

# Introduction to Recording and Editing Audio with Audacity

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HIST 5237: Issues and Methods of Pubic History

Prof. Angel David Nieves

Fall 2021



# Objectives

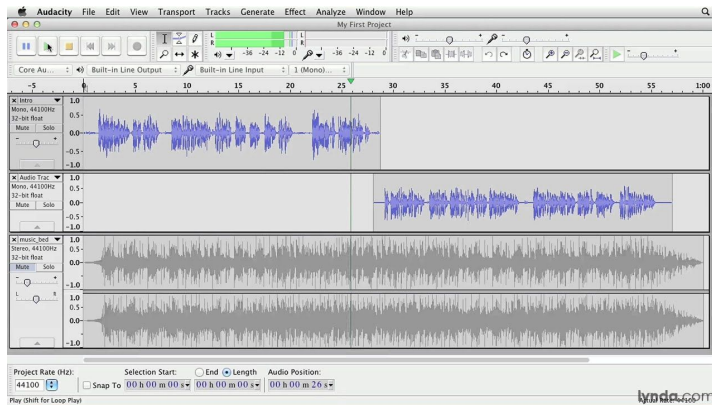
- Learn best practices for audio recording
- Learn about and explore Audacity as an audio editing tool
- Learn how to:
  - Record audio
  - Clip audio
  - Add/move/delete tracks
  - Add sound effects and/or background music
  - Save and export projects



# What is Audacity?

An open source, multi-track audio recorder and editor.

Multi-track: the ability to have different layers of audio in one clip.



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# Workshop Agenda

- Tips for getting started with recording audio
- How to record and edit audio in Audacity

Slides and handouts available at:

<http://bit.ly/diti-fall2021-nieves>



# Downloading Audacity

<https://www.audacityteam.org/> --- Choose if you want it for Windows, Mac, or Linux

Audacity is free software and developed by volunteers.

 **Audacity for Windows**

Windows 10/8/7/Vista (XP support has officially been dropped)

 **Audacity for Mac OS X / macOS**

Mac OS X/macOS 10.7 and later.

 **Audacity for GNU/Linux**

Source code

For PC users: download **Windows Installer**

For Mac users: download **MacOS.dmg**



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DOWNLOAD	FILE	SIZE	VERSION	ANTIVIRUS
<a href="#">Audacity Windows Installer</a>	Signature	26.6 MB	2.3.2	0 / 15
<a href="#">Audacity Windows Zip</a>	Signature	13 MB	2.3.2	0 / 15
<a href="#">Audacity macOS DMG</a>	Signature	36.2 MB	2.3.2	0 / 15
<a href="#">Audacity Linux Source</a>	Signature	8.6 MB	2.3.2	0 / 15
<a href="#">Audacity Manual</a>	Signature	20.2 MB	2.3.2	0 / 15
<a href="#">Audacity macOS 2.1.1-DMG (screen reader accessible)</a>	Signature	38.6 MB	2.1.1	0 / 15

# Getting Started: Tips for Recording Audio

- Know where your microphone is located and keep it clear of papers/other objects
- Use headphones/earbuds when recording and editing
  - Prevent the “echo effect”
- Take ambient noise into consideration
  - A/C units, refrigerators, traffic, pets, roommates, loud clothing, etc.
- Ideally, find a room with good sound absorption
  - **Yes:** carpet, cushions, bookshelves, clothes (bedrooms, closets)
  - **No:** larger spaces with hard, smooth surfaces (kitchens, bathrooms)
  - **Consider:** Does the room have an echo? Hard floors/countertops/stainless steel surfaces?



# Recording Audio cont'd.

- Record test audio and adjust mic volume if necessary
- Record a few seconds of silence at the start and end of each track
- Begin way in advance, and do several takes
  - Editing often takes much longer than the recording itself!
- Speak slowly, clearly, and conversationally
  - If you use too many “filler words” (um, like, so) you can always edit them out later. Pause between questions to make space for this type of editing.



# Recording Audio cont'd.

- Don't be afraid to stop and start over if you mess up! You'll save more time in the long run
  - Stop recording and start again at the top of the sentence to avoid jarring sound cuts in post-production
- After you finish recording, listen to the audio **with** and **without** headphones so that you can properly render the sound. Audio sounds different in an open spaces than it sounds inside your headphones.



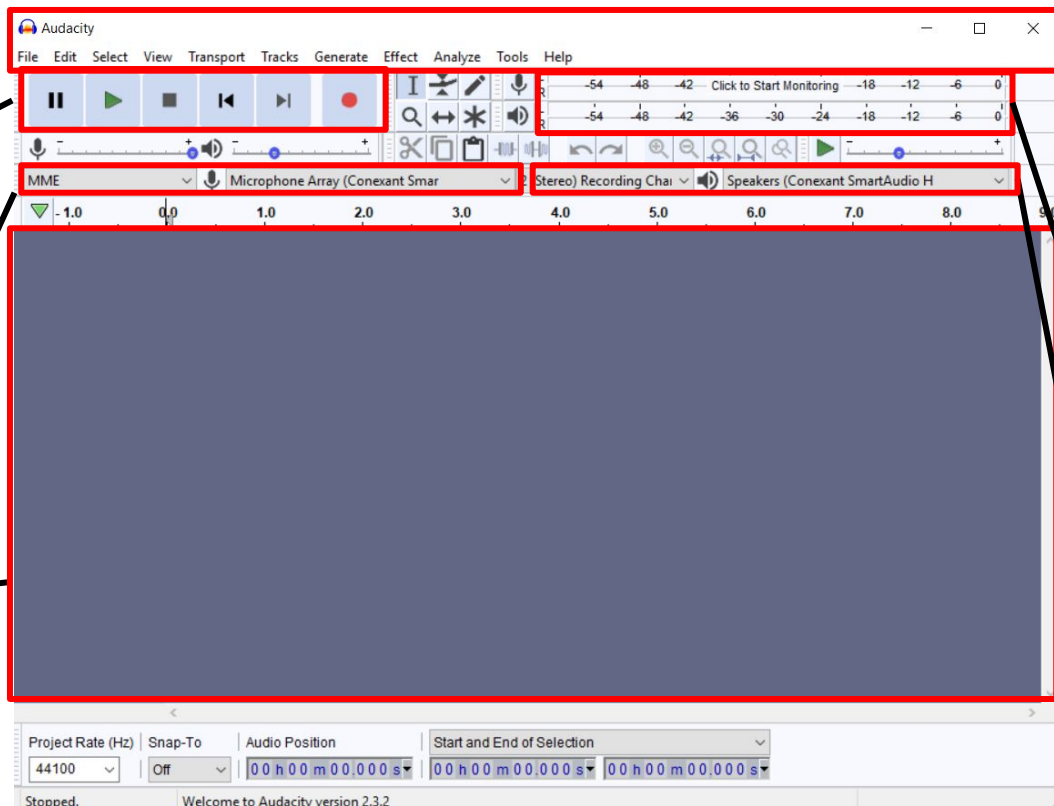


# Anatomy of Audacity

Main buttons (L-R):  
pause, play, stop,  
fast-forward/  
backward, record

Microphone,  
volume (the  
“input”)

Recordings will  
appear here.



Editing, saving,  
effects,  
transporting or  
exporting the  
recording.

Monitor: shows  
the loudness of  
each track in  
real-time

Stereo  
adjustments  
(the “output”)

# Key Terms

- **Track:** a single audio channel or stream.
  - **Multi-track:** an audio recording or channel with more than one track or recording of sound.
- **Clipping:** splitting audio into separate sections—that is, making “clips”
- **Waveform:** the curve within a track showing the duration and volume of individual sounds
- **Mixing:** the process of audio production, or mixing tracks of recordings, music, and other desired media.
- **MP3 File:** the most generally used audio file format. Others include .wav, .mp4.



# File Formats

- **Lossless Audio File Formats:** better than or equal to CD-quality
  - **WAV:** uncompressed file, meaning huge file size. The best for audio-editing in Audacity.
  - **AIFF:** Apple's alternative to WAV. Uncompressed, not widely used
  - **FLAC:** compressed file, takes up less space than WAV. Not supported by Apple.
- **MP3:** compressed audio file, ensures small file size. Best for exporting and distributing from Audacity. Sound quality not as good as WAV.
- **Ogg Vorbis:** Open-source alternative to MP3. Used in Spotify streaming

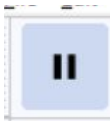


# Recording

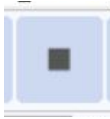
Make sure your **microphone** is working by checking to see that it's selected in the microphone section of the screen. Each computer will have different microphones, so check your sound settings for your model.



To **record**, click the button with the **red circle**.



Hit the **pause** button to pause a recording.



Hit the **stop** button to stop recording.



Use **Re-play** to verify that the recording is the quality/ volume that you want.

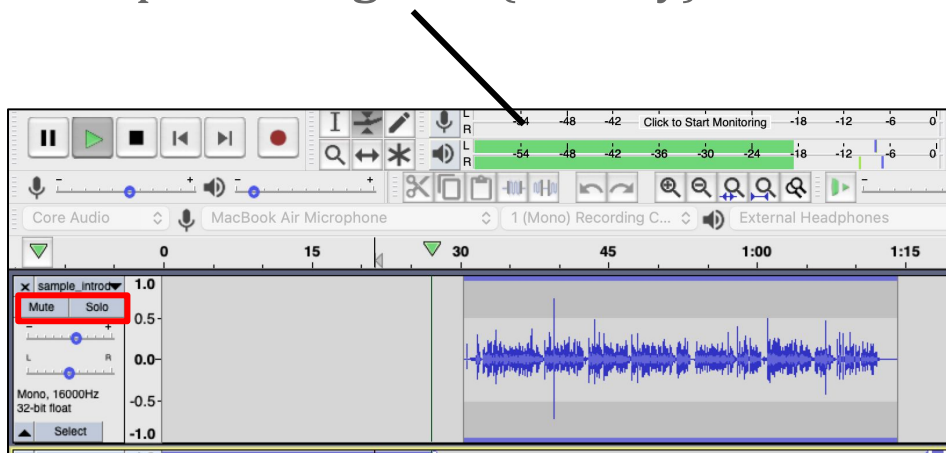


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# Checking volume

Keep an eye on the **monitor** when recording and playing back your audio—try to keep it in the **green** (literally).



If your volume is too loud, the monitor levels will turn yellow and red. Tracks that are too loud will have a blown-out effect when played back.

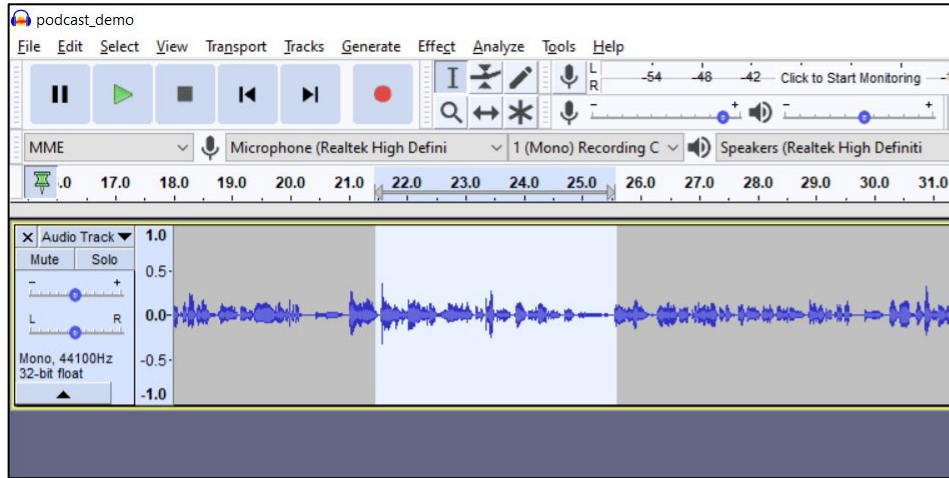
If one of your tracks is louder or softer than the others, you can adjust the volume on each track.

**Tip:** to hear one track without the others, you can **mute** the other tracks or click “**solo**”



# Removing Parts of Tracks

Once you have recorded audio in Audacity, you can easily edit it. Here is how to remove sections using the **Selection Tool (F1)**:



Use your cursor to click and drag to select the portion you wish to remove.

Then, hit backspace or delete on your keyboard.

**Tip:** you can zoom in and out with the **Zoom Tool (F4)** to better see what you're trying to delete.

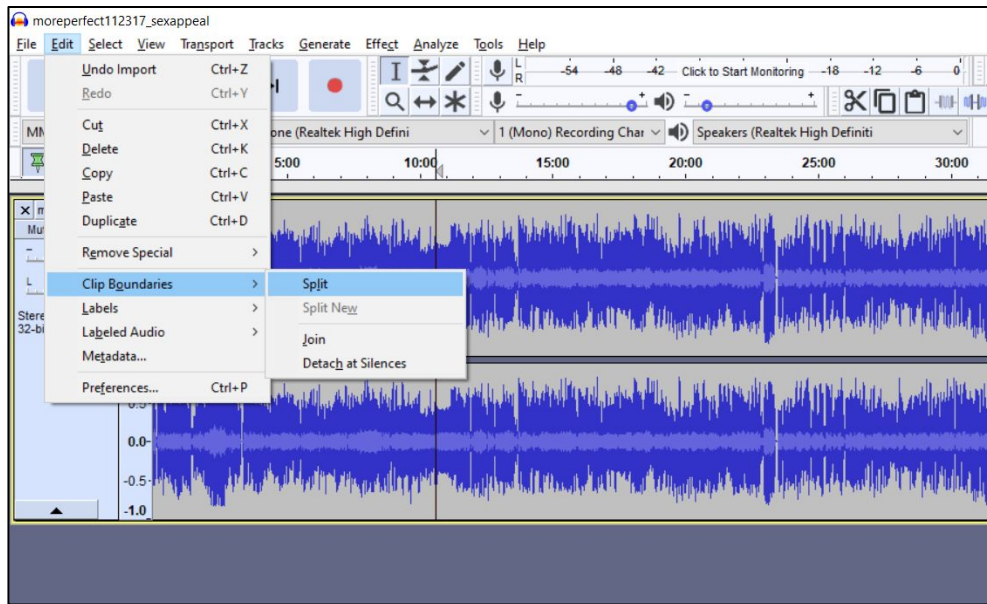


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# Splitting Tracks

To split a track in Audacity, follow these steps to make shorter clips:

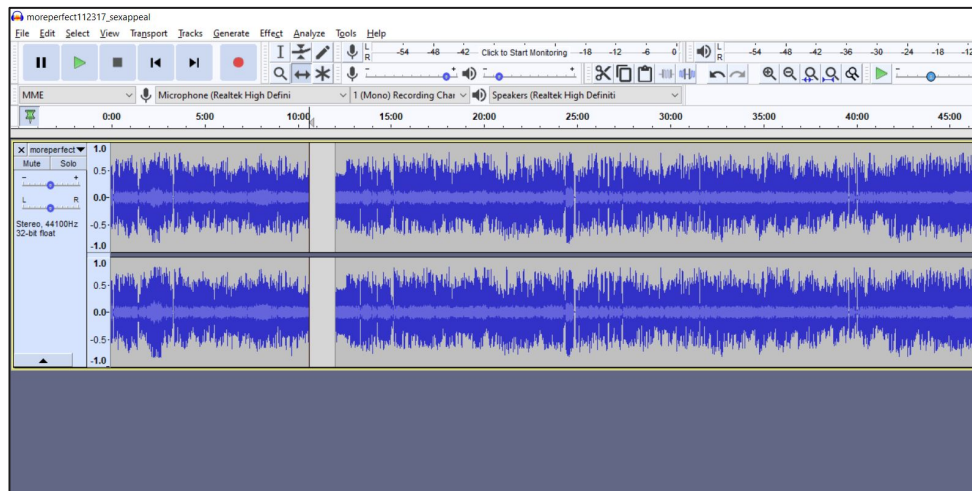


- With the **Selection Tool (F1)**, place your cursor over the section where you want to split your track.
- Navigate to the **Edit** section, click under “**Clip Boundaries**” and select “**Split.**”



# Moving Tracks

To move entire tracks or audio around in Audacity, you can click and drag them using the **Time Shift Tool (F5)** in the upper navigation bar.



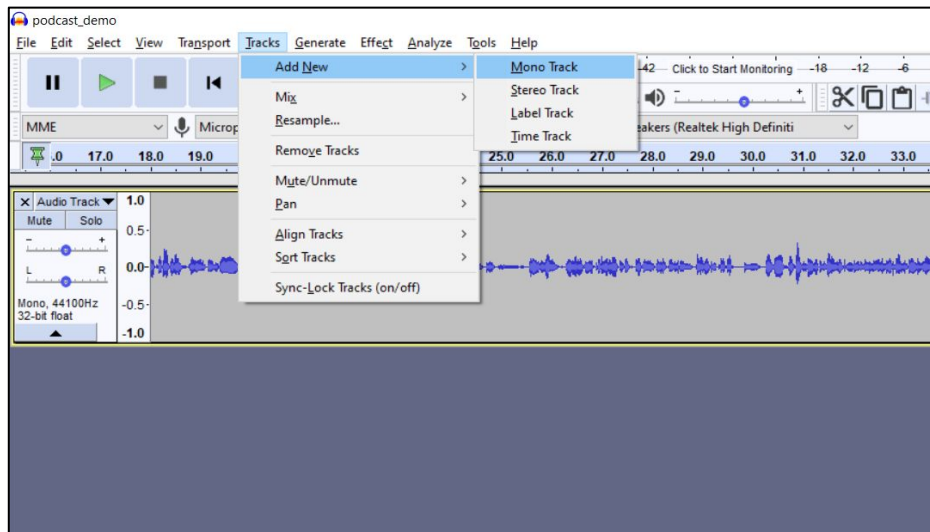
Once you have selected this tool, click whatever clip or track you want to move and drag it into position.





# Adding Tracks

To create additional tracks in Audacity for a **new recording**, hit the record button and it will start a new track. Another option is:



Navigate to the “Tracks” menu option and select “Add New.” This will open a list of options. Select the “Mono Track”



# Saving

*Audacity does not auto-save!* Save your recording, early and often!

Try and save after each major edit/input of a recording, just to be safe.

**File > Save Project > Save Project As> “Name of your podcast”**

And once your project is saved...

**File > Save Project > Save Project > [saves the updates to your file]**



# Exporting and Sharing

Finished with your recording?

Make sure you **export your project as an MP3** before you send or share it! This will ensure that other people are able to listen to it; anyone who does not have Audacity downloaded will not be able to open your project file otherwise.

**File > Export > Export as MP3**

Select “best quality”



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# Thank you!

If you have any questions, contact us at:

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Office Hours sign-up: <https://calendly.com/diti-nu/>



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