

Overview

Audacity is free audio recording and editing software, that allows you to manipulate and cut sound files in multiple layers, as well as providing sound effects, filters and much more.

1. Installing Audacity

First, follow the links below to download Audacity.

Audacity for **Windows**:

<https://www.audacityteam.org/download/windows/>

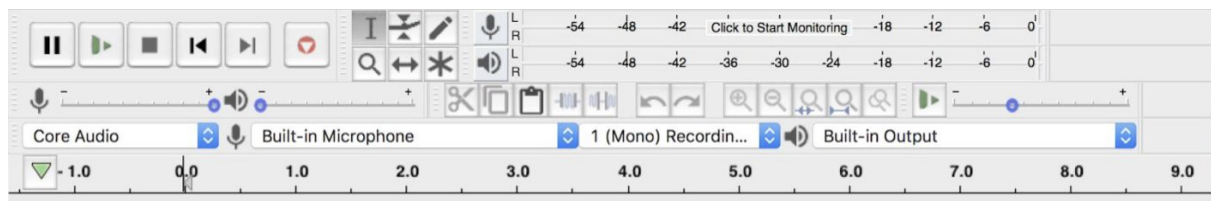
Audacity for **Apple**:

<https://www.audacityteam.org/download/mac/>

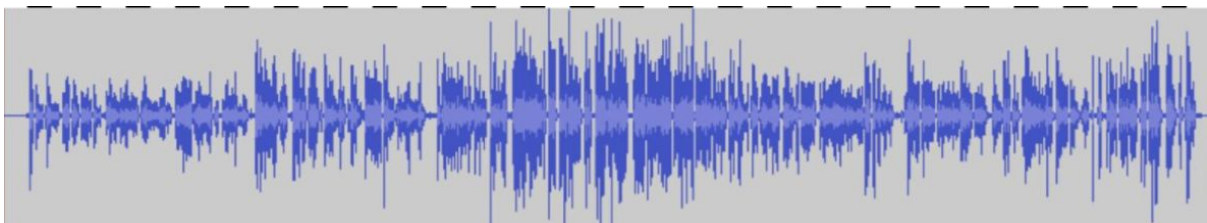
Next, find the installation file and install the program as you normally do on your computer.

2. The Layout of Audacity

Audacity is layed out with a menu bar in the top, which contains a number of features. From here most of the programs controls may be accessed, among other things start, stop and pause, as well as adjusting the levels on your microphone and loud-speakers.



Beneath this, you will find the timeline for your project. Here are located the audio files you will be working with, and it is this timeline that determines the structure and progress of your project.



Your recording will appear in the time line in waveform, which is a graphic representation of audio track over time (left to right).

3. Import

If you have an audio recording, that you want to edit in Audacity, you can import the file into your project:

1. Click “File” in the upper left corner.
2. Next “Import”.
3. Then select “Audio...”.
4. Find the file that you want to work with on your hard disk.

Alternatively, you can find the file in *Finder* (Mac) or *Explorer* (PC), then drag-and-drop it directly into the timeline in Audacity.

4. Export

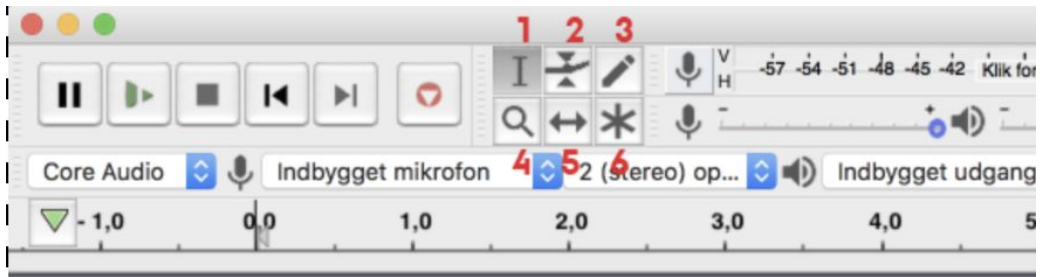
When you have finished editing the audio project in Audacity, you will need to export the file. This is what you do:

1. Click “File” in the top menu bar.
2. Then, select “Export”.
3. Before you choose a name and destination, we recommend that you save the project as ‘mp3’ with a quality of 192 kbps or higher. In this way, you can ensure audio quality is unaffected during export.
4. Before you can export the file, Audacity will ask you if you want to edit your **metadata**, which concerns the recording and the file. Here you can enter information about your recording that a podcast platform can use if are considering uploading it as a podcast to servers such as iTunes or Soundcloud. This will make it easier for listeners to find your podcast if it does not already have an audience. You can also press ‘clear’ and export the file without this metadata.

5. Editing

During the editing phase, avoid using the “Pause” feature, instead use “Stop”; pressing “Pause” will remove all the added settings from the audio file. Therefore, get into the habit of using “Stop”, while editing.

Here you will see an overview of Audacity’s features. Below, we will examine only the features marked 1, 2, 4 and 5.



5.1 Selection Tool (1):

This feature is used to select a specific place on the timeline where you want to perform an action. For example, if you want to move or cut out a part of your recording:

1. Mark and drag a time range in your timeline.
2. Next find "Edit" in the top menu bar and select "Cut" (or click on the scissors in the toolbar)
3. You can now cut out specific parts of your recording and if needed insert it another place.
4. If you instead wish to delete the selected part, just click "Delete" or "Backspace" on your keyboard.

If you wish to split your audio clip into separate parts, e.g. to insert another audio clip there, you can mark the exact spot in the timeline, then go to the menu bar and find "Edit", then "Clip Boundaries" and then "Split". Alternatively press the keys "Cmd-I" (MAC) or "Ctrl-I" (PC). Now the audio clip is cut into two parts, and using the 'Time Shift Tool' (see below) you can move them back and forth separately.

5.2 Envelope Tool (2):

The name of this tool is not very self explanatory. Its function is to adjust the volume in a single audio clip. By creating two "Anchor Points" in your timeline, you can either fade in or out from one anchor point to another. If you for example need one track to fade into the background, use the "Envelope Tool" to lower the volume.

5.3 Zoom Tool (4):

This tool is used to zoom in and out of your timeline, giving you either an overview of your entire timeline or to look at one detail in particular. This may be necessary if you want to highlight something detailed or specific. You can enlarge the desired part of the timeline, and then you can work more precisely when using this tool. If your recording is very long, it is especially relevant to be able to focus on select areas, since as a rule Audacity will show you the recording in its entirety - and therefore the waveform may appear "squeezed together".

5.4 Time Shift Tool (5):

This tool is used to move the imported audio file back and forth on the timeline. For example, if you want a specific clip to appear earlier or later in the timeline, you can do so by using this tool to adjust its position on the timeline.

5.5 Volume Adjustment:

There are several different ways to adjust the volume. There is a volume feature both to the left of and directly above the timeline. When you are editing your recording, both of these will look as though they are

Du kan tilpasse den overordnede volume på to forskellige måder. Der er en volume funktion både til venstre for og lige over tidslinjen. As you edit your recording, both of these features will appear to increase and decrease the volume as they are adjusted.

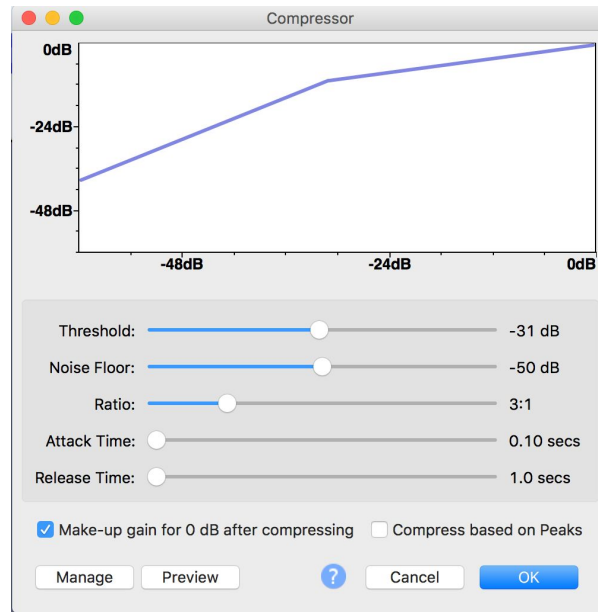
1. Volume adjustments by the speaker icon above the timeline, will only adjust the volume of your headphones or speakers. That is, you adjust the volume of your computer and not the recording itself.
2. Make adjustments to the recording itself to the left of the timeline, where you can also turn up and down. Therefore, use this feature if you want to change the volume of the audio clip in its entirety. Use this tool after you have performed the steps below.

6. Other Central Features

6.1 Amplify - Compress - Normalize

To make sure that your audio track is neither too loud, nor too quiet, follow these three steps.

- **Amplify**
 - This feature is used to raise or lower the volume of the entire track. To apply this to your audio clip, highlight it, then find "Effect" in the menu bar, and in the drop down menu click "Amplify". The software will automatically find the adjustments needed to raise the volume to a sufficient level. Click "Ok" and then the effect will be applied to the clip.
- **Compress**
 - To adjust the volume, so that *peaks* and *valleys* are closer, thereby giving you a more uniform audio clip, use the 'Compressor'. This effect will make the listening experience more pleasant and increase the production value. To apply this effect to you audio clip, mark it in its entirety, thin find "Effect" in the menu bar, and in the drop down menu click "Compressor". Follow the settings on the picture below, then click "OK", it will save the settings for later.



- **Normalize**

- This feature is used to normalize all your peaks to a certain volume, thereby increasing the volume some places, while decreasing it others. To apply this to your audio clip, find “Effect” in the menu bar, and in the drop down menu click “Normalize”. At “dB” you can fill out what audio level you want your peaks to reach. Therefore adjust this value for the desired result. This value should never exceed 0dB. For example, a recommended level could be -3dB.

Apply these three steps to all your audio clips **individually**, then all your clips will sound equally loud.

6.2 Equalizing

The two effects, ‘Graphic EQ’ and ‘Filter Curve’, will allow you to adjust the audio by frequency, giving you the possibility of boosting the low or high frequencies in your recording. e.g. if your voice sounds thin and tinny in the recording, you might want to boost the medium and low frequencies. It also allows you to remove one frequency entirely, if, for example, there is a whistling or ringing tone in the recording. To apply these effects to your audio clip, mark it in its entirety, then find “Effect” in the menu bar, and in the drop down menu click either ‘Graphic EQ’ or ‘Filter Curve’ depending on your needs. To apply pre-made effects to the audio selection, click “Manage”, then “factory presets” in the drop down menu. Try selecting “AM Radio”, which may improve the audio.

6.4 Noise reduction

If possible, let your audio recorder run for 30 seconds before or after you start speaking. If you forget, then make a separate recording of that exact environment. Anything but the exact same background noise will **not** work. This will provide you with a recording of the

background noise from the room or environment you are recording in. Audacity provides you with an effect to reduce noise during editing phase called “noise reduction”. It is located in “Effect” in the top menu bar. After recording the background noise and opening the track in Audacity, do the following:

1. Use the selection tool to highlight the part of the audio clip that is exclusively background noise.
2. Then go to “Effect” and find “Noise reduction” in the drop down menu.
3. Then click “Get noise profile”
4. Now, highlight the track or section you recorded with background noise. Audacity will then make a profile of the sound you want removed.
5. Next, select the audio clip that you want this effect to be applied and press “Noise reduction” again under the “Effect menu”.

You can adjust how much reduction should be applied, how sensitive the effect should be and at what frequency the reduction should focus on. Here you can adjust the values according to the desired result. Press “Ok” and Audacity thus removes the noise to the extent possible.