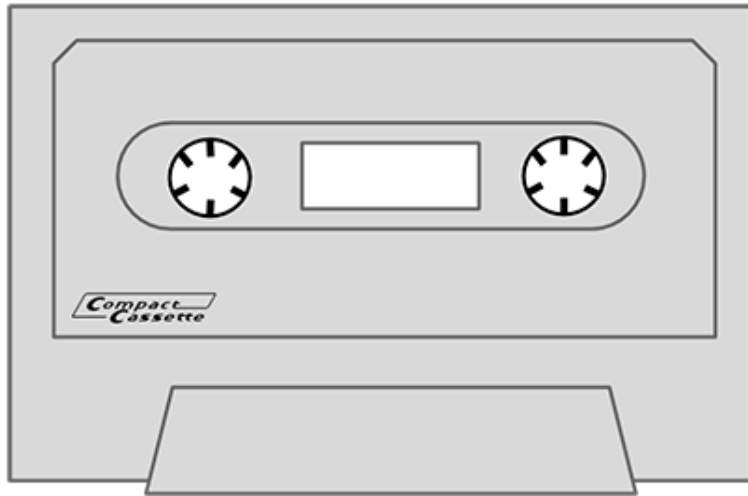




Audio Cassette Digitization Manual

Steps to Digitizing Audio Cassette Tapes

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These instructions are for digitizing audio cassette tapes. Before you can digitize your tape, library staff need to inspect them for damage. Please make sure your tapes have been reviewed before proceeding.



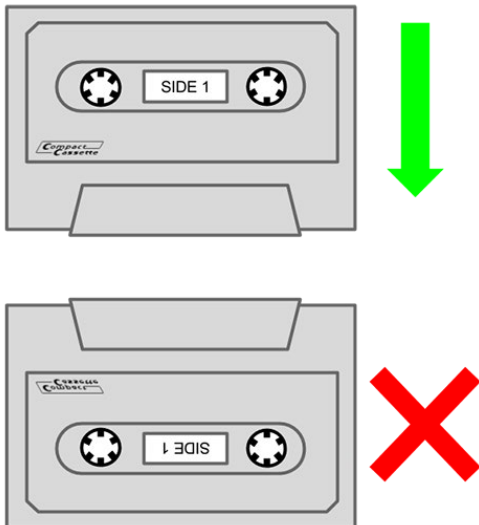
Warning: Pay close attention to Step 5, when you are monitoring the recording volume levels to ensure they are loud enough but not too loud. You may need to adjust the recording volume, which is independent of the volume you hear in the headphones.

Step 1: Turn on TASCAM audio cassette deck

- a. The TASCAM audio cassette deck is housed in the audiovisual cabinet next to the desk. Make sure the deck is turned **on**. The power button is on the lower lefthand side of the deck.
- b. When the button is pushed in, that means the deck is on.

Step 2: Load your audio cassette tape into the TASCAM deck

- a. Press the **EJECT** button on the bottom middle of the deck to open either the right or left cassette player.
- b. Compact cassettes usually come with two sides: **Side 1 and 2** or **Side A and B**. Start with side 1 or side A facing you.
- c. Insert your cassette tape with magnetic tape side down.



- d. **Rewind** your cassette tape.

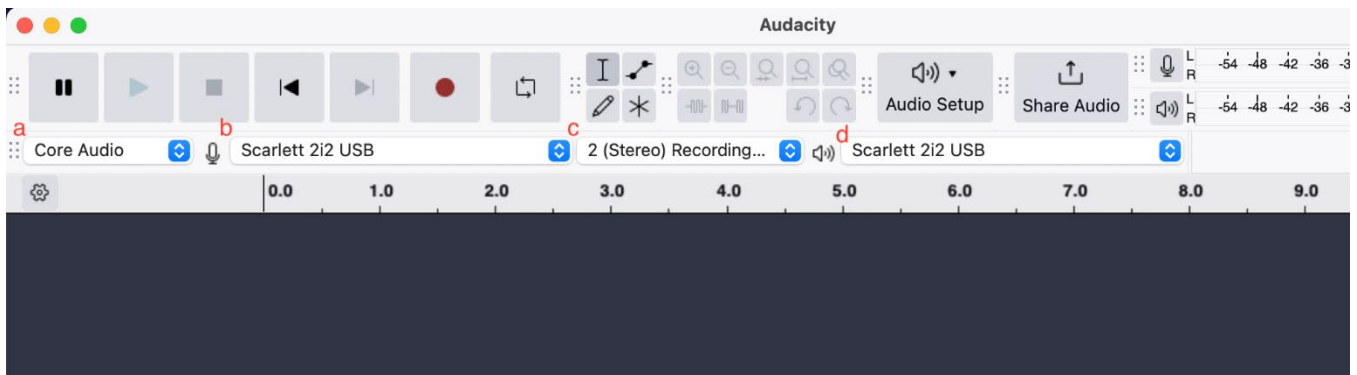


Step 3: Open Audacity

- a. Open Audacity by clicking the icon on the desktop of the computer.
- b. Audacity will open *in a new window* to a blank screen and monitors.

Step 4: Check Settings

- a. Go the **Device Toolbar** in the top middle of the Audacity window (see below) to check the settings.
- b. Working left to right in the Device Toolbar, confirm these settings:
 - a. **Core Audio**
 - b. Recording Device: **Scarlett 2i2**
 - c. Recording Channels: **2 (Stereo) Recording Channels**
 - d. Playback Device: **Scarlett 2i2**



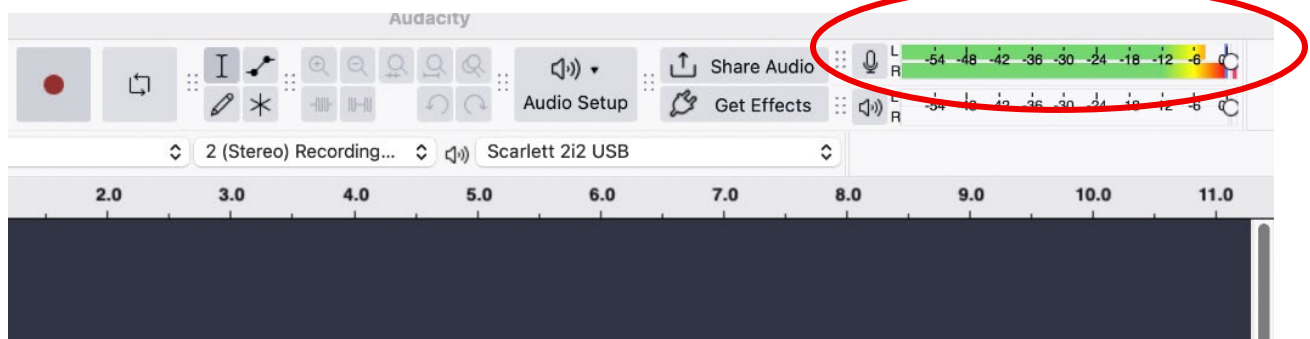


Step 5: Test your audio in Audacity with the Scarlett audio interface

- a. Plug the headphones into the **Scarlett 2i2**, the red device sitting on the tape deck (the adapter required for the headphone jack should be plugged into the Scarlett on the lower far right of the device).
- b. In Audacity, look in the upper right of the screen and **click on the microphone icon** and select "**Enable Silent Monitoring**" to view the audio levels in the **Recording Meter Toolbar**.



- c. Press **PLAY** on the tape deck.
 - a. In Audacity, you should see color bars moving across the numbers in the **Recording Meter Toolbar** (circled below) as your tape is playing.
 - i. **Green** = good recording levels
 - ii. **Yellow** = warning that the recording levels may be getting too high
 - iii. **Red** = recording levels are too high and need to be lowered to prevent distortion or "clipping"



- b. On the Scarlett device, you will see the same colors (green/yellow/red) flashing on **Channels 1 & 2** (see the left side of the Scarlett), which represent audio channels Left and Right. These channels are used to set the **Recording Volume**, which is independent of your **Headphone Volume**.

Channel 1

Channel 2



d. **TOO HIGH**

In Audacity or on the Scarlett, if the recording levels are repeatedly going **into the red**, you will need to **lower the recording levels on the Scarlett** by adjusting Channels 1 & 2 **counterclockwise** or slightly to the left.

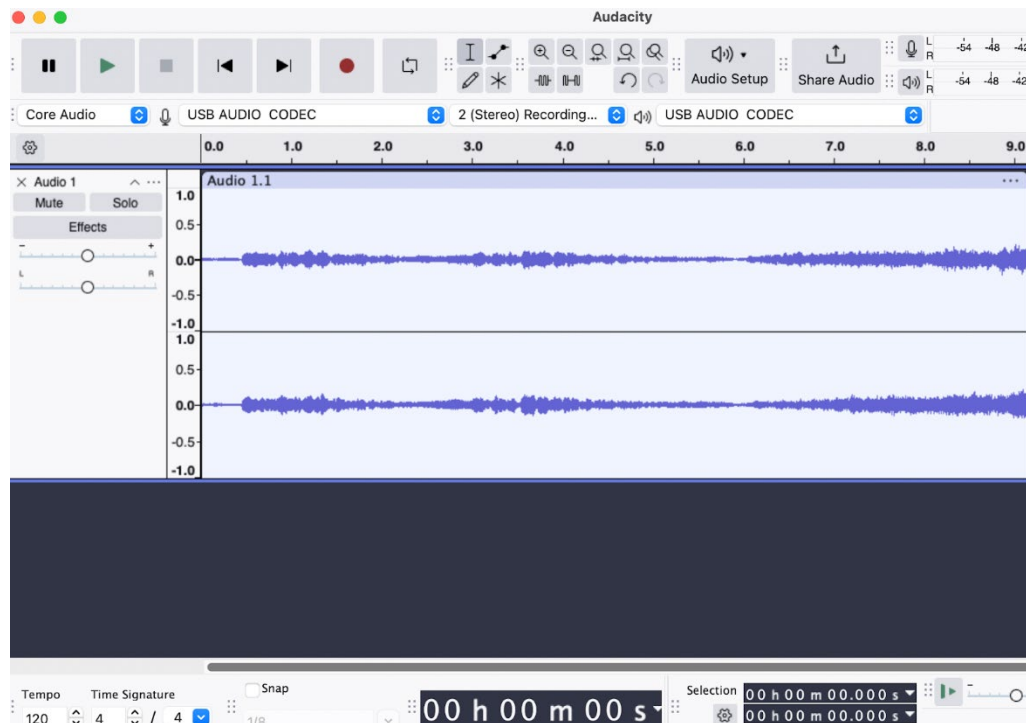
TOO LOW

In Audacity, if the recording levels are consistently only reaching between -40 and -20 dB, which is in the green, your recording volume may be too low, and you should adjust Channels 1 & 2 on the Scarlett clockwise or to the right.

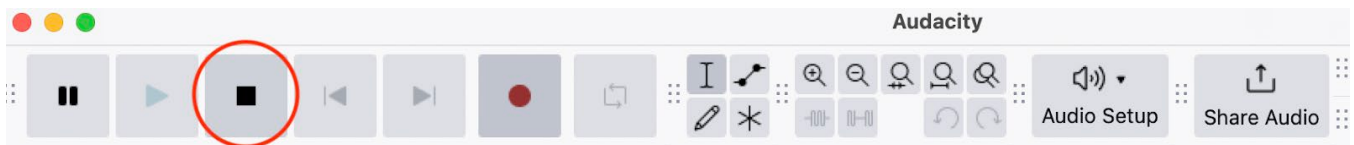
Aim for your recording levels, on average, to remain between -20 decibels (dB) and -6dB (see Recording Meter Toolbar in Audacity).

Step 6: Record your audio in Audacity

- Now that you have tested your audio and set your Recording volume, you are ready to record.
- Make sure you rewind your tape in the tape deck to the beginning or to where you want to start recording.
- Press the red circle button, **RECORD**, in Audacity first.
- Press **PLAY** on the tape deck. You should see activity in Audacity like the screenshot below:

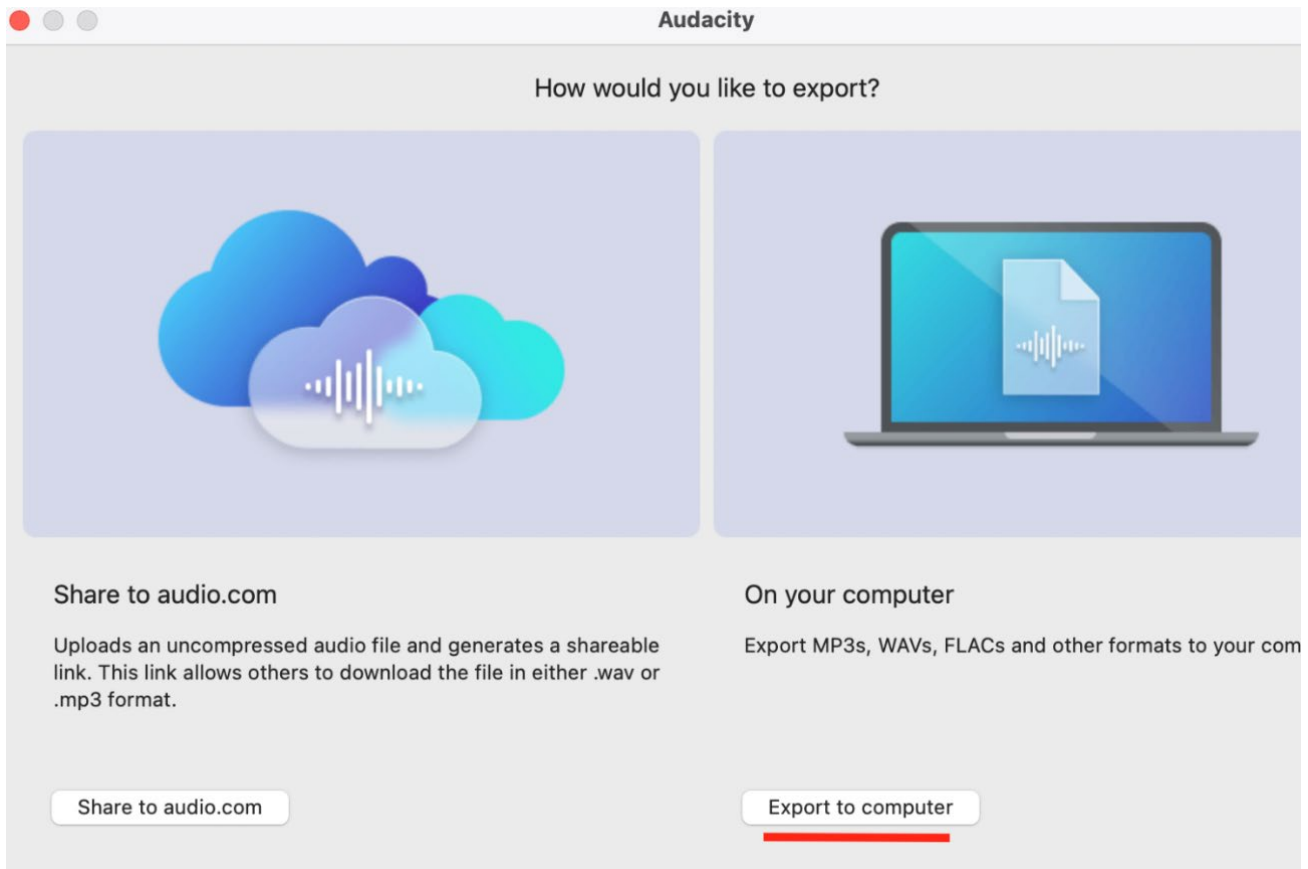


- When you are done with capturing your audio tape, click the **STOP** button in Audacity (the black square), and then **STOP** the tape in the tape deck.

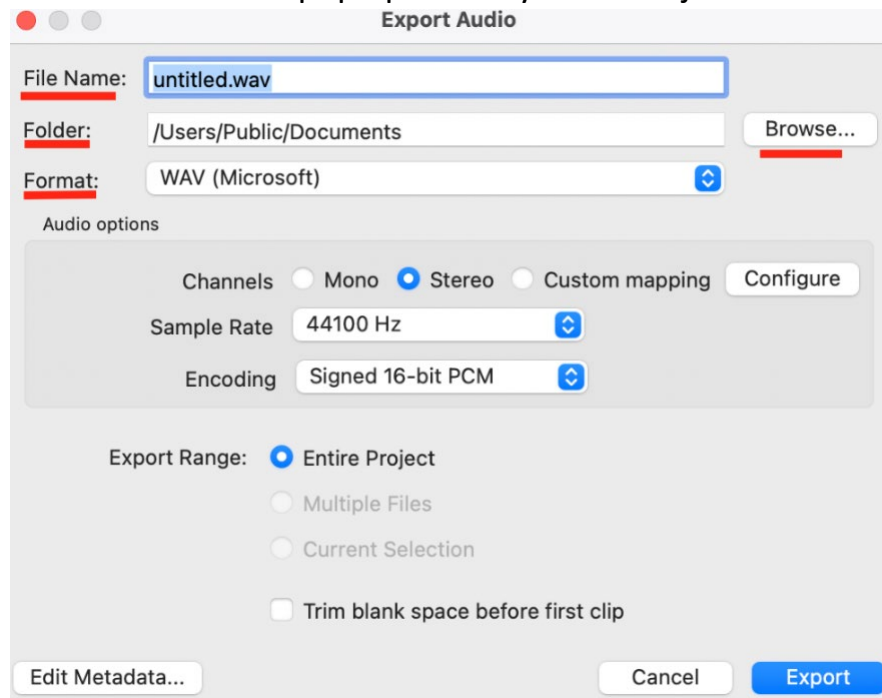


Step 7: Save your WAV file onto your USB or external hard drive

- Make sure your **USB** or external hard drive is **plugged into the computer**.
- In the Audacity menu bar, go to **File > Export Audio**.
- Click on **“Export to computer.”**



d. A new window will pop up where you can adjust the following settings:



- i. Under **File Name**, the default is “untitled.” We recommend changing the audio filename to a name that is obvious in terms of content and consistent in style, for example: RecordingDad_SF_2009.wav
- ii. Under **Folder**, click the **Browse** button to find and **select your USB or external hard drive**, then choose **SAVE**.
- iii. Under **Format**, you have the choice of saving your recording as a **WAV file** or **MP3 file**:
 1. **WAV files** are lossless, larger-sized files. This is the best file format for a preservation copy of the original. For WAV files, select these additional settings:
 - a. **Sample Rate**: 96000 Hz
 - b. **Encoding**: 24-bit PCM
 2. **MP3 files** are smaller and take up less storage space, but the quality will be slightly lower. This file format is good for listening and sharing with others. For MP3 files, select:
 - a. **Sample Rate**: 44100 Hz
 - b. **Bit Rate Mode**: Preset
 - c. **Quality**: Standard, 170-210 kbps
- iv. Once the above settings have been made, click **Export**.

- v. You can choose to **repeat Steps 7a-d** to save your audio recording in a different file format.

Step 8: Check your recording...

- a. Move your headphones from the Scarlett 2i2 to the computer and select **Headphones** in the computer desktop menu bar (top right, speakers icon).
- b. Find the WAV/mp3 file on your USB or external hard drive and **right click on the filename**, and select **Open**. Press the **Play** arrow button to listen to your recording.
- c. You can drag the playback bar to fast forward the recording and listen to different parts.

Step 9: You are done!

Do not forget to safely eject your storage device (**right click** on your device icon on the desktop and select **EJECT**) and remove your audio tape from the tape deck.