



Audacity is an open source application. It is an easy to use audio recorder and editor. It is available for all operating systems from <http://audacity.sourceforge.net/>. With Audacity, you can record audio, convert audio, edit and mix sound files.

Educational: Audio software provides many benefits to students and teachers. Students can practice writing, communication, and listening skills by preparing and recording their work. Audio software can also improve student motivation when students are recording and publishing for a global audience. Students can also use audio software as a simple form of digital storytelling.

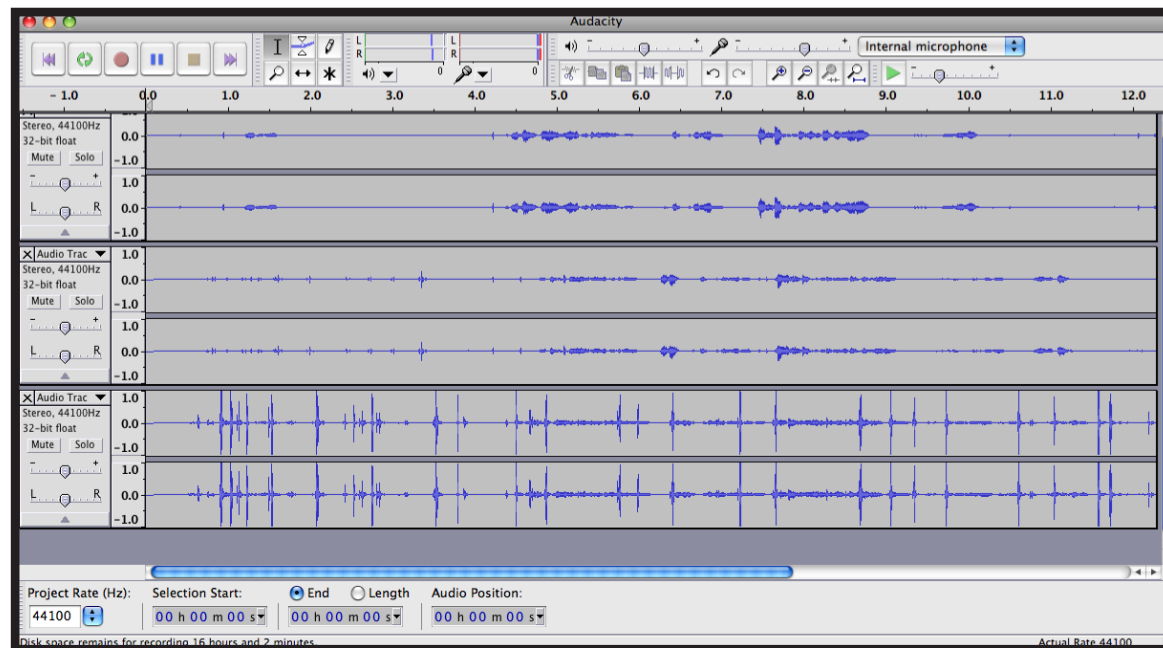


Table of Contents

Learn the Interface	3
Import an audio file	4
Volume	4
Selection Tool	5
Amplify	5
Noise Reduction	6
Cut Sections	7
Envelope	8
Time Shift	8
Effects	9
Adding Audio Tracks	10
Export as MP3	11
Recording Your Voice	12



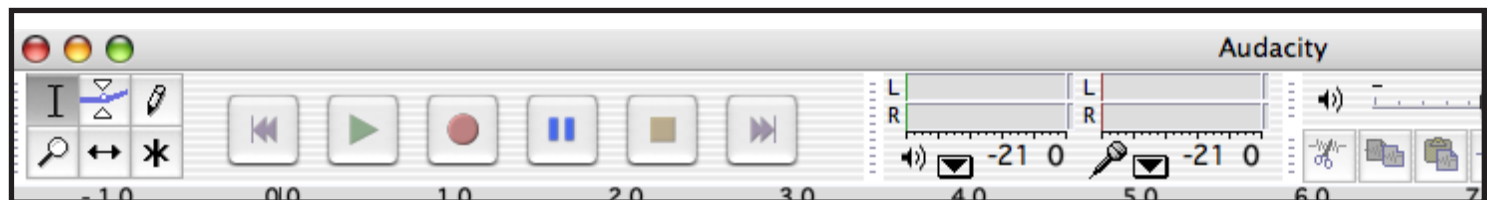
Learn the Interface

Define: The Audacity interface has several tool bars including the main tool bar, I/O sliders and Input Selectors, and the edit tool bar. Each of these tool bars will be used in order to create and edit your audio track.

How To: Use and understand the tool bar

1. The play, rewind, record, pause, and stop buttons function like those on a DVD player.
2. Tools for selection, envelope, draw, zoom, time shift, and multi-tool are available from the tools panel.
3. Level monitors provide visual representation for audio output and input.
4. To create a new project, select File > New
5. The project file is an .aup file. An .aup file can only be opened in Audacity and will allow for you to edit your file at a later date. If you would like to share your file, you must export it to an .mp3.

Extensions: Different versions of Audacity for Windows and Mac have some of the controls in different locations within the tool bar.



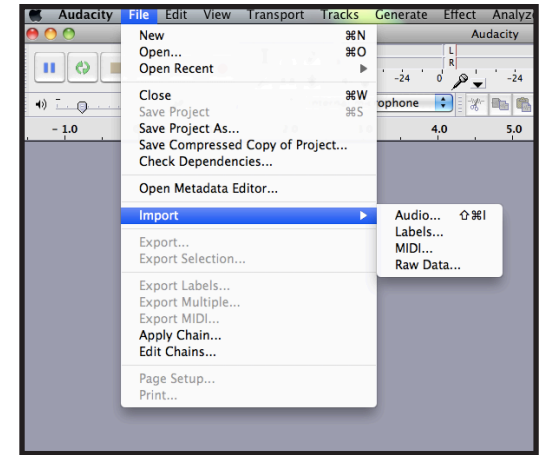
Import an audio file

Define: Audacity will import various file formats.

How To: Import an audio file

1. Select Project > Import and browse to locate an audio file.
2. Select the file and click Import.
3. Depending on the size of the file, progress may take a minute or two.

Extensions: Audio recorded with other devices can be imported. Audio file formats supported by Audacity include: aiff, wav, mp3, IRCAM, OggVorbis, Sun Au/NeXT, and AUP, which is Audacity's project file format. WMV file formats are not supported.



Volume

How To: Adjust the volume of an individual track

1. To adjust the volume of an individual track, use the volume slider. Dragging to the right increases the volume and dragging to the left lowers it.
Or
2. Use the envelope tool to control the volume at different points on the audio track. See the envelope tool section.

Extensions: If your track is stereo, you can use the lower slider to adjust how far to the left and the right the audio in each channel is panned. Also, you can use the solo button to preview the sound of a track alone or mute button to silence the track.

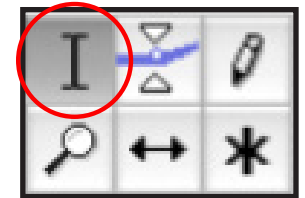


Selection Tool

Define: The selection tool is used to select audio.

How To: Use the selection tool

1. Click on the selection tool.
2. Click and drag on any selection of audio to highlight it.
3. When audio is highlighted, only that selection will play when you click the green play button.
4. If you drag from one track to the other, you can highlight both tracks.

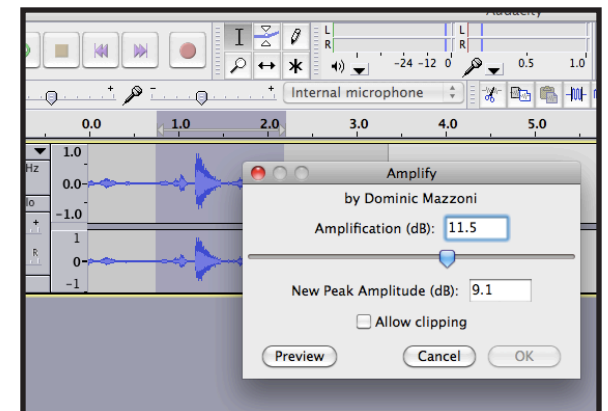


Amplify

Define: Amplify provides a method to increase and decrease the volume level for a section of the audio track.

How To: Amplify a section of the audio

1. Click on the selection tool.
2. Click and drag on any selection of audio to highlight it.
3. Select Effect > Amplify.
4. Adjust the Amplification slider to the right to increase and left to decrease the volume.



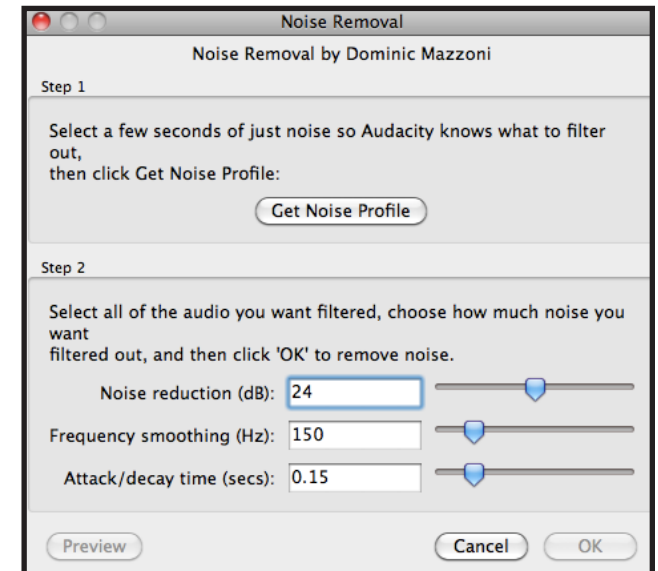
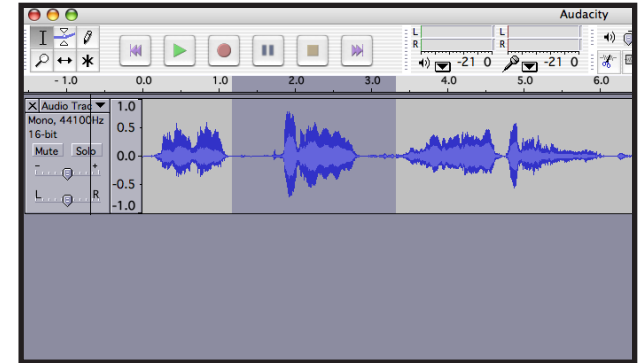
Noise Reduction

Define: The noise removal effect is great for removing constant background noise such as a hum, buzz, or a fan. It doesn't work very well for removing talking or music.

How To: Remove/Reduce Noise

1. Use the selection tool to highlight a part of the track that only contains the noise. When you play the selection, you should only hear the noise you are trying to remove.
2. Select Effects > Noise Removal
3. Click <Get Profile>. Audacity will remember the sound.
4. Now, use the selection tool to select all the audio that you want the noise removed from.
5. Select Effects > Noise Removal again
6. Now, click <Remove Noise>
7. If too much or not enough noise was removed, select Edit > Undo. Then, try Noise Removal again and use the slider to increase or reduce the amount of noise taken out.

Extensions: Removing noise often results in some distortion. It is best to eliminate noise from the start by finding a quiet room in which to record.



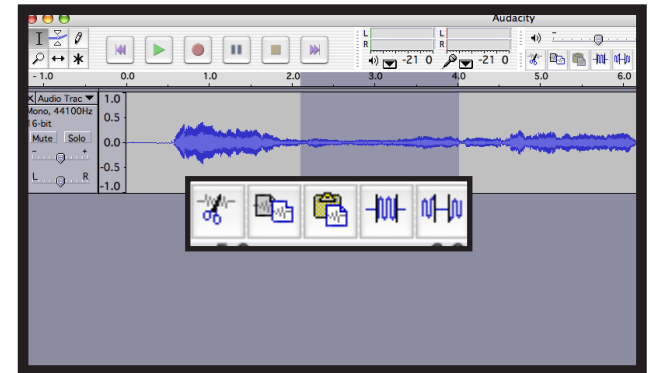
Cut Sections

Define: When you cut sections, you delete portions of your audio. This is especially useful when there is a mistake in the audio or you want to delete unnecessary sections of your audio.

How To: Cut sections of audio

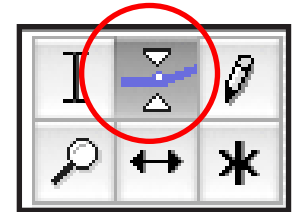
1. Use the selection tool to highlight a section of audio.
2. Click the cut button or hit <delete> on your keyboard to cut the highlighted selection of audio.
3. In order to undo the cut, select Edit > Undo or use the keyboard shortcut CTRL/Command+Z.

Extensions: When you cut a piece of audio, Audacity places it on a clipboard. If you want to move the cut audio to a different section of your track, click where you want to insert the audio and then click the paste button or keyboard shortcut CTRL/Command+V. Audacity only keeps one clip of audio on a clipboard at a time.



Envelope

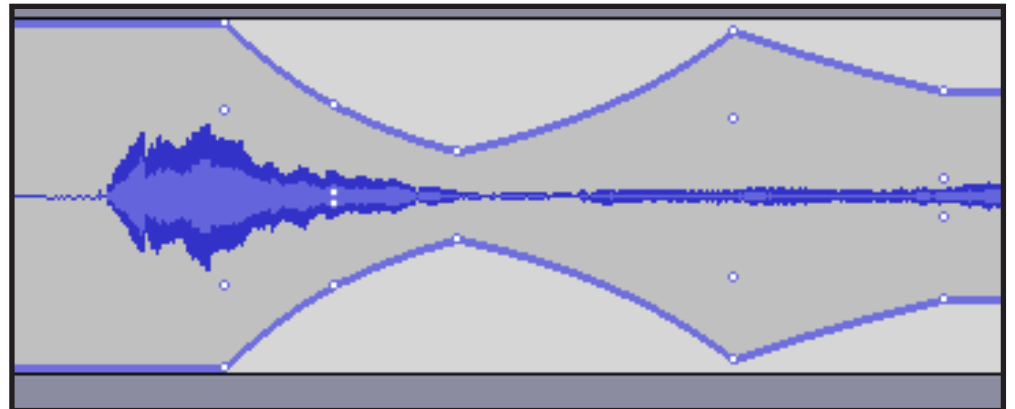
Define: The envelope tool allows you to change the volume of a track gradually by using control points. By using the envelope tool, you can smoothly fade in and fade out a track.



How To: Use the envelope tool to change the volume

1. Select the envelope tool.
2. Click on the audio track to create a control point (white dots).
3. Click and drag on the control point to increase or decrease the volume.
4. Create several control points to smoothly increase or decrease the volume.

Extensions: To remove a control point, click on the point and drag it outside of the track, then release.

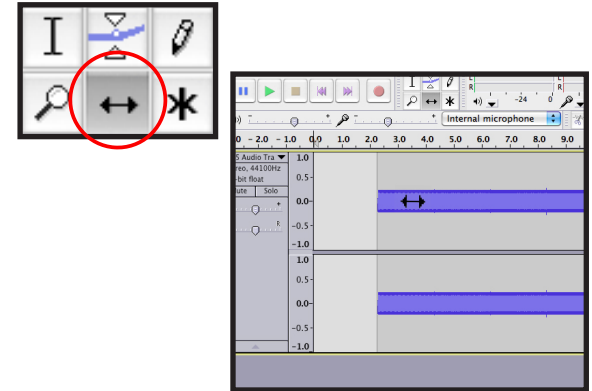


Time Shift

Define: The Time Shift tool provides a method to drag an audio track left or right making it play earlier or later.

How To: Adjust the time alignment of a track

1. Use the Time Shift tool and select an audio track.
2. Drag the track left or right making it play earlier or later in the arrangement.



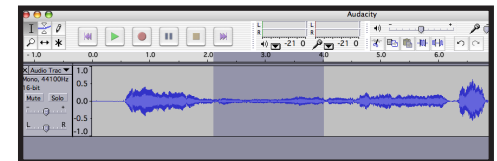
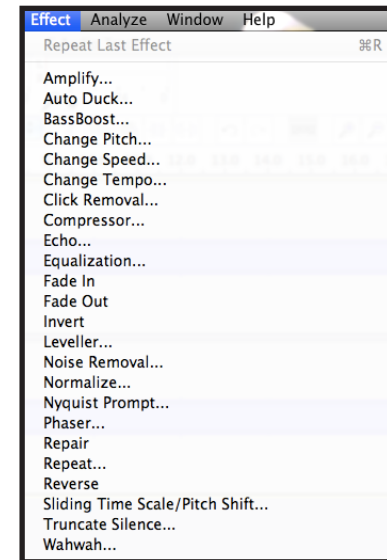
Effects

Define: Audacity offers a large selection of professional effects that change the pitch or speed of your audio, add an echo to your audio, or boost the sound of your audio, just to name a few.

How To: Add an effect

1. Use the selection tool and highlight a piece of audio.
2. From the main menu, select Effect.
3. Select an effect from the drop down list. Audacity will automatically apply the effect to the selection.
4. Listen to your audio by clicking on the green play button.
5. If you do not like the effect, select Edit > Undo or use the keyboard shortcut, CTRL/Command+Z.

Extensions: You can repeat your last effect by selecting Effect > Repeat Last Effect or use the keyboard shortcut CTRL/Command+R



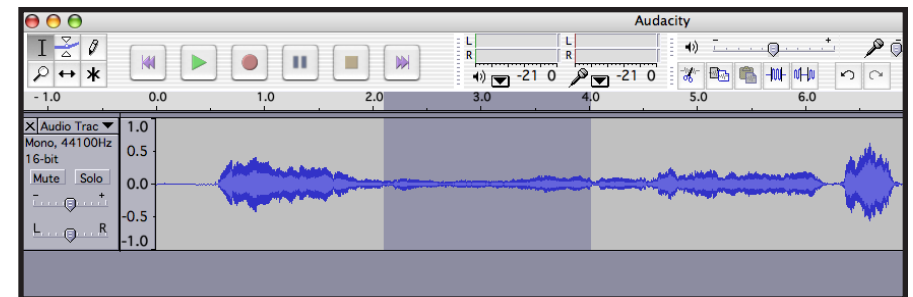
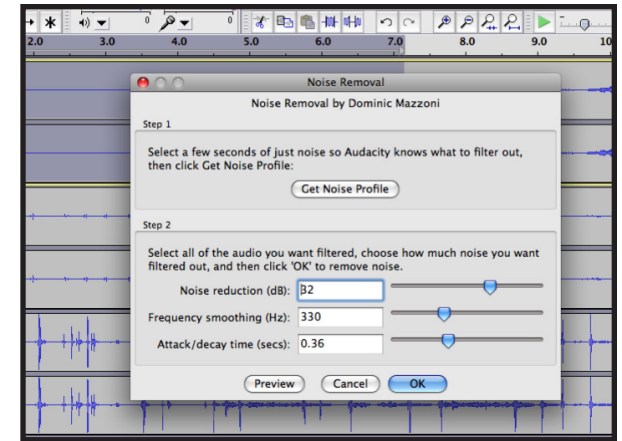
Adding Audio Tracks

Define: You can add audio tracks or sound effects into your audacity project. Audio tracks can go before, after, or through- out your project. You may also want to use sound effects to enhance your project.

How To: Adding Audio

1. Select Project > Import Audio
2. Browse to the file you want to import on your computer.
3. Once imported, use the cut tool to get the desired selection of audio.
4. Once cut, use the time shift tool, to shift the audio tracks to the location you desire. To use the time shift tool, click the time shift tool, then click and drag on the audio track of your choice.

Extensions: Use copyright free music as an introduction, transition, or exit to your audio file. By adding music, you add interest. Additionally, you can add sound effects throughout your audio file to add interest and emphasize a point.

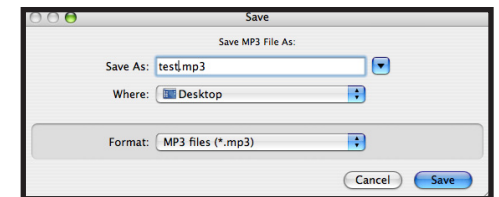
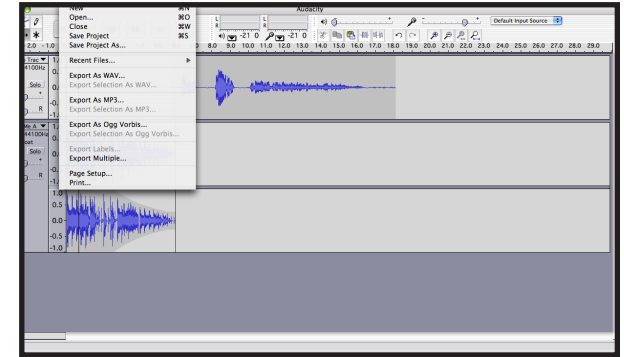


Export as MP3

Define: In order to share your Audacity audio project with others, you must export your project as an MP3. You can also export your project as a .wav (Microsoft) or .AIFF (Apple) formats, but be aware that both .wav and .aiff are not universal formats. Mp3 is the recommended universal exporting format.

How To: Export your Audacity Project to MP3 format

1. You must have the LAME Encoder installed on your computer before you can export as MP3. In older versions of Audacity this file could be obtained from the Internet, newer versions of Audacity have the LAME Encoder included. Try exporting your files as an MP3 if it works then you already have the LAME Encoder, if you receive a message that the file can not be exported then you need to install it.
2. Choose File > Export as MP3
3. Enter a name for your file, navigate to where you want to save your file, and click <Save>
4. Enter descriptive information for your audio track into the metadata window that appears. Adding metadata will allow you to search for your tracks at a later date using text.
5. Click <OK> to export your project as an MP3.

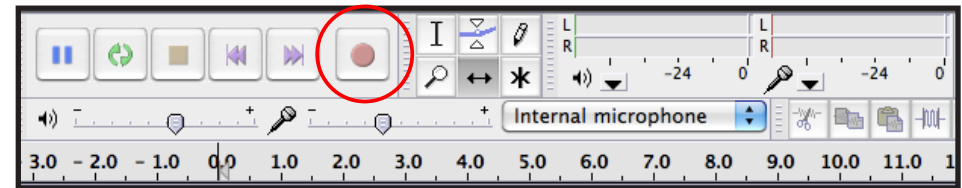
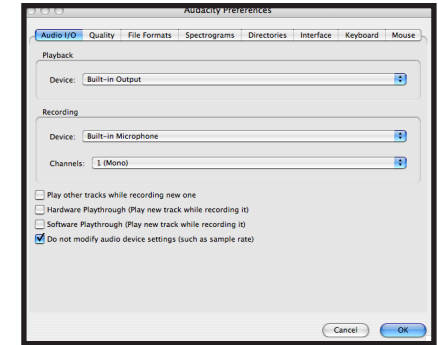






Recording Your Voice

Define: The main tool bar contains icons that allow you to record and play back your audio.

How To: Record and playback your audio

1. Set up your microphone to record audio.
2. Select Audacity > Preferences, in the Audio I/O tab, select your microphone from the recording device drop down menu.
3. Select either one channel for mono or two for stereo.
4. Locate and press the red record button to begin recording audio. You will see a waveform (audio track) in the main window.
5. To stop recording, press the yellow stop button.
6. To playback your track, press the green play button.
7. Use the purple cursor arrows to move to the beginning or the end of your track.
8. Press the blue pause button to pause the current track while recording, press the blue pause button again to continue recording on the same track.
9. To delete a track, click the X in the upper left hand corner of the track.



Extensions: Depending on the length of your audio, you may not be able to see it all on one page. Use the zoom tools to zoom in and out of your project. Use the <zoom to entire project> button     to see your entire project within one window.