

Logic Pro X
Booklet

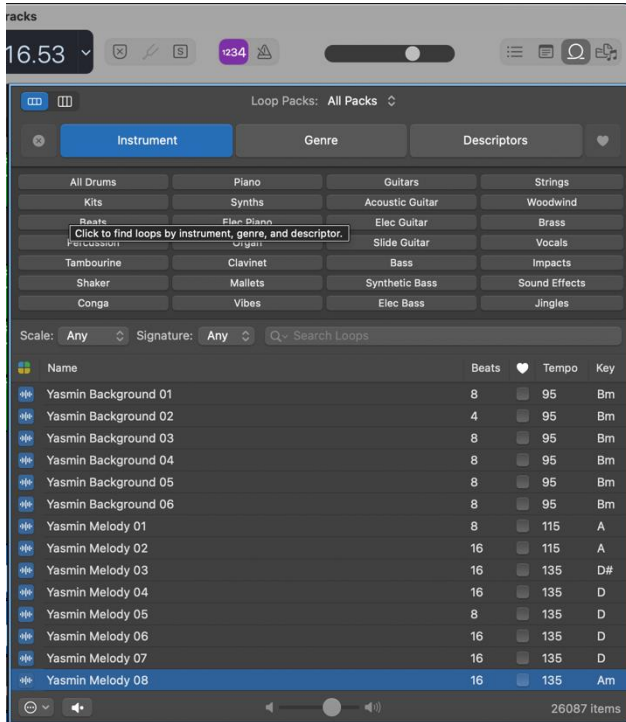


Shortcuts

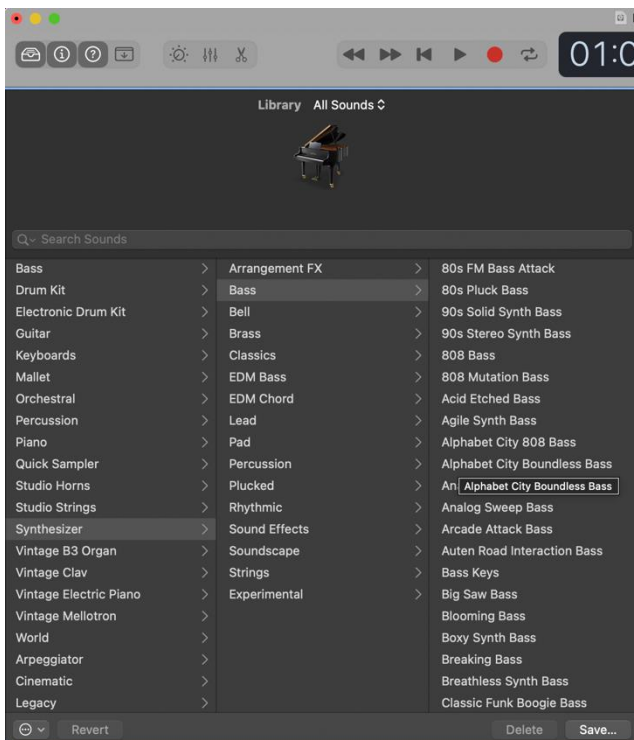
CMD + A	Select All
Arrow key up/down	Previous/next track
CMD + D	Duplicate Track
CMD + R	Repeat Section
K	Metronome
Q	Quantize
R	Record
SPACE	Play/Pause
Enter	Back to the beginning
S	SOLO
M	MUTE
CMD + Z	Undo
C	Turn on/Off loop
CMD + B	Bounce
T	Tools
>	Jump 1 bar to the right
<	Jump 1 bar to the left
CMD + 1	Open Logic Profect
CMD + 2	Open Mixer
CMD + 3	Open Plug-in
CMD + 4	Open Piano Roll
CMD + 5	Open Score

Loops Library

Logic Pro features an extensive Sound Library of Apple Loops, patches, drum kits, and other content that you can use in your projects. When you install Logic Pro, essential sounds and instruments are included as part of the installation. Additional content is available to download after the installation is complete.



Instrument Library



Troubleshooting

How to access settings

Changing Outputs/Inputs

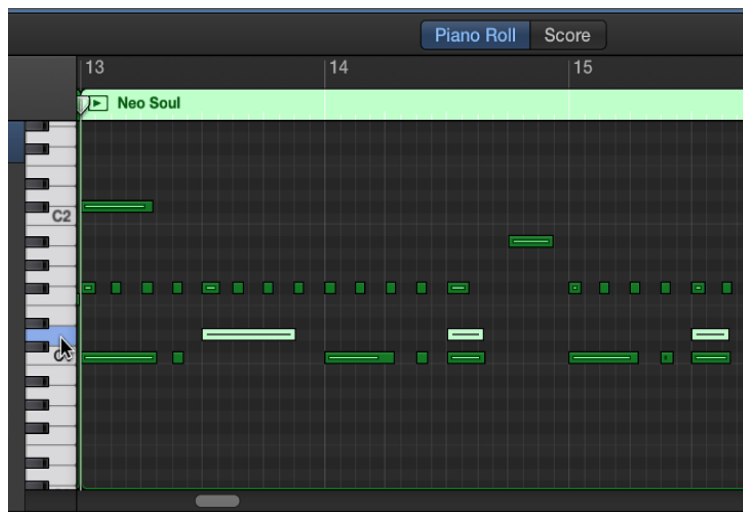
How to get the mic working

MIDI (MULTI-INSTRUMENT-DIGITAL-INTERFACE)

MIDI (Musical Instrument Digital Interface) is a protocol designed for **recording and playing back music on digital synthesizers** that is supported by many makes of personal computer sound cards. Originally intended to control one keyboard from another, it was quickly adopted for the personal computer.

After you have chosen your software instrument and recorded your composition, All data recorded into logic is processed as MIDI, this can be accessed by pressing CMD 4 to access the piano roll.

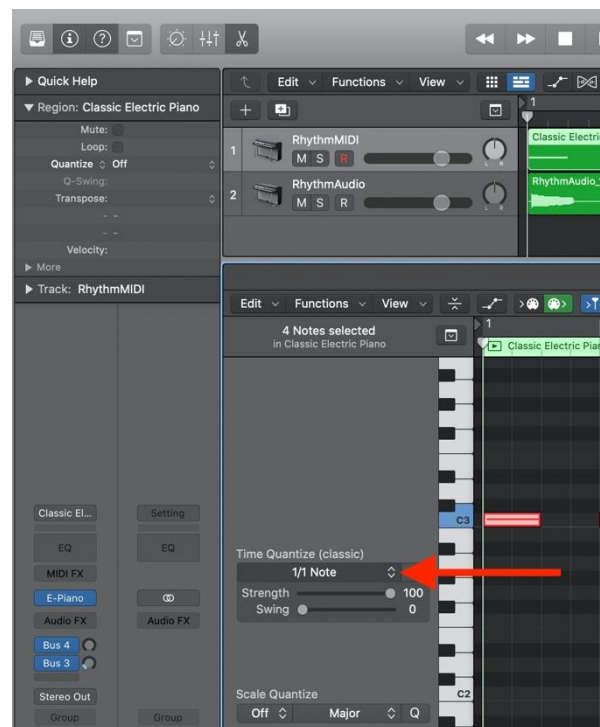
Piano Roll:



Quantizing

Basically, quantizing means **moving notes recorded into a MIDI sequencer or DAW in line with the "grid,"** which makes a rhythmically imprecise performance end up perfect.

This will make everything sound in time making the music more coherent.



AUDIO

Audio is **sound within the acoustic range available to humans**. An audio frequency (AF) is an electrical alternating current within the 20 to 20,000 hertz (cycles per second) range that can be used to produce acoustic sound. In computers, audio is the sound system that comes with or can be added to a computer.

How to get a signal to a microphone



A microphone is **a device that translates sound vibrations in the air into electronic signals and scribes them to a recording medium or over a loudspeaker**. Microphones enable many types of audio recording devices for purposes including communications of many kinds, as well as music vocals, speech and sound recording.



Audio interfaces **convert microphone and instrument signals into a format your computer and software recognize**. The interface also routes audio from your computer out to your headphones and studio monitors.

MIXING + MASTERING

What is Mixing?

Mixing is **the stage after recording where you blend individual tracks together**, while mastering is the the final stage of audio production where you polish the entire mix to prepare for distribution. Mixing is when an engineer carves and balances the separate tracks in a session to sound good when played together.

Press CMD + 2 to access your Mixer Window on Logic Pro X.

What is Balance?

Musically speaking, balance is the relative level of two or more instruments, voices, sounds, etc. in either a live or recorded mix, as through a mixing board, or achieved by placement of musicians in a hall, and by musicians listening to one another, so that dynamics blend well to the ear.

What is mastering?

Mastering is **the final stage of audio production**—the process of putting the finishing touches on a song by enhancing the overall sound, creating consistency across the album, and preparing it for distribution.



Limiter

A limiter is **a tool for signal processing (like mixing music) that applies a type of dynamic range compression**. That means that it can take an input signal, evaluate its amplitude (volume), and attenuate (lower) the peaks of the waveform if those peaks reach and exceed a threshold value.

Multi-Meter

The basic electronic measuring tool is the meter. The most common meter is called a multimeter, and will **measure voltage, current and resistance**. Inexpensive meters are analog, meaning they have a moving needle and usually a lot of scales to decode.



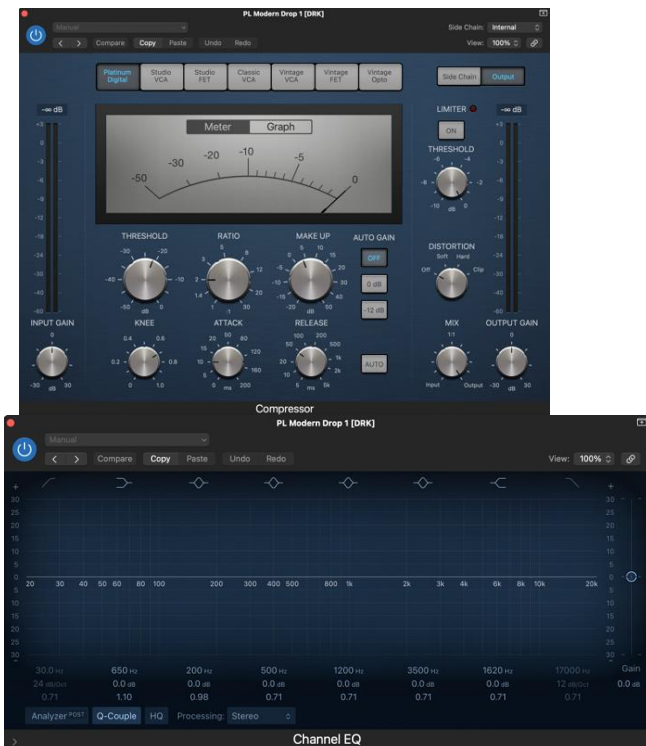
Multi-Band Compressor (Multipressor)
A versatile audio mastering tool. It splits the incoming signal into different frequency bands—up to four—and enables independent compression of each band. After compression is applied, the bands are combined into a single output signal.

Mixing PLUG-INS



MIDI plug-ins are inserted in software instrument channel strips and process or generate MIDI data—played from a MIDI region or a MIDI keyboard—in real time.

Channel Strip
 Channel Strips: Each track in Logic Pro X is represented by a Channel Strip that **contains various controls for that track including overall volume, pan, mute, solo, input/output and a series of slots to load up effects and more**



Compression
 Compression **reduces the overall dynamic range of a piece of audio by detecting when it exceeds a specified level, and then attenuating it by a specified amount.** Put simply, it narrows the difference between the loudest and softest parts of a track so that it's more consistent in level.

EQ
EQ stands for Equalization, which is a plug-in intended to manipulate the frequency content of your recordings, and help all of the elements of your production work together sonically.



Reverb

Reverb is **the persistence of sound after a sound is produced**. Reverb is created when a sound or signal is reflected off of a surface causing numerous reflections to build up. They then decay as the sound and reflections are absorbed by the surfaces of the objects around it.

Recording

Audio recording is **the process by which sound information is captured onto a storage medium like magnetic tape, optical disc, or solid-state drive (SSD)**. The captured information, also known as audio, can be used to reproduce the original sound if it is fed through a playback machine and loudspeaker system.

Metronome

A metronome is **a device that produces a click at a regular interval of time**. You can set how fast you would like it to go based on beats per second. Mechanical metronomes, which have been around for several centuries, have a pendulum that swings back and forth.

Structure