

Audio Editing Basics

Soundtrap & Audacity - jstaveley

Welcome To Audio Editing Basics

The purpose of this collection of slides is to engage with some very basic ideas about audio editing, how you could approach it, and some language to help you navigate your software and workspace.

Please check out our video tutorials and other resources for more information.

You can email questions &/or requests for new or different training modules to info@trentradio.ca

Overall Process

It is important to prepare for and engage with each step along the way. You have already recorded your content - and now you need to prepare it for presentation. There are many steps you could take - but, remember: if you did the work *before* recording, there will be less need to edit, mix and master during this stage.

Use your ears and your perspective - and trust them when deciding which steps you need to take for each audio production piece you produce.

Once you have gathered your tape - decide which parts you want to keep, make them as audible as possible through editing - and then arrange them the way you want us to hear them. Audio that has been edited poorly can sound choppy if you don't cut/paste (etc) carefully - using volume fading where required, and listening back to each change you make along the way before moving on to the next task.

It's like making a collage with magazines - you cut all the pieces into the shapes you want, then stick them on the paper where you want them...and then photocopy to make a final, single image that incorporates all the small images.

We're making a collage of audio - and once you are done modifying and adjusting everything, you will save a copy of it as one single audio track that holds all of your ideas and audio clips into one file.

Basic Approaches to Mixing Sounds Together

Shelving: This is a technique that **uses volume** to distinguish sounds from one another. When you have more than one track playing at the same time, you can mix the combination by increasing or decreasing the volume level of each track until you have achieved the sounds you want.

Bracketing: This is a technique that **uses audio frequencies** to blend your sound together, or make them stand out. Using your EQ (equaliser), you can increase or decrease the volume of a specific frequency to remove unwanted parts of a sound, or to enhance a specific quality of a sound.

Panning: This is a technique that **uses the stereo spread** to separate the different sounds by moving them to different locations on the stereo spectrum. You can pan a track to the left or the right, and to different degrees – creating a sense of physical space within your audio.

Destructive vs Non-Destructive Editing: Some editing platforms have two distinct work spaces. Edit view, for focused work on a single file, usually uses destructive editing mode. Multi-track or Session view, where you can bring all the track together for blending. This is usually non-destructive, and is a series of filters that affect the way we hear the sounds.

Basic Functions & Terminology (What's missing from this list?!)

Transport Controls – play, pause, fast-forward, stop, rewind, record

Effects – usually a dropdown menu where you can find audio manipulation functions like volume, fade, EQ, reverb...

Zoom in/out – usually some type of magnifying glass that has a + or - that allows you to zoom in or out to perform accurate editing functions.

Solo – this is a button on the individual tracks. It allows you to hear just that one track while it is engaged.

Mute – this is a button on the individual tracks. It allows you to silence just that one track while it is engaged.

Amplify / Level – this is the volume, usually a setting that turns the sound up and down by a set amount, measured in decibels (dB)

Bass/Treble/EQ – these are volume controls that affect a certain part of the sound. Bass is the low frequency sounds, like the rumble of a car or a bass guitar. Treble is the high frequency sounds, like the sound of small bells, a flute or a hi hat on a drum kit. An EQ is a set of volume controls pointed at a certain frequency of the sound itself.

Hot Keys – these are the standard ctrl/cmd +V, C, X, Z (etc). They work in audio too.

Normalize – this is an effect that will turn up your overall volume, without letting the peak sounds go over the set maximum. It is often used in the last stage of mastering to make sure that your overall file is loud enough for broadcast. Generally set to between -3dB (minus three) and 0dB (zero) – depending on the content of the audio recording.

Cut/Trim – this will remove unwanted portions of your audio file, either by removing the selection, or removing everything but the selection.

Audio Editing Basic Procedure

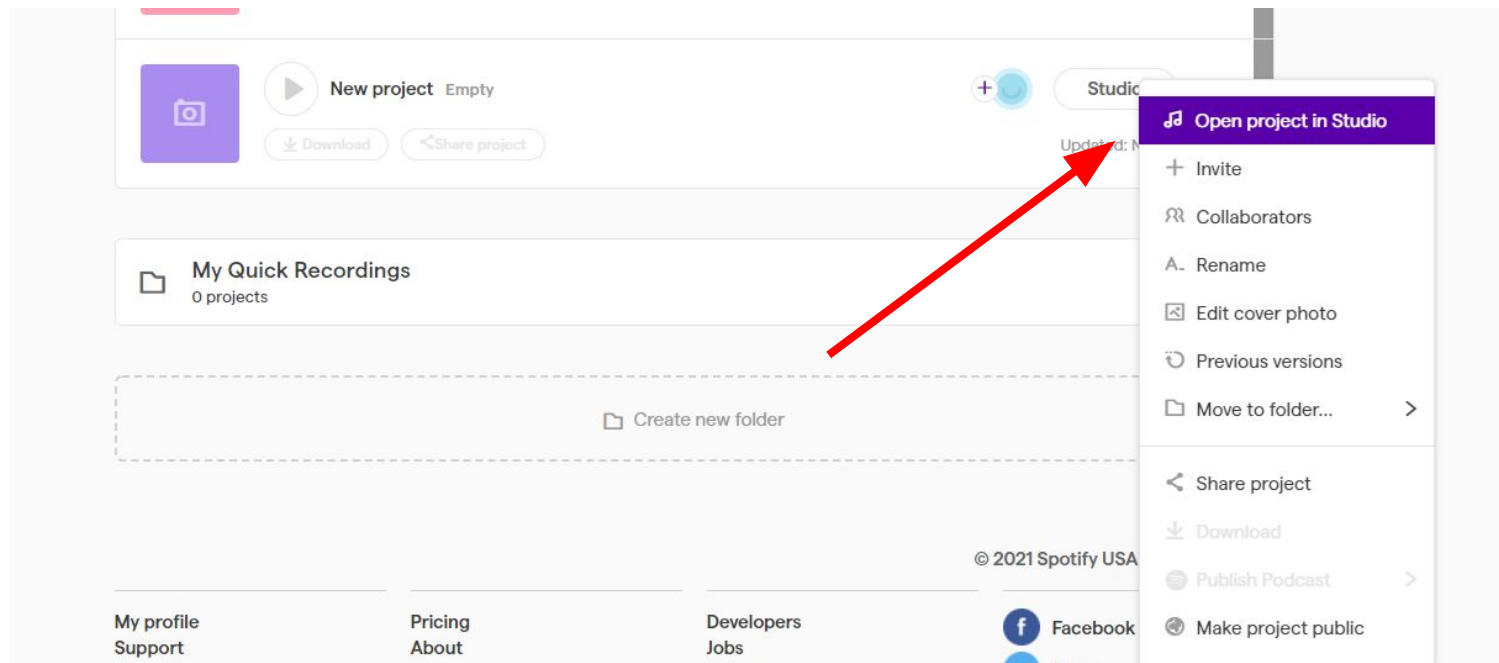
1. **Import your audio track** (make sure you are not working with the original file - make a copy to edit with)
2. **Open the file(s)** within your DAW (digital audio workstation) or Audio Editing Software. (import, open etc)
3. **Cut or Trim parts of your audio files** that you wish to remove.
4. **Modify the volume levels** of the individual tracks so that they are balanced in relation to one another, and make any creative or cosmetic changes desired. (Volume, Level, Fade in/out). Save file as a copy, preserve the original file.
5. **Arrange the audio segments** (tracks, files, regions) along the timeline.
6. **Mixdown/Render/Export** your work to one single file (mono or stereo)
7. **Normalise** your final work to -1dB, fade in & out as per your intentions/ear, save as an mp3.

FOR INSTRUCTIONS IN SOUNDTRAP - [GO TO SOUNDTRAP](#)

FOR INSTRUCTIONS IN AUDACITY - [GO TO SLIDE AUDACITY](#)

SoundTrap - New Project

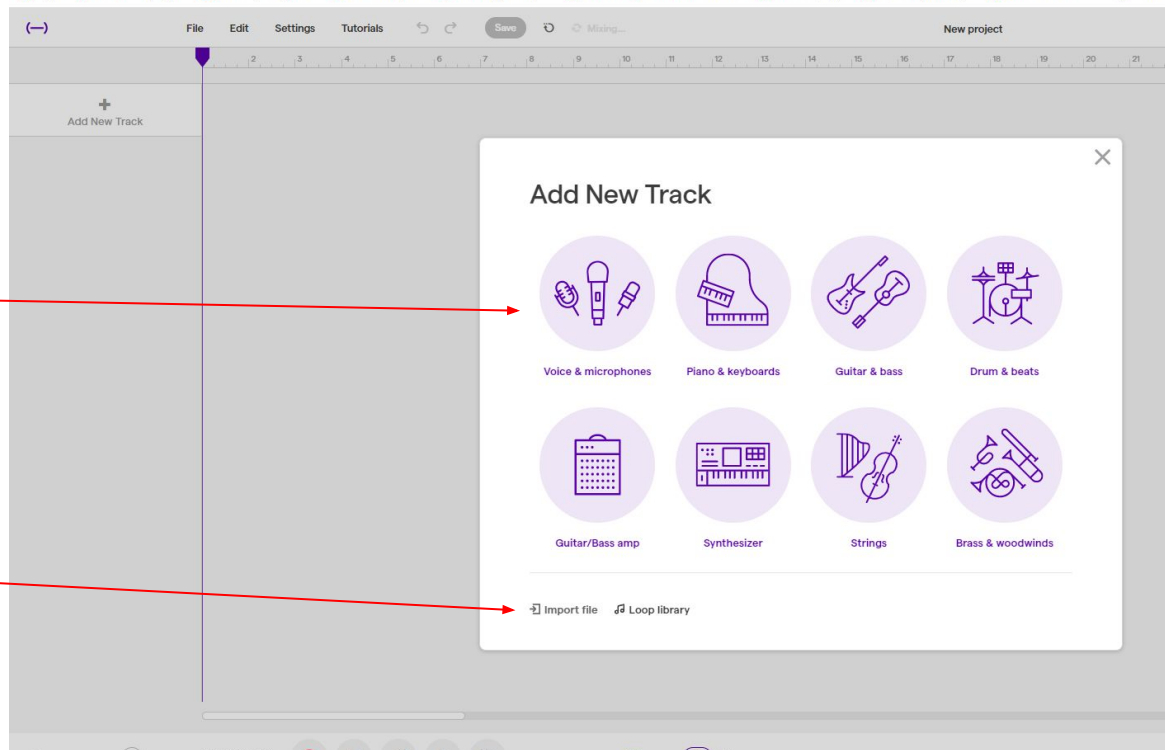
Create New Project – Open project in Studio



Soundtrap - Import/Create Audio Files

Add New Track

- **Voice & microphones** to record directly to soundtrap
- **Import File** to use files recorded previously.

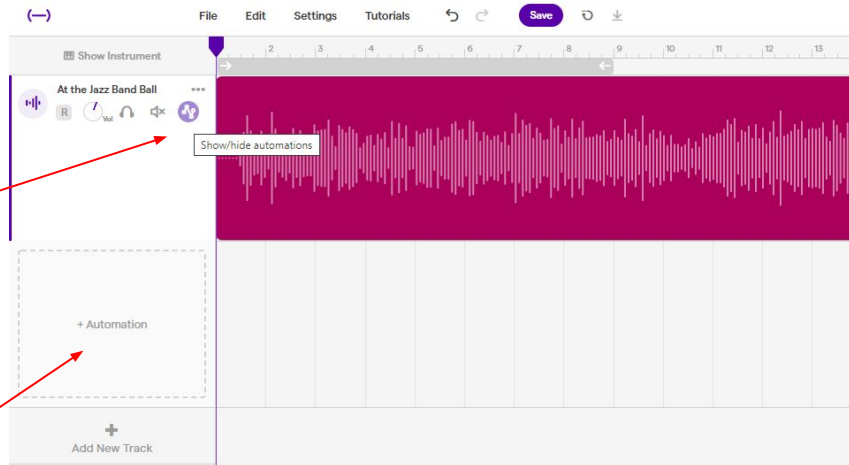


Soundtrap - Show/Hide Automation

Soundtrap uses both **destructive** (changes the file) & **non-destructive** (changes only the way you hear the file) editing functions.

The **Automation Function** is a non-destructive editing option. When you select this option, a track area is created to visualise the effect you wish to access.

You would then add the function you would like to use: **volume**, **pan**, **sweep**

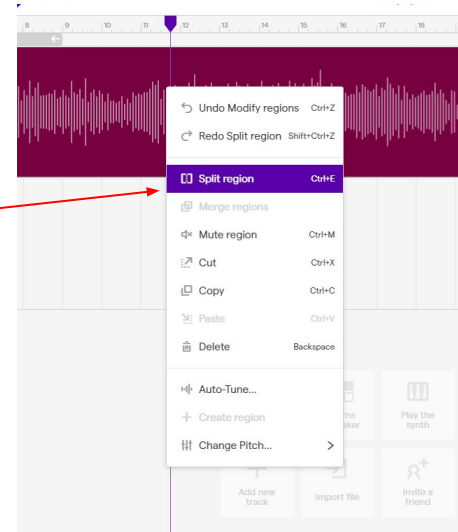


Soundtrap - Regions

A feature that is unique to Soundtrap is the use of “regions”.

This refers to a segment of an audio clip, that is distinct and separate. In other audio editing platforms, you can simply highlight and select a region to cut or edit without creating a region.

In Soundtrap, **you must first split the segment from the rest of the file**, and then perform your editing function to the region.



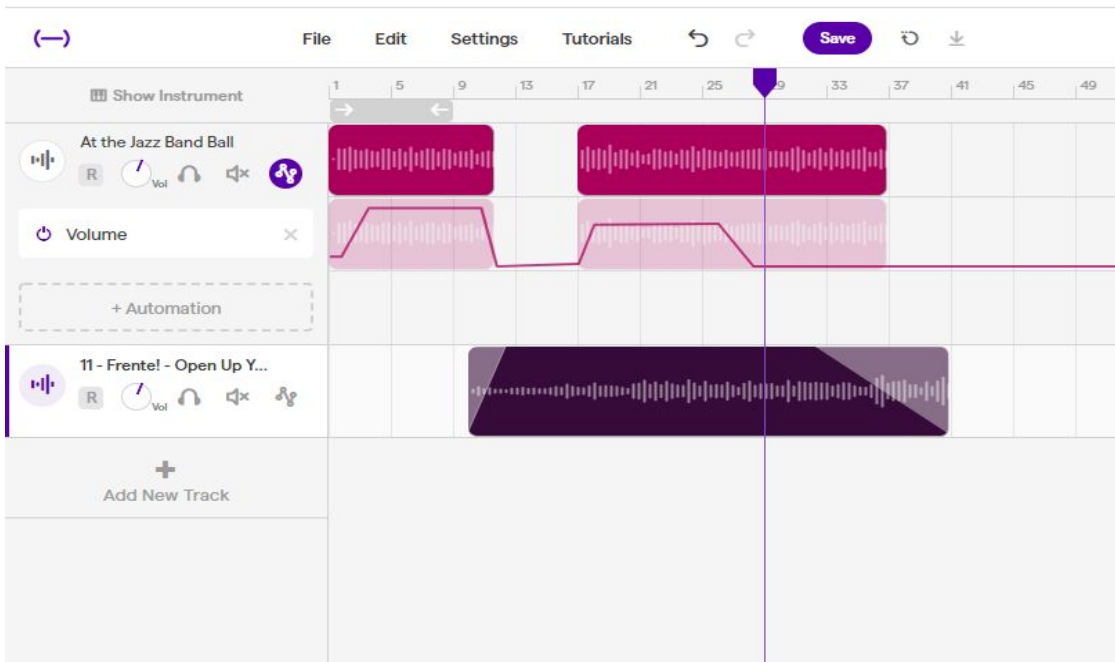
Soundtrap Project

Once you have your files together, it might look something like this.

In this project we have:

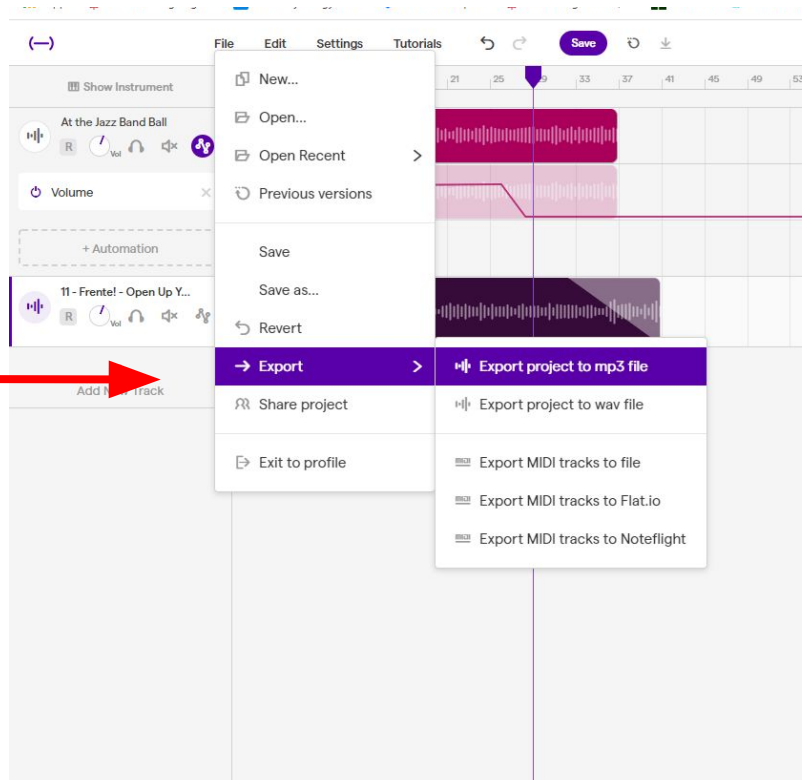
- 2 audio tracks
- Removed Unwanted Segments
- Volume control, fading in/out
- Basic Fade In/Out

There are more advanced options for editing (etc) - but we will learn that later.



Soundtrap - Saving/Exporting

Once you have the volume set, and the clips in the right order, you will need to export your file.

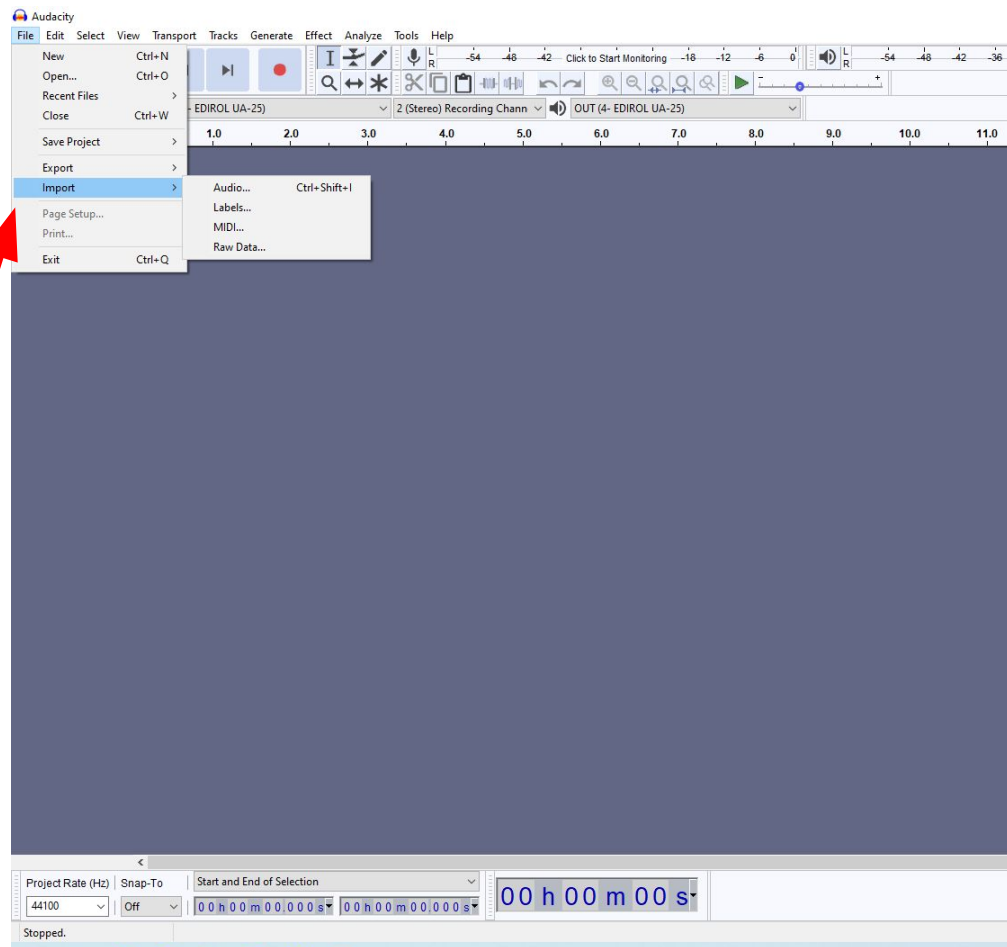


Audacity - Getting Started

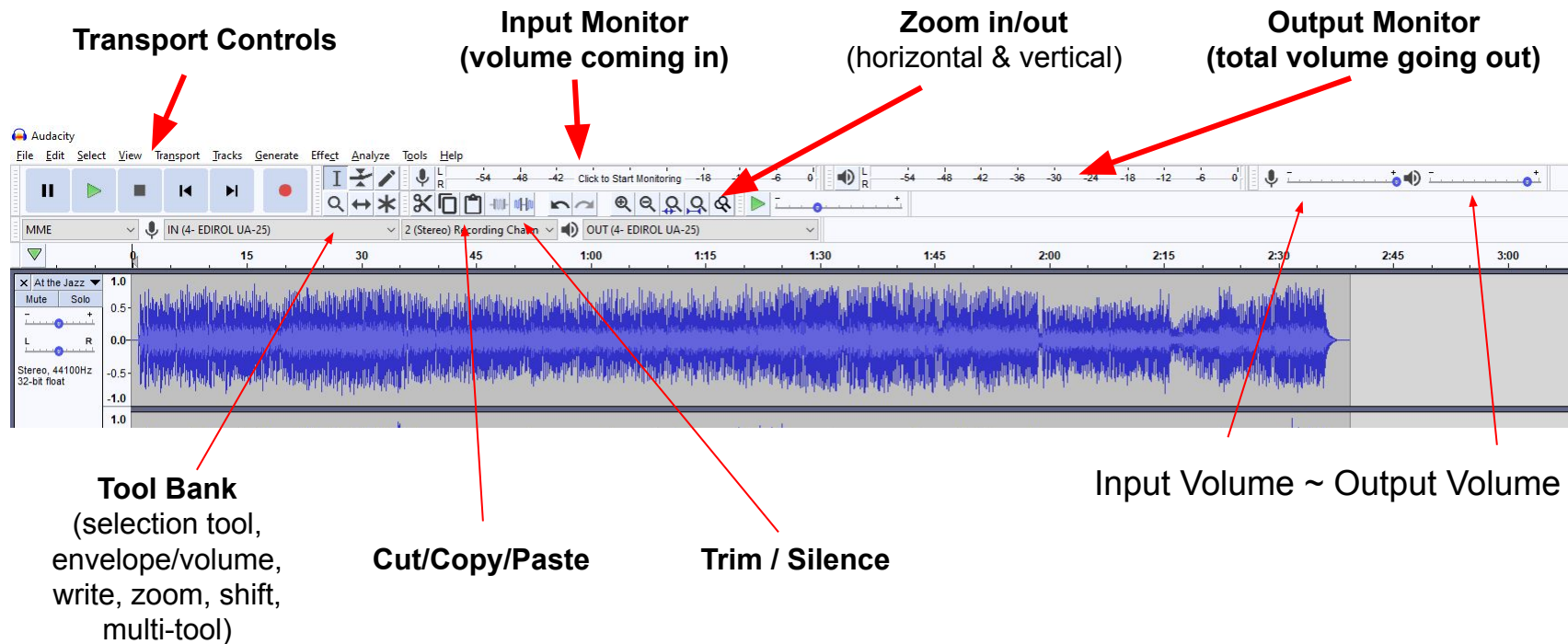
When you open Audacity - you have a blank screen, which is called a New Project.

You can **import audio files** into the *Audacity Project (.aup)* from your computer.

Or, you can **record directly** into the program by creating a new track, and using the record function.



Audacity - Basic Project Components & Features



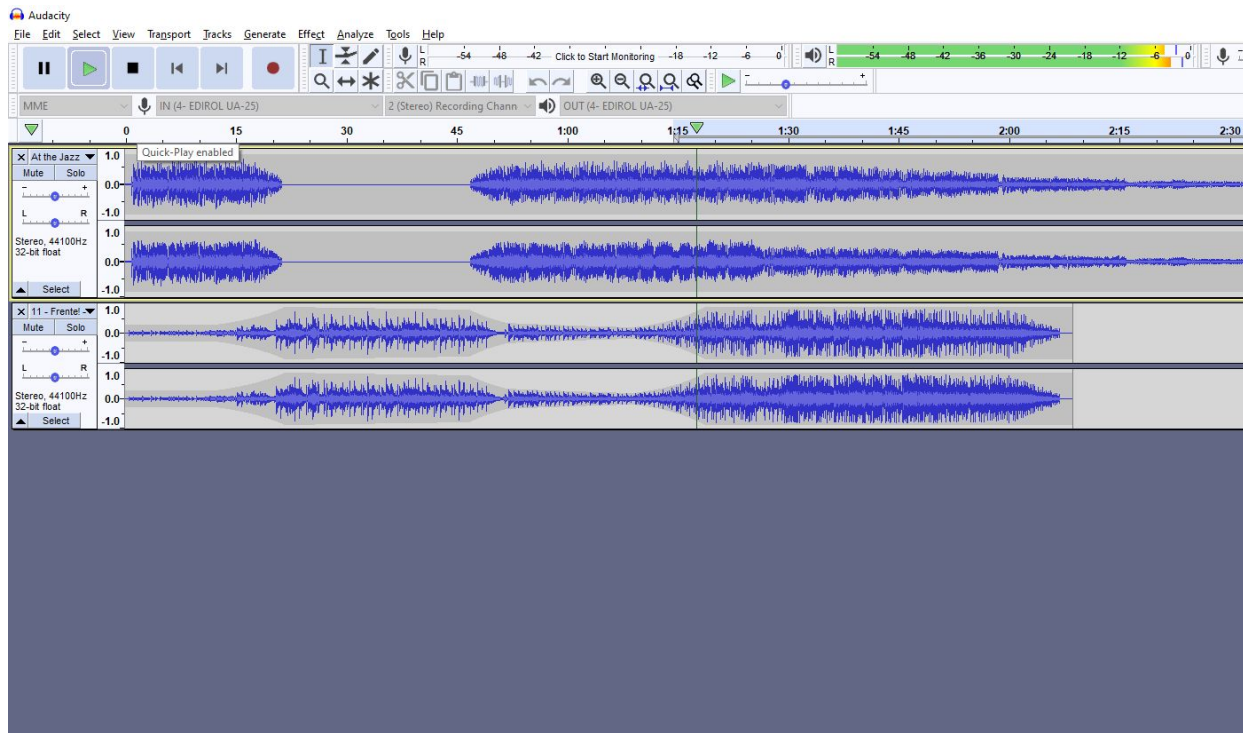
Audacity Project

Once you have your files together, it might look something like this.

In this project we have:

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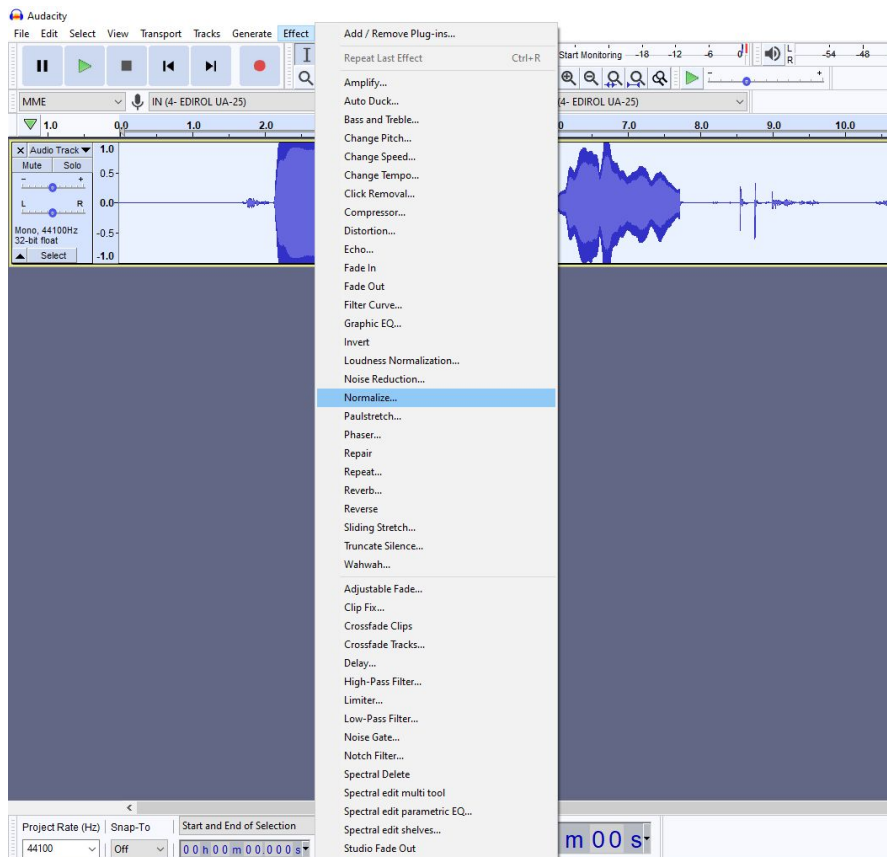
There are more advanced options for editing (etc) – but we will learn that later.



Audacity - Effects

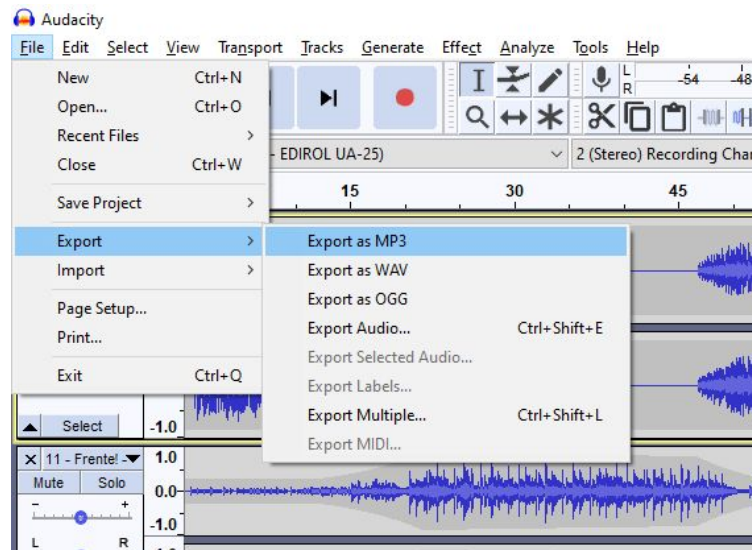
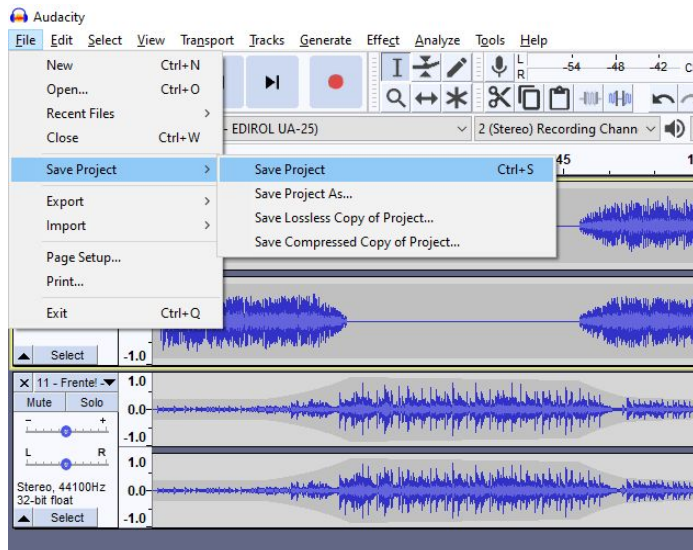
You can utilise different Effects from the dropdown list. Simply select the selection of the file (Or the whole file) that you want to modify, and then go to Effects, and select the component you'd like to use.

Some are simple (Normalize, Volume, Fade); others are fun to play around with (Delay, Reverb, Chorus); and then there are the ones that will take time to really learn how to use well (Compression, dynamics, EQ)



Audacity - Export/Save

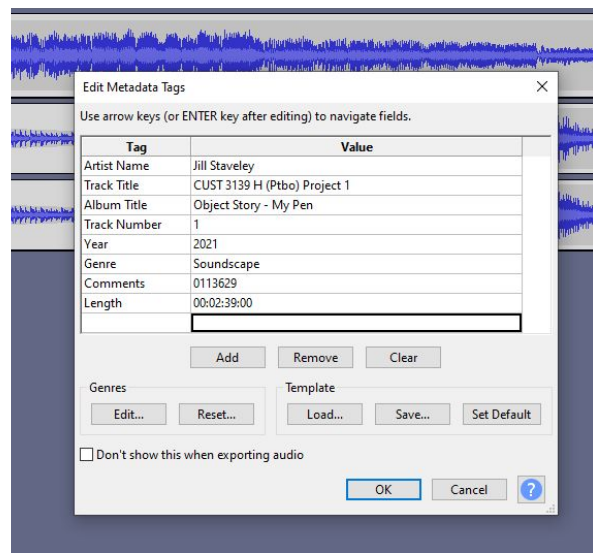
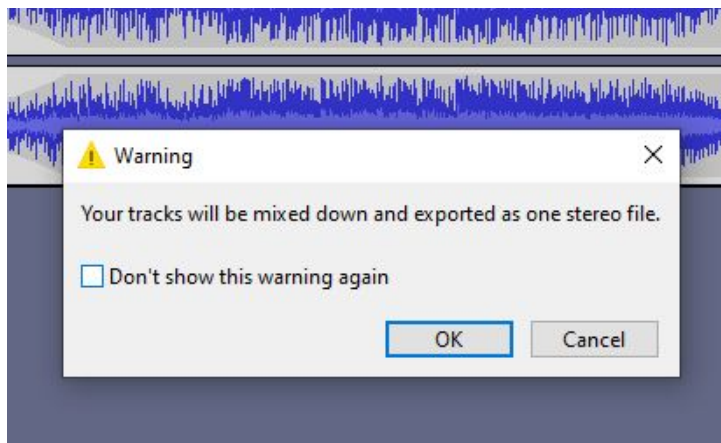
Once you have the volume set, and the clips in the right order, you will want to **save your Project** (the instructions for your mix, and .aup file), and then **export your file as (single audio file, mp3)**.



Saving Your File

First you will be asked to confirm the function you have requested, and then you will have the opportunity to modify the meta-data for your mp3 file. Take the time to do this correctly - it is the information that populates the display for most media players.

If you have used a song in your project file, it will often default to this information (sometimes even including track length.)



File Management & Best Practices

Here's the part where I remind you to:

- Wear your **headphones** when you mix, and don't rely on computer speakers.
- Think about **file management** in advance. Take the time to name your files something consistent for each project as you are recording them. Make a special folder on your computer for this class.
- Save your original files in a safe place, and **make copies to edit** with. If you make a huge mistake along the way, you can always go back and start over. If you edit your originals and don't have a backup, you'll either need to work with what you have, or go back and do the recording all over again.
- **Don't leave it until the last minute.** Audio editing takes time - especially the saving/processing/exporting parts. Also - if you finish your project 24 hours early, you'll be able to listen back to it before handing it in.