Overview

Using the Behringer USB capture device (hardware) in conjunction with Audacity, you can easily convert your old analog audio cassettes into WAVs to make a CD or MP3s to listen on your portable audio device.
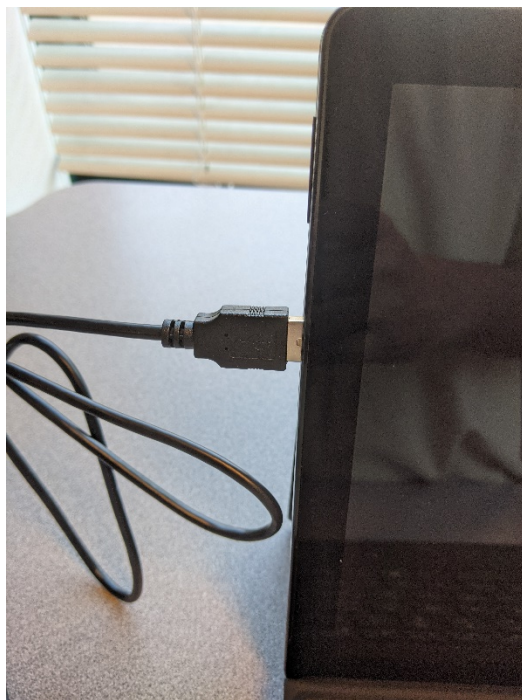
Getting Started

To digitize audio cassettes, we will be using the dual cassette deck located in the middle of our conversion station. Ensure that the white and red audio cable from the back of the cassette deck is easily accessible as we will need to make a simple connection.

Now connect the audio cable to the Behringer USB capture device being mindful of matching the white cable into the white input slot on the Behringer adapter. Do the same for the red cable by inserting into the red input slot.
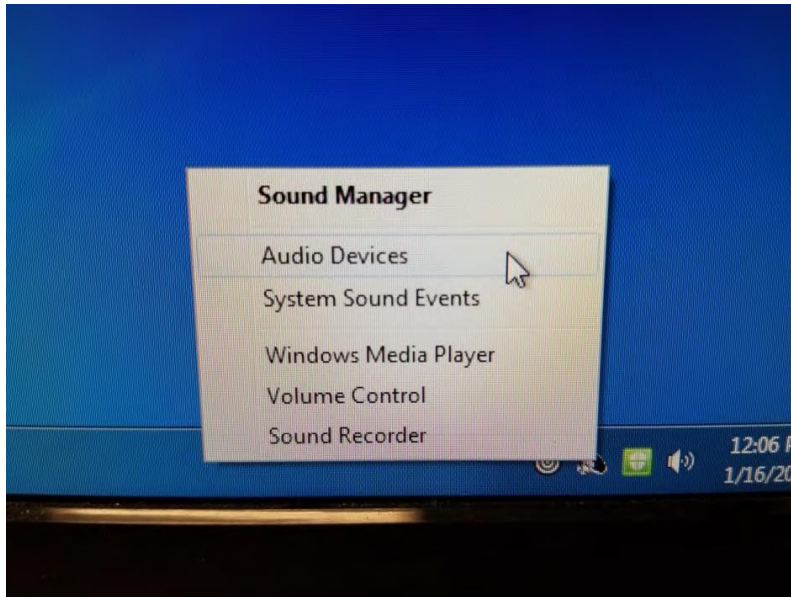

Make sure both cables are in the input slots and then plug the USB end of the capture device into the laptop.
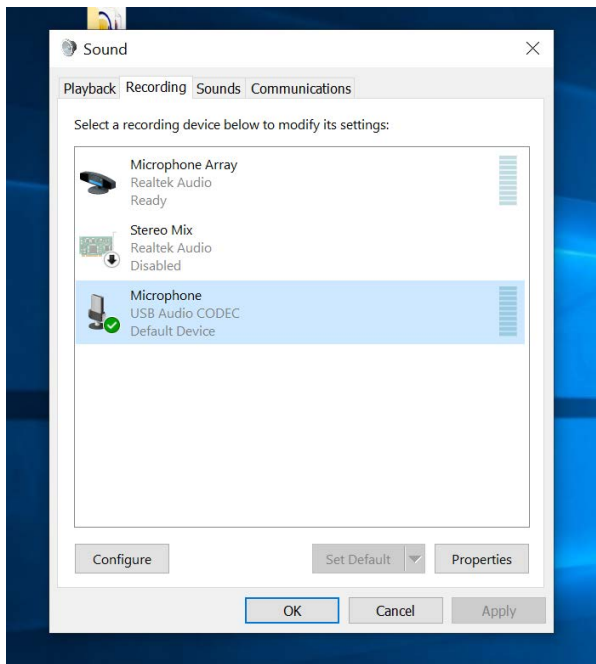
Checking Connections

On the Windows desktop, right click on the speaker icon and select **Audio Devices**.
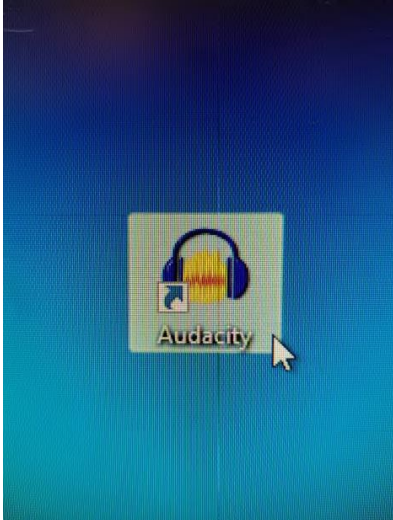

Ensure that you are on the **Recording** tab and verify that the **USB Audio Codec** device is showing up as Default Device. If not, you can click on this entry and select **Set Default**.
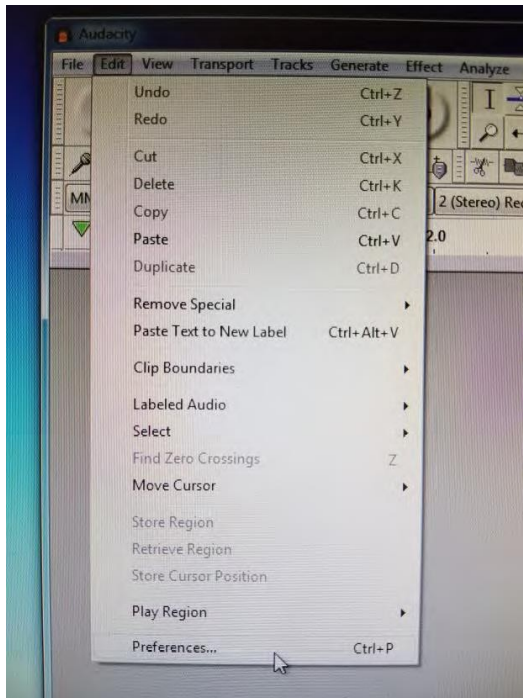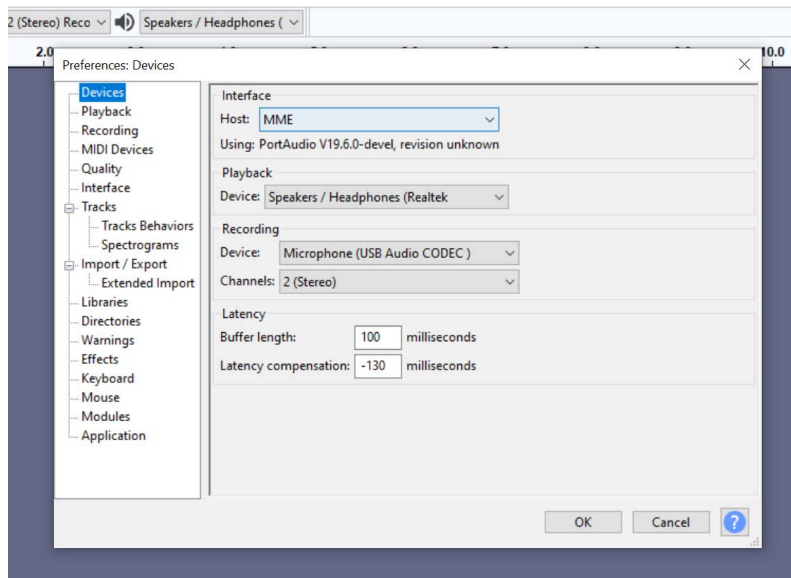
Starting Audacity

Double click on the **Audacity** icon on the Windows desktop.

Let's make sure that the proper audio device is talking to Audacity. Click on the **Edit** menu and select **Preferences**.

Under **Devices** and in the **Recording** section, make sure that **Device** is showing **Line (USB Audio Codec)** and that **Channels** is showing **2 (Stereo)**. Your playback device can remain the default when using headphones to monitor your recording session. Leave Audacity Preferences still open for the time being as we need to make one more change in a minute.

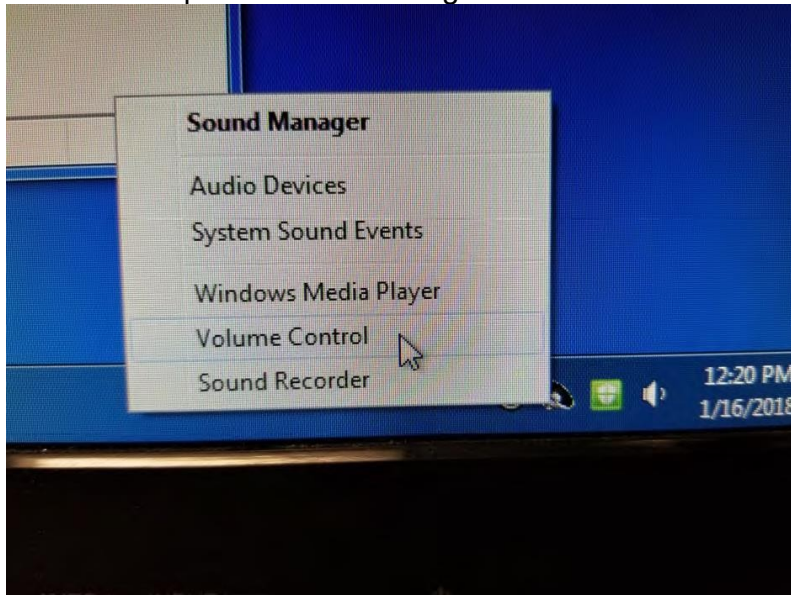On the dual cassette deck, press the **EJECT** button.

Load up an audio cassette, ensuring that the tape side is on the bottom when inserting the cassette into the cassette deck. Side A of the cassette should be facing you.

Close the door on the cassette deck. Couple of things to note here. The first thing you should do is rewind the tape marked by **two left facing triangles**. Once the tape is rewound, you can press **COUNTER RESET** to put the counter back at 00:00 time code. Lastly, ensure that the **REVERSE MODE** switch is set to the middle for one automatic playback of the reserve side of the tape. This will ensure that you don't need to flip the cassette once Side A has finished.

Let's lower the output volume slightly to protect our ears from a sudden blast of loud sounds. Right click on the speaker icon once again on the Windows desktop and select **Volume Control**.
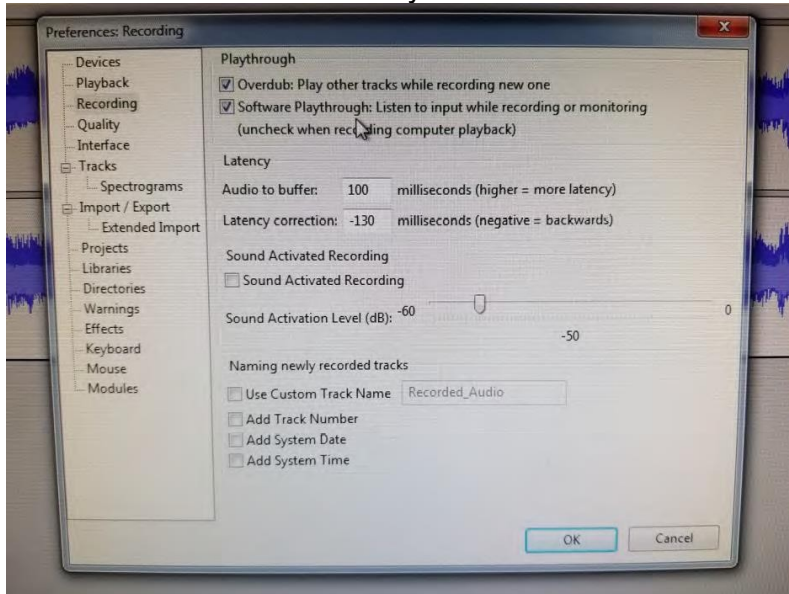

Slide the Device / Speakers slider down to about ⅓ volume (approx. 33%).

With Audacity Preferences still open, if you wish to listen to the music playing back as you are capturing it (recommended as you can monitor for excessive levels as well as cue up your tape), go to the **Recording** section and in the **Playthrough** section, ensure that **Software Playthrough** has a check mark on it. Finally click on **OK**.
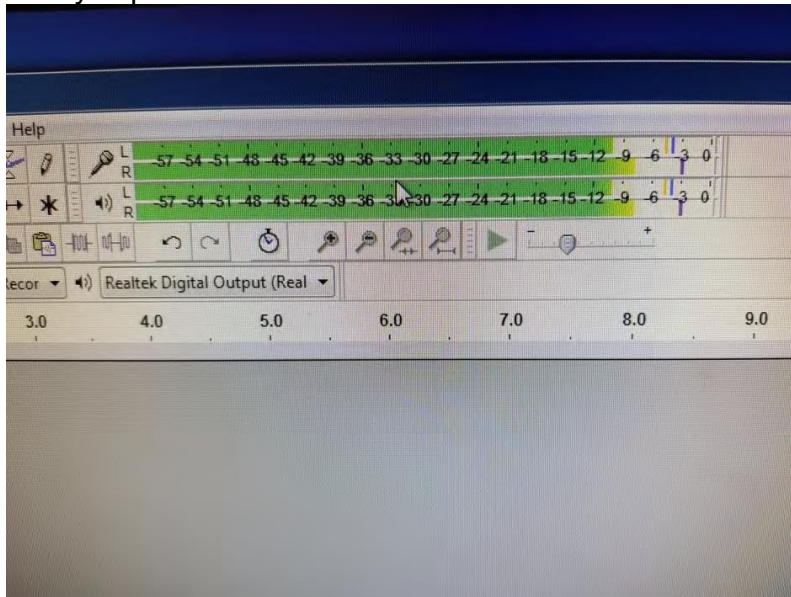

Press the **PLAY** button on the cassette deck. Note that you may need to cue up your cassette to your desired location.
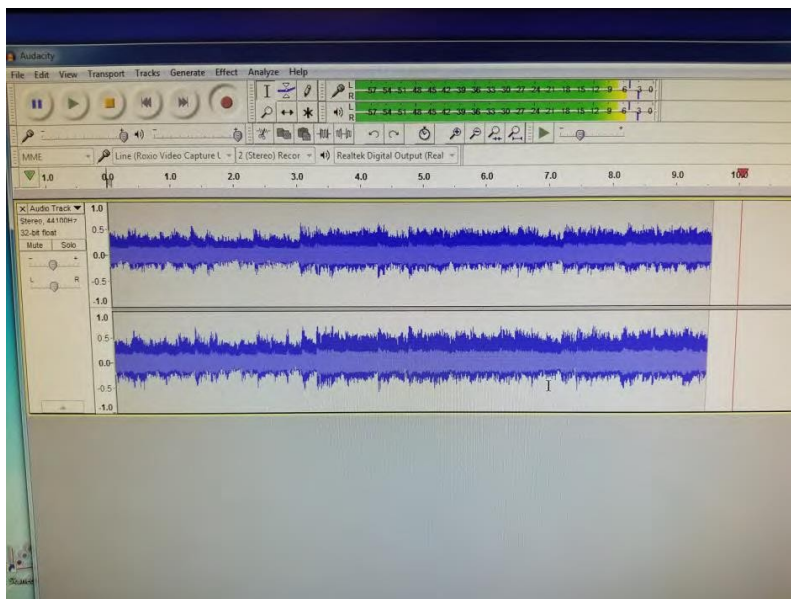
Clicking on the audio levels bars in Audacity will turn monitoring on. If your cassette is playing, you can already see some audio levels represented by green and yellow bars. For a nice clean recording, you will want to ensure that your audio level is between -6 to - 3 db. If you are getting close to 0 db, there is a risk of clipping, which is a garbled audio signal that is highly distorted and nearly impossible to clean afterwards.
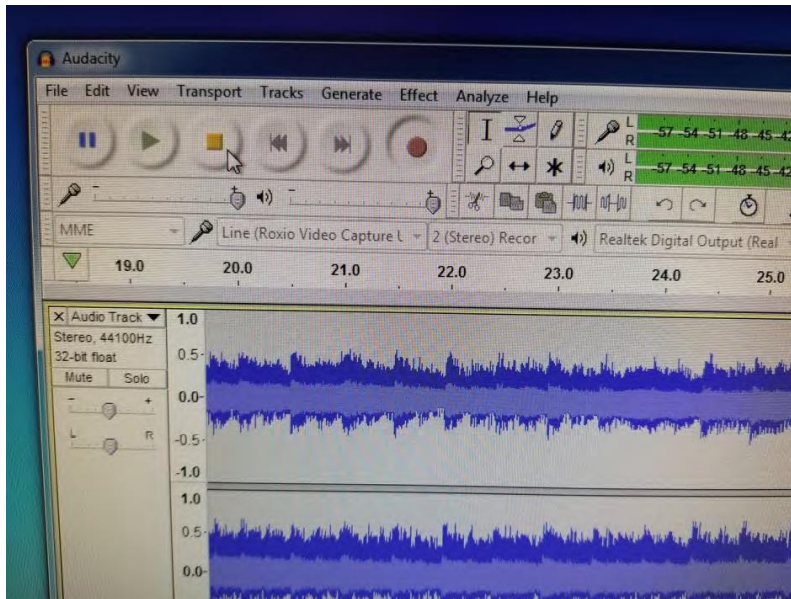

Let's start capturing in Audacity. Click on the **Record** button (red round circle). Note the nice clean waveform being generated as the signal is constrained to 0.5 never really hitting the top of 1.0 (which will produce noticeable clipping).

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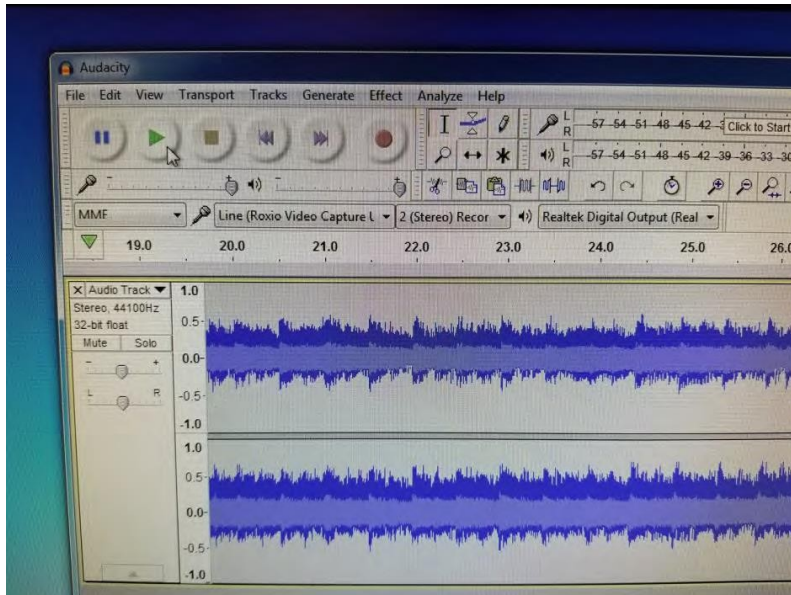Once you are finished capturing, you can click on the **STOP** button which looks like a yellow square icon.

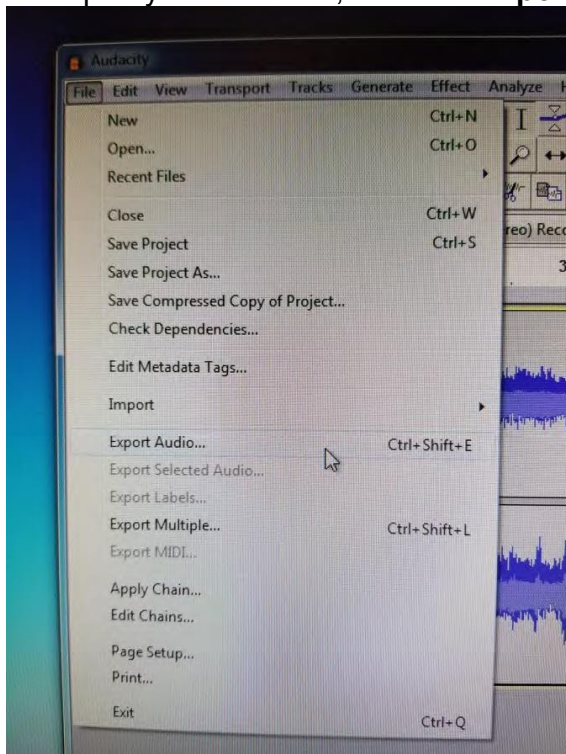On the cassette deck, you can now stop the tape playback.

If you would like to preview your recording, press the **PLAY** button in Audacity (which looks like a green right facing triangle). Please note that this tutorial does not include instructions on editing your recording. Please refer to the **Additional Resources** section for links to external video tutorials.
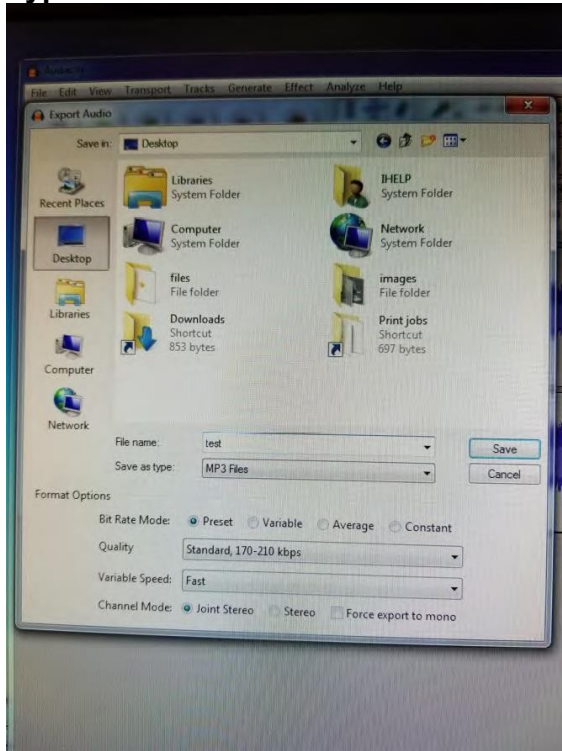

To export your audio file, click on **"Export Audio..."** under the **File** menu
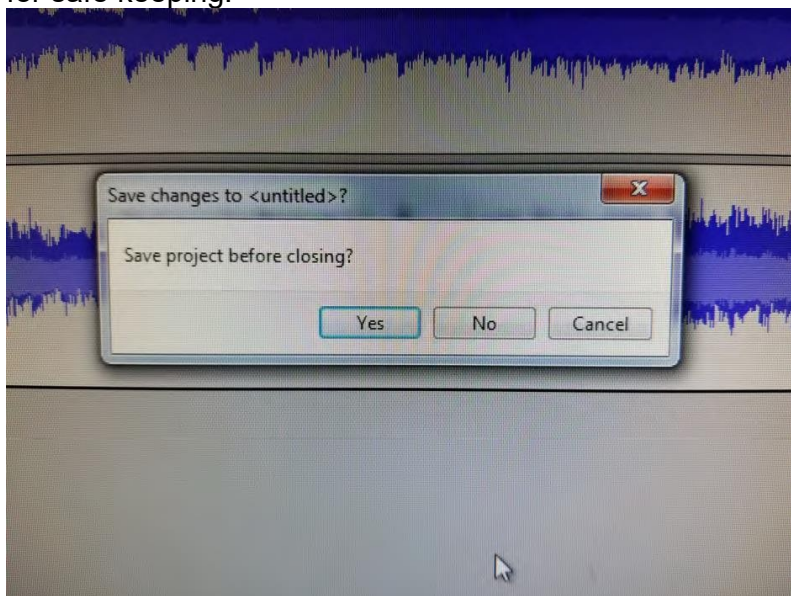
Select your desired file format. **MP3** is a safe choice to load onto a portable media player like a smartphone or iPod. Leave all of the various settings under **Format Options** as default, which is fine for most people.

If your end destination is to make a CD, then you should select WAV format here under **Save as Type**

While not necessary, you can save the Audacity project file for further editing in the future. Please note that it is recommended that you save your project files/folder into an external USB hard drive for safe keeping.

Audacity will warn you that a project file is not exported audio file. For that, you will need to use the Export function as described previously.

Select a location for your project files. Once again, to ensure safe keeping, please ensure that you are saving to an **external USB hard drive**. Pickering Public Library is not responsible for content left on public workstations as these computers are periodically wiped and set back to default settings.