

SYSTEM REQUIREMENTS

LRAD Normalizer Software is designed for use on a computer running Microsoft Windows. The computer must be equipped with a Windows-compatible sound card with speakers and a Microphone.

INSTALLING THE SOFTWARE

Access the software at the URL listed and run the setup file. Follow the on-screen prompts during the installation.

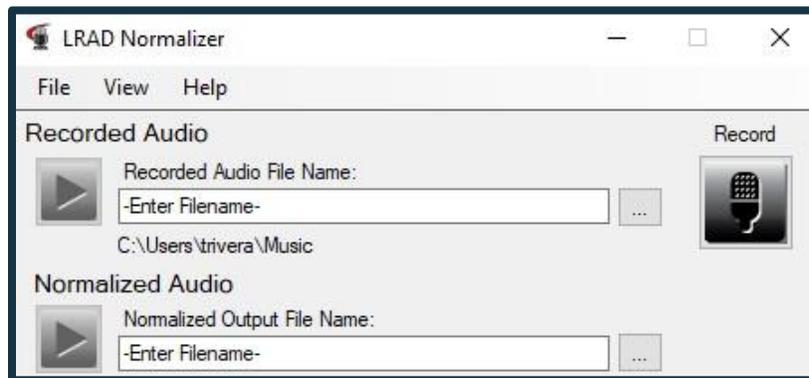
URL: <https://genasys.com/lrad/downloads/>

RUNNING THE SOFTWARE

LRAD Normalizer software will create a program group named "LRAD CORPORATION." in your Start Menu. Select the shortcut from the "LRAD CORPORATION" folder in the Start menu or double click on the shortcut created on your desktop.

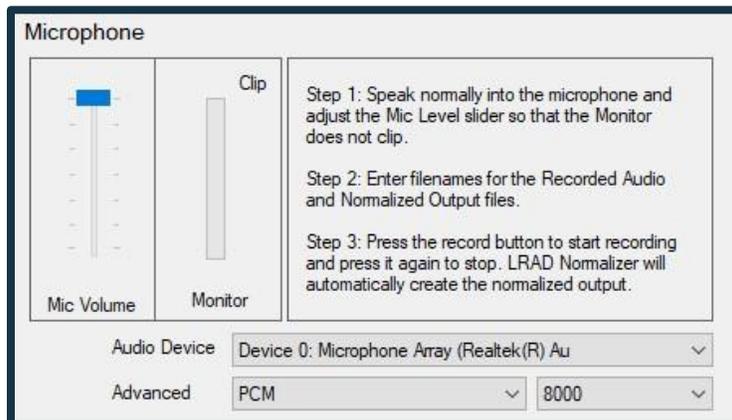
RECORDING AND PLAYBACK CONTROLS

This section of the interface allows the user to record a new audio file using the PC's built-in microphone, and to play back the original Recorded Audio and the Normalized Audio file that is automatically created after a recording is made.



MICROPHONE CONTROLS

This section allows the user to adjust the microphone recording level, monitor the audio recording level during recording, and to select the audio device (sound card) and microphone input port being used for the recording.



STATUS

This section displays the recording or playback status of the software.

Stopped

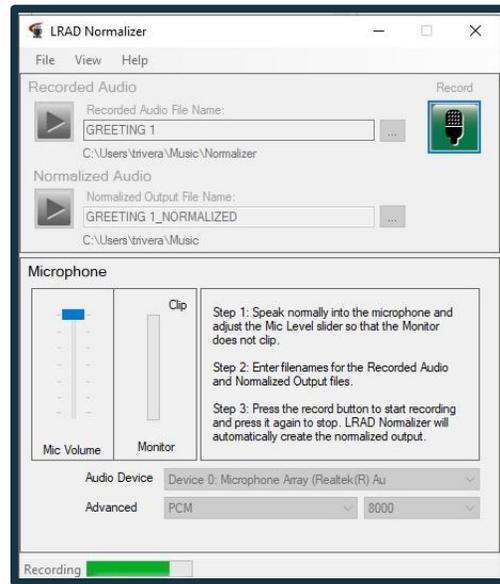
RECORDING AN AUDIO FILE

1. Enter a file name for the audio file you are about to record. The Record button will be grayed out and will not work until you have entered a filename.
2. The default file name for the Normalized Audio file will be your file name with “_NORMALIZED” appended. You may change this file name by overwriting the file name in the text box.
3. The default folder for Recorded Audio files and Normalized Audio files is the Music folder on your Windows PC. If you wish to change the location of the recordings, press the “...” button to the right of the filename fields and select the directory you would like to use.
4. Press the Record button once to start recording and again to stop the recording.
5. The “Status” section of the screen will indicate whether the system is recording. Talk clearly into the microphone and view the Monitor level on the Microphone Controls section of the interface.
6. If the monitor indicates “Clip”, then this means that you are speaking too loudly into the mic, or you are holding the mic too close. Recordings with clipped audio cannot be corrected by this software and may cause damage to the Acoustic Driver in the LRAD. Press the Record button again to stop the recording. You may adjust the mic position or your speaking volume and re-initiate the recording by pressing the Record button. If you have not changed the filename, you will be prompted to overwrite the existing recording.
7. If you are creating a recording in a noisy environment and you must speak loudly into the mic to overcome background noise, lower the Mic Level slider until you can record at a Monitor level that does not produce clipping.
8. Once a recording has been created, a Normalized Audio file will be automatically created and saved in the specified file location.
9. You may listen to the original recording by pressing the Play button to the left of the Recorded Audio File Name text box. Audio will be played back through your PC’s speakers or headphones.
10. You may listen to the optimized recording by pressing the Play button to the left of the Normalized Output File Name text box. Audio will be played back through your PC’s speakers or headphones.
11. The Normalized Output File should have the following characteristics:
 - a. Silence is removed from the beginning and end of the recording. This allows for the audio to start up quickly after the Play button is pressed on the mp3 player used with the LRAD.
 - b. The level of the recording is increased (normalized), so it will sound louder than the original recording when played back if the original recording was not loud enough.
 - c. The recording is equalized to remove low frequency content that cannot be reproduced by the LRAD.

The figure to the right shows the LRAD Normalizer software while a recording named “GREETING 1” is being made. Note the Record button changes to green, and the status bar shows “Recording.”

The default audio file format created by LRAD Normalizer is WAV.

Copy your recordings onto the iPod MP3 player using the iTunes software. Just drag the recordings onto the music folder on your iTunes interface and synch these to your device. You can use the iTunes interface to add or change the properties of your recording. Right-click on your audio file in iTunes and select “Get Info” to change the album art, album name, file name, and other properties to help organize your audio files on your iPod.

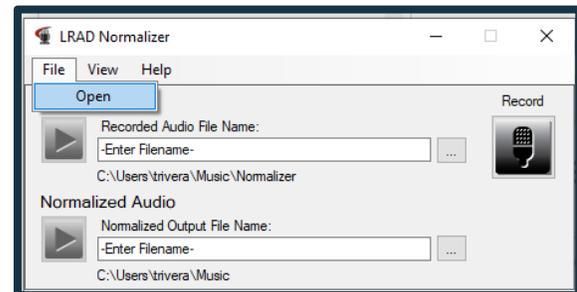


LRAD Normalizer During Recording

NORMALIZING AN AUDIO FILE

The LRAD Normalizer software can also be used to normalize an existing audio file located on the computer.

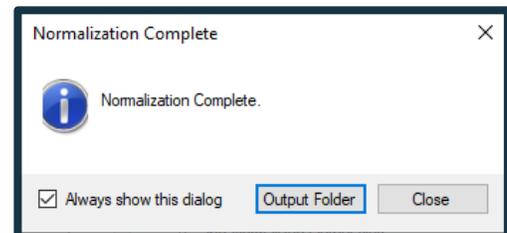
1. Locate an audio file by selecting the “File” button in the upper left of the window.
2. Select “Open” in the File drop-down menu. The file directory will appear.
3. Navigate to the audio file you would like to normalize and select the file.



How to Open an Audio File

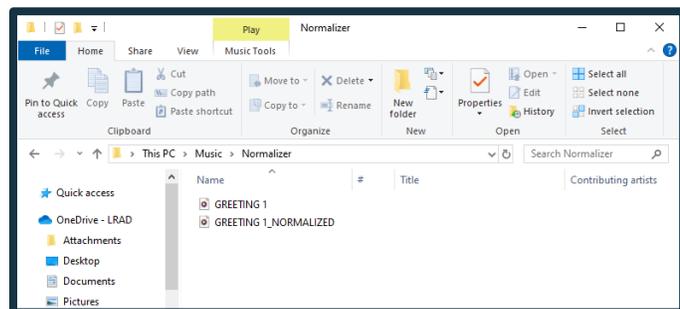
The software will automatically process the file and a pop-up window will appear when the normalization is complete.

4. On the Normalization Complete window, select “Output Folder” to view the Normalized Audio file.



View the Output Folder for Normalized File

The default file name for the Normalized Audio file will be your file name with “_NORMALIZED” appended. You may change this file name by overwriting the file name in the text box.



Normalized file shown appended.