Ableton Live

Create, produce and perform music within one intuitive interface. Live keeps everything in sync and works in real-time, so you can play and modify your musical ideas without interrupting the creative flow.

Notes based on *The Ableton Live reference manual*

First Steps

Settings

Settings can be found in the Options menu on Windows and in the Live menu on macOS or shortcut `Cmd/Ctrl ,`

Things you might need or want to change:

Display & Input
- Zoom
- Follow behavior: Scroll or Page

Theme & Colors

Audio
- Driver type: Core audio (Mac) / ASIO (PC)
- I/O devices
- Sample Rate: 48000 or 44100 Hz
- Buffer size: 256 samples is fine for most cases

Smaller sizes might be needed for live recording (audio and midi) as it gives you less latency. Bigger buffer sizes can be used when mixing as it makes your computer more efficient. You can notice pops and clicks when using really small buffer sizes.

Learn Live: Setting your Preferences
Learn Live: Setting up an audio interface

New Live Set

`cmd/ctrl N`
- A project in Live is called a Set.
- A new set always opens in Session view. You can change this by making a new Default Set

Save

`cmd/ctrl S`
- Live makes a project folder containing the file with an .als file (acronym of Ableton Live Set)
- Saving does not stop playback
- 'Collect all and Save' is second option to save. With this command (under file) you collect all samples and presets and save them in the project folder.

Learn Live: Saving Projects

Exporting

The *Export Audio/Video* command in the File menu or `Shift cmd/ctrl R` lets you export Live's audio output as a new sound file.

- Render Start: Sets where rendering begins.
- Render Length: Determines the duration of the rendered sample.
- To quickly set both values, select a time range by positioning the loop brace in [AV] before using the export command.
- Keep in mind that the rendered audio file will capture everything you hear before rendering, regardless of which view is active.
- It is also good practice to leave some extra space after to composition to leave room for reverb and delay tails.

Learn Live: Exporting

UI overview

Learn Live 12: Live's user interface

Info view

The *Info View* is situated in the bottom left corner. Open in view menu if closed or use `?` key. Hover over elements and get information about the function.

Control bar

The Control Bar stays always visible no matter what you do.

Metronome And Tempo Settings
- Tempo in BPM (or Beats Per Minute)
- the Time Signature (maatsoort in Nl) provides information about the rhythm. It indicates how many notes fit into a measure (top number), and which note is the counting unit (bottom number). Commonly used time signatures are 4/4 and 3/4.
- metronome

Scale

Transport
- follow on/off to follow the position (2 options scroll / page in settings)
- arrangement position
- transport controls: play, stop, record
   `spacebar` toggle play / stop
   `shift space` continues from stop
   `opt/alt space` play arrangement selection

Learn Live: Transport bar and Follow behavior

loop
- punch switches
- loop switch (only for arrangement)

midi
- draw mode

- computer midi keyboard (see addendum at bottom)
- key & midi mapping
- cpu

Browser

Open & close with `opt/alt cmd/ctrl b` or `opt/alt cmd/ctrl 5`

The *Browser* is divided in a sidebar & content pane
Sidebar is again divided in 3 sections: Collections, Library, Places
Library
- All
- Sounds: virtual instrument presets
- Drums: drum presets, loops & oneshots (kicks, snare, hihats, …)
- Instruments: included virtual instruments available in the Live version you use (intro, suite, …)
  Clicking an instrument shows a folder icon. The folder is a default preset. Opening the folder shows all different presets made with that same device. You can audition an instrument.
- Audio Effects: included audio effects that come with Live
- Midi Effects
- Modulators
- (Max for Live)
- Plug-Ins: 3rd party devices (VST plugins / audio units)
- Clips: audio & midi clips
- Samples: audio files (wav & aif only)
- Grooves: files that enable us to quantize audio or midi data
- Tunings
- Templates
Places
- Packs are extensions for Live and can be samples, devices, effects etc
- Add folder

Learn Live 12: Live's Browser

Session View & Arrangement View

2 different workflows

The *Session* is a real-time-oriented "launching base" for *Clips*.
The *Arrangement* is a layout of clips along a musical and linear timeline.

`tab` key to switches between both
`opt/alt 1(&)` opens Session View [SV]
`opt/alt 2(é)` opens Arrangement View [AV]

Arrangement and Session are connected via *Tracks*.

Tracks

In [SV] tracks are laid out in columns. Tracks contain clips (or placeholders for clips). A track can only play one clip at a time. You want to spread out clips that should play together across tracks in rows. We call this *Scenes*.

In [AV] tracks are horizontal bars that are stacked vertically, with time moving from left to right.

Swapping the views changes the appearance of the Set but does not switch modes. If you work in both [SV] & [AV] clips cannot play in both modes. When a Session clip is launched, the respective track stops whatever it is doing to play that clip. If you want to play the clip in [AV] you need to press the Back to Arrangement Button or Single Track's Back to Arrangement Button.

🎬 *Learn Live: Tracks*

Clips
Clips are the pieces of musical material. These can be *sound file or midi based*.

Audio signals are recorded and played back using *audio tracks*.
MIDI signals are recorded and played back using *MIDI tracks*.

Clip View

Clip View is where clip properties can be set and adjusted.
double-clicking a clip in either [SV] or [AV] opens the *Clip View* pane.
`opt/alt cmd/ctrl 3(")`

Device View

A track can contain not only clips but also a *chain of devices* for processing signals.
Double-clicking a track's title bar in [SV] brings up the *Device View*. In [AV] you need open use the Device View Selector toggle at the bottom or use the shortcut `opt/alt cmd/ctrl 4(')`

Try to click on title of the return tracks to open the reverb & Delay devices.

🎬 *Learn Live: Detail View*

Mixer

After the signal has passed through the device chain, it ends up in the *mixer*.
As the Session and Arrangement share the same set of tracks, they also share the mixer. It can be shown in both views for convenience.
`opt/alt cmd/ctrl m` to show & hide the mixer

It has controls for:
- Routing: audio in, out & monitor settings
- Volume
- Pan
- Sends: adjust the amount it inputs to a return track (labeled A & B). Return tracks only host effects, not clips.
- Mute
- Solo
- Arm Recording: enable recording

The possibility to have the Mixer available in [AV] is new since Live12.

🎬 *Learn Live: Live's Mixer*

Tip: there is a lot going on in the user interface. It is key to make space opening and closing parts of the UI when you work on a smaller screen. Doing so with *shortcuts* will make your time with Live easier.

🎬 *Learn Live: Basic keyboard shortcuts*

ARRANGEMENTS

Arrangement is the process of taking a rough collection of musical ideas, sounds, loops, and parts and structuring them into a finished piece (of music, sound, score, ...). We will work in *Arrangement View* to combine and arrange different elements of sound on a linear timeline.

Arrangement View UI overview

🎬 *Learn Live: Arrangement View*

Upper Area
- Overview: displays the entire arrangement layout, used for zooming and navigation
- Beat-time Ruler: displays time in bars-beats-sixteenths
- Loop region
- Scrub Area click start playback from that point
- Locators etc

Main Area: the Tracks
- Contain the clips
- Volume, panning, I/O, etc are available via the Track Controls.
  Customizable using the Arrangement Track Controls submenu in the View menu.
- Reordering by dragging
- Renaming `cmd/ctrl R` & coloring
- Add new tracks: audio `cmd/ctrl T` / midi `shift cmd/ctrl T`
- Optimize Height H and Width W toggles & shortcuts `H` & `W`

time ruler
- Completely at the bottom of the [AV] area
- time is displayed in minutes-seconds-milliseconds
- click and drag in the time ruler to scroll left or right

Mixer

Transport & Playback

Play/Stop playback
buttons in the control bar or press `space` to toggle playback, or `shift space` to continue from stop, or `opt/alt space` to play an arrangement selection (once).

flashing blue insert marker
- determines where playback starts
- by default, this is at the start of the Arrangement
- click anywhere within a track to move the insert marker and set a new play position
- double-click the Stop button to return the insert marker to start

loop

- activate the Arrangement Loop using the Loop Switch toggle in the Control Bar or press `cmd/ctrl L`
- set the loop brace in the loop region
- use up, down, left & right keyboard arrows to move the loop
- use cmd/ctrl left / right to shorten or lengthen the loop
- use cmd/ctrl L to set a loop to a selection (e.g. selected clip)

Navigation & Zooming

- Zoom in & out by hovering the mouse over the Beat Ruler, the cursor becomes a magnifying glass, drag up & down to zoom, and left & right to pan.
- Or zoom in & out with `+` & `-` keys or mouse scrolling / trackpad pinching
- Zoom to a selection with `z` key
- Zoom to Arrangement Time Selection previous zoom state with `x` key
  Note that when zooming in multiple times using the `z` key, the `x` key can be pressed multiple times to go back one step each time the key is pressed.
- Remember that you can also use the optimize Height H and Width W toggles & shortcuts `H` & `W`

Follow

Follow the song position and scroll automatically, turn on the *Follow* switch in the Control Bar or `shift opt/alt F`

Working with Audio Clips

Drag clips from the Browser to the appropriate tracks. Audio samples go to an Audio Track. Midi Sounds, Drums & Instruments go to Midi Tracks.

Learn Live: Editing clips in Arrangement View

Moving and Resizing
- drag a clip on the title bar to move it to another position or track
- drag a clip's left or right edge (of the title bar) changes the clip's length. Note! If loop switched is on (look for the 'loop' button in the main window of clip view) it will loop it if you make it longer then its actual length
- `shift opt/alt` to drag a clip content within boundaries

Fades and Crossfades
- fade controls are at the edges of audio clips (tracks need to be expanded to become visible)
- hover over an audio clip edge to access the fade handles and set fade duration and slope
- adjacent clips can be crossfaded
- to delete a fade, select a fade handle and press the delete key

Splitting Clips
- to isolate certain areas of one clip into its own separate clip you can slit it
- click anywhere within a clip's waveform and press cmd/ctrl E to divide the clip at that location

Consolidating Clips
- consolidating clips is a good way to join material from several clips into a new loop

- press `cmd/ctrl J` to combine selected clips into one new clip
- consolidated clips are stored in the current project folder

Optional: Check out the reverse option.

🎬 *Learn Live: Arrangement View shortcuts*

Tempo & Warping

Audio in Live can be stretched and manipulated creatively through *warping*. It is essentially about two core processes: time-stretching and pitch-shifting. Time-stretching allows you to alter the tempo of a piece of audio without affecting its pitch, while pitch-shifting enables you to change the pitch without altering the tempo.
It allows seamless beat matching, rhythmic experimentation, and sound design but also track synchronization during playback and live performances.

🎬 *Learn Live: Warping clips*

Warp on / off
- first let's decide on the playback tempo of our Set in the Control Bar's tempo field
- then warping properties are located in the Clip View's *Audio tab/panel*
- the warp switch toggles warping on or off
- try to change the tempo now

Turn Warp on to synchronize rhythmically structured samples, such as loops or entire songs, with the Set's tempo.
With Warp off, the sample plays at its original tempo, unaffected by the Set's tempo. This is ideal for non-rhythmic samples like one-shots, textures, sound effects, or spoken word.

Stretch a clip
Alternatively, if you don't want to work with tempo changes you can also compress (shorten) or stretch (lengthen) an audio clip by shift drag it from its edges (again of course with warp switched on).

Warp Modes
There are 6 *Warp Modes* or algorithms, each designed to handle specific types of audio material:
- Beats Mode: best for rhythmic sounds, preserving punch and clarity in drums
- Tones Mode: ideal for monophonic sounds like vocals, using granular synthesis for smooth time-stretching while keeping pitch
- Texture Mode: suited for polyphonic or complex sounds, offering control over grain size for experimental manipulation.
- Re-Pitch Mode: Links tempo and pitch, speeding up increases pitch, slowing down lowers it, like analog tape.
- Complex/Pro Modes: Advanced modes for full mixes, offering transparent time-stretching and pitch-shifting.

Optional: Warp Markers
Warp Markers let you lock specific points, generally transients, in a sample to the timeline. They can map the audio's timing or change its rhythm. While initial markers are added when a sample is imported, you can manually add more or delete others as needed.

They are represented as yellow markers at the top of the Sample Editor.

- add a Warp Marker at a place in time by double-clicking in the upper half of the Sample Editor (or cmd/ctrl I at current location / blue insert marker)
- moved Warp Markers with the arrow keys or drag them to different points in time
- with a Warp Marker selected, hold shift to drag and move the waveform, allowing precise adjustment of the audio's starting point under the marker
- double-click the markers to delete them

Transients or Pseudo-Warp Markers

When you load a sample into a track, Live automatically detects transients, which are amplitude peaks marking the start of notes or beats. These are ideal spots for placing Warp Markers.

Transients are represented by small grey markers at the top of the Sample Editor. They are stored in a separate .asd file.

Optional: 🎬 *Learn Live: Warping in Simpler*

Audio Effects

Audio effects act on audio signals and can be added on an audio tracks or midi tracks (if placed after an instrument). We have already experimented with 2 audio effects in working with the return tracks: reverb & delay.
There are many more accessible in the browser under Audio Effects.

How to use them
- drag an audio effect device onto a track or drop area into the Device View
- try adding a second effect and deleting it again
- signals in a device chain always travel from left to right. The order of effects determines the resulting sound.
- devices are turned on and off using their Activator switches
- have input and output level meters
- hot swapping presets. Presets are stored parameter settings.

Main Audio Effects

Check them all in *the reference*

Channel EQ
- a versatile and classic three-band Equalizer
- low (100 Hz), mid (120 Hz to 7.5 kHz) and high (10 Khz) parameter to boost or attenuate the frequencies
- it also features a 80hz high-pass filter useful for removing the rumble from a signal

🎬 *Learn Live: Channel EQ*

Compressor

Delay

🎬 *Learn Live: Delay*

Limiter

Reverb

Auto pan
- an LFO-driven panning & amplitude automation
- useful for tremolo and amplitude

Chorus Ensemble
🎬 *Learn Live: Chorus-Ensemble*

Automation & Envelopes

When working with the mixer and devices, you may want control values that change over time. Think about a long fade out, a sudden volume burst, panning a sound from left to right and back, ... This is called *Automation and Editing Envelopes*. Almost all mixer and device controls, including tempo, can be automated in Live.

🎬 *Learn Live: Arrangement View automation*

In [AV] automation can be edited as breakpoint envelopes (besides recording it).
- Click the toggle button above the track headers or press A to enable Automation Mode (& show automation envelopes)
- Clicking on a track's mixer or device controls will display the corresponding envelope on the clip track

Envelopes appear in the main automation lane, overlaying the audio waveform, allowing you to align breakpoints with the content. The vertical axis represents the control value, while the horizontal axis represents time. For switches and radio buttons, the value axis is on or off.

- The *Device chooser* lets you select the track mixer, a device, or 'None' to hide the envelope
- Selecting one also indicates which devices have automation with an LED next to their labels
- The Automation Control chooser allows you to select a control from the chosen device, with automated controls indicated by an LED

Once an envelope is selected on the track, several new buttons appear:
- ＋ add Automation Lane button moves the envelope to its own lane below the clip, allowing you to view another automation parameter simultaneously. This button is hidden if set to 'None'
- remove Automation Lane button hides the respective lane but does not deactivate its envelope
- ⊙ Toggle Additional Automation Lanes allows you to show / hide all additional lanes

Right-clicking in the Track Title Section opens a context menu with options for viewing envelopes and commands to:
- quickly clear specific or all automation envelopes for the track
- add lane for each automated envelope

With Draw Mode enabled, you can click and drag to *draw* an envelope curve. I prefer to draw envelopes with breakpoints & line segments (thus not in draw mode).
- Double click in an Automation Lane (near the dashed red line) to create a new breakpoint.
- Click on a breakpoint to remove it

- Drag a breakpoint to move it to the desired position
- Click a line segment to select and drag it
- Hold `opt/alt` and drag to curve a segment. Double-click while holding `opt/alt` to revert to a straight line.

OTHER LEARNING RESOURCES

Ableton Live 12 Essential Training video tutorials door Rick Schmunk op Linkedin Learning.

Ableton Live Explained in 37 minutes

Ableton *Music basics* & *learning synths*

Ableton Tutorial: Four ways to use field recordings by Nicholas Thayer on YT
Processing 'Elements' Field Recordings & *Layering Field Recordings* on modeaudio.com

---

EXTRA'S

COMPUTER MIDI KEYBOARD LAYOUT