

Introduction to Recording and Editing Audio with Audacity

Developed by: Caroline Grand and Talia Brenner

Taught by: Yana Mommadova and Claire Tratnyek

For

Emily Mann

SPR 2022



Northeastern University
NULab for Texts, Maps, and Networks

Feel free to ask questions at any point during the presentation!

Objectives

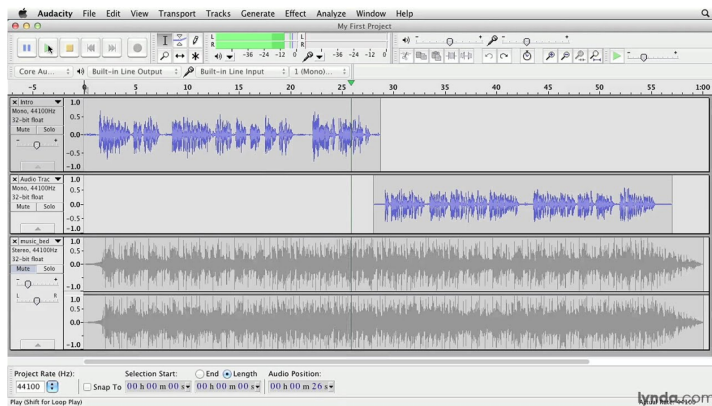
- Learn best practices for audio recording
- Learn about and explore Audacity as an audio editing tool
- Learn how to:
 - Record audio
 - Clip audio
 - Add/move/delete tracks
 - Add sound effects and/or background music
 - Save and export projects



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.



Northeastern University
NULab for Texts, Maps, and Networks

Workshop Agenda

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


Slides and handouts available at: <https://bit.ly/diti-sp22-mann-audacity>



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**



Northeastern University
NULab for Texts, Maps, and Networks

Dear friend! It appears that you hate Ads!
If you will consider a donation to FossHub, we will spend the money on buying more bandwidth and more servers to offer the best download speed. Thank you for any donation!

[PAYPAL DONATE](#) [CRYPTO DONATE](#)

DOWNLOAD		FILE	SIZE	VERSION	ANTIVIRUS
Audacity Windows Installer		Signature	26.6 MB	2.3.2	0 / 15
Audacity Windows Zip		Signature	13 MB	2.3.2	0 / 15
Audacity macOS DMG		Signature	36.2 MB	2.3.2	0 / 15
Audacity Linux Source		Signature	8.6 MB	2.3.2	0 / 15
Audacity Manual		Signature	20.2 MB	2.3.2	0 / 15
Audacity macOS 2.1.1-DMG (screen reader accessible)		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.

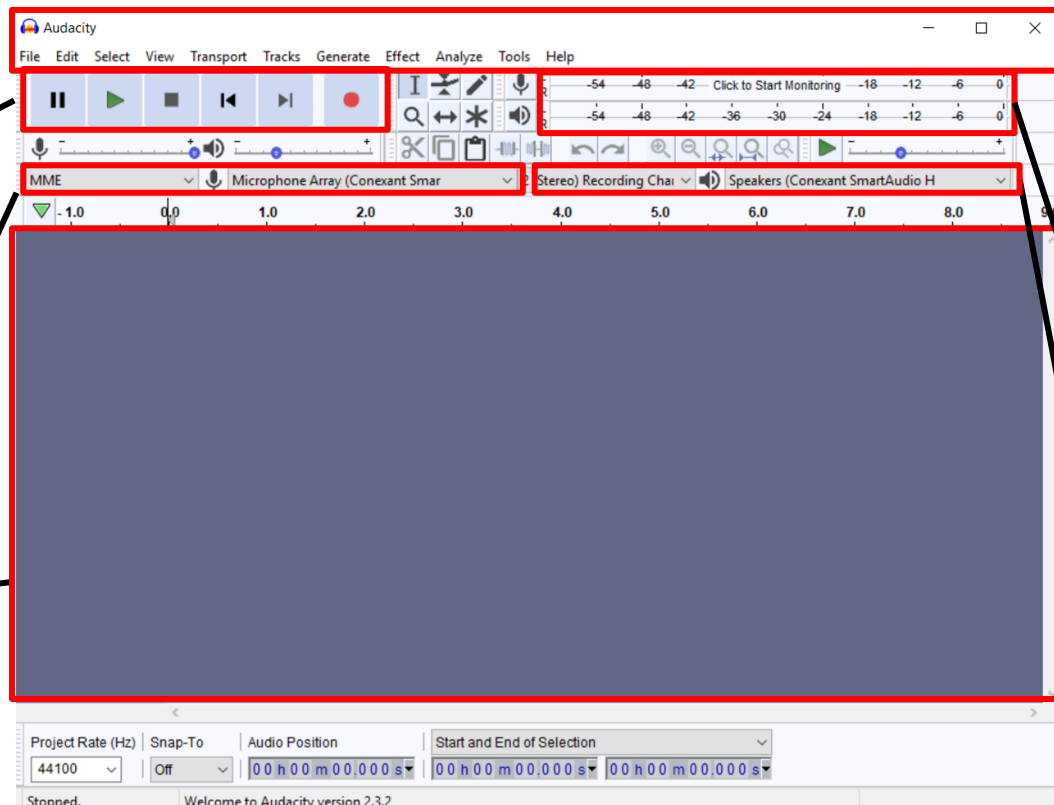


Anatomy of Audacity

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.



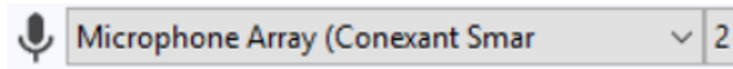
File Formats

- **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.
- **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.

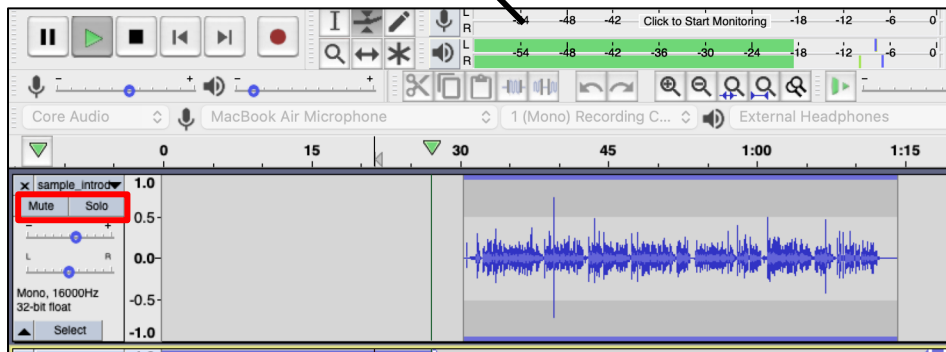


Northeastern University
NULab for Texts, Maps, and Networks

*Feel free to ask questions at any point
during the presentation!*

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**”

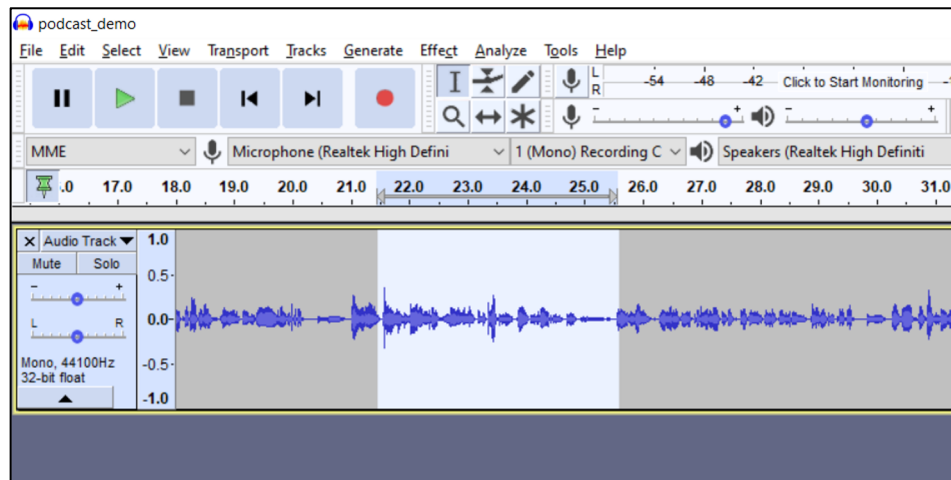


Northeastern University
NULab for Texts, Maps, and Networks

Feel free to ask questions at any point during the presentation!

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.

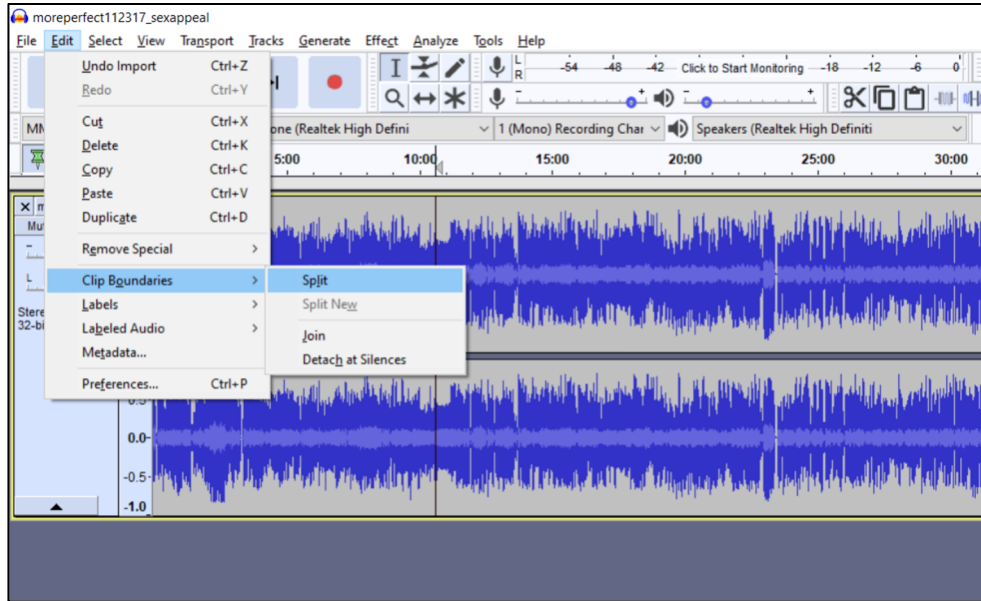


Northeastern University
NULab for Texts, Maps, and Networks

Feel free to ask questions at any point during the presentation!

Splitting Tracks

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

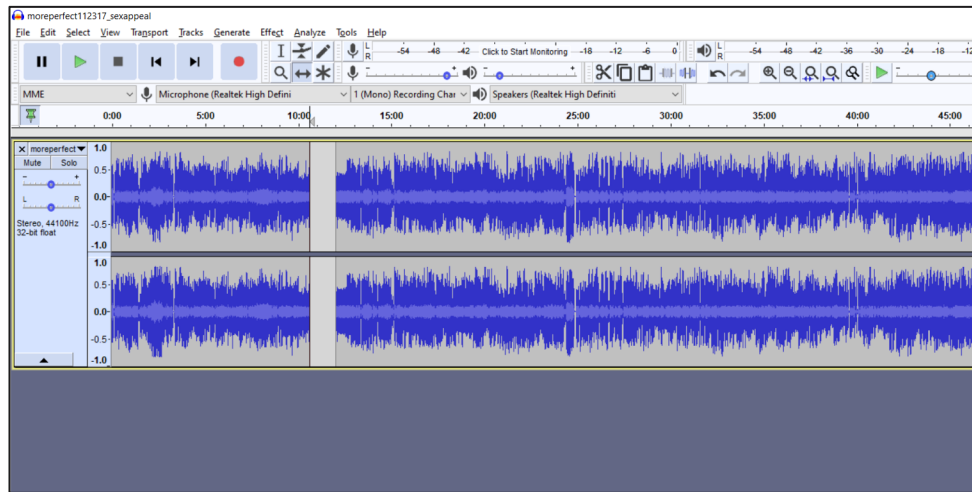


- With the **Selection Tool (F1)**, place your cursor over the section where you want to split your track.
- Navigate to the **Edit** section, click under “**Clip Boundaries**” and select “**Split.**”



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.

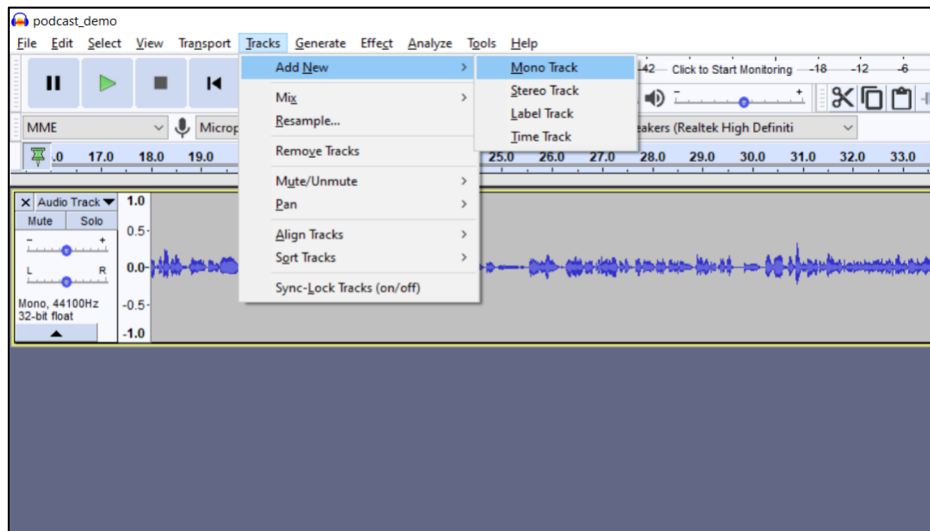


Once you have selected this tool, click whatever clip or track you want to move and drag it into position.



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]



Northeastern University
NULab for Texts, Maps, and Networks

*Feel free to ask questions at any point
during the presentation!*

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”



Northeastern University
NULab for Texts, Maps, and Networks

*Feel free to ask questions at any point
during the presentation!*

Thank you!

If you have any questions, contact us at:

nulab.info@gmail.com

Slides and handouts available at <https://bit.ly/diti-sp22-mann-audacity>

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



Northeastern University
NULab for Texts, Maps, and Networks

*Feel free to ask questions at any point
during the presentation!*