

Introduction to Recording and Editing Podcasts with Audacity

Digital Integration Teaching Initiative

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CRIM 3010: Criminal Violence

Prof. Bruell

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NULab for Texts, Maps, and Networks

Workshop Objectives

- Understand podcast anatomy
- Learn best practices for audio recording
- Learn about and explore Audacity as a podcast editing tool
- Learn how to:
 - Record audio
 - Clip audio
 - Add/move/delete tracks
 - Add sound effects and/or background music
 - Save and export projects
- Slides and handouts available at: <https://bit.ly/fa23-bruell-audacity>



Podcast Anatomy



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Podcasts

- Podcasts typically begin with an **opening segment** of 10–30 seconds of music and audio wherein the creator identifies the **podcast title, host, and episode topic**.
- This creates a trademark/signature and indicates to the listener that the podcast is about to begin.
- **Be as creative as you want!**



Podcast Anatomy: Intro/Opening Segment

- Intros/Opening segments are listeners' **first impressions** of a podcast. From the opening segment, listeners make assumptions about the podcast's **Audience, Genre, Style**, and overall **Structure**.
- The podcast's opening segment must accomplish several goals:
 - **Setting the tone:** several successful podcasts set the tone using media (e.g., theme song music, sound effects, archival audio clips).
 - **Identifying an audience:** Acknowledging and drawing in people who might be interested.
 - **Establishing listener expectations:** Explaining the goal and theme of the podcast.



Opening Segment Example

Listen to the opening segment to [“Crossfire”](#) (2:12 through 3:25) from Karina Longworth’s *You Must Remember This* podcast, an episode about censorship and the Hollywood blacklist during the Cold War.

Questions to keep in mind:

- What audio techniques do they use to engage their audience?
- How do they introduce their topic?
- What kinds of media are included?
- What kinds of media would be appropriate to get your audience interested in your topic?



Podcast Anatomy: The Body

- Your podcast should have an **argument** or **perspective**, not just a recitation of facts. Try to keep your tone **persuasive** and **conversational**. Like any good piece of reporting, your podcast should be **organized** and rehearsed ahead of time.
- Do your research and have your script written **before** you start recording; know how your show is laid out and how much time you have.
- Write out large numbers and/or complicated words/names out phonetically (twenty-two thousand and thirty-four vs. 22,034).
- Mark out spaces in the script for pauses, sound clips/effects, transitions between topics, etc.



Podcast Anatomy: The Outro

Podcasts typically end with a **closing segment** of 10–30 seconds of music and audio providing the **creator(s)**, **institutional affiliation**, and **audio/production credits**, and **acknowledging** those whose work or advice has significantly influenced or contributed to the episode.

An outro script for a class might sound something like “This podcast was made by [student name]...opening music created by [artist name], sound effects taken from [repository name]... with special thanks to [name] for their contribution.” It may also include outro music.

As in your opening segment, you can use music and sound effects to make your closing segment dynamic and interesting.



Outro Example

Now listen to the concluding segment to ["The Exile"](#) (from 48:22 onward) from The Slate's *Slow Burn: The Road to the Iraq War* podcast, an episode about the exile of Ahmad Chalabi. Compare the techniques used in the outro to the techniques used in the intro segment from Crossfire.

- What decisions were made to keep the audience engaged?
- How does the content of a podcast affect the tone of the media included?



Best Practices for Podcasting



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General Best Practices

- **Test your mic** and technology before you start.
 - Record some test audio and play it back before you begin.
- **Have a plan** for the conversation and transitions.
 - Give yourself a script. As you record, mark out spaces for transitions in the recording (topic-to-topic, parts of the episode).
- **Don't panic** over filler words (e.g., um, uh, yeah, like). Edit these out later.
- **Prepare phonetic pronunciations** for names, long numbers, and complicated terminology.
- Include **transcripts for accessibility** (use software like Otter AI).
- Use **open access media/music** ([Free Music Archive](#), [YouTube](#)).



Getting Started: Tips for Recording Audio

- 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. Stop recording and start again at the top of the sentence to avoid jarring sound cuts in post-production.



Environmental Considerations

- Ideally, find a room with good sound absorption to prevent the “echo effect.”
 - **Yes:** carpet, cushions, bookshelves, clothes (bedrooms, closets).
 - **No:** larger spaces with hard, smooth surfaces (kitchens, bathrooms).
- Put some **distance** between yourself and the microphone (depending on your equipment).
 - Being too close can make the audio too loud or garbled sounding as you speak. If you are positioned too far away, the audio will be too quiet or too muffled to salvage.
 - Know where your microphone is located and keep it clear of papers/other objects.



Environmental Considerations cont'd.

- Use headphones when recording and editing.
 - After you finish editing, listen to the file without headphones to see where the audio is too loud/quiet when played in a space.
- Take ambient noise into consideration.
 - A/C units, refrigerators, traffic, pets, roommates, loud clothing, etc.
- Stay hydrated!
 - Keep a drink nearby (water, juice, etc.) to soothe your throat and keep it relaxed.



Recording Considerations for Interviews

- **Remote recording** (via Skype, Zoom).
 - If you record via Zoom, **save your recording to your computer**, not the cloud.
- **Ease into the interview** with low-stakes conversation
 - Interviews are like playing catch. Start with questions that allow everyone to get comfortable. Be yourself!
- **Don't rush**, and know you can start over
 - You don't need to get everything in a single take, and you won't use all the audio that you record. So don't be afraid to pause frequently and remember you can start over (or cut something altogether!)



Ethical Considerations

If you were being interviewed for this podcast, what information would you be comfortable sharing?

What kinds of information do you think should be kept confidential?

What can you do to make sure speakers are comfortable being interviewed?



Ethical Considerations

- Obtain informed consent from your interviewees, guests, and other speakers on your podcast before recording. This can be verbal consent recorded prior to the interview or written, depending on intended use of the recording.
- Ask speakers if there is any information that should be kept private. You can edit and redact audio prior to publishing to make sure confidential information is kept private.
- Make sure your speakers know how their information will be used and stored, and address any concerns they have about the purpose of the recording.
- Be mindful of discussing potentially triggering topics while recording and record a content warning if needed.



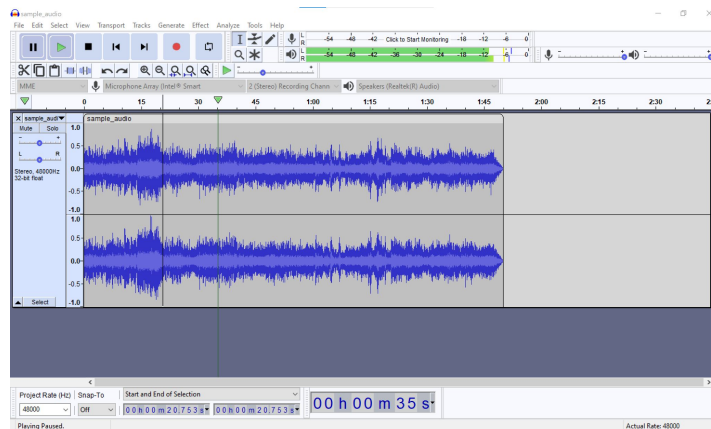
Making Podcasts: Audacity



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What is Audacity?

Audacity is a free, easy-to-use, **multi-track** audio editor and one of the more popular free audio editors used for creating podcasts.



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



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Downloading Audacity

<https://www.audacityteam.org/> —Audacity is platform-agnostic!

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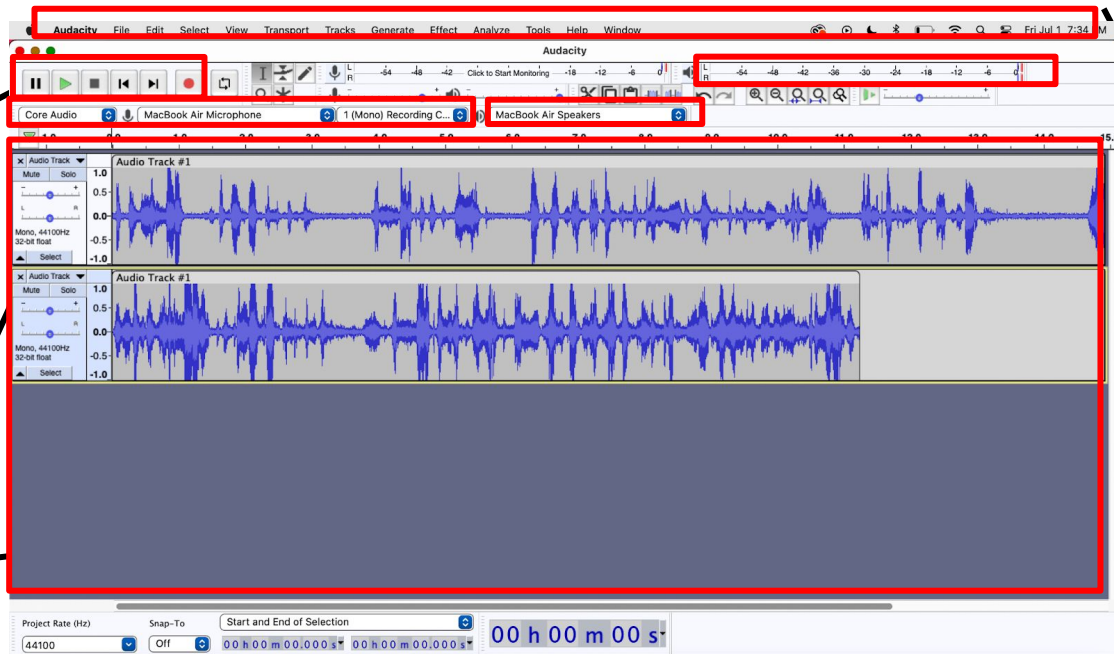
DOWNLOAD		FILE	SIZE	VERSION	ANTIVIRUS
Audacity Windows Installer		Signature	26.6 MB	2.3.2	0 / 15
Audacity Windows Zip		Signature	13 MB	2.3.2	0 / 15
Audacity macOS DMG		Signature	36.2 MB	2.3.2	0 / 15
Audacity Linux Source		Signature	8.6 MB	2.3.2	0 / 15
Audacity Manual		Signature	20.2 MB	2.3.2	0 / 15
Audacity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

Anatomy of Audacity

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

Microphone,
volume, input, and
output

Recordings (audio
tracks) will display
in this window



Editing, saving,
effects,
transporting or
exporting the
recording

Output Volume
Level Monitor:
shows the
loudness of
each track in
real-time
*Tip: try for -12
to -6db*

Other Audacity
tools

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 and .mp4.



Basics: Audacity & Recording Audio



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Recording

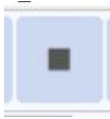
Make sure your **microphone** is working by checking to see that it's selected in the microphone section of the screen. Each computer will have different microphones, so check your sound settings for your model.



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



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



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

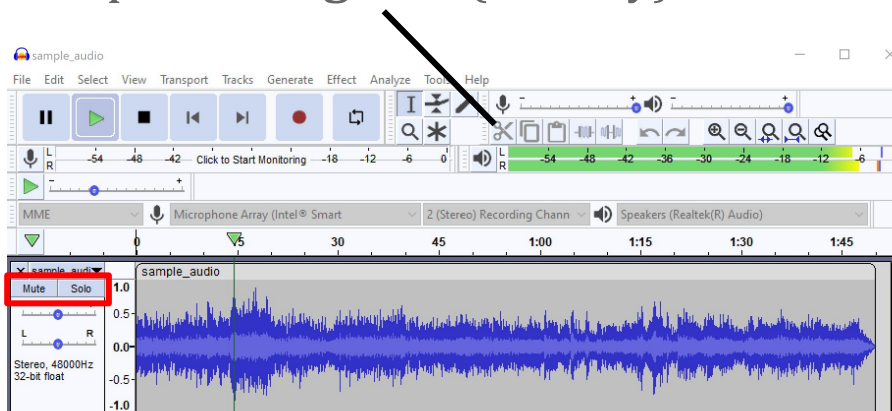


Use **re-play** to verify that the recording is the quality/ volume that you want.



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.

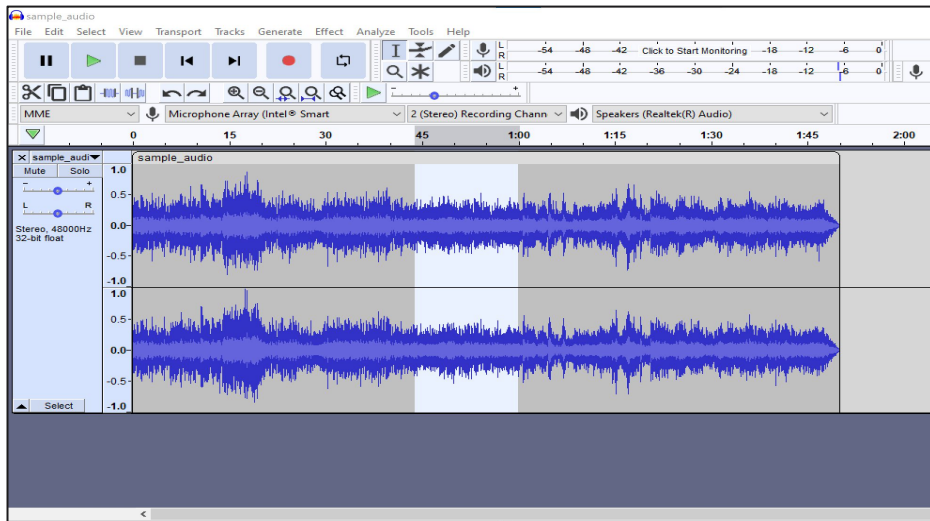
If one of your tracks is louder or softer than the others, you can adjust the volume on each track.

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



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.



Basics: Audacity & Editing Audio






The Audacity Toolbar

- **I** The **selection tool** will be selected automatically when you open Audacity.
- ***** The most useful tool is the **multitool**, which allows you to use all the functions of the other tools without switching to them.
 - The selection tool function is the default.
 - Hover over the waveform borders to use the envelope tool function.
 - Use your trackpad to zoom.
 - Zoom in and left click to use the draw tool function.



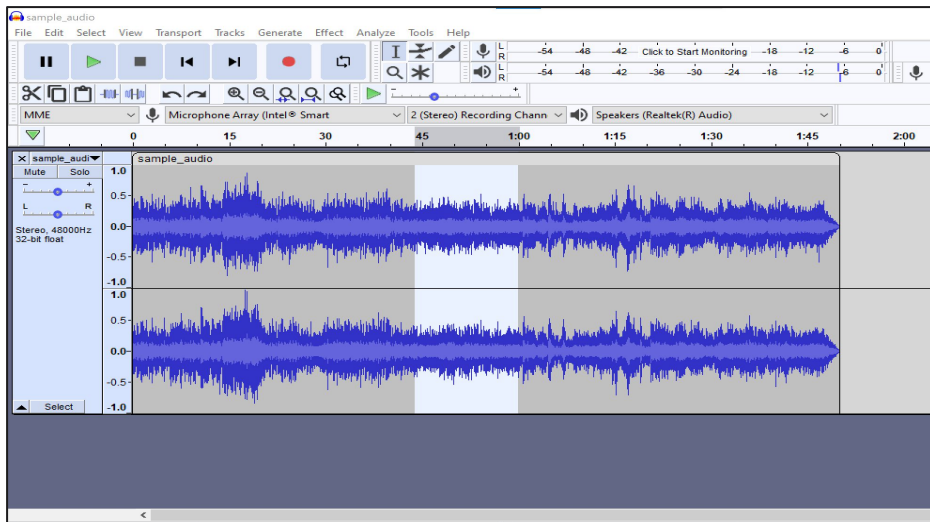
The Audacity Toolbar (Cont'd.)

-  The **envelope tool** allows you to smooth changes in volume by using control points at the top and bottom of the waveform.
 - Clicking on the blue border will create control points, which you can then move around to adjust the waveform envelope.
-  The **zoom tool** lets you zoom in and out of the waveform in order to make adjustments.
-  The **draw tool** allows you to manually redraw the waveform to change the volume or correct background noise.
 - You can only use the draw tool if you've zoomed into the waveform.



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)**:



Click and drag with your cursor to select the portion you wish to remove.

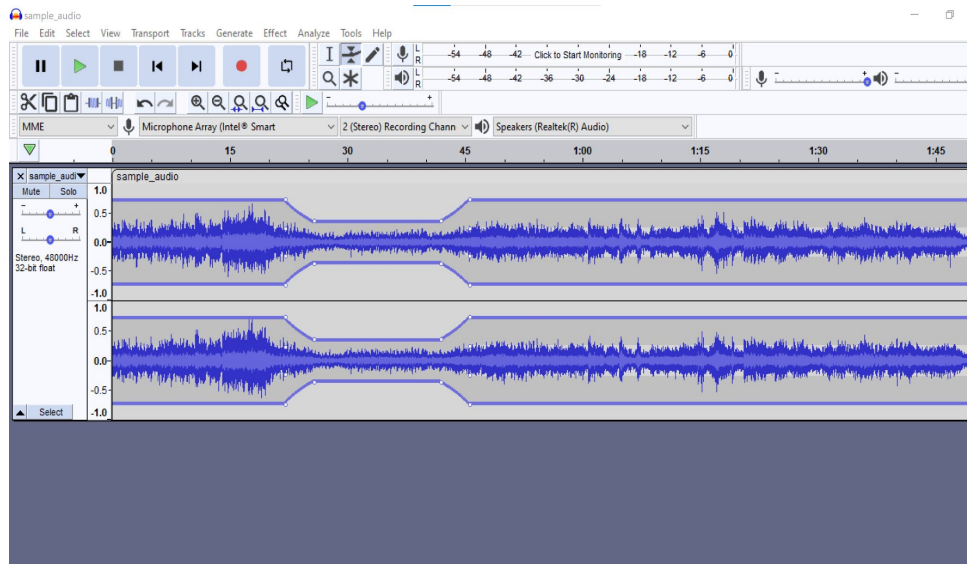
Then, hit backspace or delete on your keyboard.

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



Fading In/Out

To fade music in and out on Audacity, use the **Envelope Tool (F2)**. Two yellow bars will show up on each track.



Click to add **control points** (little white dots) on the track you want to fade in.

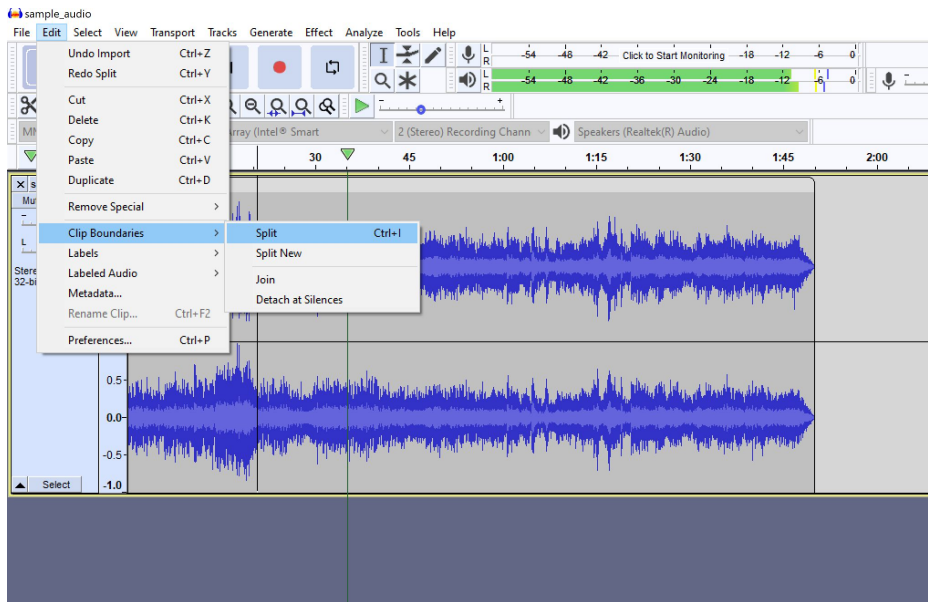
Drag and move the nodes to up and down and side to side to change the volume and how gradual the volume fade is.

Add and adjust nodes at the end of the track to fade the music back in.



Splitting Tracks

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



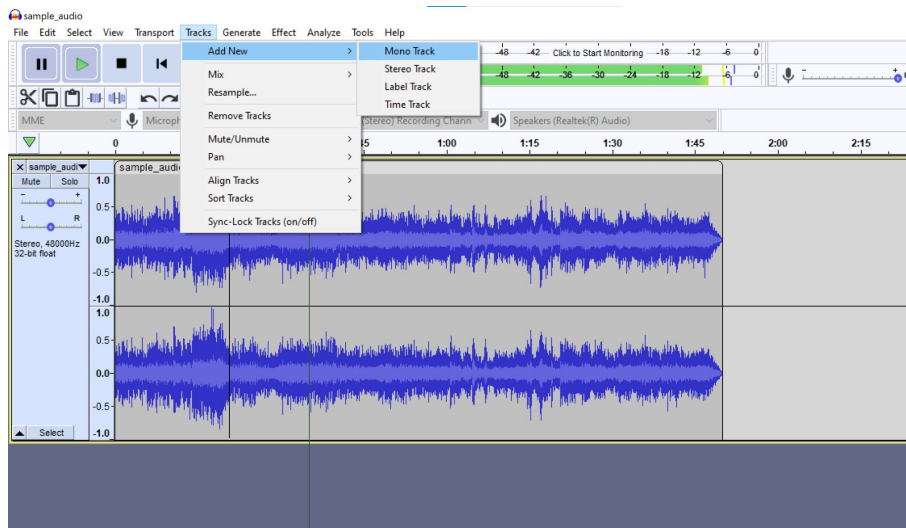
With the **Selection Tool (F1)**, place your cursor over the section where you want to split your track.

Navigate to the **Edit** section, click under “**Clip Boundaries**” and select “**Split,**” or press **Ctrl+I**.



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” option. You can also add a new mono track by pressing **Ctrl+Shift+N**.



Your Turn!

- Visit freemusicarchive.org OR studio.youtube.com and click on the 'Audio Library' tab (you have to be signed into Google for this one)
- Download something you want to play around with and try to:
 - **Remove** some of your track.
 - Choose a part to **fade in** or **fade out**.
 - **Split the track** into multiple.
 - **Add a new track** to your project.
 - Think about which audio makes sense for your tone and topic.



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.

Save in multiple places. Always have backup.

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]



About File Formats

- **Lossless Audio File Formats:** better than or equal to CD-quality.
 - **WAV:** uncompressed file, meaning huge file size. The best for editing raw audio files in Audacity.
 - **AIFF:** Apple's alternative to WAV. Uncompressed, not widely used.
- ***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.

**Note: The DITI typically recommends you save files as mp3 (sometimes mp4, if you use a PC).*



Exporting and Sharing

Finished with your recording?

- Make sure you **export your project as an MP3** before you share it!
- This will ensure that other people are able to listen to it! Exporting to an MP3 will ensure that anyone—even people who don't have Audacity—can listen to your project file.

File > Export > Export as MP3

Select “best quality”



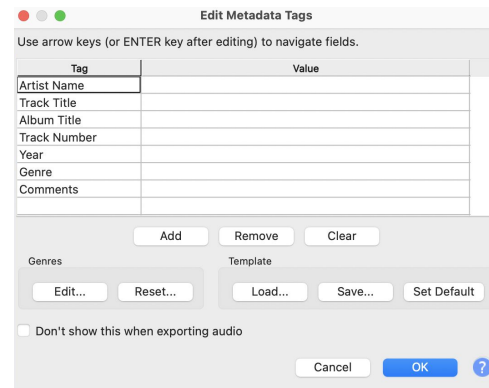
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Exporting Metadata Tagging

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

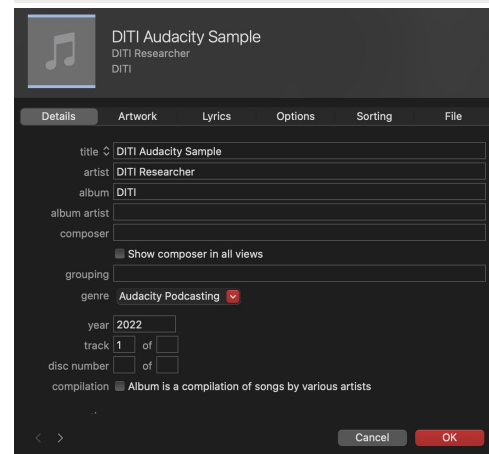
On a Mac you can add artwork by importing your file to an Apple Music library, right clicking on it and clicking “Get info.”

On a PC, you can edit the MP3 metadata by clicking through to File Properties.



The 'Edit Metadata Tags' dialog box in Audacity. It features a table with two columns: 'Tag' and 'Value'. The 'Tag' column lists: Artist Name, Track Title, Album Title, Track Number, Year, Genre, and Comments. The 'Value' column is empty. Below the table are buttons for 'Add', 'Remove', and 'Clear'. There are also sections for 'Genres' (with 'Edit...' and 'Reset...' buttons) and 'Template' (with 'Load...', 'Save...', and 'Set Default' buttons). At the bottom, there is a checkbox labeled 'Don't show this when exporting audio' and 'Cancel' and 'OK' buttons.

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



The 'DITI Audacity Sample' metadata editor. It has a header with a music note icon and the text 'DITI Audacity Sample', 'DITI Researcher', and 'DITI'. Below is a tabbed interface with tabs for 'Details', 'Artwork', 'Lyrics', 'Options', 'Sorting', and 'File'. The 'Details' tab is active, showing fields for: title (DITI Audacity Sample), artist (DITI Researcher), album (DITI), album artist, composer, a checkbox for 'Show composer in all views', grouping, genre (Audacity Podcasting), year (2022), track (1 of 1), disc number, and a checkbox for 'Album is a compilation of songs by various artists'. At the bottom are 'Cancel' and 'OK' buttons.



For Further Exploration

- DITI Handout on Audacity: <https://bit.ly/audacity-handout>
- DITI Handout on Copyright and Fair Use:
<https://bit.ly/diti-fair-use>
- DITI Handout on Accessibility: <https://bit.ly/diti-accessibility>
- Northeastern Library Recording Studios:
<https://library.northeastern.edu/administration/creativity-design/recording-studios/>
- Northeastern Library Digital Media Toolkit:
<https://subjectguides.lib.neu.edu/mediakit>

Thank you!

If you have any questions, contact us at: nulab.info@gmail.com

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Slides and handouts available at <https://bit.ly/fa23-bruell-audacity>

Office Hours sign-up: <https://bit.ly/diti-meeting>

We'd love your feedback! Please fill out a short survey here:

<https://bit.ly/diti-feedback>



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