

Introduction to Recording and Editing Audio with Audacity

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HIST 5237: Issues and Methods of Public History

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Objectives

- 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
- Learn best practices for audio recording

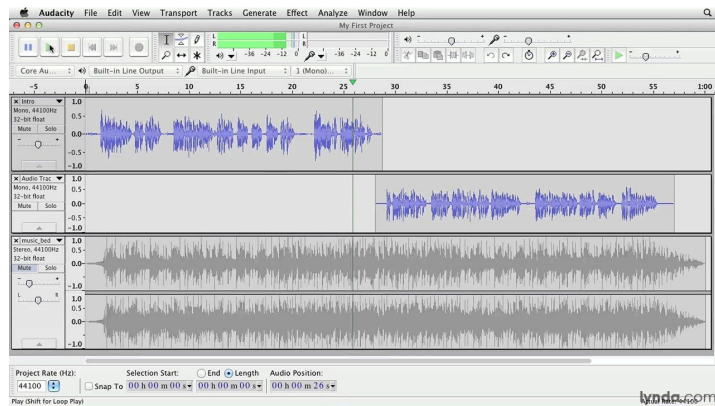
<https://bit.ly/fa22-nieves-audacity>



What is Audacity?

An open, easy-to-use, multi-track audio editor and one of the more popular free audio editors used for creating podcasts

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



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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
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 Tips (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 Tips (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.



Audacity Basics



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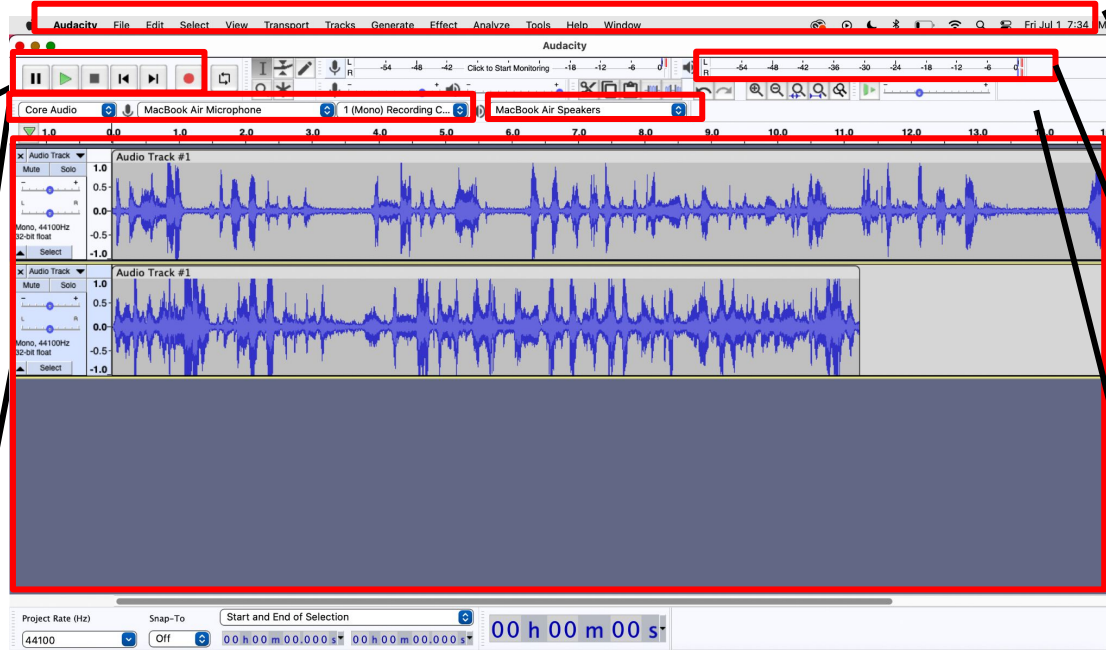
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Anatomy of Audacity

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/MP4:** 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

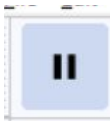


Recording

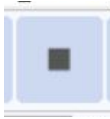
Make sure your **microphone** is working by checking to see that it's selected in the microphone section of the screen. Each computer will have different microphones, so check your sound settings for your model.



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.

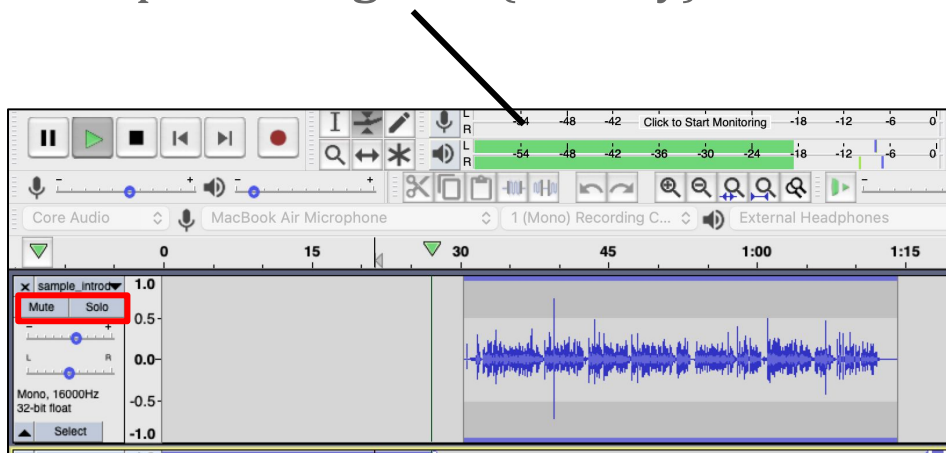


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Checking volume

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**”



Changing the file format

- If you are importing an audio file into Audacity you may need to convert it first.
- Audacity does not read every type of audio file (e.g.: WMA files)
- There are many ways to convert files using paid programs. Here is a free tool:

Online Audio Converter

1. Go to <https://online-audio-converter.com/>
2. Add WMA files using "Open files"
3. Select the output audio format (WAV)
4. Hit "Convert" to initiate the process.
5. Download converted or compressed audio and import it to audacity

The screenshot displays the Online Audio Converter interface with three numbered steps:

- Step 1:** A blue button labeled "Open files" is visible, along with links for "Google Drive", "Dropbox", and "URL".
- Step 2:** The output format is set to "mp3". A "Quality" slider is positioned between "Standard" (128 kbps) and "Good" (192 kbps). Other options include "Economy" (64 kbps) and "Best" (320 kbps). There are buttons for "Advanced settings" and "Edit track info".
- Step 3:** A large grey button labeled "Convert" is shown at the bottom.

Additional settings visible in the interface include:

- Bitrate:** Constant (selected) at 128 kbps, with a "Variable" option.
- Sample rate:** 44100 Khz.
- Channels:** 2.
- Options:** Fade in, Fade out, Fast mode, Try to remove voice, and Reverse.



Editing Audio in Audacity

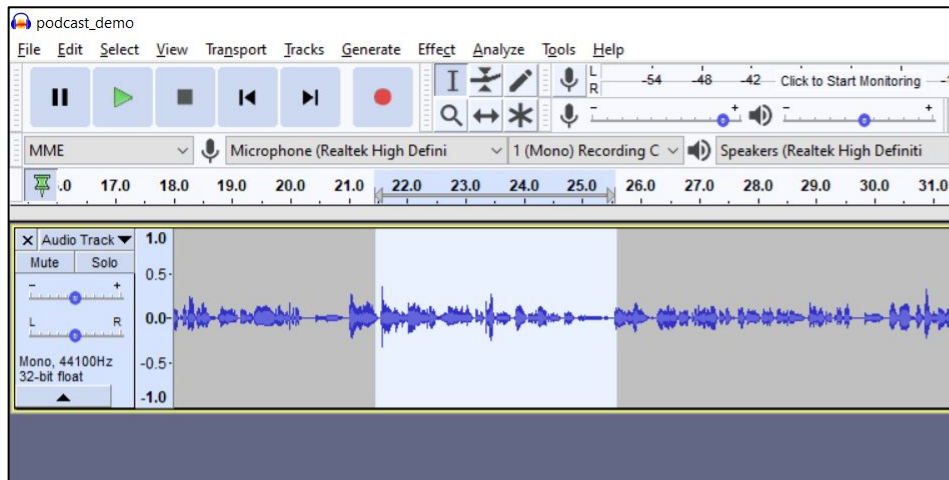


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Removing Parts of Tracks

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.

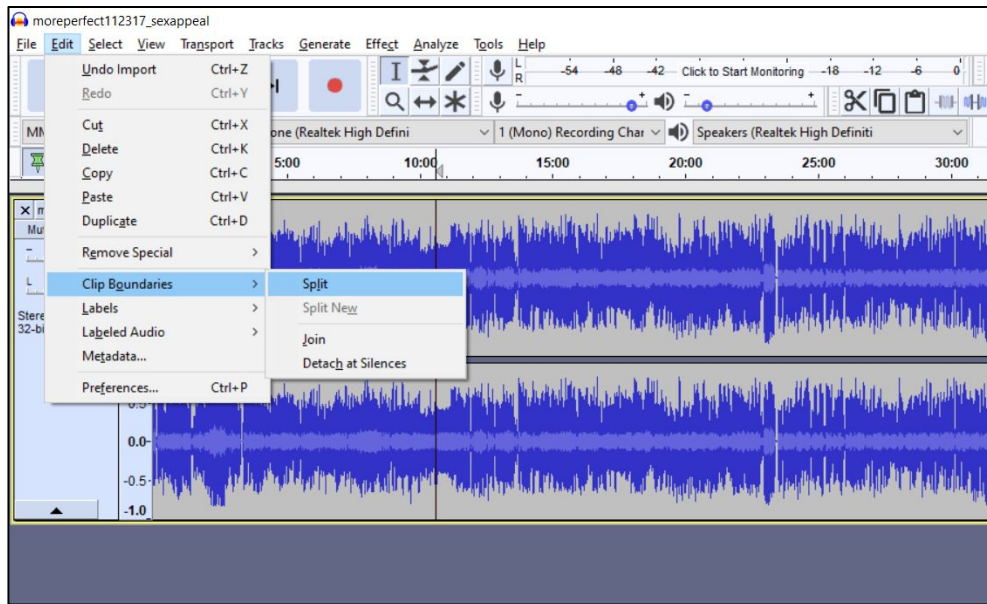


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Splitting Tracks

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

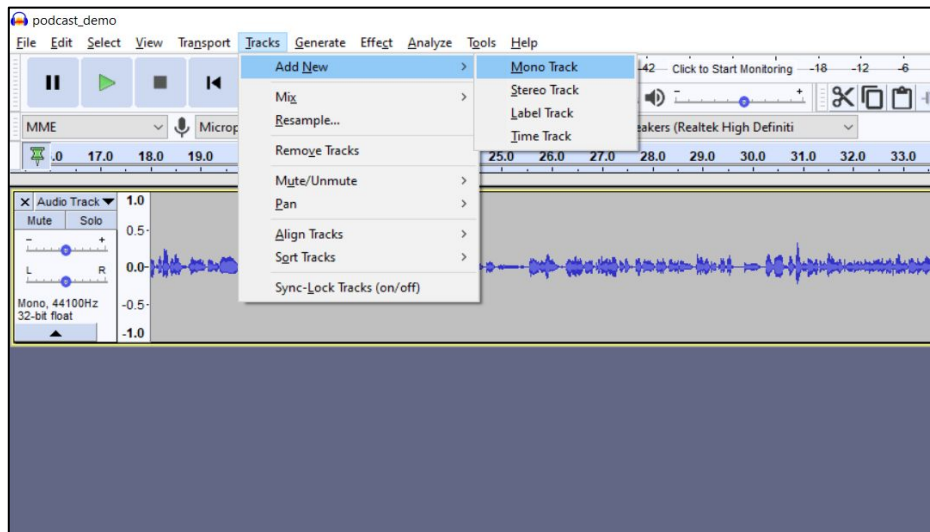


- With the **Selection Tool (F1)**, place your cursor over the section where you want to split your track.
- Navigate to the **Edit** section, click under “**Clip Boundaries**” and select “**Split**.”



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”

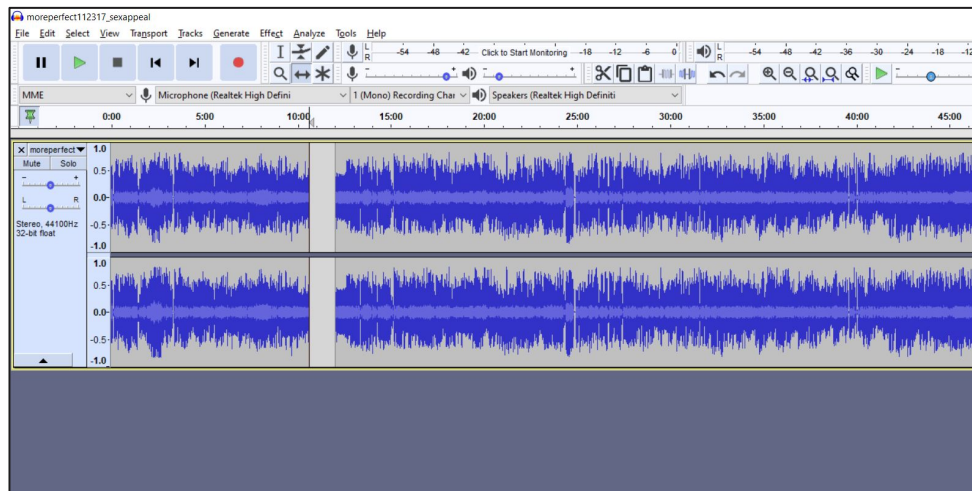


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Moving Tracks

To move entire tracks or audio around in Audacity, you can click and drag them by hovering your mouse over the top of the clip.



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



Saving, Exporting, and Sharing



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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 project”

And once your project is saved...

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



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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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Exporting Metadata Tagging

When you export your file, Audacity will prompt you to add metadata tags to identify it.

In order to add artwork, you should import your file to an Apple Music library, right click on it and click “Get info.” You will see the metadata tags you entered in Audacity, and will be able to upload artwork for your podcast.

The image shows two screenshots related to Audacity's metadata tagging. The top screenshot is the 'Edit Metadata Tags' dialog box, which has a table for entering tags and values. The bottom screenshot is the 'Get Info' window for an Apple Music library item, showing the metadata fields populated with the data from the Audacity dialog.

Edit Metadata Tags

Use arrow keys (or ENTER key after editing) to navigate fields.

Tag	Value
Artist Name	
Track Title	
Album Title	
Track Number	
Year	
Genre	
Comments	

Buttons: Add, Remove, Clear

Genres: Edit..., Reset...

Template: Load..., Save..., Set Default

☐ Don't show this when exporting audio

Buttons: Cancel, OK, ?

Get Info

DITI Audacity Sample
DITI Researcher
DITI

Details | Artwork | Lyrics | Options | Sorting | File

title: DITI Audacity Sample
artist: DITI Researcher
album: DITI
album artist:
composer:
☐ Show composer in all views
grouping:
genre: Audacity Podcasting ☒
year: 2022
track: 1 of
disc number: of
compilation: ☒ Album is a compilation of songs by various artists

Buttons: <, >, Cancel, OK



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Use /Adaptation

Fair use considers how **material under copyright** is used or adapted following four factors:

- Purpose and Character
- Nature of Work
- Amount
- Market Effect

Exceptions largely favor the use of material for commentary and critique and for educational settings.

Publication /Distribution

Fair use also considers how material under copyright is being **published** or **distributed**:

Restricted or public access: is it being published for a restricted community (a classroom) or published for everyone?

Commercial or Not-for-profit: fair use favors not-for-profit use as it doesn't signify financial gain.



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See also Karina Longworth's **extensive attribution list**, under "[show notes](#)".



Thank you!

If you have any questions, contact us at:

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Slides and handouts available at:

<https://bit.ly/fa22-nieves-audacity>

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



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