Recording Your Audio and Creating Your MP3 File using Audacity

Many people who are working with digital audio are choosing a program called Audacity for many reasons:

1. It has an easy learning curve.
2. It has advanced features for those who want them.
3. It is free.
4. It is cross platform. Essentially what you see on the PC is what you see on the Mac.

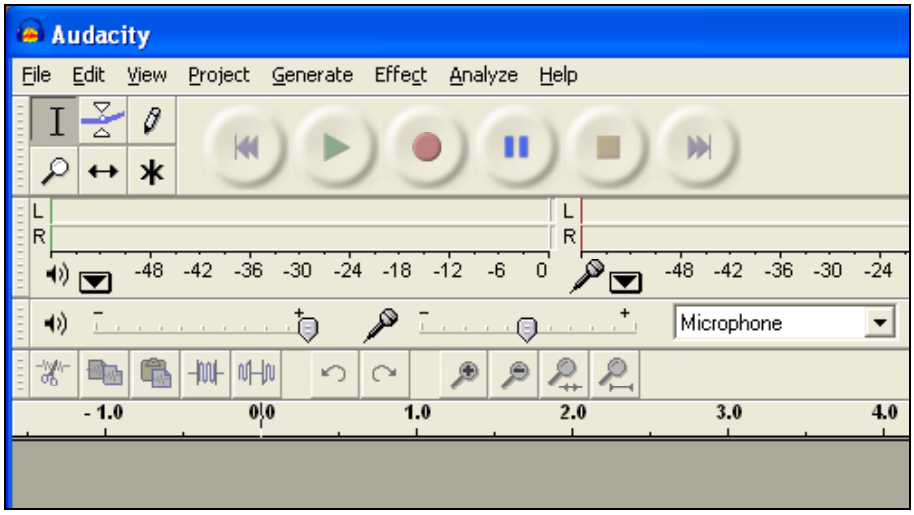
You can download Audacity at this address:

http://audacity.sourceforge.net/

There are Windows, Mac OS 9 or X, and Linux/Unix versions available. You will also have to download the LAME MP3 encoder "plug-in" that allows Audacity to export MP3 files. You will see the download link for that on the same page as the Audacity download.

Opening Audacity

When you launch the Audacity application you will see the following window.



This is a typical window. You can see the controls for playback, recording and simple editing of the sound that you record.

The main record and playback controls from left to right are:

- **Skip to start**
- **Play**
- **Record**
- **Pause**
- **Stop**
- **Skip to end**

Hint. If Audacity appears to be "hanging" or the menus are unavailable simply check you have clicked the stop button at the end of playback. Or, simply click the Stop button

When you initially launch Audacity the window is blank. Do not allow that to concern you. All applications commence with a blank page or slate. See the example on the next page.

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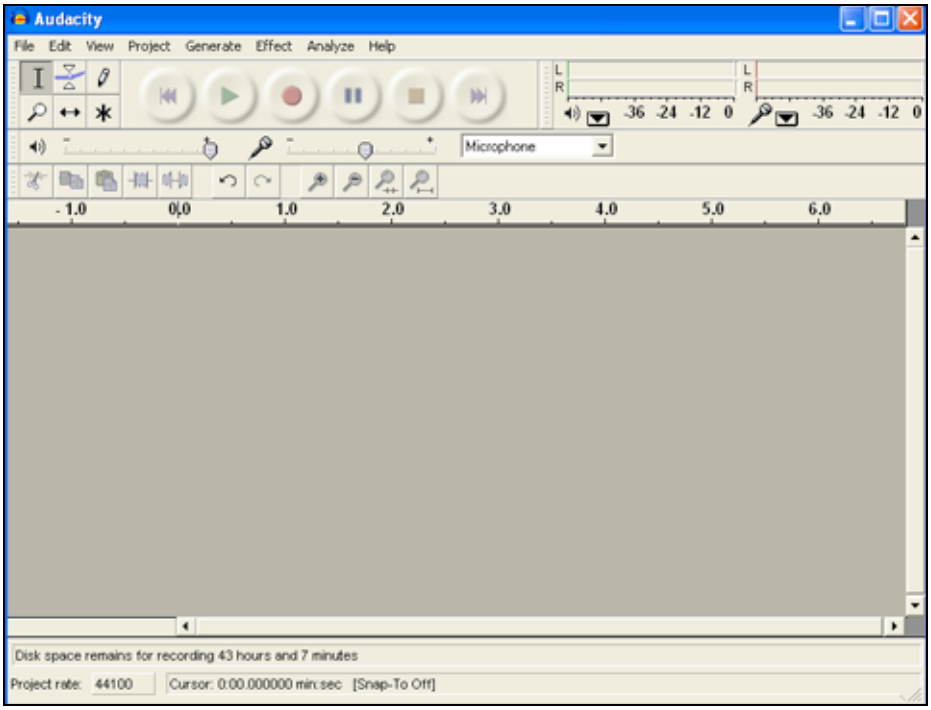
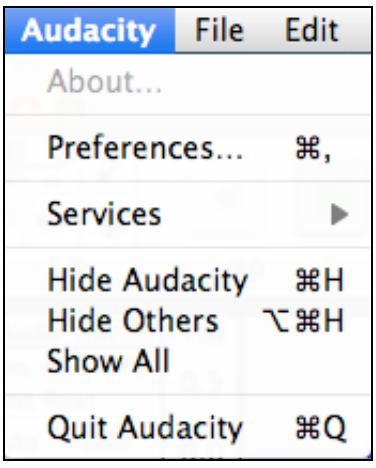


Setting preferences

It is wise to set the Preferences at this point. Go to the File menu and select "Preferences". See the window at right.

Please note that on the **Mac OSX** version of Audacity the Preferences menu is available in the Audacity menu.



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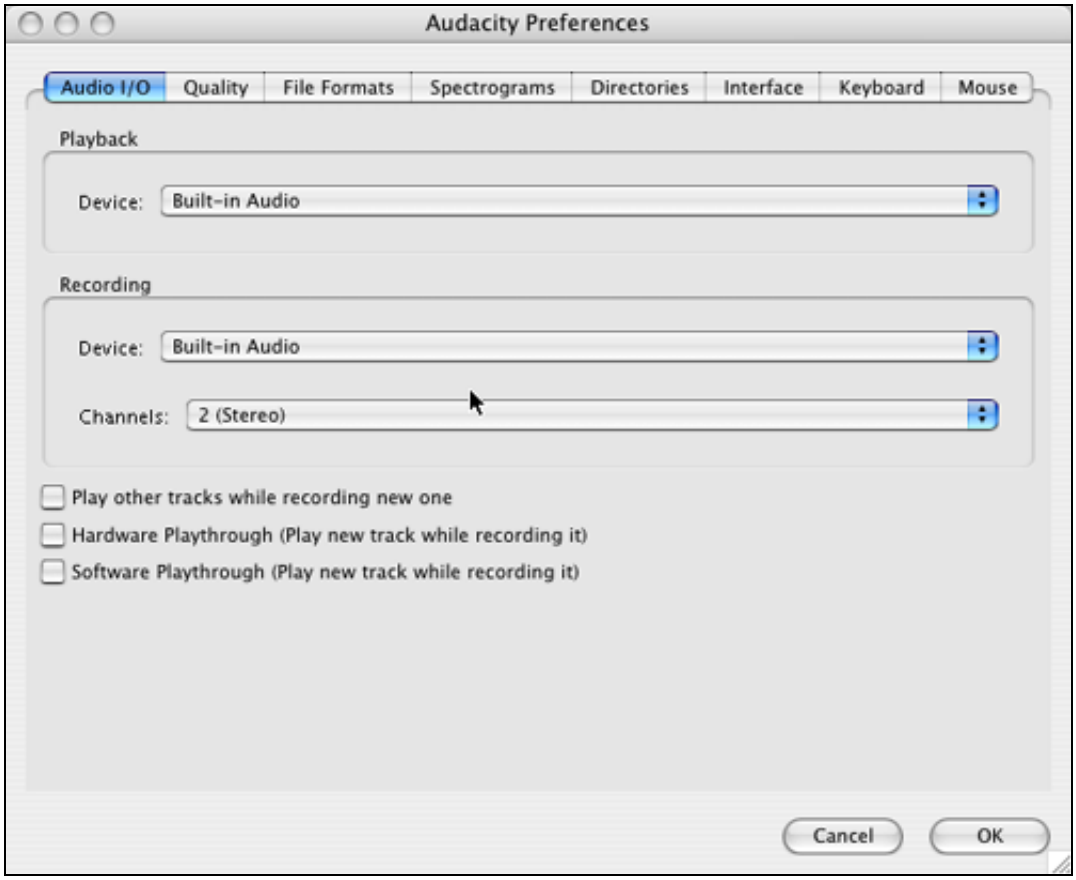
When the Preferences window appears make sure you have selected the correct hardware choices for sound playback and sound recording on your computer.



You can also check to see if the default input source is selected using the drop down menu on the Audacity toolbar.

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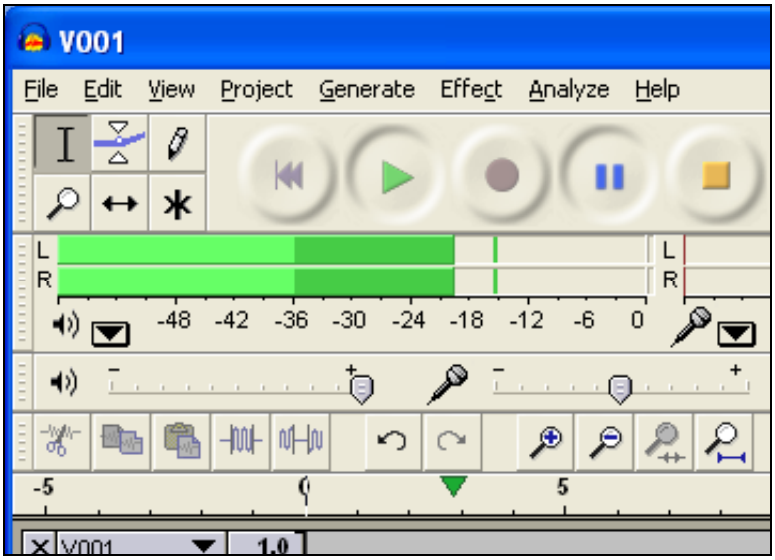
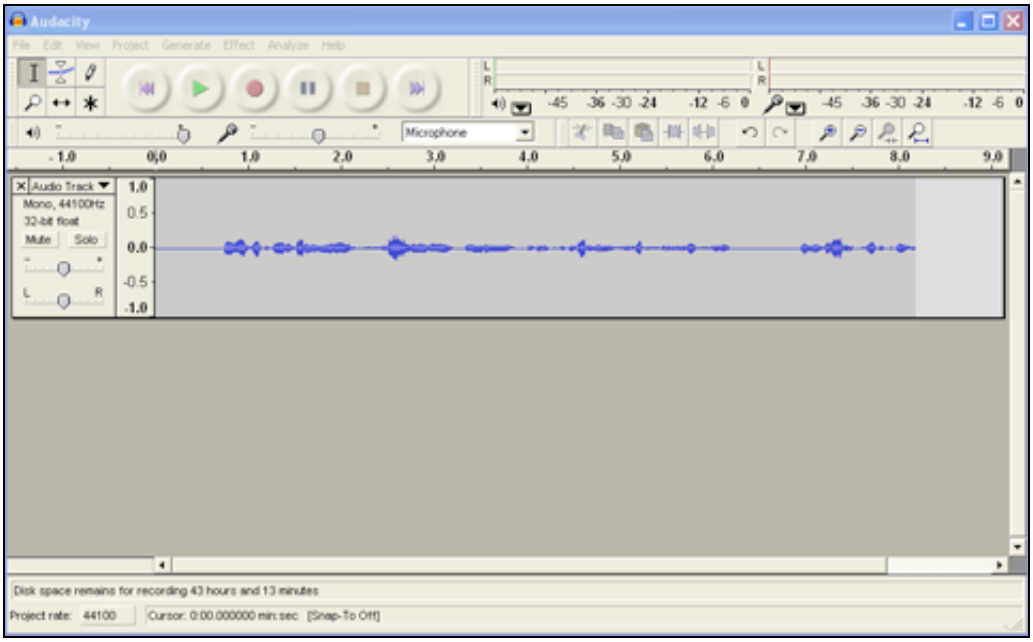
Recording your voice

Check that the microphone is working and simply click on the Record button on the toolbar. When you have finished the recording click on the Stop button. You can then review and even edit your voice recording.

You can click the green playback button to review the recording. Its relative volume will appear in the volume level bars. See below.



The completed recording will look like this. At the beginning of the track is a small control panel that allows you to **mute** the track, **split** it into a stereo track from a mono track, change its **sample rate** and also simply **delete** the entire track by clicking on the "X" close box in the top left corner of the track. You can also alter the **volume** of the track and whether or not it **pans** left channel or right channel in your project. More on the control panel below.



The waveform represents the relative volume and the modulation of your voice. If you select part or all of this track you can copy, paste, edit, delete and apply filters to the track. In this case we have one single track and it is a mono or single track channel.

Remember to save your Audacity project early and often.

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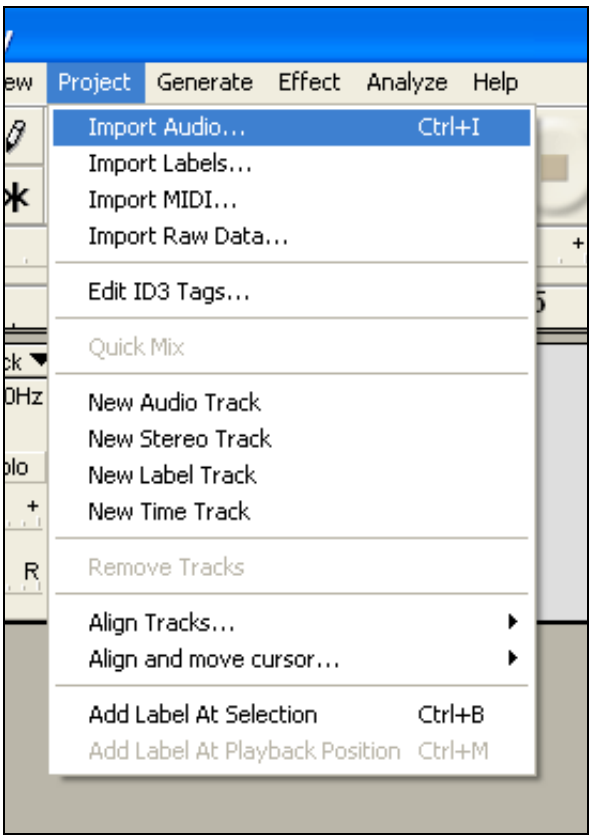
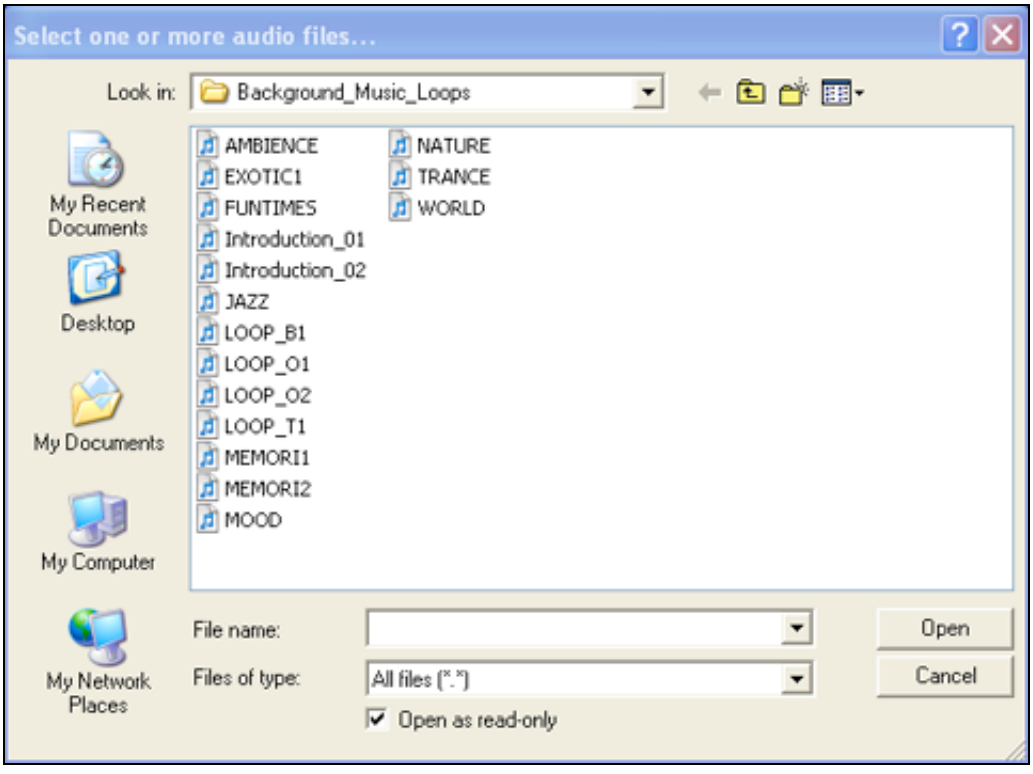
Importing audio

In addition to recording your own voice you may choose to import audio from another source. To do that simply choose Import Audio from the Project menu.



A window will open and you should browse your folders till you find the audio file that you wish to import.



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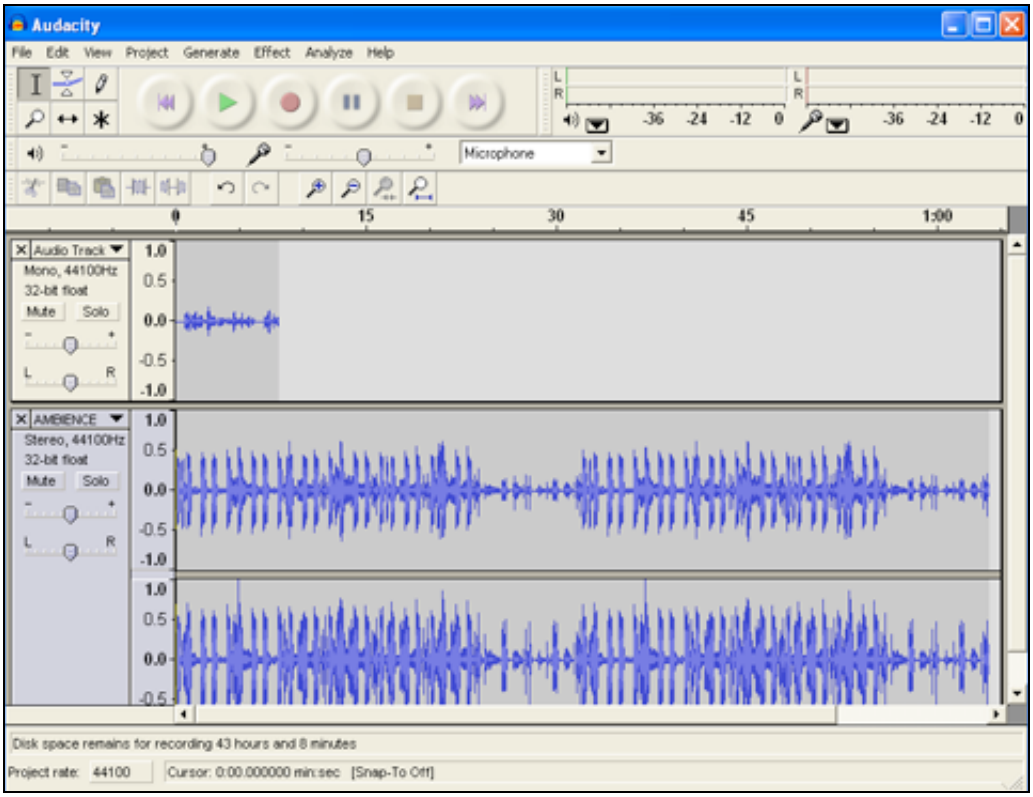
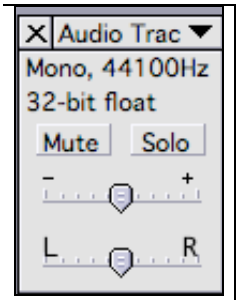
The imported audio file will become a track in your Audacity project window. See below.



In the example above you can see that the imported audio track called "**Ambience**" is a two channel or stereo track. It has a higher volume than the single channel voice track and its duration is also longer than the voice track.

You can edit both of these tracks to meet your needs.

Audio Track Control Panel



At the beginning of each track is the control panel. You can use this control panel to **name** each track.

You can also adjust the **overall volume** of the entire track by adjusting its ***gain***.

In addition to that you can adjust the position of the track's sound output by ***panning*** the sound to the left or to the right. For example, you may pan an interviewer to the left channel and in a separate track pan the respondent's voice to the right channel.

You can also temporarily ***mute*** or silence the track. Alternatively, by selecting the ***Solo*** button you can make that specific track the sole track that is audible, temporarily muting all others.

You can also delete the track by clicking on the "X" in the top left corner of the control panel.

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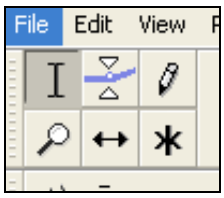
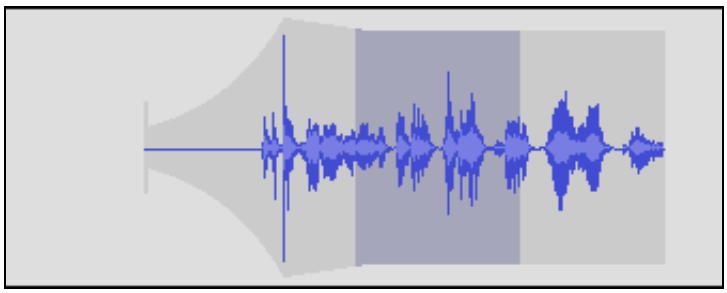
Frequently used tools

When editing your tracks there are several tools and menu items that you will use quite often. Let's look at some of these tools and menu items.

Selection tool

This tool allows you to select tracks. It must be selected in order to edit audio tracks. See below.



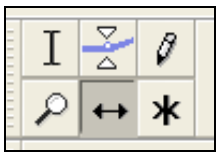


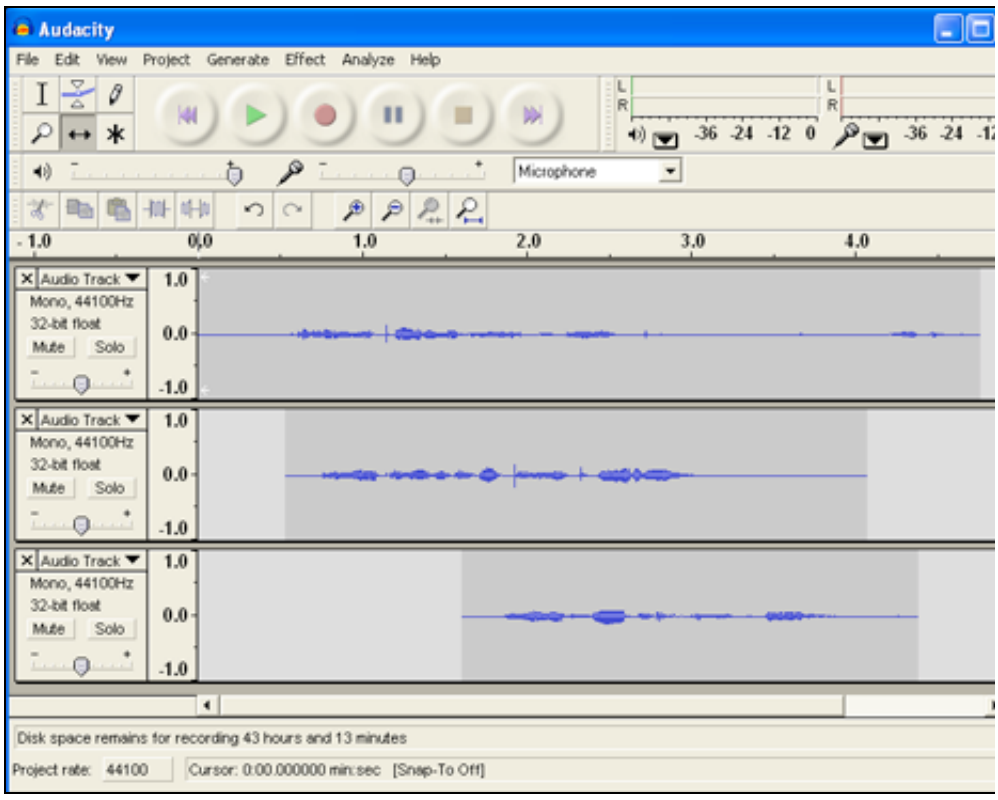
It allows you to select and highlight a portion of the audio track. See the example above.

You could then delete, copy or apply filters to that selected portion.

Timeshift tool

This tool allows you to shift individual tracks backwards and forwards in time in relation to the entire audio project. You might wish to have sound effects and background audio tracks appear at specific points in the project. See below.





In the example above the first audio track is at the beginning of the audio project. Track two commences half a second later and track three commences one and a half seconds into the project.

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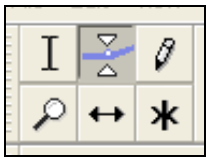
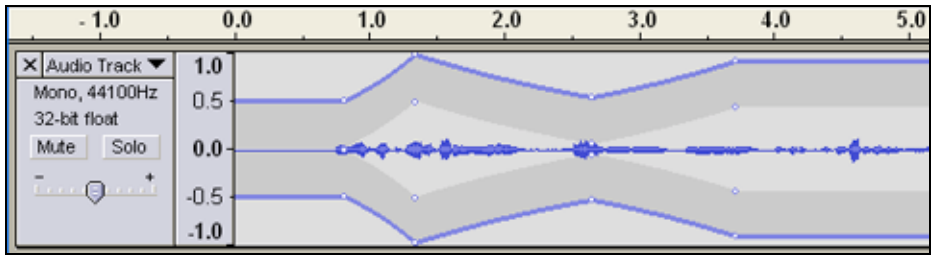
Envelope or "rubber band" tool

This tool is very useful for adjusting the relative volume of the track at various points throughout the duration of the track. You can create fades and even silence part of the track.



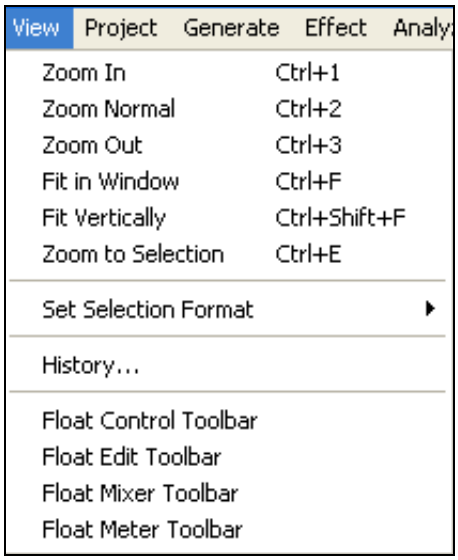


When you select this tool a pair of blue parallel lines appear at the top and bottom of the track. You can set points at various points on these lines and then click drag on the lines to adjust the relative volume of the track. See the example above. These envelope lines are sometimes called rubber bands.

Frequently used menu items

View menu

When you have created a number of audio tracks the project window begins to fill up and overflow with audio tracks. You may find the need to scroll up and across to see all parts of the track. If you wish you can utilize the View menu to see the entire project. See below.



You can use the View menu to fit all the audio tracks in the project window ("Fit in Window") as well as fitting all the tracks in the project window vertically ("Fit Vertically").

You can also zoom in or out of the project and specific tracks for a closer view of the track as your perform detailed editing.

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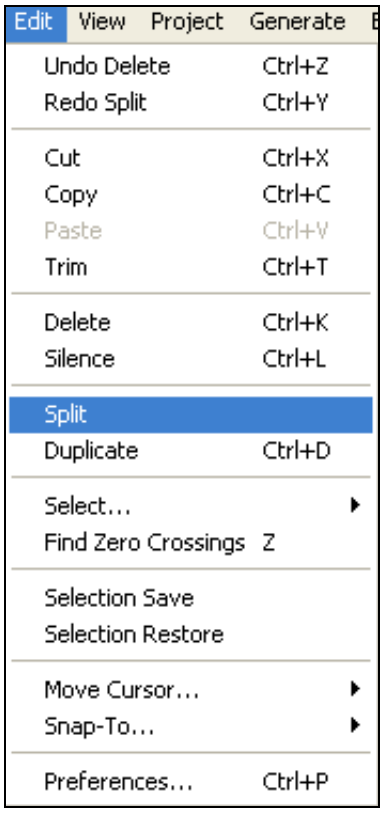
Edit menu

The edit menu is another that you will use often, particularly if you do not use keyboard shortcuts for copy, cut and paste. See the menu below.



You can use the **Edit** menu to perform basic functions such as **undo**, **cut**, **copy** and **paste**. You can also select a portion of track and apply the following changes:

You can **cut**, **copy** and **paste** selected portions of tracks.

You can **trim** or remove the sections of the track that precede and follow the selected portion of the track.

You can **delete** a selected portion of the track and remove it from the project.

You can **silence** a selected portion of the track.

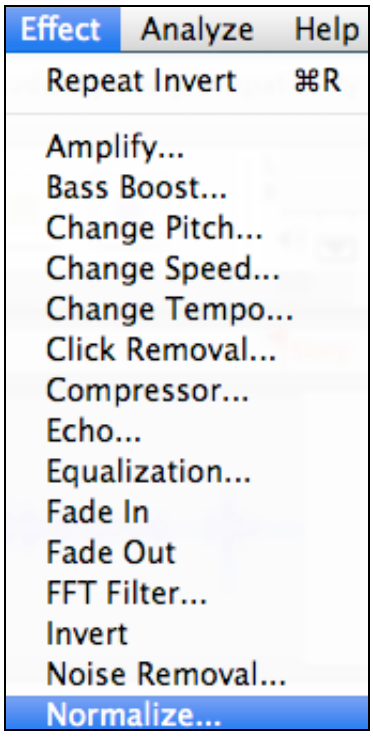
You can **duplicate** a piece of track. The duplicated section will be copied to a new track.

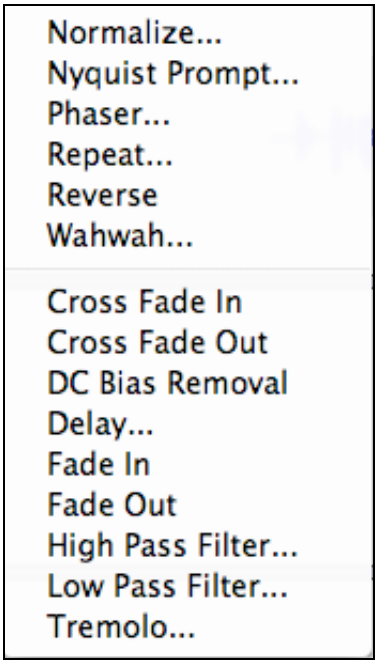
You can **split** a piece of track. This is useful. The selected piece of track is removed from the original and placed in a new track immediately below. See the description and screen shots below.

Preferences. You can use this menu to determine the source of your audio input and the speakers that you will use for your output. You can also set other parameters including the final sound quality of your published project. On the Mac OSX version of Audacity the Preferences menu is available in the Audacity menu.

Effect menu

This menu has a range of effects, many of which you will not use as the primarily apply to synthesizer, midi and electronic music sources. However, you will find effects such as Change Pitch, Change Speed, Amplify, Echo, Fade In, Fade Out and Reverse useful in applying effects to voices. These effects can allow a single user or multiple users to create a range of "characters" for their audio project.





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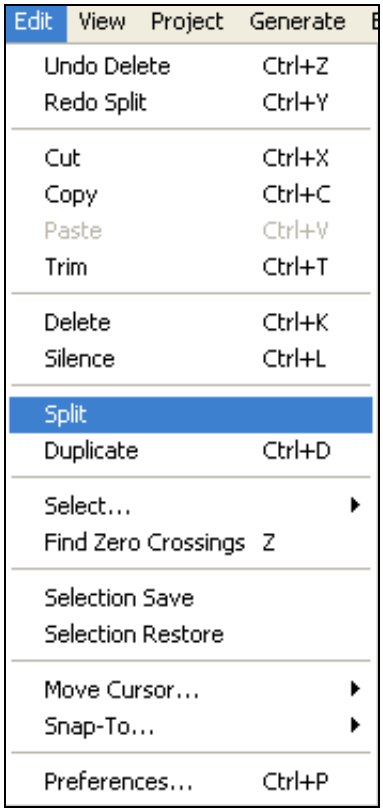
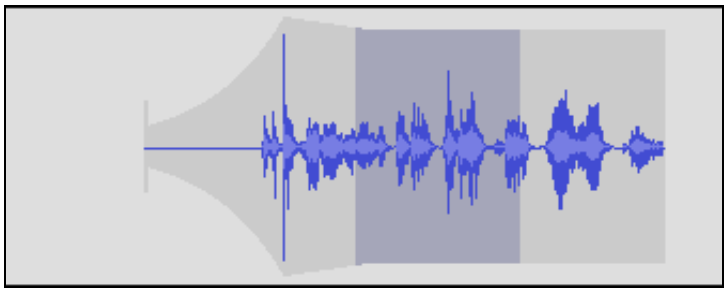
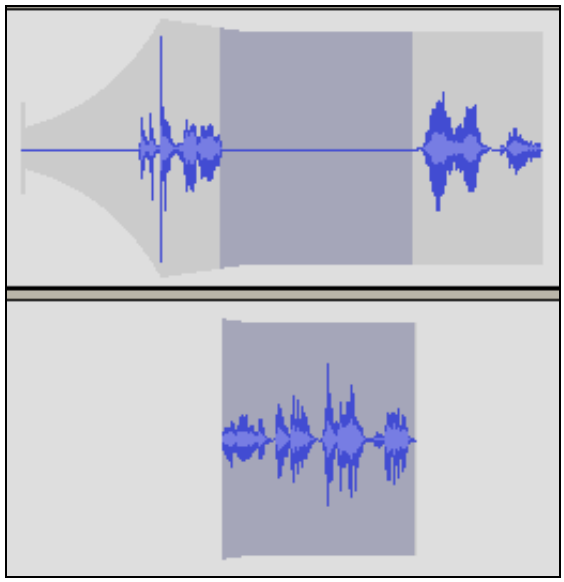
Splitting tracks

You can **split** a piece of track using the Edit menu. This is useful. The selected piece of track is removed from the original and placed in a new track immediately below. See the description and screen shots below.





Track **before** the spilt



Track **after** the split. Note that a new track has been created.

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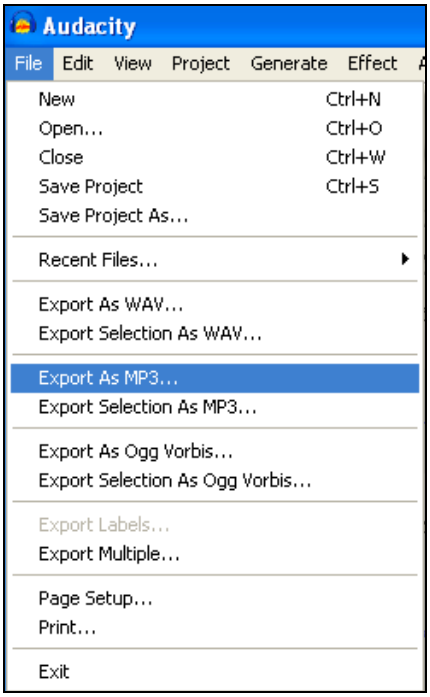
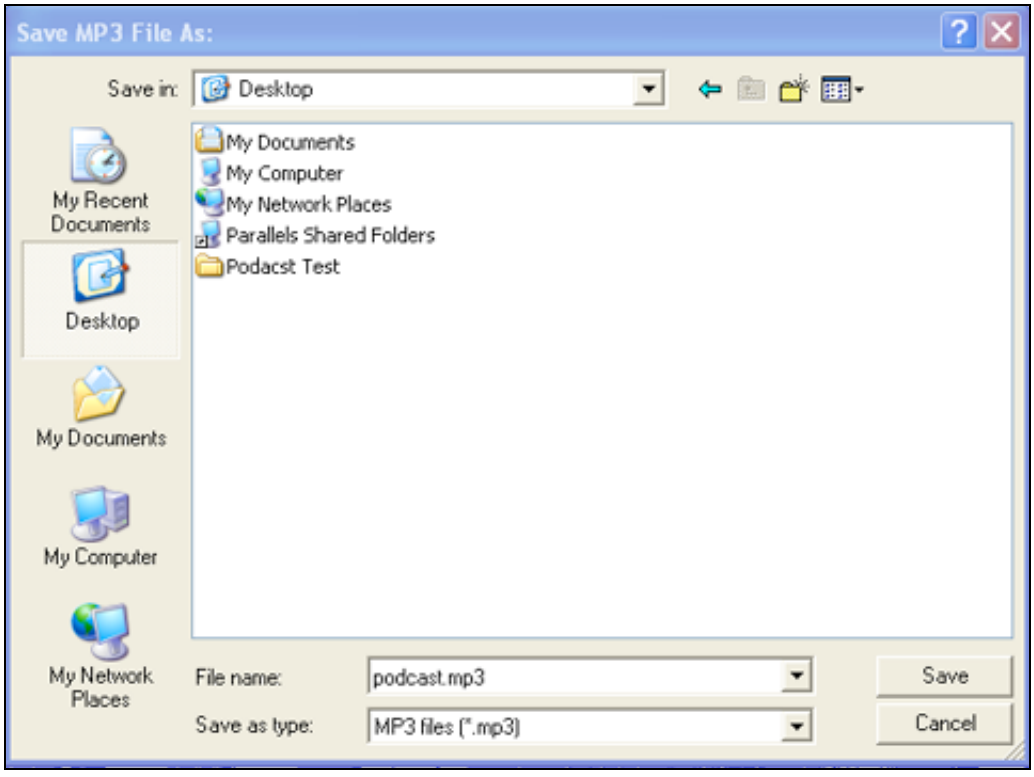
Exporting your project as an MP3 file

When you have finished creating your audio project you can export the track in a number of different formats including mp3. To do that select Export as mp3 from the file menu. See right.



You will be asked to save the file as with any save file process. See the window below.



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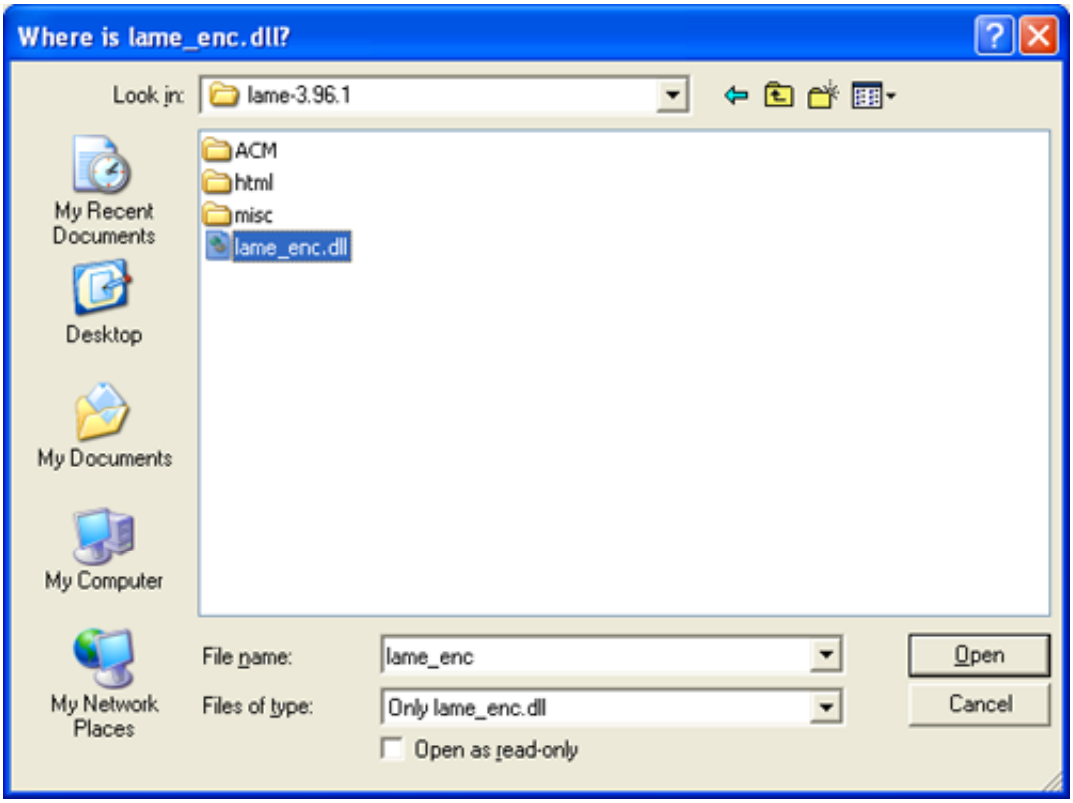
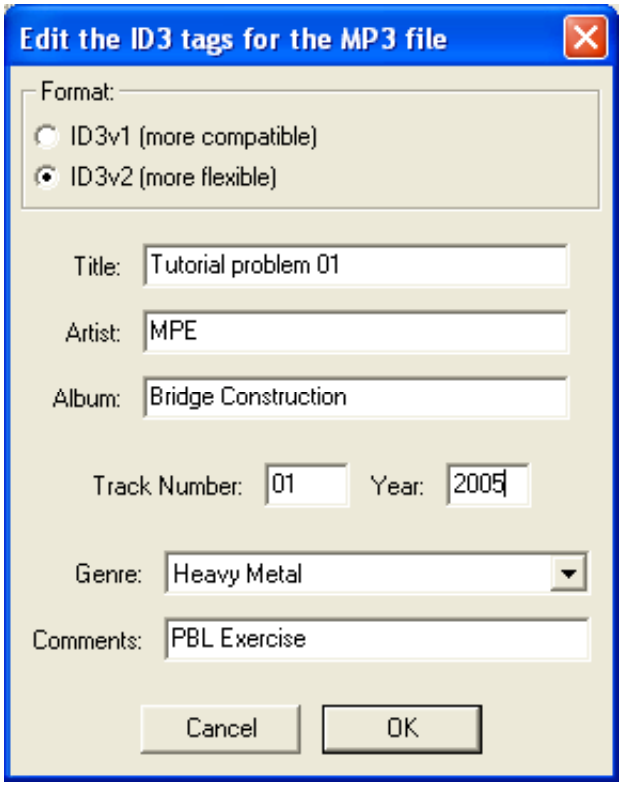
When exporting an mp3 file for the first time the Audacity software asks you to locate the Lame MP3 encoder software. Locate the plug-in on your computer. See below.



Once you have installed the plug-in you will then see the following window. You can name and give your mp3 file a set of relevant information tags or descriptions that your students or audience will understand.



Save your file in an appropriate directory. Remember where you saved the file.

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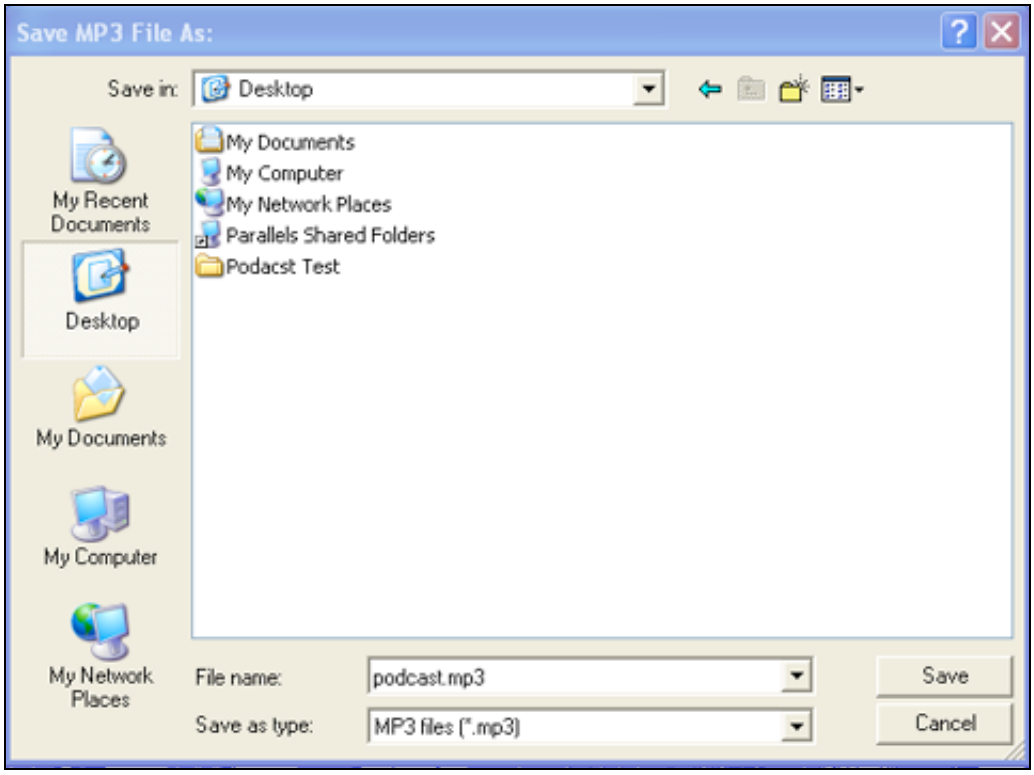

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