

# Using Controllers with Ableton Live

or

*“How to play a laptop on stage without looking like you're doing your accounts.”*



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# Introduction

Ableton Live is a variant on a standard DAW (Digital Audio Workstation) with extras tailored for live performance. You can use it as a recording DAW but that's not what I'll be covering today

## 3 variants

- Live Intro/Light
  - comes free with many hardware controllers (eg I got it with a £25 keyboard!)
  - restricted number of tracks/scenes
- Live Standard – Unrestricted
- Live Suite – Unrestricted plus comes with lots of extra samples and several software synthesizers and Max for Live
- Can add bits of 'Suite' to 'Standard' by buying just the bits you want

Even 'Intro' version comes with 'Simpler' which is a **very** useful sampler.

# Tracks

- Audio & MIDI tracks
  - Audio: for pre-recorded sounds/ live instruments
  - MIDI: for driving synthesizers/drum machines etc
    - Both external and software
  - ⌘T (ctrl-T on Windows) create an audio track
  - ^⌘T to create a MIDI track
- Both can have effects
- Flexible routing
  - Which we probably won't go into

# Views

## ***Session vs Arrangement view***

Arrangement view is the standard DAW view of tracks – can be used to record sessions

TAB to switch between them

Session view is particular to Live. Looks like a mixer initially.

Clips/Scenes

Devices/effects

- Show some devices (delay/reverb/distortion)
- Show clicking on clips/tracks to reveal clip detail/device detail

# Arrange (DAW) View

Transport

The screenshot displays the Arrange view of a Digital Audio Workstation (DAW). The interface is divided into several key sections:

- Transport (Top):** A red box highlights the transport controls, including play, stop, and solo buttons, along with a time display showing 1:38.1.3.
- Browser (Left):** A red box highlights the browser panel, which lists various audio units and plugins under categories like Drums, Instruments, and Plug-Ins.
- Tracks (Center):** The main workspace shows multiple tracks with audio waveforms and MIDI notes. A red box highlights the track names and volume faders on the right side, with the word "Mixer" written in pink. The tracks include Nord, Nord2, Sub37, Sub37 kno, Sub37-2, Violin1, and Violin2.
- Clip/Effects (Bottom):** A red box highlights the clip and effects panel for track 2.1 Nord, showing parameters like Warp, Start, End, and various effect settings.

Clip/Effects



# Session View

The screenshot displays the Ableton Live Session View interface for a project named "Minus-Barem [Minus Artists]". The interface is divided into several main sections:

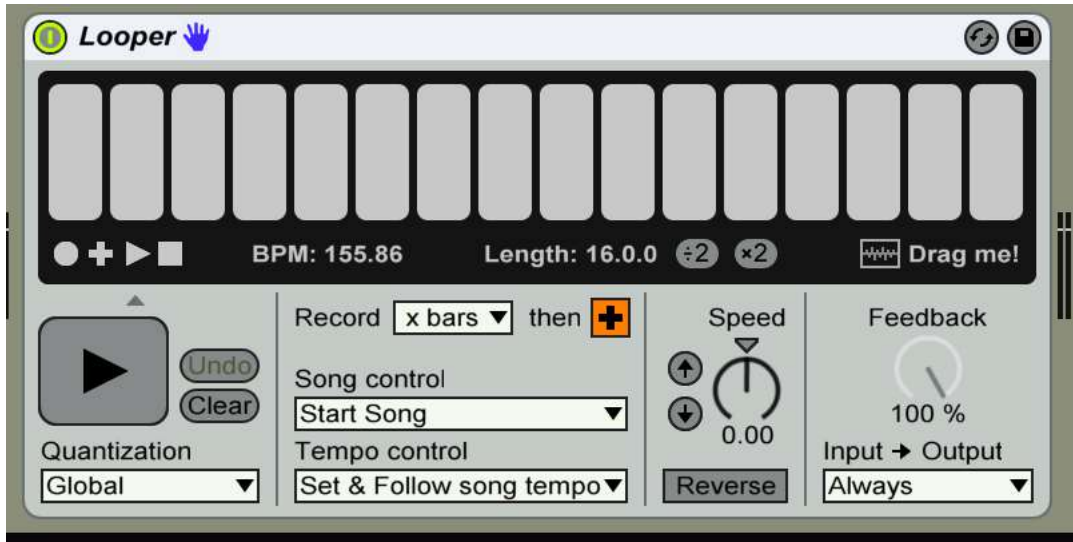
- Browser:** Located on the left, it shows a hierarchy of categories (Sounds, Drums, Instruments, Audio Effects, MIDI Effects, Max for Live, Plug-ins, Clips, Samples) and places (Packs, User Library, Live 8 Library, Current Project, Audio Projects). A pink label "Browser" is placed over this area.
- Session View:** The central area shows a grid of tracks. Tracks 1-10 are visible, including Kick, Snare, Snare rev, HH, Bass, Kick3, Perc1, Perc 2,3, and Vocal Cut. A pink box labeled "Track?" highlights the Bass track. Another pink box labeled "Clips" highlights the Perc1 and Perc2 rev clips in track 8. The tracks are arranged in a grid with columns for each track and rows for different clip types (e.g., Kick, Snare, HH, Bass, Bleep, Kick2, Kick3, Perc1, Perc2 rev, Vocal Cut).
- Mixer:** Located at the bottom right, it shows the audio routing and volume levels for each track. A pink label "Mixer" is placed over this area. It includes sections for "Audio To" (Master), "Sends" (A, B), and "Cue Out" (1/2, Master Out).
- Effect Rack:** Located at the bottom left, it shows the "Early Reflections" effect. A pink label "Effect" is placed over this area. It includes controls for Input Processing (Lo Cut, Hi Cut, Spin), Global Quality (Eco), Diffusion Network (High, 4.50 kHz, 0.47, Chorus), Reflect (0.0 dB), Diffuse (0.0 dB), Pre-delay (2.50 ms), Shape (0.50), Size (100.00), Decay Time (287 m), Density (60%), Scale (40%), and Dry/Wet (26%).

Additional annotations include a pink label "Track?" pointing to the Bass track, a pink label "Clips" pointing to the Perc1 and Perc2 rev clips, and a pink label "Mixer" pointing to the mixer section. The interface also shows a search bar (Search (Cmd + F)), a transport bar (TAP 127.00, 4/4, 1 Bar), and a master bar (153. 1. 1, 32. 0. 0).

# Launching clips

- Keyboard controls
  - Effects
  - Warping
  - Synced starts
- 
- Launch launching of clips & scenes from keyboard
    - Will launch on the beat
    - can warp clips to match beat easily

# Ableton has a Looper

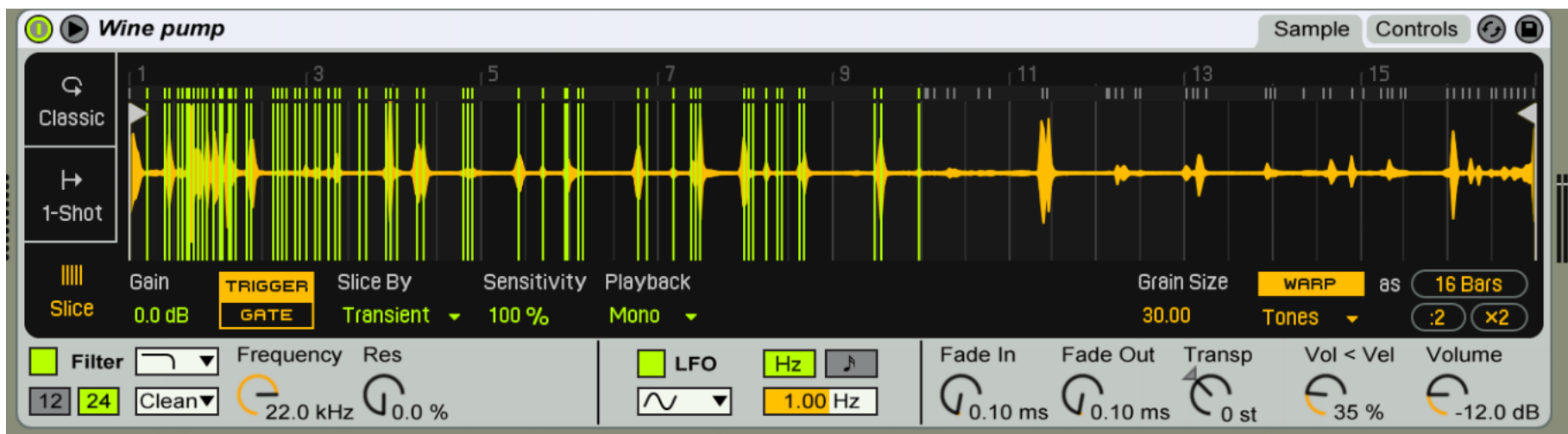


You only really need to map the big button to a footswitch



# 'Simpler' is awesome

- Transient slicing
- MIDI control
- Just put an audio file into it and play about!



OK lets see some controllers



# Controllers

- Types
  - Foot, Button, Keyboard, ‘Knobular’, physical
- Keyboards not just for playing notes

## **use for:**

- Mapping to clips
- Mapping to FX
- Looper!





# Launchpad

- The 'original' Ableton controller
- Easily maps clips onto buttons
- Also a mixer
- Can map own effects too
- New one is full colour



# Mapping Screen ⌘M

- It's not as complex as it looks!
- Seriously
- It's really easy

The screenshot shows the Ableton Live MIDI Mappings interface. A red box highlights the 'MIDI Mappings' table on the left, which lists various MIDI controllers and their mapped parameters. A red arrow points from this table to the 'Reverb' effect control panel at the bottom. Another red arrow points from a specific mapped control (a volume knob) in the MIDI Mappings table to the corresponding control in the 'Reverb' panel. A third red arrow points from a 'Mapped Controls' label to the 'Reverb' panel. A fourth red arrow points from a 'These are also mappable' label to the 'Reverb' panel.

C.	NoteCon.	Path	Name	Min	Max
1	CC 7	1 Kick   Mixer	Track Volume	-inf dB	6 A
2	CC 7	2 Snare   Mixer	Track Volume	-inf dB	6
3	CC 7	3 Snare rev   Mixer	Track Volume	-inf dB	6
4	CC 7	4 HH   Mixer	Track Volume	-inf dB	6
5	CC 7	5 Bass   Mixer	Track Volume	-inf dB	6
6	CC 7	6 Kick2   Mixer	Track Volume	-inf dB	6
7	CC 7	7 Kick3   Mixer	Track Volume	-inf dB	6
8	CC 7	8 Perc1   Mixer	Track Volume	-inf dB	6
3	CC 10	3 Snare rev   Mixer	B-DELAYS	-inf dB	0
4	CC 10	4 HH   Mixer	B-DELAYS	-inf dB	0
5	CC 10	5 Bass   Mixer	B-DELAYS	-inf dB	0
6	CC 10	6 Kick2   Mixer	B-DELAYS	-inf dB	0
7	CC 10	7 Kick3   Mixer	B-DELAYS	-inf dB	0
8	CC 10	8 Perc1   Mixer	B-DELAYS	-inf dB	0
2	CC 12	2 Snare   Mixer	A-REVERB	-inf dB	0
3	CC 12	3 Snare rev   Mixer	A-REVERB	-inf dB	0
4	CC 12	4 HH   Mixer	A-REVERB	-inf dB	0
5	CC 12	5 Bass   Mixer	A-REVERB	-inf dB	0
6	CC 12	6 Kick2   Mixer	A-REVERB	-inf dB	0
7	CC 12	7 Kick3   Mixer	A-REVERB	-inf dB	0
8	CC 12	8 Perc1   Mixer	A-REVERB	-inf dB	0
1	CC 19	6 Kick2	Slot 150		
1	CC 20	6 Kick2	Slot 151		
1	CC 21	5 Bass   Mixer	Speaker On		64

**List of mappings**

**Mapped Controls**

**These are also mappable**

MIDI Mappings

C...	Note/Con...	Path	Name	Min	Max
1	CC 7	1 Kick   Mixer	Track Volume	-inf dB	6
2	CC 7	2 Snare   Mixer	Track Volume	-inf dB	6
3	CC 7	3 Snare rev   Mixer	Track Volume	-inf dB	6
4	CC 7	4 HH   Mixer	Track Volume	-inf dB	6
5	CC 7	5 Bass   Mixer	Track Volume	-inf dB	6
6	CC 7	6 Kick2   Mixer	Track Volume	-inf dB	6
7	CC 7	7 Kick3   Mixer	Track Volume	-inf dB	6
8	CC 7	8 Perc1   Mixer	Track Volume	-inf dB	6
3	CC 10	3 Snare rev   Mixer	B-DELAYS	-inf dB	0
4	CC 10	4 HH   Mixer	B-DELAYS	-inf dB	0
5	CC 10	5 Bass   Mixer	B-DELAYS	-inf dB	0
6	CC 10	6 Kick2   Mixer	B-DELAYS	-inf dB	0
7	CC 10	7 Kick3   Mixer	B-DELAYS	-inf dB	0
8	CC 10	8 Perc1   Mixer	B-DELAYS	-inf dB	0
2	CC 12	2 Snare   Mixer	A-REVERB	-inf dB	0
3	CC 12	3 Snare rev   Mixer	A-REVERB	-inf dB	0
4	CC 12	4 HH   Mixer	A-REVERB	-inf dB	0
5	CC 12	5 Bass   Mixer	A-REVERB	-inf dB	0
6	CC 12	6 Kick2   Mixer	A-REVERB	-inf dB	0
7	CC 12	7 Kick3   Mixer	A-REVERB	-inf dB	0
8	CC 12	B-DELAY   Mixer	B-DELAYS	-inf dB	0
8	CC 13	B-DELAY   Mixer	A-REVERB	-inf dB	0
1	CC 19	6 Kick2   Mixer	Slot 150		
1	CC 20	6 Kick2   Mixer	Slot 151		
1	CC 21	5 Bass   Mixer	Speaker On	64	

List of mappings

Mapped Controls

These are also mappable



# Set up your devices

- Preferences
  - ⌘, (on Mac)
  - Choose 'MIDI'
- 'Remote'
  - For controllers
- 'Track'
  - Mainly keyboards for playing
- 'Sync'
  - For keeping instruments on the beat
- Takeover mode
  - Defines how external controls change internal values.

Preferences

	Control Surface	Input	Output	
1	Impact LX	IMPACT LX61 (Po	IMPACT LX61 (Po	Dump
2	None	None	None	Dump
3	None	None	None	Dump
4	Launchpad	Launchpad	Launchpad	Dump
5	MackieControl	None	None	Dump
6	MackieControl	Network (TouchDA	Network (TouchDA	Dump

Takeover Mode: Value Scaling

	MIDI Ports	Track	Sync	Remote
▶	Input: IAC Driver (Bus 1)	On	Off	Off
▶	Input: MackieControl Input (Network (TouchDAW2)	Off	Off	Off
▶	Input: Network (TouchDAW2)	On	Off	On
▶	Input: Pro40 (MIDI)	On	Off	Off
▶	Input: MicroBrute (unknown mididevice)	Off	Off	Off
▶	Input: MicroBrute (MIDI Interface)	Off	Off	Off
▶	Input: Waldorf Blofeld (in)	Off	Off	Off
▶	Input: Moog Sub 37	Off	On	Off
▶	Input: Moog Minitaur (Out)	On	On	Off
▶	Input: Nord Lead A1 (MIDI Output)	On	Off	Off
▶	Input: reface DX	On	Off	Off
▶	Output: IAC Driver (Bus 1)	Off	Off	Off
▶	Output: MackieControl Output (Network (TouchDAW2)	Off	Off	Off
▶	Output: Network (TouchDAW2)	On	Off	On
▶	Output: Pro40 (MIDI)	On	Off	Off
▶	Output: MicroBrute (unknown mididevice)	On	On	Off

Controller

Keyboards (usually)



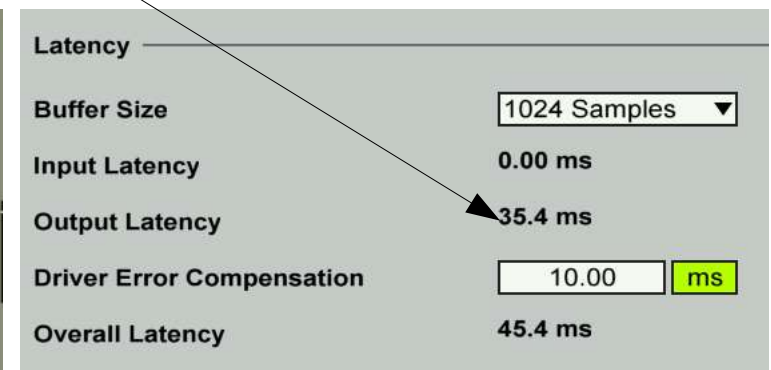
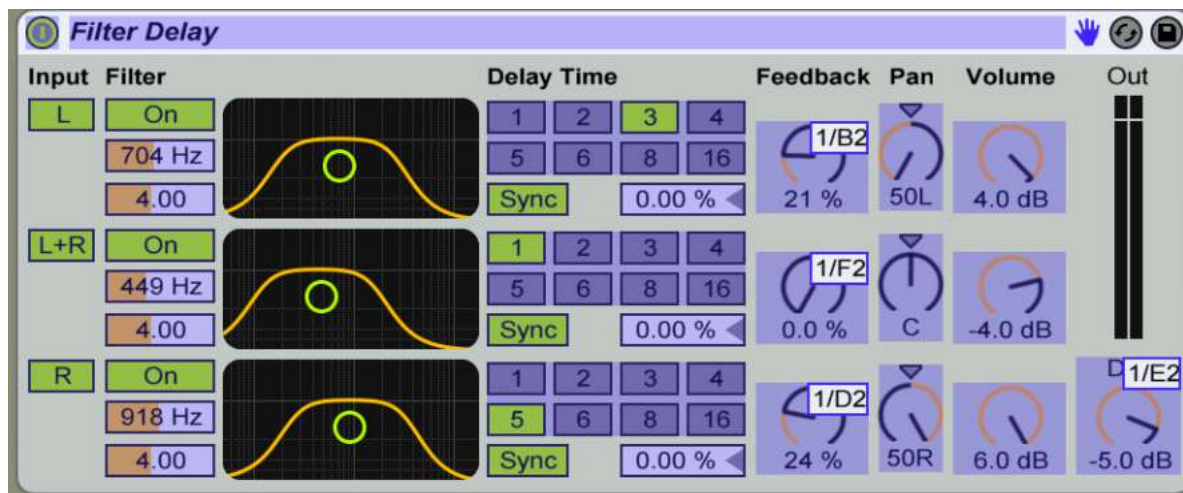
# What can you do (2)?

- Control softsynth parameters
- This works for the built-in ones or VSTs
- Keeps you at the keyboard where you belong



# What can you do (3)?

- Control effects
  - Built in or VST
- Useful for playing non-soft instruments
  - Guitar/violin/hardware synths
- Be careful of latency though



*Audio setup dialogue*

# What can you do (4)?

- Control external hardware synths/fx using MIDI control passed through Ableton
- You can even use pre-prepared automation
  - Change FX on a live instrument
- Works best when playing to a backing track
  - And when you're sure of your timing!

# Push

- **Push** is an Ableton hardware device
- Looks a bit like launchpad
- Can control all built-in FX
  - And add new ones ‘on the fly’
  - Shows graphics too
- I haven’t used this but it seems popular
  - If expensive
- Personally I prefer to be more ‘out of the box’
  - Though it can be used with external instruments





# Example Sets

- Minus-artists
  - Minus-barem
    - Not a bad starter kit for beats
  - Minus-Gaiser
    - Shows launchpad well
- Mine
  - Ada
    - complicated multichannel routing
    - Plus clips
  - Witch Hazel
    - Simpler routing, lots of FX & loops
    - Uses Max for Live for more complex things

# Plug some things in and play!

- Try a control surface
- Try instruments
  - Synths
    - Hardware and software
    - 'Analog'/'Operator' synths built-in
  - 'Impulse' for beats (including samples)
- Voice
  - Plug in a microphone
    - And headphones
- I use violin with it a lot