

First Audacity Demo

Overview of digital editing

A DAW is a project work area.

- 1) We set it up, by opening the DAW and giving the project a strategic descriptive name, and setting a number of other possible important options. For example, what we will use to listen to our project as we work on it, whether the basic sampling protocols will be for simple audio or for film. (In Audacity, see the drop down options above the track area. See Preferences.)
- 2) Then bring in, drag in, record or import files for the project.
- 3) We start editing, cutting, pasting audio bits in a track or tracks.
- 4) We add DSP (digital sound processing) effects to change the tone of parts or of whole tracks. Or dynamics, or the size of the space they seem to appear in.
- 5) We save different versions of the whole composite that we might want to come back to and edit some more, or edit differently. We have this term stems that mixing engineers create for their clients, like one with more vocals up front or back in the mix, etc.

Saving is usually not directly related to the final product. Saving preserves the project, with all the individual tracks and DSP effects ready to adjust. What you save you cannot play on iTunes. Do it often though! Without this type of file, you won't be able to work on it tomorrow when you remember the part you forgot to include. In other words you won't have to start over.

Also remember, after saving, to look for a file AND a folder of parts. You will need them all to reconstruct the project.

A next to final note here. Always always do this saving on the hard drive or desktop of the computer you are using. Never save directly to net storage or any version of the cloud. No better than a 60% chance you will ever get it to work right. Use the desktop as you are working on it, and when you are completely done, then copy the full file set to the on-line storage.

A final note here. Commit yourselves to making a backup. This process is not forgiving like working on a WORD doc or Photoshop file. And Braukmann tends to think of himself as your client. It is upsetting to him if you cannot deliver. And if you cannot deliver, talk and solve the problem right away!

6) When we have a product we are satisfied with, we export it into a version the client can use. Often this is a WAV or AIF file. In our case we will create MP3 files to turn in. Although they are not as detailed as WAV files, they are adequate for non-professional people, and a lot faster to send, and smaller to save.

Foreword: Please examine the **Audacity-guide** which is short enough and you will use it later anyway. A number of Audacity items need to be explained and a number of terms need to be understood before trying the controls.

Using Tone Generator and wave form examples.

Review terms: Waveform, frequency, mixing

Level	important to use fairly robust ones to start mixing, lower at end
Amplify	a multiplier applied to each data point.
Bass	controls change levels of waveform parts below about 300Hz
Treble	controls change levels of waveform parts above about 1K Hz
Pitch	a musical term related directly to frequency
Speed	How long it takes to play the clip.
Tempo	Musical term meaning the speed of the pulse of the music.

Effects Notes

Amplify	Don't use for everyday level changes. Destroys data. Note the slider on the left track controls. Use this first and export. Slider makes relative changes between tracks that can be redone later.
Pitch	Use to adapt a sound to be a different sound. Slap becomes explosion. Without changing tempo.
Speed	With temp and pitch affected.
Tempo	Without changing pitch – Listen to alcohol warning – ending
Reverse	Interesting for sound designs.

Moving Beyond the Guide

Bringing in additional tracks and mix them: Import.
Recording, importing, and mixing automatically create new tracks as needed
New Audio Track gives you a place to drag or copy snips.
Volume-Pan Mute Solo

Working with tracks in Audacity

Click on track name to see options
Name, move up or down in viewer
View in different ways
Show fundamental frequency. Nice when you are coordinating effects.
Split – makes two mono tracks, one in each speaker
 To make a center mono file, cut the track, then use mono option
 Export and two mono tracks will mix to a single mono track
Make Stereo Track – joins with the one just below to make stereo track
 It will work eventually. Try it again!
Blend two monos into one mono – Project > Quick Mix

Exporting a Mix (for a client, or to turn in)

Make certain you have adjusted panning (L – R) on each track as you wish it to be.
Tracks > Mix and Render creates a new mix and loses the original tracks.
Tracks > Mix and Render to a New Track adds a mixed track
 and keeps the original tracks. If you mute the original tracks and
 export the remaining track(s) you will have a nice mix saved, and
 all of your supporting tracks still in place to edit further.
File > Export Audio gives you a number of choices, including more than stereo

Check out the editable keyboard shortcut list in preferences.

Note that 32-bit float refers to 32-bit floating point. Common in the discipline.



Draw Tool

Enables the user to draw in to the actual waveforms. This is especially useful to eliminate small pops and clicks from material. Zoom in to see sample points first or will not work.

Also see the Repair tool in Effects. Works on selections up to 128 samples.

Setting Up to Record With an External USB Source

1. It is a good idea to get hold of the manual for your input device. Find out which sampling rates and resolutions it can create. Editing programs like Audacity can be set to match the sample rate and resolution. If these options are not set to match the device, you may not be able to record properly. (Most can do 44,100 Hz sample rate and 16-bit resolution. That is minimum for CD quality audio.)

2. Plug in the USB device before turning on Audacity. Make certain it is powered up.

3. The computer and software may connect themselves with no problem. Audacity has a list of connection drop-down menus just above the track editing area. See if you input device and/or output device is listed. If so, choose it, and you are ready.

Alternately, you may have to use your computers System Preferences or Control Panels. Choose the one for Sound. Select Sound Input and the USB device should be listed. Select it. On the Mac, also look in Applications > Utilities > Audio MIDI Setup, and again select the Sound Input device. Then in Audacity's preferences, again select the input device (under Audio I/O) and check the sample rate and resolution settings (under Quality).

4. In Audacity, under View > Toolbars, make certain Meter Toolbar, Mixer Toolbar, and Control Toolbar are selected.

5. Slide up the input level on the Mixer Toolbar (Icon with a microphone). Select Start Monitoring from the drop-down menu under the Output Meter (again with the mic icon) in the Meter Toolbar.

6. Press the record button (red circle) on the Control Toolbar to start recording. Press the yellow square to stop recording.

Note: Don't be discouraged if it does not come together right away. There are lots of control panels on computers, and lots of options. But once you get it working right, write yourself some notes!

Lots of online help, including troubleshooting recording at

http://wiki.audacityteam.org/index.php?title=Troubleshooting_Recordings#No_waveform_being_recorded