

## Saving your audio.

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This lesson will demonstrate and instruct on the process of saving your audio file into different formats and their uses once you have finished recording and/or modifying your audio file.

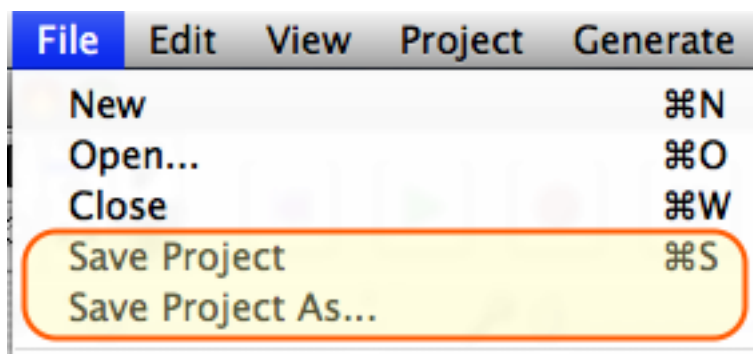
### 1. Should you Save or Export?

Once you are done getting your audio and making any changes to it that you need, it is time to save and/or export your audio file.

Saving your file means that it will be saved as in a format that is unique to Audacity, and so will render it only readable by Audacity (.aup format). This option is only desirable if you haven't finished with your project and you don't want to lose any information from it, or keep it so you can still modify the file, etc...

Exporting will convert your audio to a commercial standard that is used by many different programs and/or products. This is what you want to do when you are done with your project and want it available for easy access and playback.

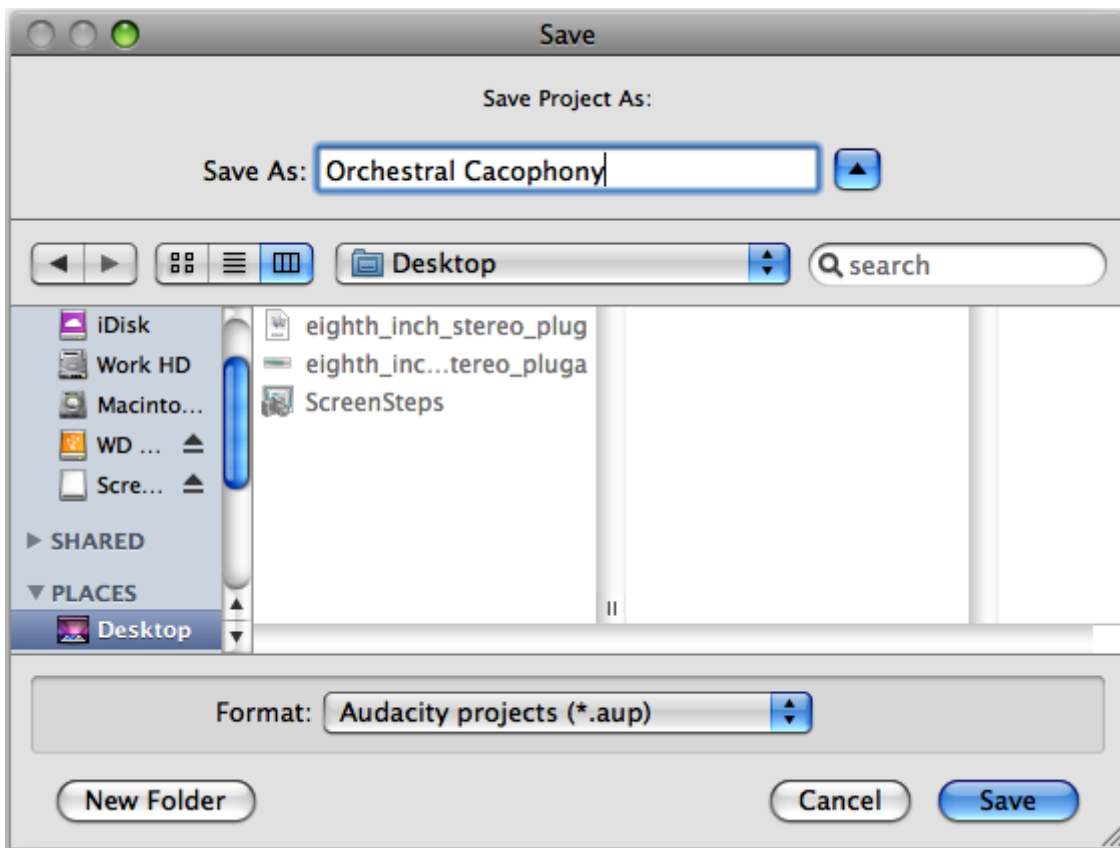
### 2. Save Project / Save Project As...



If you opened a file in Audacity and have made changes to it that you want that file to keep use the "Save Project" selection in the File menu, this will update the file to the changes you made.

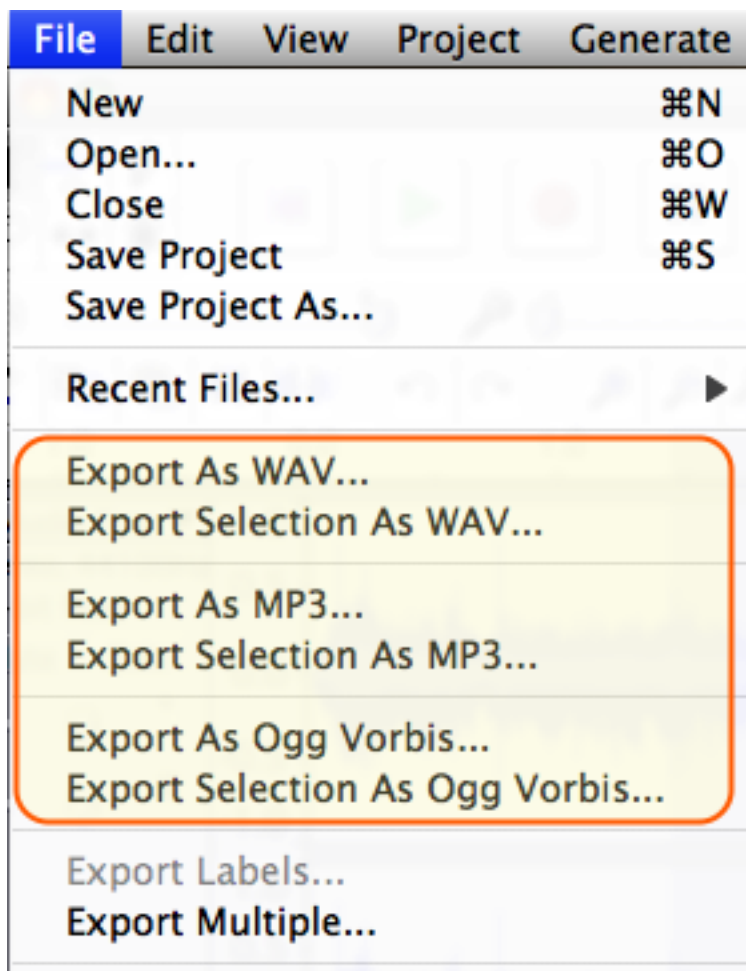
If you want to save your changes separately so you still have the original file, choose the "Save Project As..." selection in the File menu, which then will bring you to a save window.

If this is a new project that hasn't been saved yet and you choose "Save Project", you will be prompted with the same save window that you get when you choose to "Save Project As..."



When this window pops up all you have to do is give your project a name and locate a folder for it to be placed in. Then, you are done!

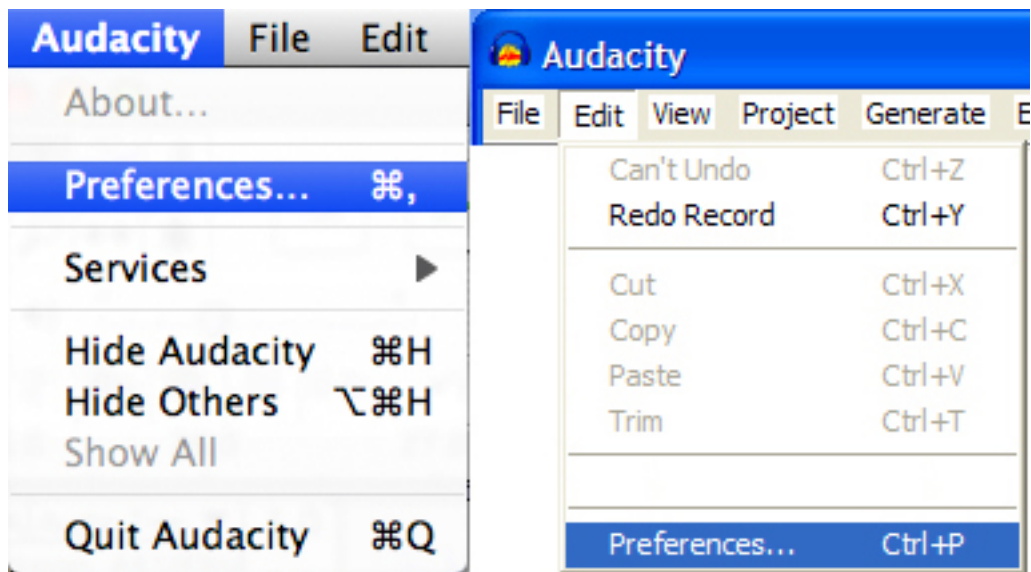
### 3a. Export As... / Export Selection As...



Exporting lets you save your audio file in a format that is standardized and in wide use, allowing for easier accessibility, playback, and sharing. It's almost the same as saving a project, but with an additional step or two.

Doing "Export As ..." will save your whole project as whatever format you chose, while choosing "Export Selection As..." will only save the portion that has been selected.

## - Preferences

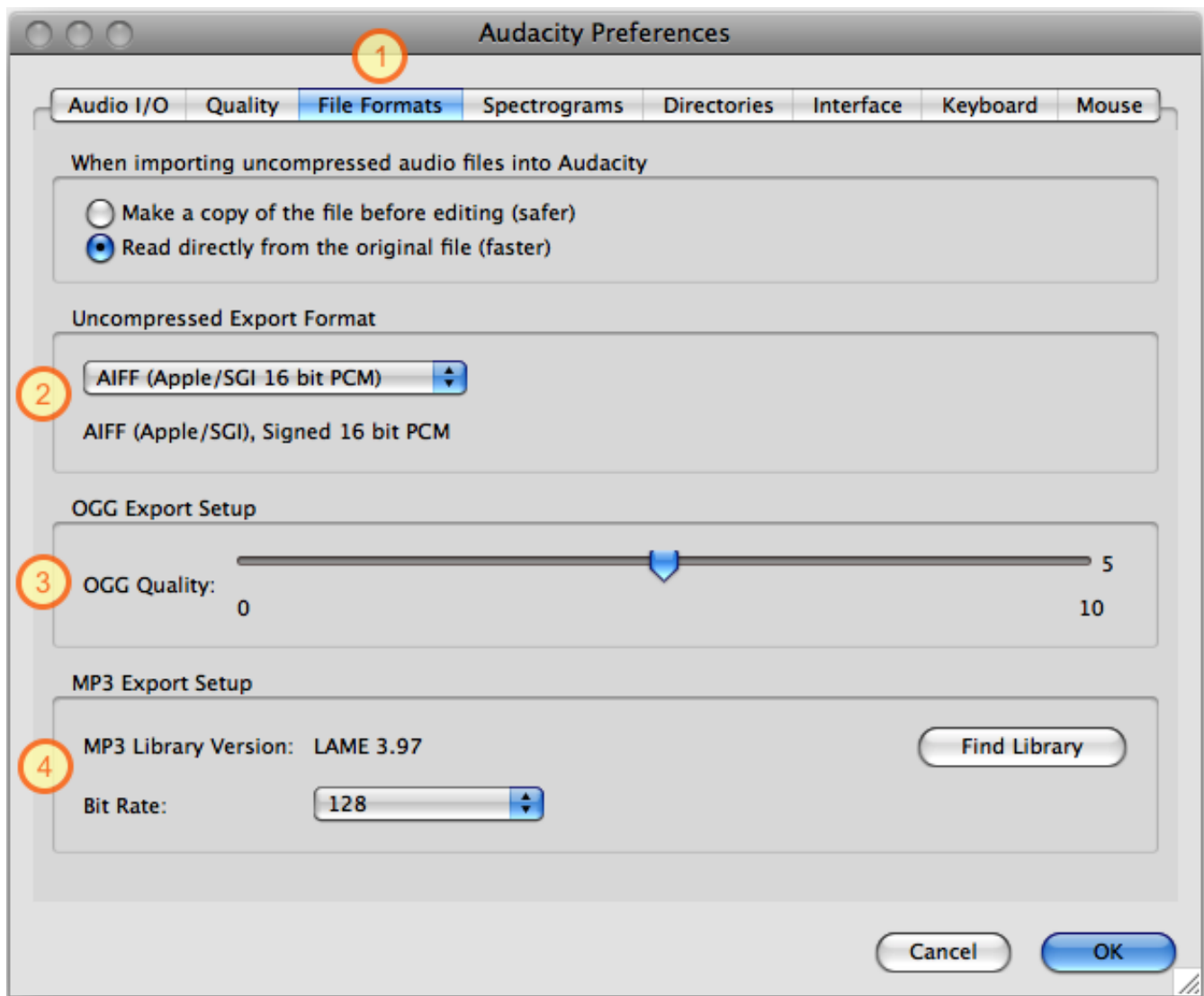


There are some preference settings that will affect the various formats when they are saved, so you may want to open the preferences and check them. For the most part the default settings are pretty good and you shouldn't really have to worry about the preferences. (However there is one possible exception; the WAV or AIFF setting depending on what you want to do. See Step 3b for more info)

To go to the formatting preferences, open Audacity's preferences (it will be under the "Audacity" menu for Mac, and the "Edit" menu in Windows). This will open the Audacity Preferences window.

If you already know what format you want to use and don't feel like you need to change the preferences then go to the step that you are interested in;

- Step 3b for more WAV / AIFF info.
- Step 3c for more MP3 info.
- Step 3d for more OGG Vorbis info.



In the preferences window choose the "File Formats" tab (1). This brings up the preferences that will affect the various formats when you are exporting. These are the different parts to it;

- Uncompressed Export Format (2); for AIFF or WAV formatting (and one or two others, but those are the important ones).
- OGG Export Setup (3); this affects the quality of the audio when you export as an OGG.
- MP3 Export Setup (4); this allows you to adjust the bitrate and also choose different LAME libraries for Audacity to use (LAME libraries give Audacity the ability to work with MP3 files).

### 3b. Export WAV / AIFF Format.

Waveform audio format (or WAV) and Audio Interchange File Format (or AIFF) are standard formats that are commonly used because they do not use any compression which allows them to keep all the audio exactly as it has been recorded.

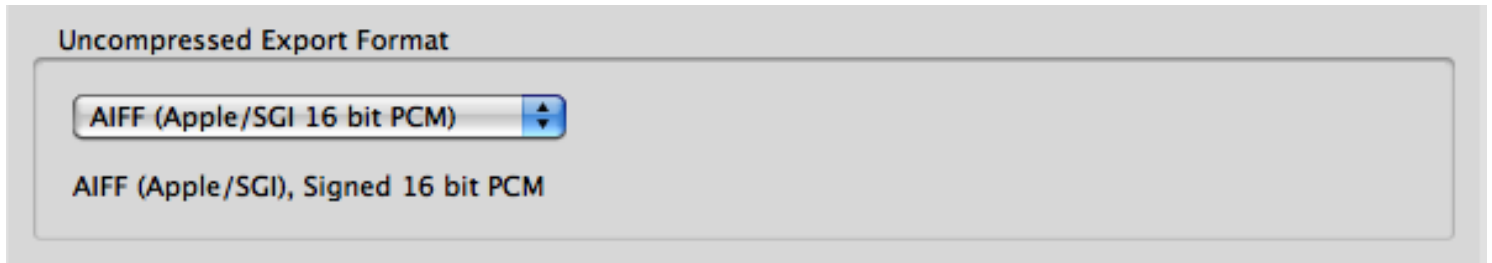
The only big difference between the two is that Windows generally uses WAV and Macintosh uses AIFF (there are a few other minor differences but that's not important here), however most applications that can use one format can generally use the other as well. If you are going to be working with Macintosh operating system then you will probably want to stick to AIFF, and use WAV if you are

mainly going to use Windows.

This is the format you want to use if you want to put your audio to an audio CD that can be played on any standard CD player, or if you don't want any quality loss.

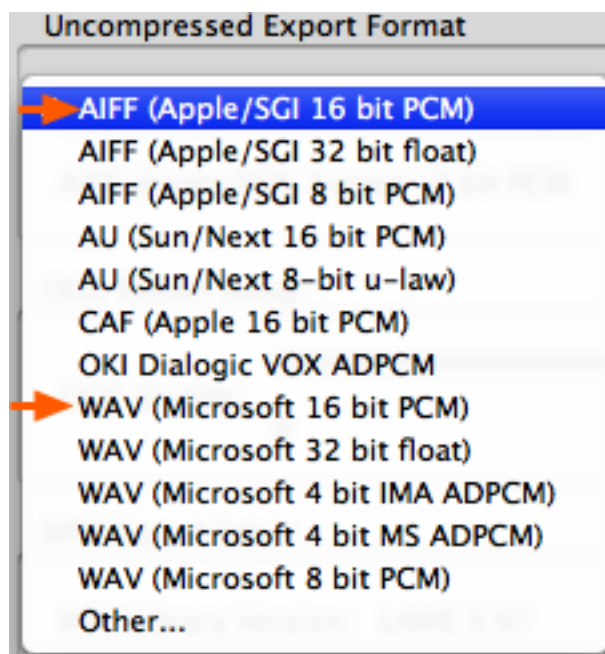
The downside to this is that the files are uncompressed, so they tend to get real big in a hurry and tends to severely limit how much you can put on a CD or data storage unit (such as a flash drive).

### - Choosing WAV or AIFF settings (Preferences).



To switch between AIFF and WAV formats;

-Open the formats preferences and go to the Uncompressed Export Format section.



- Click on the drop-down menu and choose either "AIFF (Apple/SGI 16 bit PCM)" or "WAV (Microsoft 16 bit PCM)"

**Important Note:** Unless you know exactly what you need, choose one of the two options indicated by the arrows.

Now you are ready to export your project as an AIFF or WAV.

## - Saving.

Go to the "File" menu and choose "Export As AIFF" or "Export As WAV" (depending on what you set in the preferences). you will then be prompted to name your file and place it in a folder.

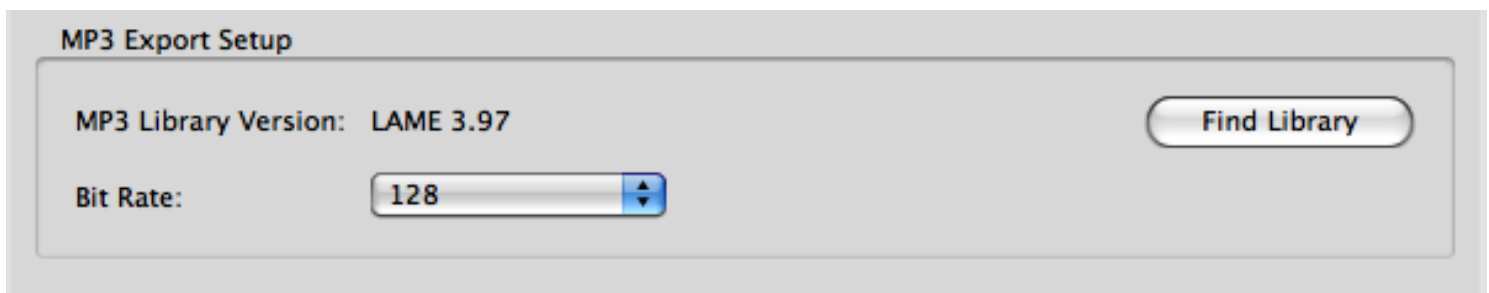
You should now have an AIFF or WAV file ready for playing, storage, or putting on CD!

## 3c. MP3 Format.

Mpeg-1 Layer 3, and Mpeg-2 Layer 3 format (commonly called MP3), is a high compression format that allows for a high amount of audio data to be stored in a relatively small space. It achieves this through various algorithms that allow it to take trends in an audio file and shrink them down to individual pieces of information. It also saves space by "losing" bits of audio that the algorithm indicates won't be noticed or hardly noticed (which is termed as "lossy compression") but it does cause loss of quality to the audio. Since MP3 can be stored in a small storage without significant quality loss, it has become a very popular format for both entertainment and business- from presentations, to games, to devices dedicated to MP3 playback (eg. iPod, MP3 players).

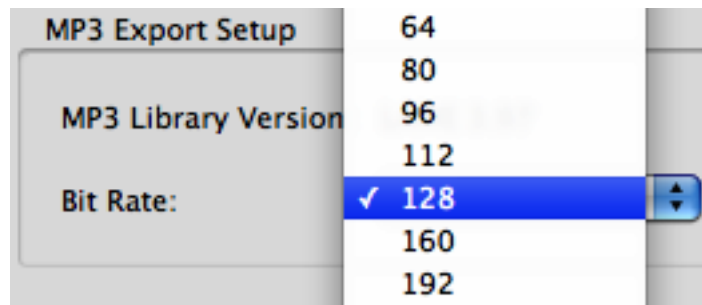
The important part about MP3s is the bitrate. The bitrate modifies how much data is kept when recording or saving as an MP3: Lower bitrates mean less data will be saved so the quality will be poorer but the file will consequently be smaller. On the other hand a higher bitrate means that more data will be kept and so the quality of the audio will be better, but the file size will be larger.

## - Mp3 bitrate settings (preferences).



A bitrate of 128 is a general standard that is used often as it is a good tradeoff between quality and size- the audio quality is good and the size is about 1/10th of what it would be if it weren't compressed.

To change the bitrate at which your file will be saved at;  
-Open the formats preferences and go to the "MP3 Export Setup"

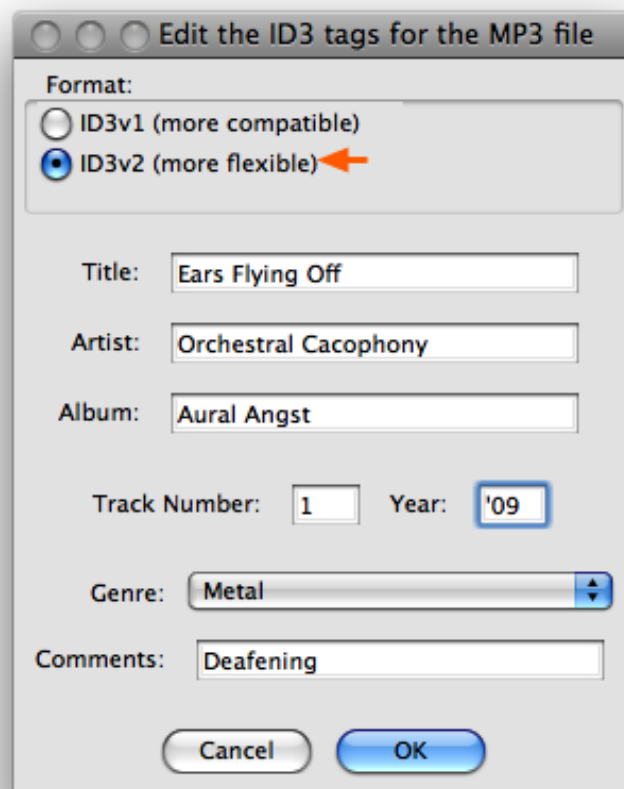


-Click on the drop-down menu next to "Bit Rate" (should be 128 by default) and choose a different bitrate.

**Note:** If you are increasing the bitrate for better quality, once you get past 192 the quality is good enough that you'd most likely need a computer to spot the differences or have a *very good ear*.

### - Saving.

When you are ready to save the file, go to the "File" menu and choose "Export As MP3". you will then be prompted to name your file and place it in a folder.



Once you've clicked "Save", the "Edit the ID3 tags..." window will pop up. This is for additional data that will be added to your MP3 file that allows playback programs and devices to display miscellaneous data such as Titles, albums, artists and etc...



These are all optional, however you will likely want the "ID3v2" button selected (indicated by the arrow). Click OK, you then are done and have an MP3 file ready for playback and/or storage!

### 3d. OGG Vorbis Format.

OGG Vorbis format is another format that functions similar to MP3; it uses algorithms to compress audio data, and also to lose pieces of data to shrink the file size down. On the upside OGG Vorbis is generally better quality than MP3 that is at similar bitrate and file sizes, the down side is that it isn't in as widespread use so replayability will be more limited as there are not as many programs or devices that play OGG Vorbis formatted audio files.

#### - OGG Vorbis quality setting (preferences).



The default settings in Audacity should be fine, however if you want to change them so you get better quality or smaller files then open up the formatting preferences and go to the "OGG Export Setup". There will be a slider control that allows you to change the quality of the OGG formatting, that should be set at halfway. Slide it toward the 10 to the right to increase quality of the OGG formatting (and consequently also the size of the file), and slide it to the left to reduce the quality (and also the file size).

#### - Saving.

Once you are ready to export your project as an OGG Vorbis, go to the "File" menu and select "Export As OGG Vorbis". A confirmation should pop up notifying that Audacity will have to compress the number of tracks down to two. Click "OK", then you will be prompted to name your file and place it in a folder.

When you click "Save", you will be done and have a an OGG Vorbis file ready for storage and or playback!