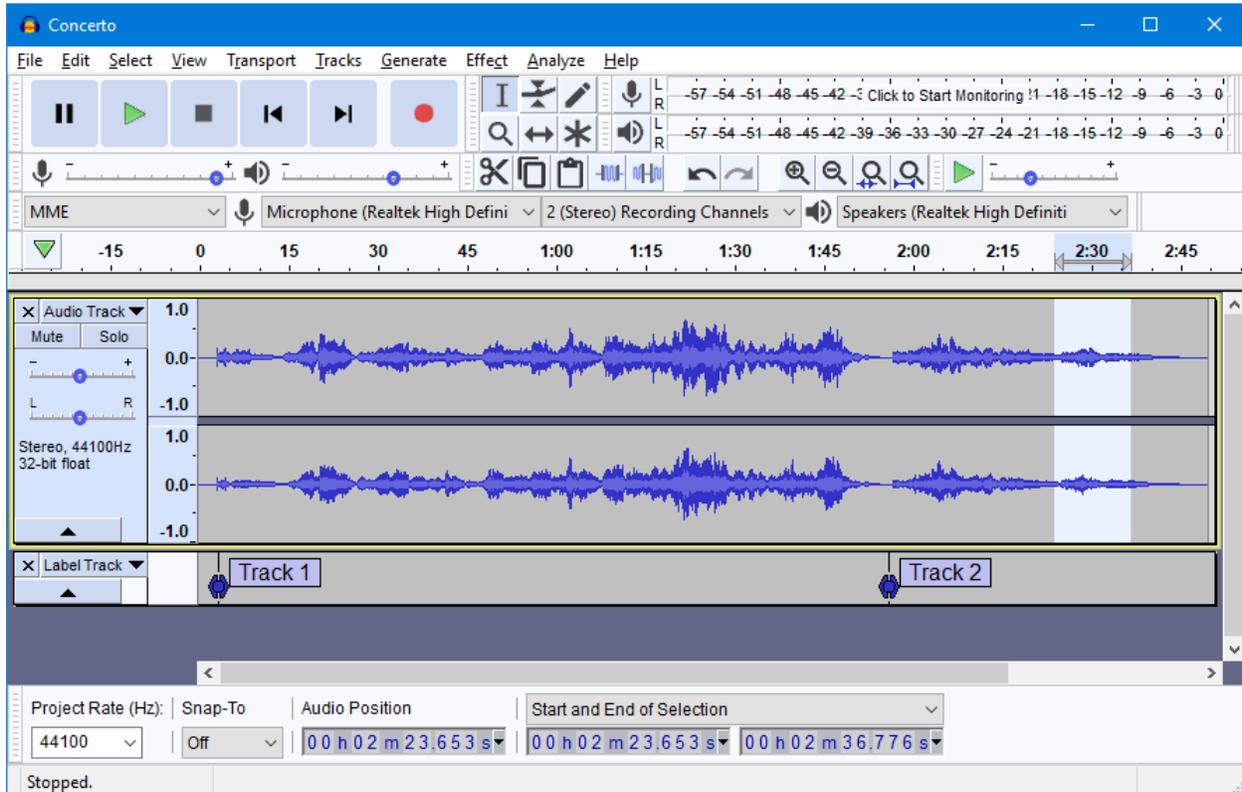


## Working with Audio

### Audacity

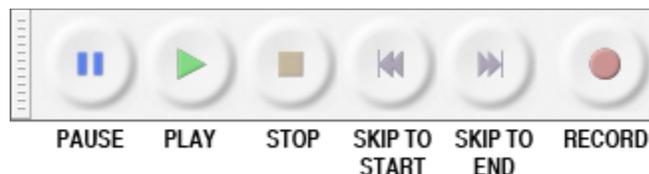
Audacity is a free and open source Digital Audio Workstation (DAW) which works on pretty much any operating system. You can record, edit and manipulate audio with it. For beginners, it's great because it's got a very simple user interface (compared to e.g. Pro Tools, Cubase etc.)



### Setting Up

1. Download Audacity from <https://www.audacityteam.org/download/>
2. Install
3. Install mp3 library  
[https://manual.audacityteam.org/man/installing\\_and\\_updating\\_audacity\\_on\\_windows.html#winame](https://manual.audacityteam.org/man/installing_and_updating_audacity_on_windows.html#winame) This will allow you to work with MP3 files, which you'll probably want to do at some point.

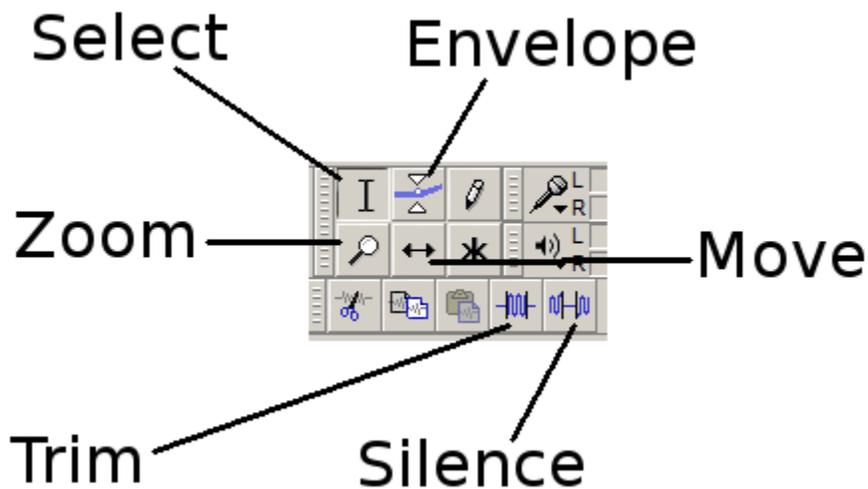
### Playback controls



The playback controls work similarly to an old tape machine.

## Editing

### Tools



#### Select

Select is the tool you'll use most of the time. It allows you to select a portion of the audio file that you want to work on.

#### Envelope

The envelope tool allows you to draw in volume changes.

#### Move/Time Slide

The Move tool allows you to move files in relation to each other. Useful when working with multiple files.

The pencil icon allows you to draw in individual audio samples (you will never need this).

The star icon makes the cursor "context sensitive". I recommend not using this when starting out.

**Trim** will crop the audio to only what is selected.

**Silence** will insert silence into the currently selected area.

### Basic Editing

The basic editing process is as follows:

- Load your audio recording into Audacity. You can do this by using the menu File->Import->Audio... or by dragging a file onto the window.
- Remove any unwanted audio, for example, false starts, coughs, the beginning and end, etc. by selecting the audio you want to remove and either pressing delete on the keyboard or using menu Edit->Delete.
- Rearrange the audio. You might think a section of an interview sounds better at the beginning rather than the end. To achieve this, select the piece of audio you want to move and go to menu

Edit->Cut or press Ctrl+X on the keyboard. Then place the cursor into the audio where you would like it to be and use menu Edit->Paste or keyboard Ctrl+V. It's a lot like using a Word processor.

- Add other files. Perhaps you're compiling several interviews into a feature or you want to add background music, etc. You can import other audio files the same way you did the first. Audacity will put them onto new tracks by default. You can use the move tool to arrange the edited tracks.
- Save project/Export Audio. This is a very important distinction which confuses some beginners! To get an audio track you can play and put on the radio you will need to export the audio: Menu File->Export->Export As Audio... If you save the project this will save it as an Audacity file which you can go back to and work on later, but it will not be a playable audio file.

This is a very basic run through, but you can get a lot achieved with these basic commands.

## Effects

Audacity also has effects and processors for working with the audio. It's beyond the scope of this document to go into all of them, but one is very handy:

### **Amplify**

Amplify is a key effect because it allows you to change the loudness of the audio to get the best levels for broadcast. Quite often your recording will be too quiet – amplify is how you can alter that. You can boost a piece of audio by selecting it and going to menu Effect->Amplify. Make sure "Allow Clipping" is NOT checked (clipping sounds bad) and Audacity should have made the default settings to boost your audio without distorting it. Select OK!

## Making a Radio Show

It's well worth putting the effort into learning to edit and manipulate audio if making radio content or podcasts is something you like to do. These skills will help you make radio shows, however you normally record them. If you use an app such as Anchor, you can polish the recordings you've made on your phone. If you're recording interviews, etc., on a phone or digital recorder you can edit them into features. If you're using Mixxx or some other playout software you can remove mistakes, correct volume issues and tighten up your recordings.

It's also possible to make a radio show just using Audacity. Record your voiceovers, import your music, edit and arrange your tracks. Some people prefer working this way as it can be very quick, but it can mean you don't get the "live" buzz when performing a show in real time, and the temptation to edit everything can be too much.

There are many resources on the internet to learn how to use Audacity if you get the bug!

## Getting More Advanced

Although Audacity allows you to do pretty much anything you might need to with audio, the workflow can be a little slow if you're doing advanced editing with lots of tracks and you can't use VST plugins, alter effects in real time, or compose music with it. If you're bumping up against the limitations of Audacity here are some options:

LMMS: <https://lmms.io/> LMMS is a free piece of music-making software based on FLStudio (a commercial DAW). Audio recording and editing is limited but for making music (e.g. jingles) it's a great place to start.

Reaper: <https://www.reaper.fm/> Fully functional multi-track DAW like Pro Tools, Cubase, Logic etc. Supports MIDI, VST instruments and effects, elastic audio. Strictly speaking not free but is usable after the free trial runs out and the license is cheap (\$60).

### **Free VST plugins**

There are 1000s of free VST plugins out there.

### Resources

Audacity website: <https://www.audacityteam.org/>

Audacity manual: <https://manual.audacityteam.org/>

Tutorials: <https://manual.audacityteam.org/man/tutorials.html>