

Using Audacity to record audio

Updated September 11, 2013

This is a tutorial on how to use Audacity to record audio in the sound booth. Ready? Let's get started.

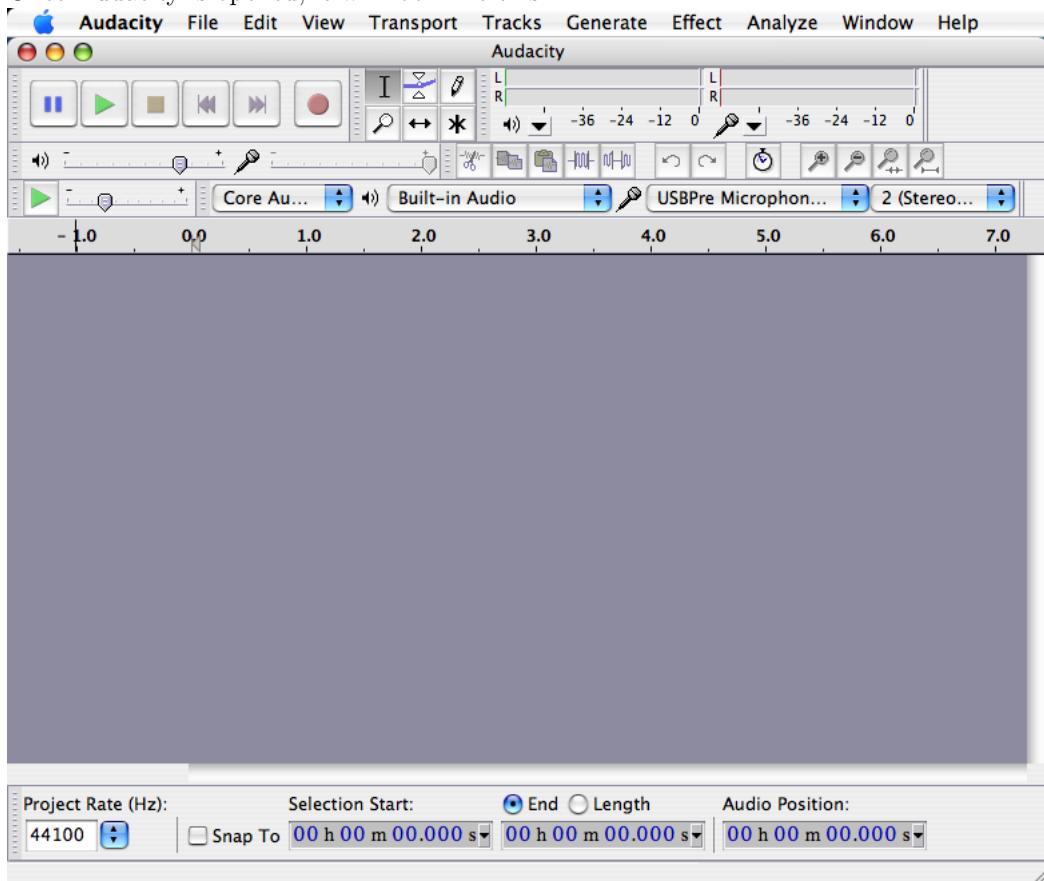
1. Recording is done with the G3 iMac located just outside of the recording booth.



2. Launch Audacity from the Dock. It looks like this:



3. Once Audacity is opened, it will look like this:

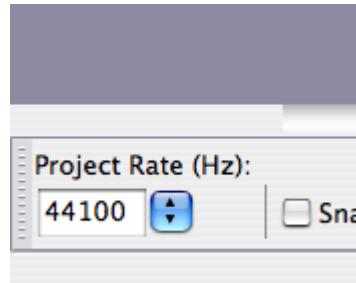


You should make sure that the following settings are in place:

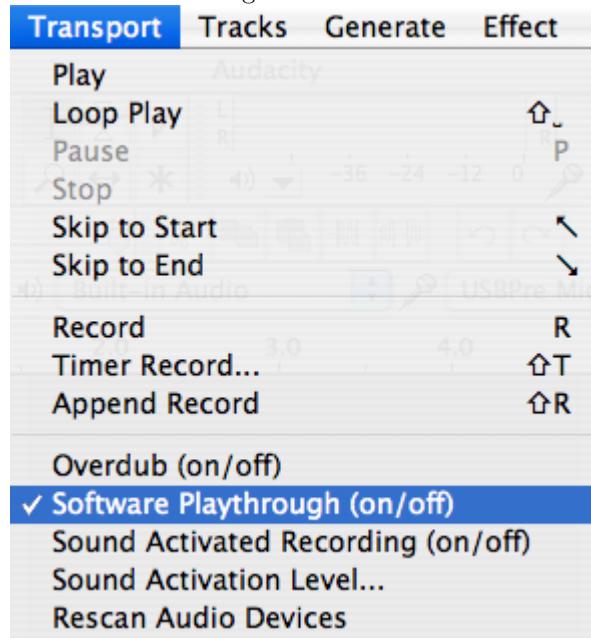
- On the top bar, all of the drop-down menus for input are set to **Core Audio**, **Built-in Audio**, **USBPre Microphone**, and **2 (Stereo)**. This ensures that all of the input and output for audio is set to use the correct devices. “Built-in audio” means that when playing audio back, it will play out of the headphones if they are plugged in, or out of the monitor speakers if not. “USBPre Microphone” means that recording will be done through one of the microphones in the sound booth. “2 (Stereo)” means that the computer expects two lines of input from the USBPre device. Note: You can set the settings to **1 (Mono)**, but this will only allow you to record out of the tabletop microphone. This is because the USBPre is a stereo device, and when stereo devices are set to mono, the left channel is always the one selected.



- On the bottom left-hand corner, **Project rate** is set to 44100 Hz.



- In the **Transport** menu, **Software playthrough** is **on** (checked) and **Overdub** is **off** (unchecked). Selecting “Software playthrough” means that you will be able to listen to the audio through the headset as it is being recorded.



- If you want to present stimuli electronically, you will have to use the newer iMac G4 (“iLamp”).



iMac G4

The presentation can be controlled by any program you wish: Psyscope, Powerpoint, or even a simple PDF file (one sentence per page). Load your stimuli file onto the G4 and launch the appropriate software. Then, turn on the monitor inside the booth; it should show the same thing as the G4 outside the booth. If it does not, you will have to select “Detect Displays” in the Displays menu on the right side of the menu bar.

5. Using the USBPre (the black box between the recording booth and the G3 iMac), select the microphone that you will be using. The left channel (channel 1) is the tabletop microphone:



The right channel (channel 2) is the headset microphone:

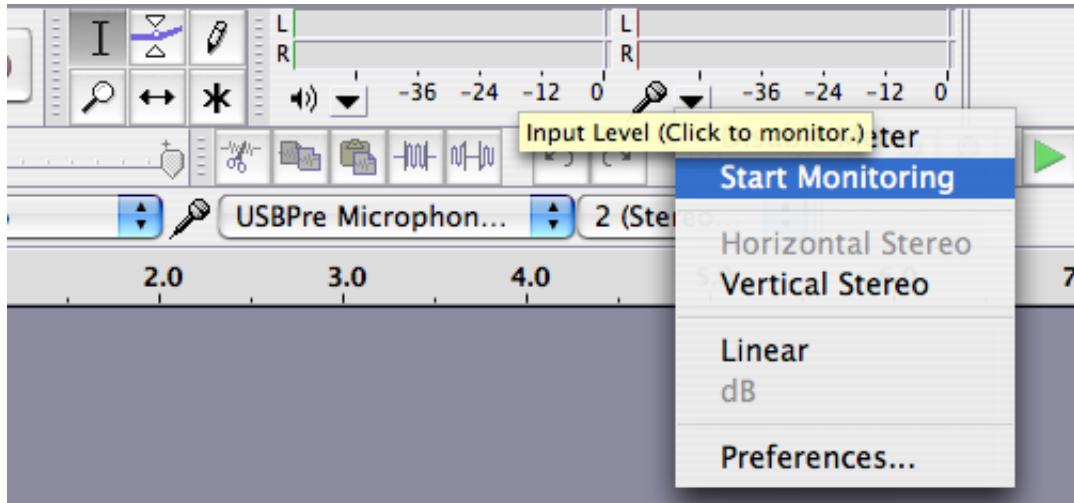


Let's say we want to use the table-top microphone. First, press the little “1” button (bottom-center) repeatedly until the green light next to the “Mic” label is on. Then, to make sure that the headset microphone isn't being recorded, turn its gain knob all the way down, as in the figure below. It may also be helpful to set its input to “Line” by pressing the “2” button.

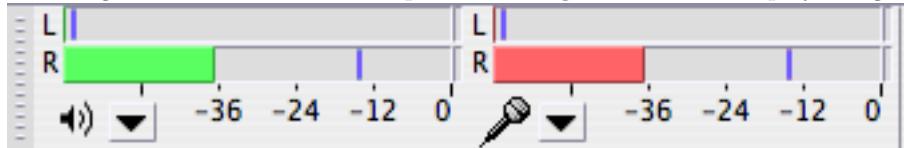


Remember, if you have selected mono recording, ONLY the tabletop microphone can be used!

6. Seat the speaker in the booth and position the microphone accordingly. If you are using the tabletop microphone, it should be slightly off to the side of the speaker and pointing towards them. If you are using the headset microphone, it should be a little to the one side of their mouth.
7. Adjust the gain while your speaker talks into the microphone. To do this through Audacity, find the monitor bars (on the top of the window, to the right of the recording control buttons). Click on the drop-down menu and select **Start Monitoring**.



Have your speaker talk into the microphone. The gain will be displayed on the meters. If you are using the tabletop microphone in stereo recording mode, the **left** meter will display the gain; if you are using the head-mounted microphone, the **right** meter will display the gain.

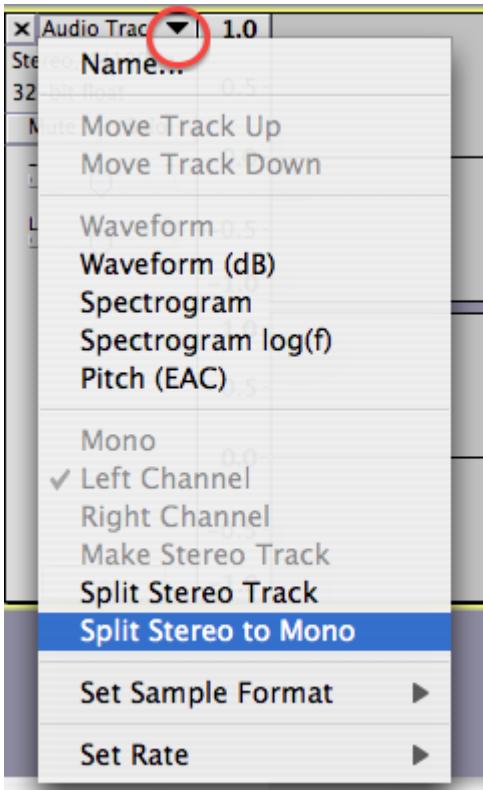


You can adjust the gain using the USBPre by turning the appropriate gain knob. Set the gain so that the levels are near the top of the green portion on the USBPre, but outside of the red portion. To stop monitoring the microphone, select **Stop Monitoring** from the same drop-down menu.

8. You are now ready to record. Tell your speaker that they may begin speaking after you shut the door. Close the door and press the **record** button. It may take a few seconds for Audacity to register that the recording has started, but it will be obvious when it has (the tracker will move forward). You can listen to the recording in progress by using the headset attached to the G3 iMac.

You may also notice that if you have selected “2 (Stereo)” from the input menu, Audacity will be recording in stereo, but that only one channel will be recording – this is because the USBPre allows you to control how each channel behaves. Don’t panic – Audacity has a simple way of ensuring that you only get the mono recording that you want (see 10, below).

9. **Pause** your recording if necessary. This will ensure that you will start recording where you left off. Press “pause” again to resume recording.
10. **Stop** recording when you are done. If you have been recording in stereo, you must isolate the channel that has the recording. To do this, go to the menu for the soundfile you just created (on the left of the waveform display; circled in red) and select **Split Stereo to Mono**.



You can then discard the blank stereo channel.

To save your recording, select **Export** (NOT **Save!**) from the **File** menu and pick whether you want to save it as a **.wav** or a **.aiff** file. Both will save in 16-bit format. Make sure that you save to Desktop – Audacity will try to save it to its own folder by default. If you select “Save”, Audacity will save everything as a project file, or **.aup** file instead of a standard audio format.

11. Transfer your sound file to your own external memory device (CD, memory stick, etc.) AND to your User Folder on the LaCie external hard drive. Please **delete the copy of your file that is on the Desktop**.

If you accidentally delete the wrong file or if Audacity crashes in the middle of recording, all files will be stored in the **audacity_temp** folder on the Desktop. It will create one folder of files per “project”, or window open – you can look in these to find your files. They will be stored as **.au** files, which Audacity can then re-open.

Troubleshooting

The USBPre box doesn't register any levels when my speaker is talking.

- Is the appropriate microphone input selected? (see step 5). Is its gain knob turned up enough?
- Has the microphone become disconnected in the booth? If so, make sure that there is a wire that leads from the microphone outside of the booth.
- Has the microphone become disconnected from the USBPre? If so, check to see that there are two black cables connected to the microphone inputs on the left side of the USBPre box.

Audacity isn't registering any levels when my speaker is talking.

- Is the USBPre registering levels as the speaker talks? See the above question for how to fix this issue.
- Check to see that the microphone is set to “2 (stereo)” in Audacity. If it is set to “1 (mono)”, only the left channel (the tabletop microphone) will be recorded, and the input from the headset will be ignored.

Thanks!