

Peak Tutorial: Recording an LP

This tutorial will guide you through the process of recording an LP into Peak. Once your LP is recorded, you can remove noise, pops, applause, etc., and create a CD. (Those activities are covered in other tutorials.)

You'll follow four main steps to record from a record player into Peak.

1. Connect your record player to your Mac.
2. Configure Peak for recording.
3. Record all, or part, of the LP.
4. Save the recorded file to disk.

Note that your connections and settings will differ slightly if you are using a 3rd-party audio card (rather than your Mac's built-in audio hardware). For more information about recording with Peak, see chapters 2 and 4 of your Peak manual.

Connecting a Record Player to a Macintosh

In most cases, plugging your record player directly into your Mac's audio input would result in an unacceptably quiet audio signal. Instead, you should use a preamp to maximize the signal level. A preamp is a device that amplifies an audio signal before it arrives at its destination (in this case, the Mac).

If you're using a home stereo system, the stereo receiver

acts as the preamp. Leave your record player connected to the stereo receiver, then connect the stereo receiver's line output (labeled "Tape Deck Record" or something similar) to the Mac.

If you're not using a home stereo system, you'll need to use some other type of preamp to connect your record player to the Mac, like a small receiver, DJ mixer, or phono-to-line level adapter from Radio Shack. Connect the record player's outputs to the preamp's inputs, then connect the preamp's outputs to the Mac.

Your Mac's audio input is probably a "mini-plug" (1/8 inch) jack. If your stereo or preamp's outputs are 1/4 inch or RCA, you'll need to use an adapter or a special cable to connect the two. For example, if your stereo uses two mono RCA outputs, you'll use a cable with two (mono) RCA jacks at one end and one (stereo) 1/8 inch jack at the other end. To determine whether an 1/8 inch plug is mono or stereo, look at its metal tip. A stereo plug has two rings of (usually black) plastic on the metal, while a mono plug has only one plastic ring.



Not all Macintosh computers have a built-in audio input – if your model of Macintosh does not, you will need to use some kind of 3rd party audio interface, such as a PCI card, or FireWire or USB audio device.

Connecting a Record Player to a Macintosh - Diagram:



Record Player

Connects with RCA plugs to phono pre-amp or stereo receiver... (Technics 1200 shown)



Phono Pre-Amp/Stereo Receiver

Use outputs labelled "Tape Out" or "Record Out" to connect to Mac's audio input with RCA --> 1/8" stereo mini-plug. If your Mac doesn't have audio input, connect the outputs of the pre-amp/receiver to the inputs of your 3rd party audio interface (connection type will vary by interface)



Macintosh

Runs Peak software, records digitized audio to internal hard drive. Allows editing of recorded digital audio, burning of audio CDs, and making mp3 files...



Audio Interface

Converts analog audio signals to digital. Connects to Mac with USB or FireWire cable, or is a PCI card installed inside the Mac. (M-Audio USB Duo shown, uses USB cable).



Finished Audio CD

Is burned in "Red Book" format, and plays on any CD player...



Portable mp3 Player

Load mp3 files made in Peak onto a portable mp3 player (Apple iPod shown) and take your music with you...

Recording via a 3rd Party Audio Interface

If you're recording via a 3rd party audio interface with CoreAudio support, such as a USB or FireWire interface, or perhaps a PCI card, the connections described previously may vary slightly (although a preamp is probably still necessary).

To use Peak with CoreAudio support, first confirm that the interface's CoreAudio driver has been installed. If the driver has been installed properly, the audio device you plan to use should be available as an option in the AudioMIDI Setup Utility, which can be found in the following directory.

Macintosh HD/Applications/Utilities/

To use a specific audio hardware device for recording, be sure that it is selected from the AudioMIDI Setup Utility's Default Input pop-up menu.



Not all audio interfaces require a driver – if your interface did not include a driver, but is CoreAudio compatible, it should be accessible from within the AudioMIDI setup utility.

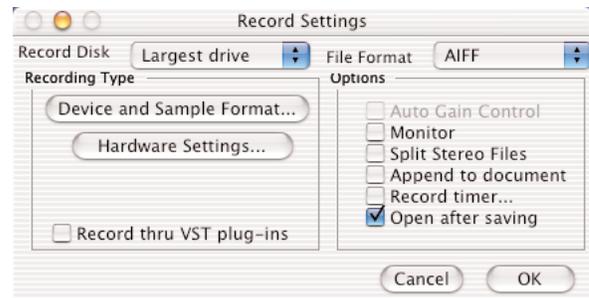
Recording an LP into Peak

To record audio from an LP into Peak:

1. If speakers are connected to the Mac, lower their volume.
2. Connect the preamp's output to the Mac's audio input.

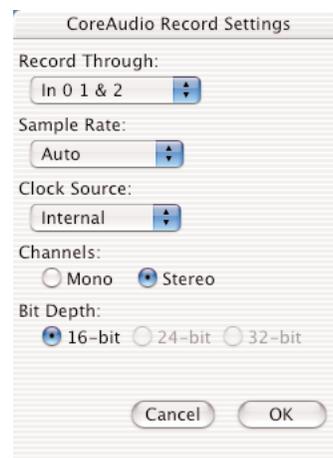
(See the previous section for details about preamps.) The Mac's audio input is the "mini-plug" jack indicated by a small picture of a microphone.
3. If speakers are connected, their volume can be raised now.

4. Launch Peak.
5. Choose Audio > Record Settings. The Record Settings dialog is shown.



Peak's Record Settings dialog

6. Click Device and Sample Format. The CoreAudio Record Settings Dialog is shown.



Peak's CoreAudio Settings dialog

7. Configure your settings to match the ones pictured above and click the OK button.

For more information about sample rates, sample sizes (bit depth), and mono vs. stereo audio files, see the Glossary in your Peak manual.

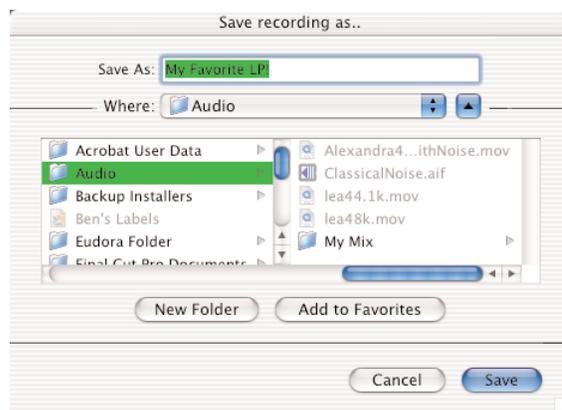
8. In the Record Settings dialog, choose Hardware Settings. Make sure the audio device you wish to use for input is selected in the Input Device pop-up menu. Click the OK button.

9. In the Record Settings dialog, click the OK button.
10. Choose Audio > Record, or press Command-R. The Record window opens – you’re not recording quite yet, just checking levels.
11. On the record player, press Play and/or lower the needle to the LP. If connections are correct, you should see activity in Peak’s VU (level) meters. If no lights appear in the Level meters, check your connections, and/or check the Input Volume setting in System Preferences/Sound.



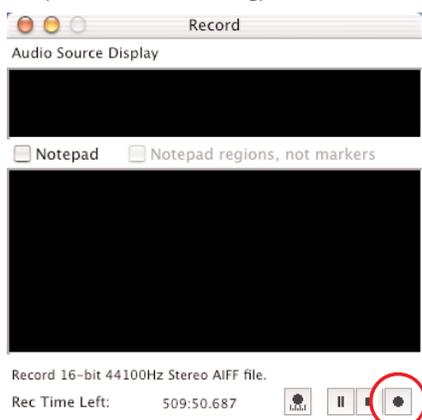
When adjusting input level, it’s best to base your setting on the loudest part of the LP – when playing this loudest section of the LP, the meters should never go into the red – try to leave about 6dB “headroom” to avoid digital distortion, or “clipping”. For more information on setting recording levels, please refer to page 39 of your Peak User’s Guide.

15. When you’ve finished recording, click the Stop button in the Record Dialog (or press the Pause button if you need to flip the LP and record the other side – don’t forget to press the Pause button again to start recording the second side of the LP!)
16. When the Save dialog appears, name your recording and choose a directory to save it in, and click the Save button.



Peak’s Save dialog

12. On the record player, press Stop and/or raise the needle from the LP.
13. Click the Record Button in the Record Dialog.
14. Start playback of the LP from the beginning of the record (or the desired song).



Peak’s Record dialog with Record button circled

You’re finished! Now you can edit the saved audio document as desired, clean up unwanted noise, and burn an audio CD. For more information on cleaning up audio, and burning audio CDs, please see the tutorial on “Cleaning Up Audio Files” and “Burning an Audio CD”. These tutorials are provided on your Peak installer CD, and can also be downloaded from the BIAS website. To find additional tutorials on the BIAS website, go to:

<http://www.bias-inc.com>

Click the Downloads link, and then the Documentation link, and then choose “Peak” to see all the available Peak tutorials.

Conclusion

Now that the audio from your LP is recorded into Peak, you can “clean up” the sound by removing coughing, clapping, hiss, hum, etc. The next tutorial, “Cleaning Up Audio Files,” will help you do so.

Once you’ve cleaned up your audio files (if necessary), continue on to the next tutorial, “Burning an Audio CD” to learn about the final step in getting your old albums on to a CD that can be played in any CD player.



Using the techniques above, you can also record other types of analog audio sources. Any audio components connected to a stereo receiver, such as tape decks, VCRs, etc. can be recorded into Peak in much the same way. Once recorded into Peak, audio can be edited just like a recorded LP...
