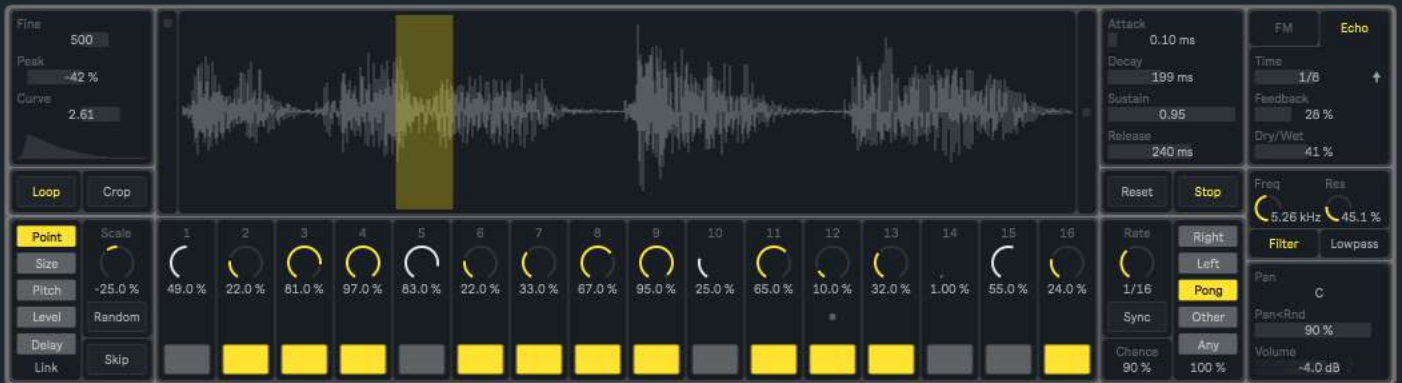


Sampler Pro by NOISS COKO

U S E R M A N A G E R



DESCRIPTION

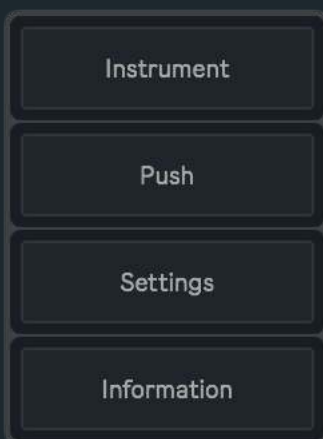
Sampler is a polyphonic sample playback instrument, designed to create complex patterns by performing simple actions. The whole device is exclusively driven by its integrated sequencer, which among other parameters allows to set a different starting point, size, pitch, level and delay amount for every single step. Each configuration will then produce a continuous stream of fragments, played one after the other to generate a unique arrangement that results from the combination of these little pieces and bits of audio.

Part of Sampler's magic resides on the uncertainty factor that surrounds its behavior and defines the state of its most important parameters. These random functions make it very easy to produce a whole blast of ideas with only the need of a few simple operations.

An extra set of parameters reflect other global aspects of the instrument and help to shape each pattern even further. These control the sequence length, speed and direction, the envelopes that affect every fragment and voice amplitude, and a group of functions dedicated to the Frequency Modulation, Echo and Filter sections.

MANAGER WINDOW

This window is presented as soon as Sampler is loaded into a MIDI track. All its different sections can be accessed from here, allowing to adjust any parameter, change the way in which the sequencer behaves or even save and recall up to 64 presets.



Instrument

Opens the Instrument Window, the main section that displays all device most important parameters and functions. By default this window will either be automatically opened every time the instrument gets selected from Live's Device View or closed if any other device or track is chosen instead. It is possible to avoid this action by simply changing the Settings setup (take me to the [Settings Window](#) section of this manual).

Push

If Push2 is properly connected and already selected from Live's MIDI Preferences, this toggle will enable its use as a control surface for the instrument (take me to the [Control Surface](#) section of this manual).

Settings

Opens the Settings Window. Various options and configurations can be edited from this menu in order to change how certain parameters behave.

Information

Useful information about this device and its developer.

Presets

This panel allows to save and recall presets within the instrument. For **saving a new preset**, hold down the Shift key and then left-click over any of the 64 available slots. If a slot where a preset is stored gets selected, it will then be overwritten and replaced with the new one. To **recall a saved preset** just left-click over any of the currently active slots (coloured in soft yellow). The **Clear** button will erase all previously stored presets and return the panel to its default state.

Notice that both actions can also be executed from Push2, by means of the Layout and Shift buttons ([show me how](#)).

It is very important to consider that in Ableton Live almost every single parameter variation is saved in the history. Therefore, every time a new preset is recalled, all changes involved will be stored in the Undo/Redo History. Please use this feature being aware of this behavior!

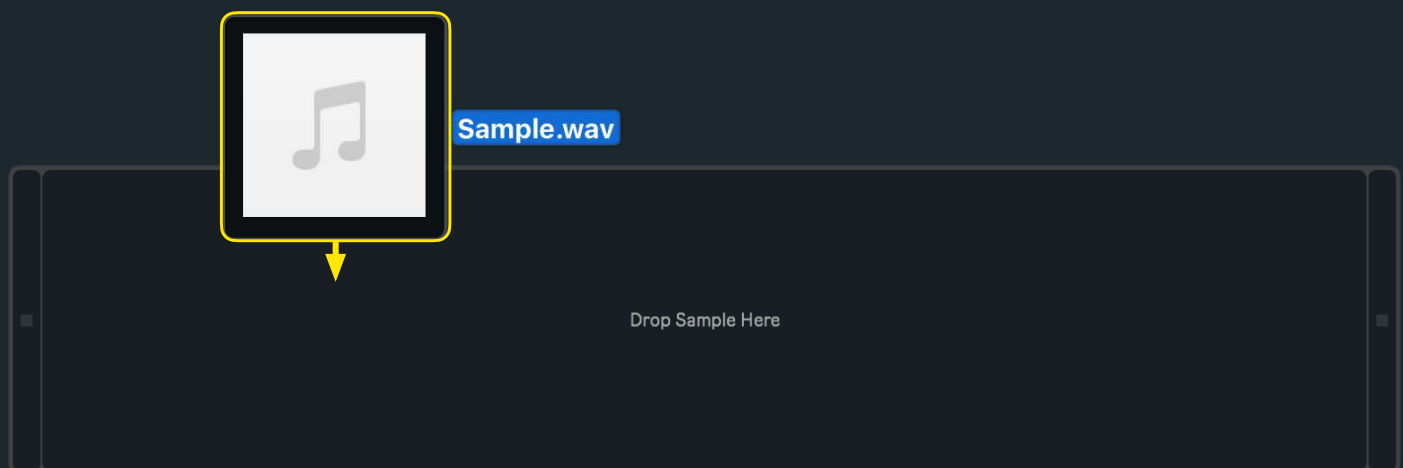


INSTRUMENT WINDOW

WAVEFORM DISPLAY

Since Sampler is a sample playback instrument, first an audio file must be dropped directly into the Waveform Display. This sample will then be loaded into the buffer and used as the main source to produce sound. **The best results will commonly arise from long and evolving types of sounds, so it is recommended to start with all different kinds of pad, texture, voice or drone samples.** However, almost any file could ultimately lead to interesting results. Wav, Aiff, Flac and Mp3 formats are supported, while others might need to be converted before being ready to use.

There are two small sliders placed on both sides of the Waveform Display. The one located on the left side modifies the volume of the sample, the other represents the opacity of the left and right waveforms that compose the stereo field.



PLAYBACK

After an audio file was properly loaded into the buffer, the sequencer should initiate as soon as Live's global transport starts running. This group of parameters offers control over the time amount between steps and also the order in which they are played.

Play-Stop

Turns the sequencer on and off. However, the counter will still be running according to Live's transport and (depending on the Settings Window configuration) will only be restarted if the latter is stopped. By default the Play-Stop toggle is on, therefore the sequencer will start or stop according to the transport state.

Reset

This button resets the counter and restarts the sequence from its first active step. Depending on the current Settings configuration, the counter will either be reset on the next step or only in sync with the first beat of the next bar. This button has no effect while the Playback Mode is set to Other or Any.

Playback Mode

Five different playback modes are available:

- **Right:** The sequence will be played forward.
- **Left:** The sequence will be played backwards.
- **Pong:** The sequence will be played back and forth. If the “Repeat when changes” parameter on the Settings Window is active, the first and last steps will be repeated every time the direction changes.
- **Other:** All enabled steps, excluding the current one, could be randomly selected next. Therefore, this mode doesn’t allow consecutive repetitions.
- **Any:** All enabled steps, including the current one, could be randomly selected next. This particular mode offers an extra parameter (the number box located under the tab), used to restrict the number of steps that could next be chosen. If the value is set to 100%, Any will function as a normal random playback mode, where any active step could be selected next, whereas if it is set to 0%, random selections will only occur within a maximum range of ± 2 steps far from the sequence current position. All other values will increase or decrease this range, allowing bigger or smaller leaps between steps.



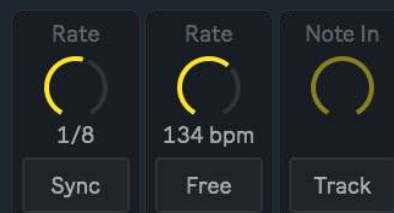
Chance

This value determines the odds for each step to be triggered or not. Therefore, if Chance is set to 100%, active steps will always be triggered, while if it is set to 50%, steps could only be triggered half of the time. Any other alternative between a range of 0% and 100% is possible and will produce more or less unpredictable variations within the sequence.

Rate Mode

This button switches between the three different unit styles that are available for the Rate Dial, which controls the sequence running speed.

- **Sync:** rate values are displayed as beat divisions, representing a specific fraction of Live’s global tempo.
- **Free:** rate values are displayed as integer numbers, expressing the frequency (beats per minute) at which the sequencer runs. Here the playback speed remains independent from Live’s global tempo.
- **Track:** it only allows individual steps to be triggered by incoming MIDI note on messages. Naturally, the Play-Stop toggle will be disabled while this mode is active.



FRAGMENTS

Simpler integrates a sixteen step sequencer that allows to make adjustments over a limited group of parameters, in order to set a specific fragment length, frequency and dynamic for each individual step. This section manages which group of dials and buttons is displayed on the instrument middle section, located right under the Waveform Display.





Mute-Skip

This toggle switches between both groups of buttons:

- **Mute** buttons mute or unmute individual steps. If it is unmuted, that step is still enabled but no values assigned to it nor the ADSR envelope will be triggered.
- **Skip** buttons enable or disable individual steps. If it is disabled, that step is no longer part of the sequence, thus will be ignored. This function could also be used to establish the first and last step of the sequence.

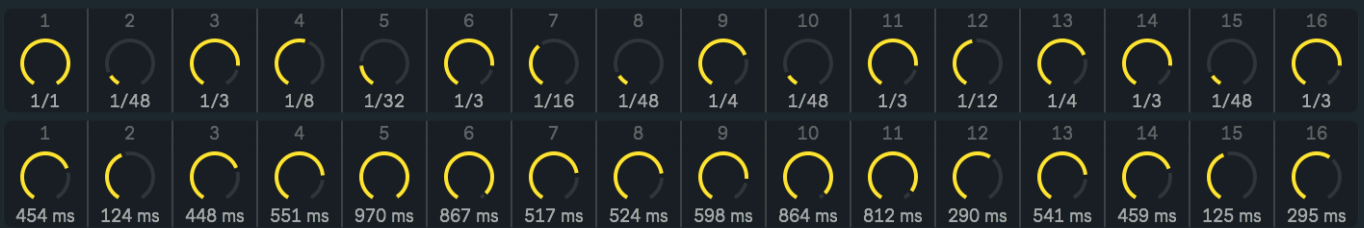
Dial View

As every parameter gets selected from this tab, the group of dials related to it will be displayed. Here is a brief description of the five different parameters that could be adjusted step by step:

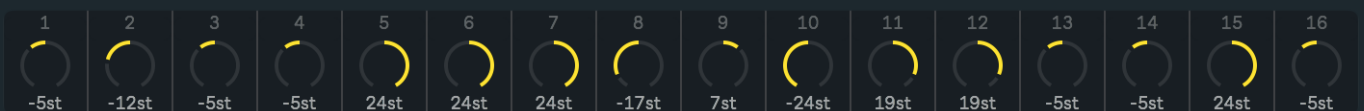
- **Point** dials define a start location for each fragment. Their values are not expressed by any specific time amount, but as a percentage of the total sample length.



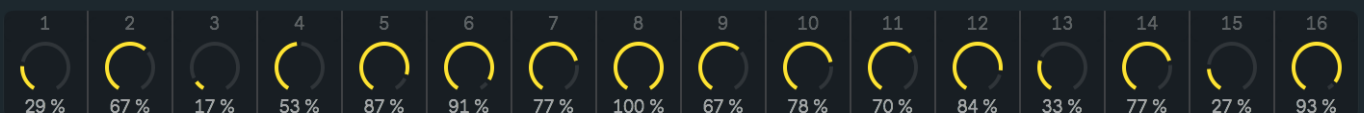
- Since the fragments can be played back in a loop, **Size** defines their length by setting an end location for every step. Two different unit styles are used to define these values, **Sync** (beat divisions) and **Time** (milliseconds). The unit style is chosen from the Settings Window (take me to the [Settings Window](#) section of this manual).



- **Pitch** dials are used to produce individual frequency changes on the fragments. Their whole range is restricted to $\pm 24st$, being only possible to create fifth and octave leaps between the lowest and the highest value.



- Dynamic changes can be defined by setting different **Level** values for each step. If the **Level Amount** modifier is set to 100%, maximum values mean that no gain reduction is applied over the fragment (1:1), 50% implies a reduction of -6dB (1:2), 25% will be equal to a -12dB reduction (1:4), and so on.



- **Delay** reflects how much time (expressed in a range from 0% to 100%) the articulation of each individual step gets deferred. The space between a step being triggered and the moment where it is actually articulated will always be the same in terms of beat divisions, regardless any change in Live's global tempo. As a general reference, while the **Delay Amount** modifier is set to 100%, a value of 25% will delay the articulation by a 16th note, 50% by an 8th note, 100% by a 4th note.



Scale - Offset - Amount

As well as the rest of the dials, these **modifiers** are independent for every single parameter and will only be displayed according to the current Dial View tab selection. Even if each one of them works slightly different, they all have a global effect over the parameters individual configuration, allowing to increase or decrease their values and the difference between fragments.

- Negative **Scale** numbers will shrink all **Point** values towards the left side of the Waveform Display, changing the fragments position while keeping some relative distance between them. Positive values will do exactly the opposite, leaning all fragments towards the end of the file. The same happens with **Size**, but in this case the values will be compressed or expanded towards their own range extremes.
- Within a range of ± 12 st, **Offset** transposes all **Pitch** dials according to their current position, thus keeping the original difference between all individual steps. Also for this parameter only fifth and octave leaps can be defined.
- **Amount** works similar to Scale, but here defining in what proportion every step value is applied over the **Level** or **Delay** parameters. The differences between steps will become more and more effective as the amount starts getting near 100%. On the contrary, no Level or Delay fluctuations will be applied over the fragments if this number equals 0%, regardless of their own position or configuration.

Link

While this function is on, all dials within a specific parameter are linked to its first active step. The rest still remain independent from each other and only will be affected when the blinking dial changes. Link works separately for Point, Size, Pitch, Level and Delay. Notice that every time the Random button is triggered or a new preset is chosen, all Link buttons get instantly deactivated.

Random

Depending on the last parameter that was selected, either from the Dial View tab or the Mute-Skip toggle, all Point, Size, Pitch, Level, Delay, Mute and Skip values could be randomised using this single button. For instance, if Point gets selected only its values will be affected when Random is triggered, while the rest remain unchanged.

It is very important to consider that in Ableton Live almost every single parameter variation is saved in the history. Therefore, every time Random is used, all changes involved will be stored in the Undo/Redo History. Please use this feature being aware of this behavior!

A D S R E N V E L O P E

The four stages that integrate this parameter result in a specific shape that will affect each voice (or step) amplitude.

Attack

Once the envelope is triggered, the attack represents the amount of time needed to travel from its initial state up to the peak level.

Decay

Immediately after the peak level is reached, the envelope starts to decay. This value represents the amount of time that it takes to travel from this point down to the sustain level.

Sustain

This is the level reached at the end of the decay stage, sustained until the release stage begins. The envelope will remain at this same level until the next step is triggered.

Release

When the next step is triggered the release stage begins. This value represents how long the sound still lasts before it gets completely extinct.



FRAGMENT SHAPER

Both Peak and Curve integrate what is commonly known as a Window. The combination of these two result on a specific envelope shape that is applied over each fragment amplitude in order to fade its signal in and out. This will be even more perceptible while the Loop toggle is on.



Peak

Defines the location of what represents the highest point of the shape or peak level. Depending on this value, the window could resemble a Sawtooth Down (-50%), a Triangle (0%) or a Sawtooth Up (50%) waveform.

Curve

For the transition between the start and end points, this parameter offers three different functions: logarithmic (0.25 to 1), linear (1) and exponential (1 to 4).

Loop

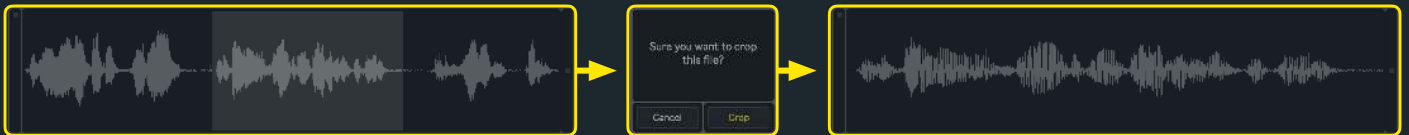
While this option is active all fragments will be played back in a loop, always the current ADSR Envelope configuration allows it. If this toggle is turned off, fragments will then be played back only once (one shot).

Fine

Global detune amount indicated in Cents, with a total range of $\pm 1200\text{ct}$ ($\pm 12\text{st}$).

Crop

It is possible to edit the current sample length, in case that only a specific part of the whole file wants to be preserved. To do so, first click over the Crop button (only once). The Selection Tool then allows to set a specific fragment (coloured in grey) using the Waveform Display. Left-click over the waveform to set a starting point, then drag the selection to the desired end point. Finally, click over the Crop button once again and a small floating window will pop up, asking you to confirm the action.



Once the editing is done it is not possible to recover the file previous length. The last edition will be saved and restored every time the set is reopened.

EFFECTS

This section offers two different stages of signal processing, which help to modify and shape the original sound source as desired. A sine wave oscillator can be used to modulate the sample frequency, adding extra overtones and harmonic richness to the signal. It also includes a versatile delay effect with diverse functions such as classic repetitions (free or sync) and resonance or tone generation.



Rate

FM Synthesis is based on a carrier or main signal that is affected and modified by another source, also called the modulator. Rate sets the frequency of the integrated sine wave that is used to modulate the sample original pitch. Ultimately, this parameter establishes the frequency of the sidebands that are generated by this process and added to the spectrum. By clicking on the upwards arrow symbol (\uparrow) it is possible to switch between the two different unit styles that are available, **Notes** or **Hertz**.

Lag

Every time a new Rate value is defined, Lag produces a smooth transition between this value and the previous one. How long the transition takes is determined by this parameter.

Amount

Sets the gain of the modulation source, resulting on the amplitude of the sidebands that are added to the signal. As this level gets closer to 0dB, the sample original frequency will be modulated towards more extreme values.

Time

Defines the space or time between repetitions, using any of the three available unit styles (↑): **Milliseconds**, **Notes** or **Beat Divisions**.

Feedback

Sets the amount of output signal that is fed back to the effect input. It reflects the number of repetitions that are articulated after the original source.

Dry-Wet

This percentage represents the mix between the original (dry) and processed (wet) signals. A range from 0% to 100% determines the amount of wet signal that is being preserved, while exactly the opposite is defined for the dry signal.



FILTER AND MIXER

Frequency

This parameter sets the filter cutoff frequency. All frequencies above (lowpass) or below (highpass) this point will be filtered out from the spectrum.



Resonance

Determines the emphasis of the frequencies near the filter cutoff area. High values result in a more aggressive character, while low values will define a cleaner type of sound.

Filter State

This toggle turns the filter on and off.

Filter Type

Switches between two different filter types, Highpass and Lowpass.

Pan

Defines the output location in the stereo field.

Random Pan

Sets the amount in which the fragments are randomly distributed along the stereo field. Every time a step is triggered, a new specific location is assigned to its fragment.

Volume

Adjusts the instrument output signal. The integrated meter displays the peak levels.

SETTINGS WINDOW

The Settings Window offers a few extra configurations only for a specific group of parameters. These determine their behavior and display while the instrument is active and playing.



(1) Depending on this setup, all changes on the Playback Mode tab could either have an immediate effect over the sequence or be delayed until the first beat of the next bar.

(2) Turn on this toggle in order to automatically reset the sequence counter every time a new Playback Mode is selected from the tab. This also **defines two different behaviors for the Pong mode**, where depending on the current configuration the first and last active steps of the sequence will be repeated or not every time the direction changes.

(3) Same as explained in point one, but in this case applied to the Reset button.

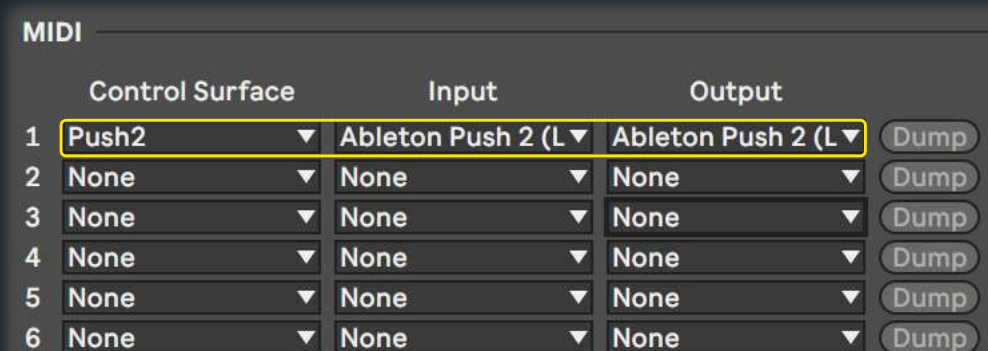
(4) While this function is active the sequence counter will be restarted after Live's global transport is stopped. Otherwise, the counter will always resume its previous location.

(5) This toggle switches between the two different unit styles available for **Size**. If Time is selected, values will be expressed in milliseconds, while Sync allows them to be defined using beat divisions instead.

(6) If this option is active, the Instrument Window will either be automatically opened every time the device gets selected from Live's Device View or closed when any other device or track is chosen instead.

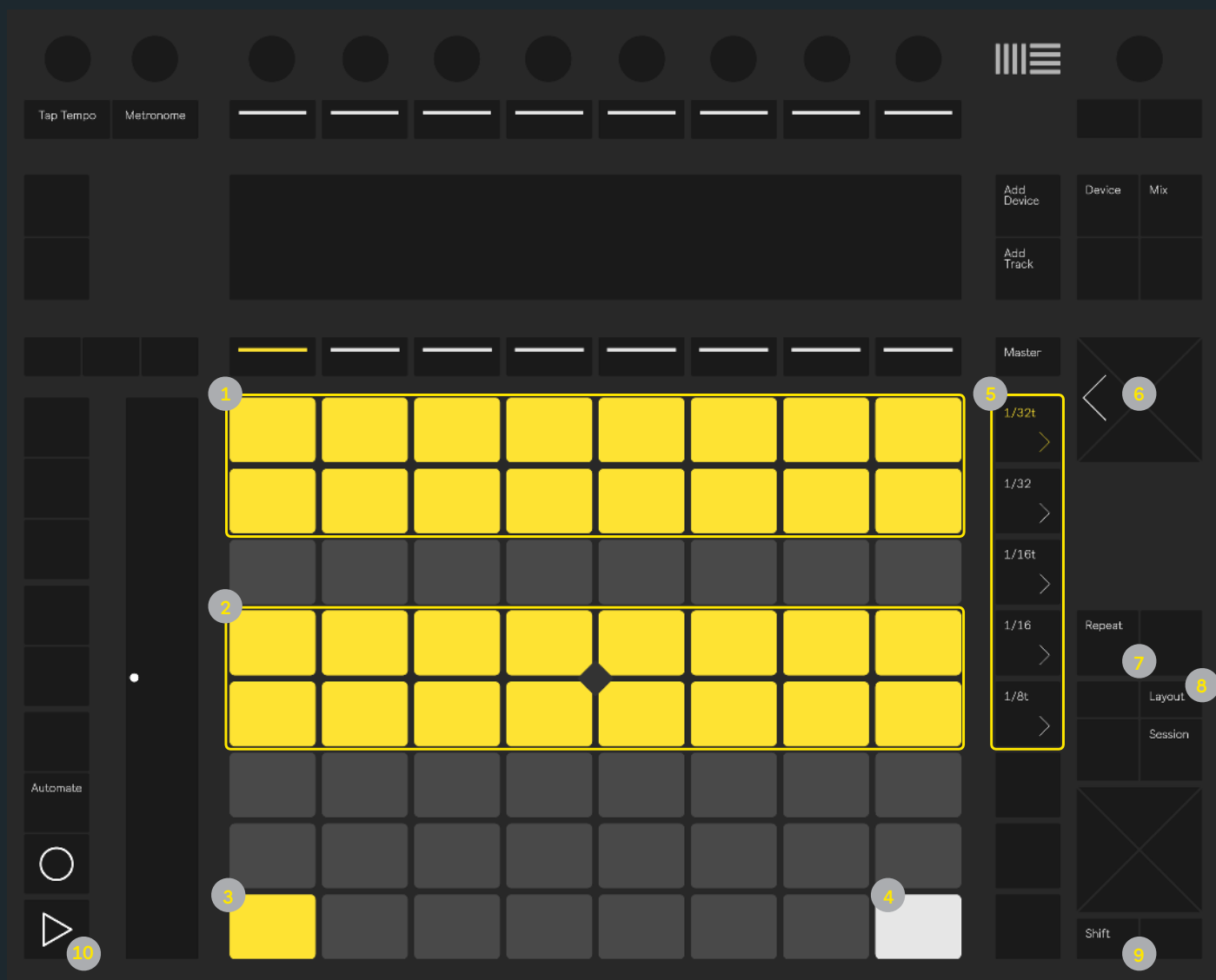
CONTROL SURFACE - PUSH 2

First of all, Push2 must be selected as a control surface, otherwise it will not be recognised by the instrument. Go to Live's preferences and be sure that Push2 is included on the MIDI section. Notice that for the moment **only Push2 is supported** as a control surface!



After the previous step is completed, activate the **Push** toggle located on the Manager Window in order to use Push2 as a control surface for the instrument. If other devices such as MIDI or audio effects are loaded into the same track, Push2 will immediately display the parameters and functions of the one that gets selected. This can be noticed by the symbol located next to each device name. 🖱️

Finally, if the Note view is currently selected, the control surface should look like this:



Matrix

- (1) Rows 1 and 2 are used to turn **Mute** buttons on and off.
- (2) Rows 4 and 5 are used to turn **Skip** buttons on and off.
- (3) This button turns the **Loop** toggle on and off.
- (4) This button triggers the **Reset** function.

All 64 buttons can also be used to save and recall presets, but only while the Layout button is pressed (See the Layout description).

Scene Launch

- (5) By default the only five available buttons are used to control the **Playback Mode** tab, but while Shift is being pressed, these will display and switch between the different parameters that integrate the **Dial View** tab.

Arrow

(6) These left (FM) and right (Echo) arrow buttons determine which of both Fx parameters are displayed on the instrument interface.

Repeat

(7) Triggers the **Random** button. Notice that, as it was already explained before, the same function is used to randomise different parameters (Point, Size, Pitch, Level, Delay, Mute and Skip), but only one of them at a time. In this case, Shift can also be used to select the Mute or Skip parameters by pressing any of their buttons (while holding Shift) without changing their current state.

Layout

(8) While this button is being pressed, instead of its default view the matrix will display the **Preset** panel current state. Any of the 64 buttons within the matrix could then be used either to **store a new preset** (press and hold Layout together with Shift, then select any button inside the matrix) or **recall a previously saved one** (press and hold Layout, then simply select any button that already has a saved preset).

Shift

(9) Since this button only works in combination with others, all its related functions were already explained on the Scene Launch, Repeat and Layout descriptions.

Play

(10) Turns the **Play-Stop** toggle on and off. While Layout is being pressed, its original function is momentarily restored and therefore used to control Live's transport. Only if Track is selected as a Rate Mode, the Play button can also be used (like any other MIDI note on message) as a trigger to go from one step of the sequence to the next one.

While Push2 is used as a control surface for Sempler, many of its buttons will be disabled in order to offer a more clear view of the functions that do have an effect over the instrument. Those buttons that are not described above but still remain active are simply used for its own original purpose. For instance, the Session and Note buttons could be used at any moment to switch between the Instrument and Live's Session views.

CREDITS

ABOUT

DEVICES

Developed by Javier Salthú aka NOISS COKO

Published by Isotonik Studios

2019