Downloading, Installing, and Using Audacity for GaRRS Volunteers

1. Go to https://www.audacityteam.org. Audacity is free to download and no additional hardware is required. If you reach the Home page (Fig. 1), then click on the Download tab (Fig. 2).





Figure 1

Figure 2

2. As of July 2020, downloads for Audacity 2.4.2 were available for:

Windows 10. Check your devices for compatibility with earlier operating systems. MacOS X/macOS 10.7 and later GNU/Linux Source Code

Note that some functionality may be limited or unavailable on the Mac version. Scroll down the download page for more information about using the 32-bit or 64-bit versions of Audacity.

 Once Audacity has been downloaded, launch the application. If you wish to create a new Projects, go to the Menu bar and click File > New (Fig. 3).







Figure 4

4. In the lower left-hand corner of the workspace, set your **Project Rate (Hz)** (Figure 4, above). This is also called the **Sample Rate**. Click to dropdown menu and set the rate to 16000. If asked to choose a bit depth, use 16-bit, if possible.

5. If you wish to use audio files from a USB drive or other hard drive, go to File > Import, and then choose Audio from the flyout menu. You can then navigate to the desired folder(s) and select the type of files you wish to import. (Figs. 5 -7)

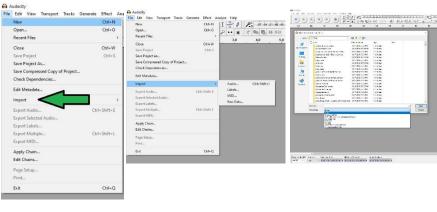


Figure 5 Figure 6 Figure 7

6. Files will be displayed as Mono or Stereo wave forms. In Figure 8, you see a mono file, showing 1) Title, sample rate, and mono or stereo; 2) Balance – left, right, or center); 3) Waveform with audio peaks displayed; VU meters showing signal strength. Figure 9 shows a stereo waveform with same layout.



Figure 8



Figure 9

Recording with external USB microphone

A headset with a built-in microphone is ideal, as long as the mike doesn't pick up extraneous background noise. This eliminates the hassle and tangle of separate microphone and headphone cords. For those on a budget, the Logitech USB Headset H390, Model 981-000014 appears to be a good choice at \$23.99 on Best Buy's website. Some models may be plug-and-play, so that no drivers need to be installed. Check with your manufacturer.



Hardware and Software Settings

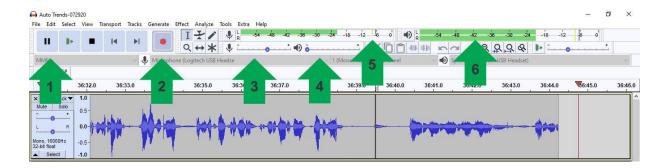
You might have to adjust your sound card and input settings so that Audacity will recognize the device. In the screen grab below, we see settings for a **Logitech USB Headset H390**, with **(1) MME** as the audio host (sound card); **(2) Logitech USB Headset** as the recording device; **(3) Mono** as the recording channel; **(4) Logitech USB Headset** as the speaker setting.



Again, these settings depend on your own equipment and software/hardware considerations. You may have to try several combinations to find the best recording and, monitoring/playback without any echo or delay. The ASIO driver (https://www.asio4all.org), may provide more signal input/output choices and lower latency (the time it takes from your voice to travel from the mike to your headphones). It's best to use headphones while recording, in order to avoid feedback which could take place while recording.

Recording and Monitoring Audio

Referring to the screen grab below, click on the record button (2) in the upper left-hand corner and check your recording (5) and playback (6) level indicators as you speak. Your recording level should be no higher than -5, otherwise your level (shown in green) could reach into the red area of the meter, producing distorted levels. Adjust the recording level control (3) as necessary. Also adjust the playback level control (4) to a comfortable level for listening.



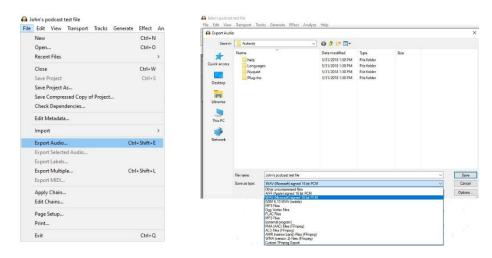
The playback level control may be independent from your computer's volume control. As you adjust Audacity's playback level slider, check your computer's speaker icon. Both may need adjustment.

When you're ready to record, click the **Record (2)** button in the toolbar, as shown above. A track will automatically be created, and a waveform will be generated to reflect the volume of what's being recorded. If you wish to pause while recording, click the **Pause (1)** button in the toolbar. To resume recording, click **Pause** again.

NOTE: If you click **Stop** and wish to resume recording on any previously recorded track, click at the end of the desired track and then press **Shift-R**. This will add new material onto what was previously recorded. If you simply press **Record**, a new track will be created.

Saving and Exporting Audio

Audacity recording sessions originate as .aup files. To save the completed session as WAVE, MP3 or other formats, click File > Export Audio (Below left). The Export Audio box (Below right) will then open up. You can save files in the default Audacity folder or create one of your own. Create a file name and then go to Save as Type. Select WAV (Microsoft) signed 16-bit PCM from the Save as Type box.



In the Export Audio window, note the WMA option. This is not the same as WAVE or WAV.