaniment to existing samples loaded in the workspace. This can be very helpful when doing refined edits, or combining voice over with music or other samples.

Exporting

Exporting from Audacity is a straightforward process. There are several format choices available.

Wav: PCM Windows sound file format

Aiff: Mac sound file format

Ogg Vorbis: Open source sound file format

MP3: wide choice of quality settings for exporting as MP3

(Several other formats are also available)

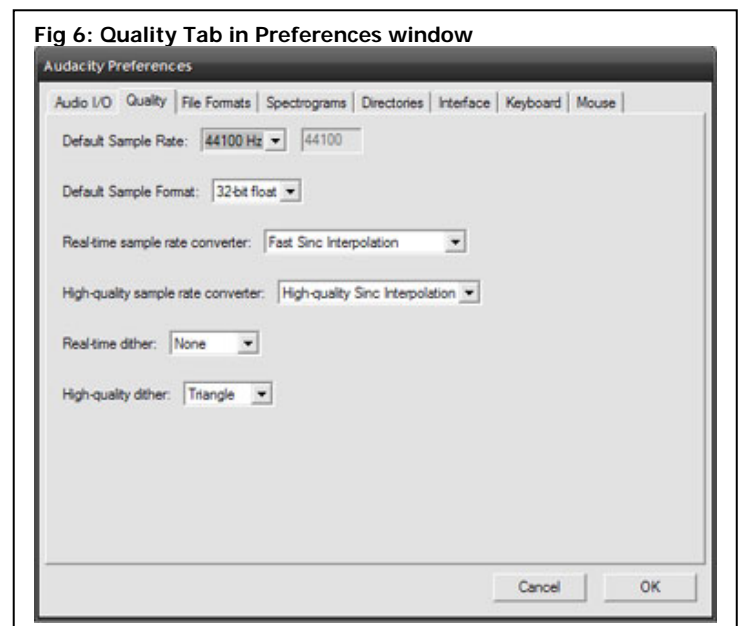
Export Quality and File Formats

Select the File/Preferences window and look in the Quality and File Formats tabs.

File formats will show what the settings are exporting files. This is where you would select either wav or aiff, for example. This is also where Ogg Vorbis quality is set.

Under Quality, .wav or .aiff settings can be altered. Usually, optimum settings would be 44100hz, 16 bit. Other settings need not be altered.

Refer to Fig 6 opposite to see the quality settings window.



Exporting a 'mix down' of several samples

Audacity can play several 'tracks' of samples at once. It is therefore able to mix down into one sample a combination of several samples. This can be very useful when mixing voice over with music, for example.

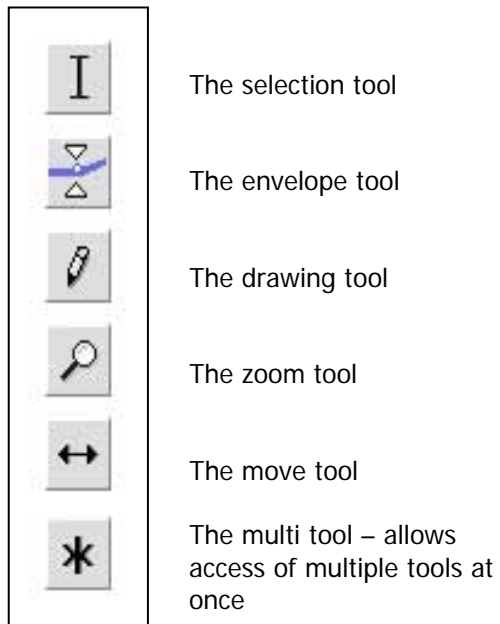
Multiple Export

Audacity can export multiple files all at once.. Select File/Export Multiple, and then select format and location to export the files. This means separate edited sample tracks can be exported as separate samples. Labels can also be used, however, we won't go into this in depth now.

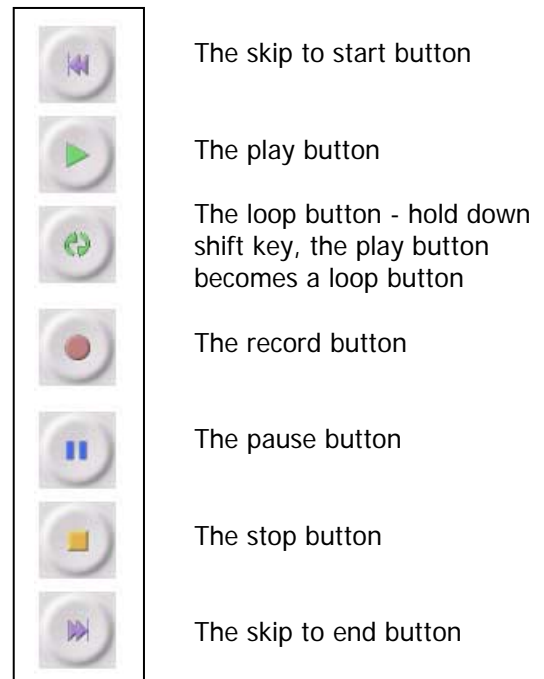
Editing and Playback Tools



The **Editing Tools** are as follows:



The **Playback Tools** are as follows:



More Resources

Audacity Tutorials
<http://audacity.sourceforge.net/help/tutorials>