

Phoscyon2

AcidLine



User Manual

Requirements

Software and hardware requirements:



Windows PC

OS version	Windows 7 or newer
CPU	3.0 GHz SSE (Multicore 3.7 GHz recommended)
RAM	8 GB (16 GB Recommended)
Software	VST2 / VST3 /AAX compatible host application (32bit or 64bit)



Apple Mac

OS version	OS X 10.13 or newer
CPU	Intel based 2.8 GHz (Intel Based 3.2 GHz recommended) Apple Silicon
RAM	8 GB (16 GB Recommended)
Software	AU / VST2 / VST3 / AAX compatible host application (64bit!)

Hardware requirements / recommendations are based on estimates performed on available computers at D16 Group HQ, and therefore cannot cover all possible configurations available on the market. CPU usage may vary widely depending on the manner in which the product is used. Factors that may contribute to variance in CPU usage include particular patch and its complexity, the global quality setting, project sample rate. In order to form a better understanding of how a plug-in will behave within your current setup, we highly recommend downloading the demo and giving it a try.

Preliminary information

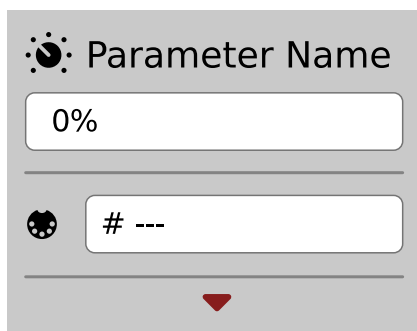
This chapter contains general advice for using the plug-in's interface.

To do a right-click on macOS with single button mice:

Either use your **mouse click** while holding the **CTRL key** on your keyboard or use **two fingers** on your **touchpad**.

Checking the value of a parameter

Right-click on any parameter to check its value in its context menu:



A parameter's context menu

Note: It's currently not possible to enter a precise value in the input box; it's just to check the value.

Fine-tuning continuous parameters

Tweak a control (knob) while holding the **CTRL key** (on **Windows**) or **Apple CMD key** (on **macOS**) - this will make the tweaking more precise while moving the mouse pointer up and down.

Double-click to reset a continuous parameter's value

Double-clicking on a parameter restores its value to the initial state, either default (right after loading the plug-in / loading it along a project file) or from the most recently loaded preset.

Interface overview

After loading the plug-in into the host application, the Phoscyon graphic interface will appear:



Phoscyon's graphical user interface

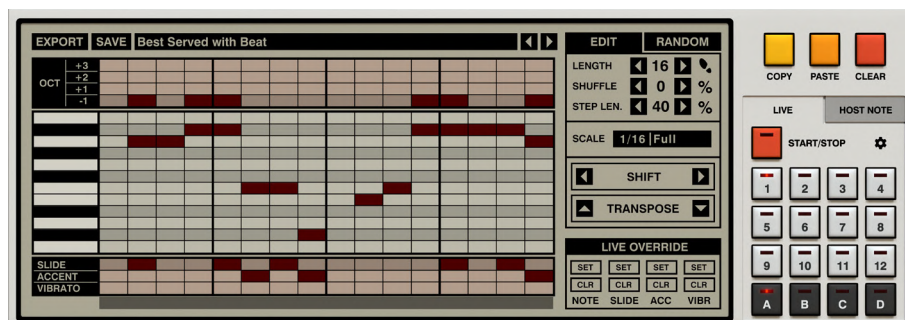
Phoscyon's interface is split into two main parts:

- The **Sound Control** section - Responsible for controlling Phoscyon's sound-generation options



The Sound Control section

- The **Internal Sequencer** - Responsible for editing / replaying patterns. Accessible only in **SEQ** (Sequencer) and **ARP** (Arpeggiator) Play modes.



The Internal Sequencer

The Sound Control section



The Sound Control section

Preset Browser

The top part of the **Sound Control** section contains the **Preset Management** section:



The Preset Management section

There are two types of presets managed from here.

- The **Scene** presets section (*to the left*) - A **Scene** holds information for much of the plug-in state, including sound parameters (in the **Sound Control** section), the selected **Play Mode** and entire pattern storage (for **ARP** and **SEQ PlayMode**).
- The **Synthesis** presets section (*to the right*) - This covers only the sound parameters from the **Sound Control** section.

Both subsections have the following controls:

- **Preset display** - Opens a browser to load, save and manage presets (more on that in the **Preset Management** part of the manual).
- **Save** - Saves current sound settings as a new preset.

Synthesis

The first row of knobs in the **Sound Control** section contains sound generating parameters, including ones you can find on an original TB-303 plus several additional ones inspired by several mods of the synth.



Synthesis parameters

Original TB-303 parameters



The original TB-303 synthesis parameters

- **Wave** - Chooses between **Saw** and **Square** waveforms for the VCO.
- **Tuning** - Tunes the instrument across a continuous range of $-/+ 12$ half-tones. The middle position is **A=440 Hz**.
- **Cutoff** - Moves the filter envelope's cutoff frequency between low frequencies on the left to high frequencies on the right.
- **Resonance** - Adds a boost around the cut off frequency. If the **Resonance / Sweep Couple** switch is turned on (indicated by the LED above the **Resonance** knob), the knob also controls crossfade between a smooth envelope (for high **Resonance** values) and a spiky envelope (for low **Resonance** values) on the filter for accented notes (see the **Sweep Amt.** parameter).
- **Envmod** - Defines the strength of the filter envelope. This is short for envelope modulation and the higher the value of **Envmod** is set, the more gain the amplitude of the envelope has.
- **Decay** - Changes the decay time of the filter envelope. This parameter applies only to non-accented notes.
- **Accent** - Controls the envelope filter level for accented notes. If the **EnvAcc / AccVolume Couple** switch (placed above the **Accent** knob) is turned on, the Accent parameter also controls the **Acc. Vol.** parameter on accented notes.

Additional parameters



The additional synthesis parameters

- **Ext.Mode** toggle switch - Enables an alternative way to adjust **Tuning**:



Tuning in extended mode

When **Ext.Mode** is active, pitch tuning will rely on two parameters instead of a single continuous knob.

The **Transposition** meter lets you adjust the pitch up or down in 12 half-tone steps, and the **Fine tune** knob lets you precisely adjust the base frequency ranging over -100 to +100 cents.

- **Resonance / Sweep Couple** - Chooses how **Resonance** and **Sweep Amt.** knobs allow the user to choose the work mode of the knobs - for details, check the description of the **Sweep Amt.** parameter.
- **EnvAcc / AccVolume Couple** - Chooses the work mode of the **Accent** and **Acc. Vol.** knobs with the turquoise LED above the knobs. If turned on, the **Accent** knob controls both filter and volume accent envelopes and the **Acc.Vol.** knob is inactive. If turned off, the **Accent** controls the filter's accent envelope peak and **Acc.Vol.** knob controls the volume's accent envelope peak independently.
- **Slide Time** - Changes the slide duration between two notes (slide / legato) when the **Slide** attribute is placed on the first of them.
- **Sweep Amt.** - Manually controls the crossfade between smooth and spiky envelopes. If **Resonance / Sweep Couple** is turned off, this parameter will crossfade between a smooth envelope (for high **Resonance** values) and a spiky envelope (for low **Resonance** values), for accented notes. If **Resonance / Sweep Couple** is turned on, this knob is inactive and the crossfade happens automatically according to the value of the **Resonance** parameter.
- **Env. Attack** - Sets the attack time of the filter envelope.
- **Acc. Decay** - Changes the decay time of the filter envelope for accented notes.
- **Acc. Vol.** - Controls the accent volume boost. This control is only active if the **EnvAcc / AccVolume Couple** is turned off.

Vibrato effect

In **Phoscyon**, the vibrato effect has been achieved in quite a peculiar way although its roots come from the works of well-recognized 303 artists. The original 303 had no LFO for a vibrato generator, so instead the effect was achieved by two quickly alternating notes (playing tremolo) which, in conjunction with note **Slide** to smooth everything out, gave the impression of the vibrato effect.



The vibrato effect produced by sliding between alternating notes

Phoscyon replicates the process by generating a vibrato effect in the very same way.

- **Vib. Speed** - Controls the length of the two alternating notes that are generated around the base note.
- **Vib. Depth** - Controls the pitch spread of the two notes that give the vibrato depth.

Additionally, the **Slide Time** parameter controls the smoothness of the resulting pitch oscillation.

Calibration Parameters

Literally under **Phoscyon's** hood, you can also find a set of parameters that were modeled after *TB-303's* service trim pots. These were originally designed to periodically calibrate a unit since, with time, every *TB-303's* sound "drifts away" slightly and this is mostly the case why every *TB-303* sounds a bit different. Using this set of parameters, you can get the sound of practically every *TB-303* out there. Plus, there are a few knobs inside that weren't even originally conceived as service pots, so you get even more power over the sound. To get to these parameters, click the **Open** section on the cover:



The calibration parameters cover

Once the cover is opened:



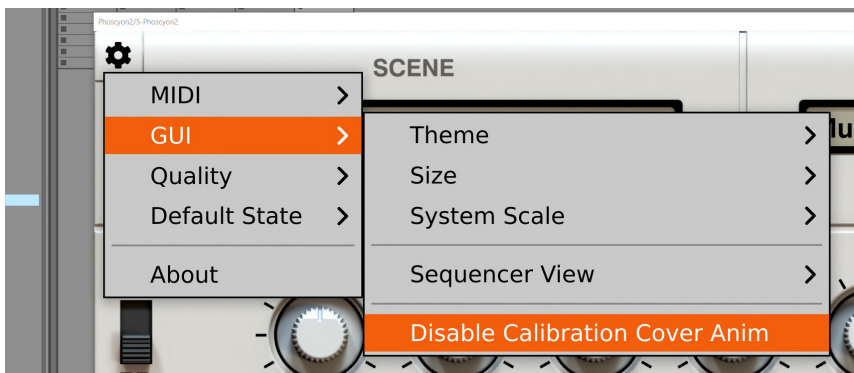
Calibration parameters

You will see the following set of controls:

- **Calibration Preset** display - Clicking opens the preset browser for the **Calibration Parameters**. You can load, save and manage presets that are specific to this section. More on using browsers in general can be found in the **Preset Management** part of the manual.
- **TM3** - The base cutoff frequency.
- **C21/22** - Cutoff frequency of the VCO's high pass filter.
- **AccEnv** - Filter envelope's gain level for accented notes.
- **AccAmp** - Amplitude envelope's gain for accented notes.
- **C13** - Time constant of filter envelope for accented notes - how quickly the envelope responds.
- **TM5** - An octave's span expressed in volts. 1V means each octave doubles frequency.
- **SQR PW Shift** - Tweaks **Square** waveform's width.
- **BA662 Clicks** - Switch to expose (enabled) or obscure (disabled) the clicks that occur in the original VCA.
- **BA662 Noise** - Amount of static noise generated by the VCA itself. The noise is audible only when VCO feeds the circuit with sound.

Calibration cover animation

If you prefer, you can disable the cover animation to optimize your workflow. Use the **Cog** icon in top-upper corner and switch **GUI** -> **Disable Calibration Cover Anim** option:



The Disable Calibration Cover Anim option

Effect chain

Phoscyon features an advanced FX Chain comprised of **Distortion** and an additional set of reorderable **Insert effects**. Everything works in series.



The Effect chain

Distortion

The first effect sound the signal chain goes through is the **Distortion**:



The Distortion section

We can distinguish the following set of parameters:

- **Active** - Click the upper-left LED toggle button to activate / deactivate the effect.
- **Model display** - Chooses the preferred distortion model.
- **Dynamics** - Equalizes the signal level with one-knob compression. Compression increases as the value of the knob increases.
- **Order** - Chooses whether the compression (**Dynamics** knob) is applied before (**Pre** mode) or after (**Post** mode) distorting the signal.
- **Drive** - Controls the distortion strength.
- **Color** - Controls the distortion's coloration. The bigger the value, the brighter the sound gets. The middle position is neutral.

Insert effects

After the signal passes through the **Distortion module**, it enters a chain of five reorderable effects.



The Insert effects section

The following algorithms are at your disposal:

- Algorithmic **Reverb**
- Parametric **EQ**
- **Delay** with tempo sync. option
- Double-line **Chorus**
- **Limiters** with soft-clip option

Activation / Deactivation

The toggle LEDs next to each effect's header can activate / deactivate each particular effect:



Enabling / Disabling effects

Reordering

Clicking and dragging an effect's header reorders the effect chain.



Effects reordering

Managing presets and editing

Each of the insert parameters share a set of controls:



Insert effect preset management section

Control functions:

- **Save** button - Saves the current state of an insert effect as a new user preset.
- **Preset** display - Click to open the preset browser for the insert effect. You can load, save and manage presets - more on this in the **Preset Management** part of the manual.
- **More** button - By default, an insert effect is shown in its basic view, where you can edit only the most common parameters of a particular effect. If you want to have access to the full set of parameters, just click the **More** button.

Available effect types

Equalizer

4-band parametric Equalizer:



The parametric EQ panel

There are 4 columns of parameters, each representing a single band. Each band is controlled by the following parameters:

- **Freq** - The band's frequency : 20 Hz to 16k Hz
- **Width** - The band's width : 0.5 to 4.0 octaves
- **Gain** - The band's gain : -24 to +24 dB

Limiter



The limiter panel

You can find the following set of parameters:

- **Knee** - Hardness of the compression knee.
- **Ratio** - Compression ratio - **1:1** to **1:40**
- **Attack** - Attack time for the compressor's envelope - **0.1** to **100** ms
- **Release** - Release time for the compressor's envelope - **25** to **500** ms
- **Thr** - Amplitude detection threshold - **0** to **-48** dB
- **Gain** - Make-up gain - **0** to **+24** dB
- **Soft Clip** - This toggle button activates / deactivates a soft clipper that clips any amplitude "leaks" above 0 dB level. It also can be used as a saturation effect by increasing **Gain** values.

Chorus

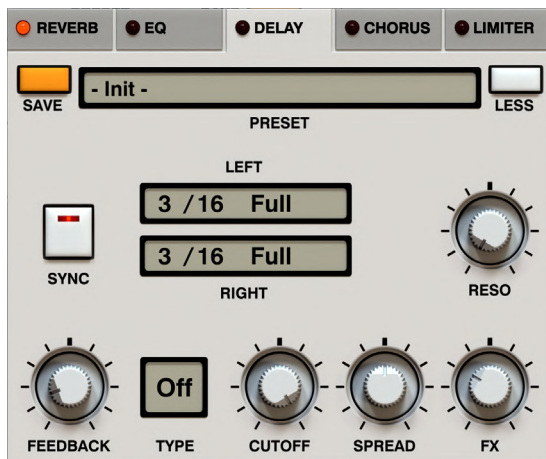


The chorus panel

Chorus is controlled with the following parameters:


- **Offset** - Delay between the *Dry* signal and delay line(s).
- **Mode** - Volume of the second delay line - when set to **0**, only a single delay line is audible.
- **Hi Pass** - Frequency of a low cut applied on the entire *Wet* signal.
- **Volume** - Output volume of the effect.
- **Depth** - Delay lines' modulation (LFO) depth.
- **Rate** - Delay lines' modulation (LFO) speed.
- **Spatial** - Phase shift between *Left* and *Right* channels of the modulator's (LFO) output - this can widen the sound stage.
- **FX** - Crossfade between *Wet* and *Dry* signals.

Delay



The delay panel


There are the following parameters:

- **Sync** - Toggle button to activate the **Tempo Sync** mode. When active, delay time is set using tempo dependent (note) units in the **Left** and **Right** displays next to the **Sync** button.
- **Left / Right** - Controls delay time for **Tempo Sync** mode expressed as fractions of the global tempo. Dragging the mouse arrow over the numerators and denominators can change their value independently. Additionally, there is a modifier to select rhythmic values for each channel independently . Click the right-hand part of either box to select one of the available modifiers:
 - Full
 - Dot
 - Triplet
- **Delay** - Delay time expressed in seconds. This parameter works only when **Tempo Sync** mode is inactive. Its range is **0.01** to **1** seconds and it's only accessible when **Sync** is inactive:



The delay parameter

- **Feedback** - Feedback value for the delay loop.
- **Type** - The delay loop has a multi-mode filter and this parameter allows you to select from one of the available filter types:
 - **Off** - Filter bypassed
 - **LP** - Low-pass filter
 - **BP** - Band-pass filter
 - **HP** - High-pass filter
- **Cutoff** - Controls the cutoff frequency of the filter - **10 Hz** to **16 kHz**
- **Reso** - Resonance of the filter.
- **Spread** - Stereo spread / phase shift between *Left* and *Right* channels (*Wet*).
- **FX** - Crossfade between *Dry* and *Wet* signals.

 This method allows you to set delay time up to 32 Bars which, when using a slow tempo in your DAW, can lead to overrunning internal delay buffer. The plug-in is protected against this issue and you will see a clear warning if this happens.

Reverb



The reverb panel

Reverb is controlled by the following parameters:

- Parameters that are independently adjustable for **Early** and **Late** reflections:
 - **Size** - Size of the virtual room.
 - **Brightness** - Damping factor of the walls in the virtual room. The lower the value, the darker the sound color of reflections
 - **Diffusion** - The reflecting surface's ability to spread the echoes. If this parameter's value is low, the reflecting surface is perfectly flat and does not distort reflected waves. If this value is high, the reflecting surface distorts the waves and spreads them out in different directions.
- Parameters that adjust global values (for entire effect):
 - **Modulation** - This controls all reflections' delay lines modulation.
 - **Predelay** - Delay time between *Dry* and *Reverberations*.
 - **Early / Late** - Crossfades between *Early* and *Late* reflections.
 - **Feedback** - Controls how much energy is consumed with every reflection. A lower value consumes more reflection energy, which means feedback is weaker.
 - **FX** - Crossfades between *Dry* signal and *Reverberations*.

Master section

This section contains a few controls to give the final touch to the output.



The master section

We can distinguish the following controls:

- **Bypass Fx** - Bypasses the entire **Effect Chain** (including **Distortion** and **Insert Effects**).
- **Volume** - Controls the master output volume.
- **Output** - The VU meter shows signal volume level.

Play modes

The **Play mode** rotary switch selects which mode the entire instrument operates in:



The plug-in's Play modes

Three options are available:

- **External Play Mode (EXT position)** - The plug-in uses notes coming directly from the host app to generate sound, behaving like a regular monophonic synth. In this mode, the **Internal Sequencer** section is disabled and hidden.
- **Sequencer Play Mode (SEQ position)** - The plug-in replays patterns that are internally stored and will start to play as soon as you hit **Play** in your DAW. Patterns can be selected using the **Pattern Selector** section (**Live mode**) or **MIDI Notes (Host Note mode)**.
- **Arpeggiator Play Mode (ARP position)** - The plug-in generates sequences based on the user's input (**MIDI Notes**) to play pre-programmed arpeggiation patterns, which are stored similarly to patterns for **Sequencer Play Mode**.

External Play Mode



The External Play mode

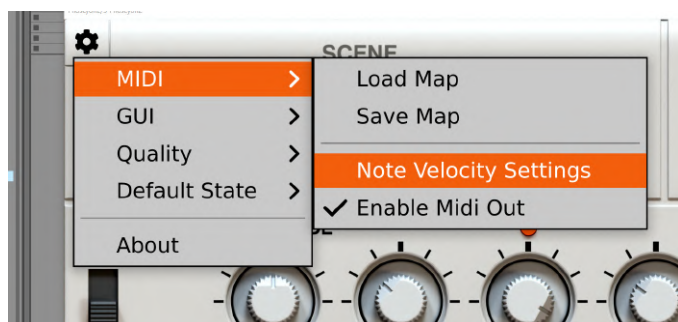
In this mode, the plug-in acts as a regular sound module. A *MIDI Note On* message triggers the sound and *MIDI Note Off* message ends it. Only the **Sound Control** section is accessible in this mode, allowing you to adjust audio parameters.

Phoscyon is a *monophonic synthesizer*. This means, if a new note comes while playing, the previous one stops playing immediately and the next one starts to play. Between overlapping notes, a **Slide** is executed with the time set by the **Slide Time** knob. In other words, you can only play one note at a time.

Phoscyon also responds to *Mod Wheel* (for **Vibrato depth**) and *Pitch Bend* MIDI messages.

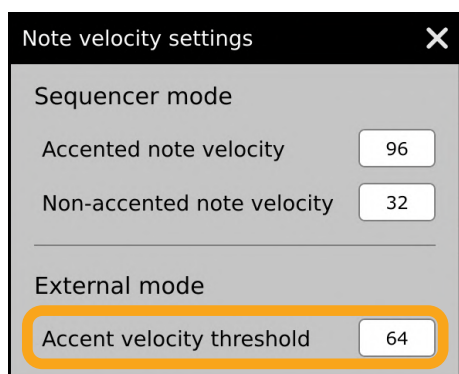
Accented and non-accented notes

In **External** mode, sounds are accented when their velocity exceeds a certain value. Below this threshold value, sounds are played without **Accent**. To change the threshold value click **Cog** icon in left upper corner and use **MIDI -> Note Velocity Settings** option:



The Note Velocity Settings option

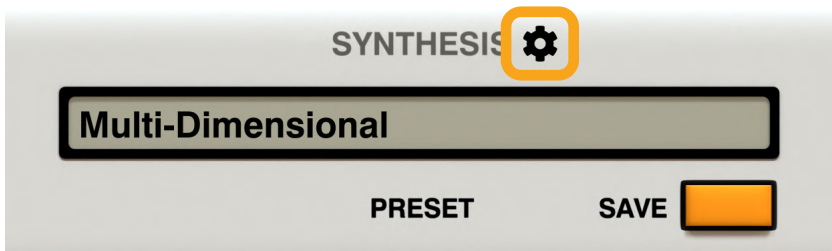
The **Accent velocity threshold** option in the **Note velocity settings** panel controls the threshold value for the accented / non-accented notes:



The Note velocity settings panel - Accent velocity threshold

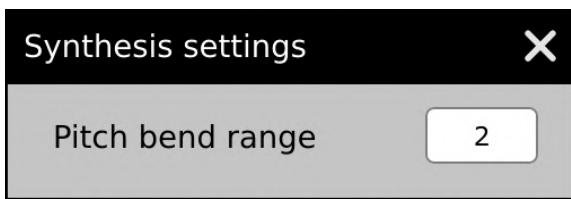
Adjusting Pitch Bend range

To change **Pitch Bend** range, use the **Synthesis settings** under the **Cog** icon in **Synthesis** preset management section:



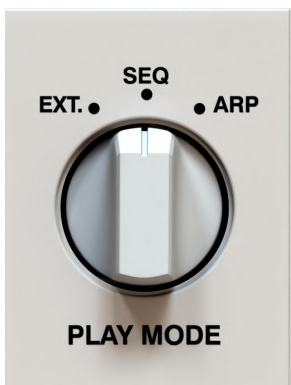
The Synthesis settings panel

Here, you can adjust **Pitch bend range**  symmetrically (both directions) from **0** to **12** semitones:



The Synthesis settings panel

Sequencer Play Mode



The Sequencer Play mode

In **Sequencer Play Mode**, **Phoscyon** uses its internal bank of patterns to generate music sequences.

Pressing **Play** in a host application, or the **Start / Stop** button on **Phoscyon**, will start playback of a selected pattern.

The LED diode on the **Start / Stop** button will light up if a pattern is playing:



The Start / Stop button

 This parameter applies to External Play Mode only (when using **Phoscyon** as a regular synth with sequencer / arpeggiator de-activated)

The **Pattern Selector** in the bottom-right corner allows you to select which pattern should be played and/or view patterns in the **Pattern Editor**.

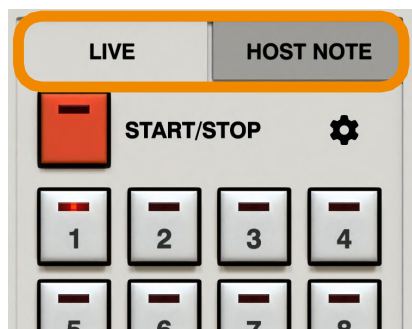


The Pattern Selector

Pattern Trigger Modes

There are two internal **Trigger Modes** to start playing a pattern:

- **Live mode** - Enabled when the **Live** tab is active in the **Pattern Selector**



The Pattern Selector in Live mode

- **Host Note mode** - Enabled when the **Host Note** tab is active in the **Pattern Selector**

Each of these modes shares a common pattern storage system.

The whole bank of patterns consists of **48** different patterns that can be triggered using GUI or MIDI Messages (depending on the **Trigger Mode** selected).

Live mode

Phoscyon is in this mode when it is first loaded. This is the default mode. From here, you can select patterns to be played continuously (in a loop) using the **Pattern Selector**

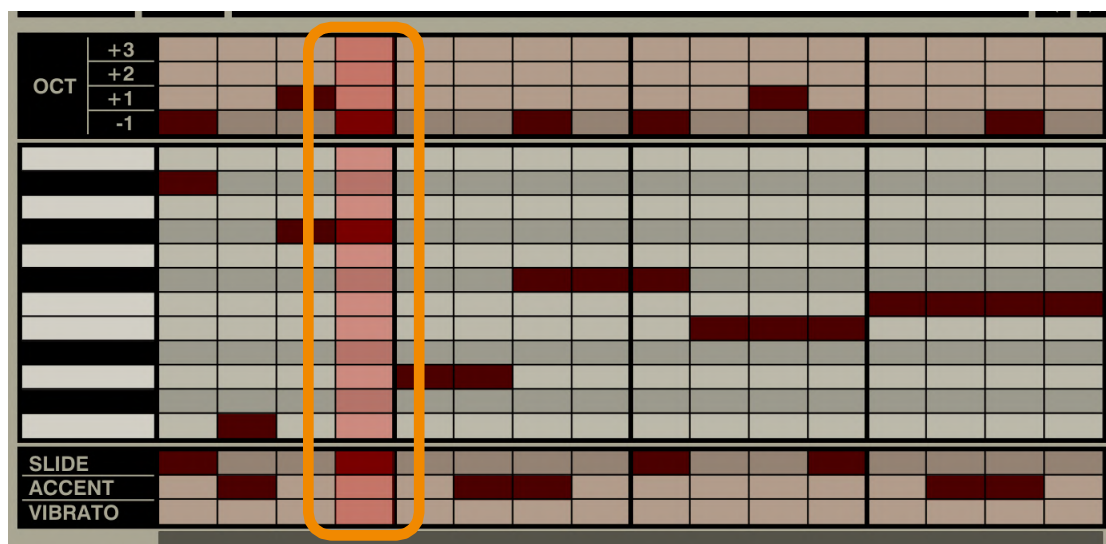


The Pattern Selector in Live mode

The 1 to 12 buttons represent 12 patterns within a single bank. There are four banks named **A** to **D**, which give **48 patterns** in total. The currently selected bank and pattern in the bank are indicated by red glowing LEDs on corresponding buttons.

After loading **Phoscyon**, the default chosen pattern is **A-1**.

When the **Start** button is pressed, the red highlight column scrolling across the **Pattern Editor** will indicate the currently playing step in the pattern.



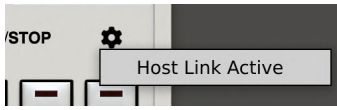
The Pattern play cursor

To select another pattern while playing, use a combination of one of the **Bank** (dark gray colored) and **Pattern** (white colored) buttons in the **Pattern Selector** (in that order). If the next pattern is in the same bank, just select the new pattern using only the **Pattern** button in the **Pattern Selector**.

The next pattern will start playing when the current pattern comes to the end of its final step. The waiting pattern will be indicated by an LED glowing blue in the corresponding pattern button.

Host Link Active option

The **Host Link Active** option is accessible from the **Cog** icon in the **Pattern Selector** section and controls the way the plug-in sequencer's cursor position is aligned with the cursor position of the project in your DAW.



The Host Link Active mode

- Option **disabled** (*default*) - The cursor position of Phoscyon's sequencer is synchronized only once, when the sequencer starts to play, then the internal clock takes it over.
- Option **enabled** - The cursor position of Phoscyon's sequencer is continuously aligned as long as the pattern plays.

The main difference between having the option disabled or enabled can be seen when you use loops in your project. When the option is disabled and the host rapidly changes cursor position, **Phoscyon** ignores it and continues playing as if the position change didn't occur. But when you enable the option and the host changes cursor position, **Phoscyon** re-adjusts its own cursor position in response to the change.

Host Note mode



The Host Note mode

In **Host Note mode**, patterns are triggered using only *MIDI* Notes. Each note coming from the host application corresponds to one internal pattern. The whole bank of patterns is accessed by the **48** *MIDI* Notes starting from the C note of the second lowest octave and spans over 4 octaves. For convenience, **Phoscyon** indicates the currently selected pattern on the **Pattern Selector**.

A *MIDI Note ON* triggers the corresponding pattern to play. Releasing the key and sending a *MIDI Note OFF* message will eventually stop the pattern.

It should be noted that in **Host Note mode**, the **Start** button in a DAW (**Start** transport message) has no effect. Patterns are only played back while a *MIDI Note* is received.

Pattern Follow

The **Follow** button activates a mode where the pattern currently playing is also set as the one being edited (**Pattern Editor**).



The Pattern Follow mode

When **Follow** mode is disengaged, the pattern being edited will be indicated by a blue LED light and the pattern being played indicated by a red LED light on the **Pattern Selector** buttons.



The Pattern Selector in Host Note mode

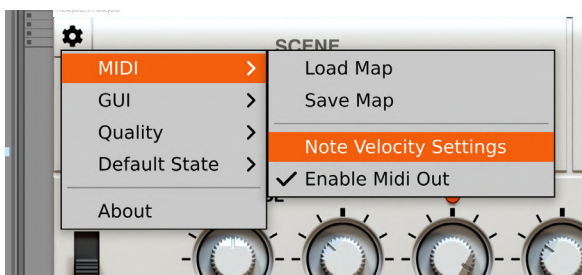
MIDI Output

Phoscyon features active *MIDI Output*. This allows the control of external instruments (virtual or hardware) by **Phoscyon's** internal sequencer. It works either in **Live mode** or **Host Note mode**. When **Phoscyon** is in **External** mode, it passes *MIDI Notes* through itself unchanged.

Velocity values of *MIDI Notes* sent by **Phoscyon** are calculated according to whether a note is accented or non-accented. Additionally, a generated sequence may include MIDI CC#01 codes if **Vibrato** was used. Also under some circumstances MIDI CC#64 (Sustain) can be utilized - when there's slide used and accent for the consecutive note with same pitch

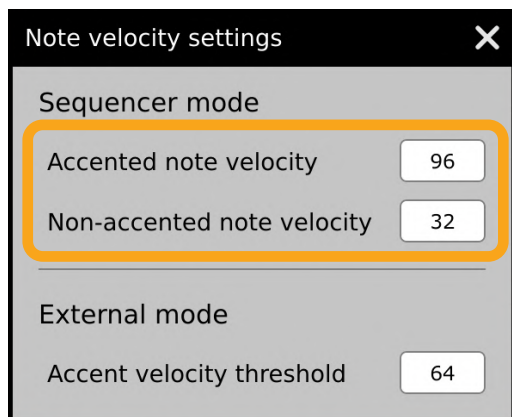
Adjusting velocity values

You can change velocity values for accented and non-accented notes that are generated by the sequencer and sent to *MIDI Output* via the **Note velocity settings** panel. Using the **Cog** icon in the left upper corner and selecting **MIDI -> Note Velocity Settings** option:



The Note Velocity Settings option

In the **Note velocity settings** panel:

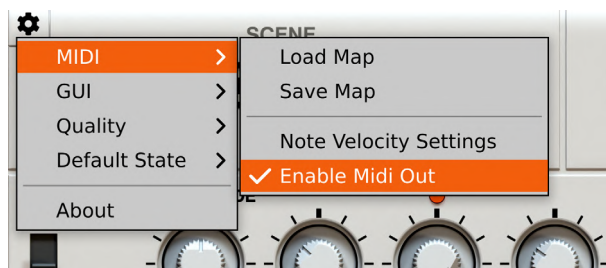


Note velocity settings - Velocity levels for generated notes

The **Accented note velocity** and **Non-accented note velocity** parameters are responsible for velocity values generated by **Phoscyon's MIDI Output**.

Enable / Disable MIDI Output

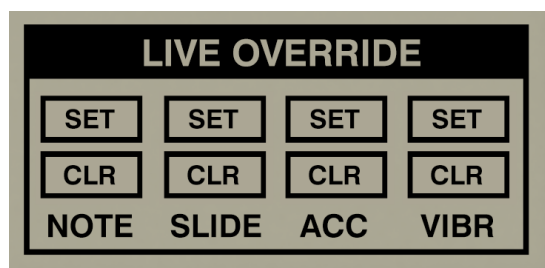
It's possible to disable **MIDI Output** to avoid any problem with **MIDI** loopbacks in some DAWs; to do so, use the **Cog** icon in the left upper corner and uncheck the **MIDI -> Enable MIDI Out** option.



The Enable MIDI Out option in the MIDI menu

Live Override

In the **Pattern Editor** window, you can find a section called **Live Override**:



The Live Override section

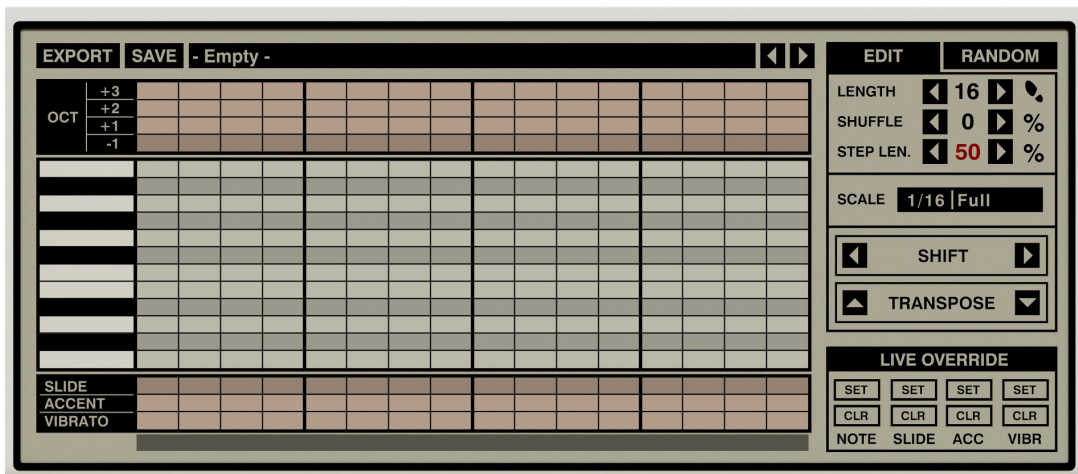
It lets you affect patterns in real-time, while they're played. Using **Set** and **Clr** buttons, you can force **Phoscyon** to constantly use a particular attribute or particular notes all the time, or exclude them. So, when you click and hold the **Set** button in the **Slide** column, all notes played will be with **Slide**.

It's worth mentioning that this function works in a non-destructive way, meaning it doesn't affect the pattern contents, but only the way a pattern is currently being played.

Pattern Editing

Every pattern is a single monophonic track / sequence of steps / notes. For each of **Step**, apart from **Note** (defined as *Note Name* and *Octave*) we can define additional attributes (flags) such as **Slide**, **Accent** and **Vibrato**.

The **Pattern Editor** is located in the bottom section of GUI:

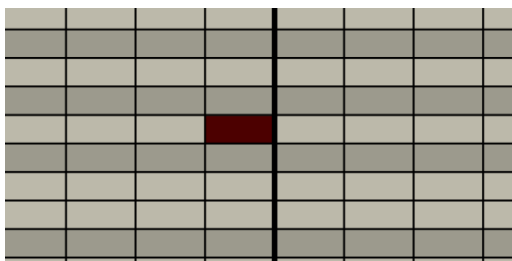


The Pattern Editor

Sequencing

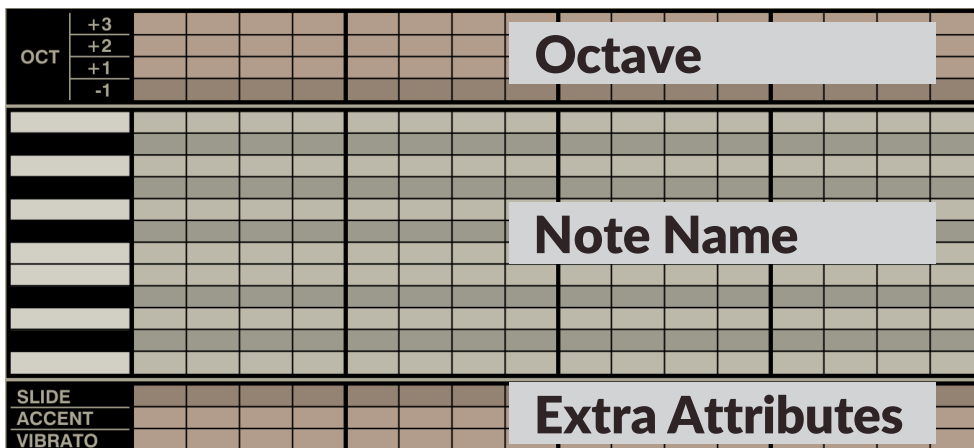
The grid part is the actual **Sequencer**.

Each column in the grid represents a single step, so the X axis is time. We can “draw” over the grid using mouse clicks to set / unset the steps - a brown rectangle means the step has been set.



Note set

We can distinguish three essential parts in the **Pattern Editor’s** grid:

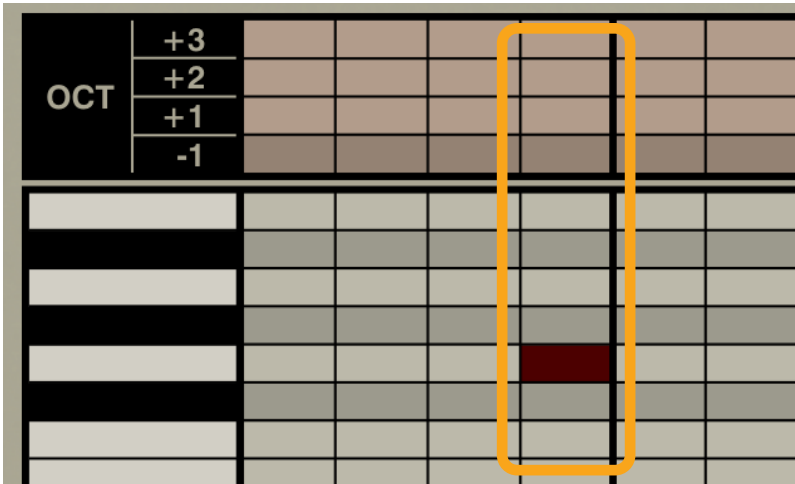


The three sections in the Pattern Editor’s grid

Octave + Note Name define overall *Note Pitch*.

If **Note Name** is skipped (empty) in a particular step, it means it's silenced no matter if an **Octave** has been set for the step (column) - like a disabled **Gate** in a TB-303.

If **Octave** isn't set, it means the **Note Name** (if present) is played on base **Octave** (no. 0).



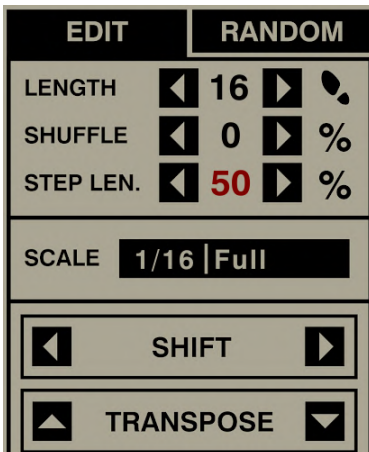
A note on base (0) octave

In the last row, we edit **Extra Attributes** for the **Notes** above, also known as “ornamentations”:

- **Slide** - When set, the current step will slide to the next set **Note**.
- **Accent** - When set, the current step will be **Accented**.
- **Vibrato** - When set, the current step will be played with a **Vibrato** effect.

Pattern properties

The column located to the right of the grid contains properties and edit functions for the currently selected / edited pattern:



Pattern properties and edit functions

You can adjust the following properties:

- **Length** - Pattern length, up to **64 steps**.
- **Shuffle** - Swing effect amount.
- **Step Len.** - Step length; sustain time of a single note / step.
- **Scale** - Allows you to set the time scale for the pattern, meaning the duration of a single step in tempo dependent units. The first part sets the note value from **1/64th** up to **Whole Note**, and the second part is a note value modifier (**Full, Dotted, Triplet**).

There are two edit functions:

- **Shift** - This allows you to shift steps in the X - axis (time) using the **Arrow** buttons. Pressing once shifts by one step. All attributes of the step are shifted as well.
- **Transpose** - Transposes the contents of the pattern up or down by one half tone using the **Arrow** buttons. Notes are wrapped at each end of the keyboard note range. This means that a B3 note changes to C1 when transposed up and a C1 note changes to B3 when transposed down.

Above the **Pattern Selector**, we have three more edit functions:



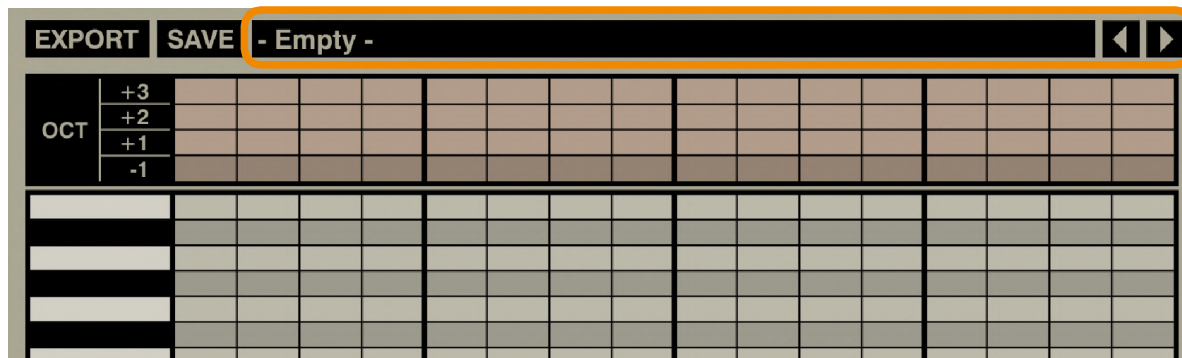
The Clear / Copy / Paste pattern buttons

- **Clear** - Clears currently selected pattern.
- **Copy** - Copies currently selected pattern into a buffer.
- **Paste** - Pastes the pattern stored in the buffer onto the currently selected pattern slot.

Loading and saving patterns

Loading patterns

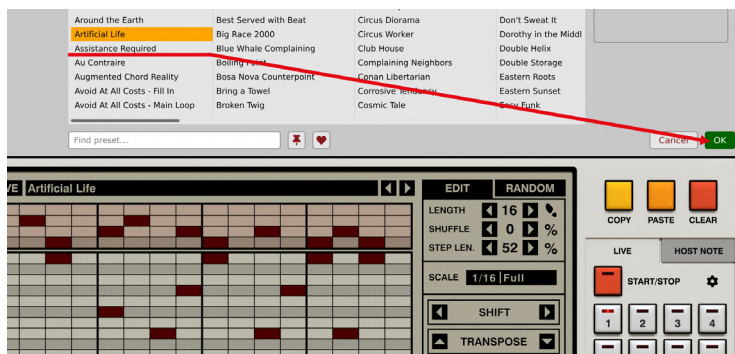
Clicking the **Pattern Name** box opens the **Pattern Browser**. Alternatively, you can use the **Arrow** icons to the right to browse the **Pattern Content** line-by-line.



Opening the Pattern browser

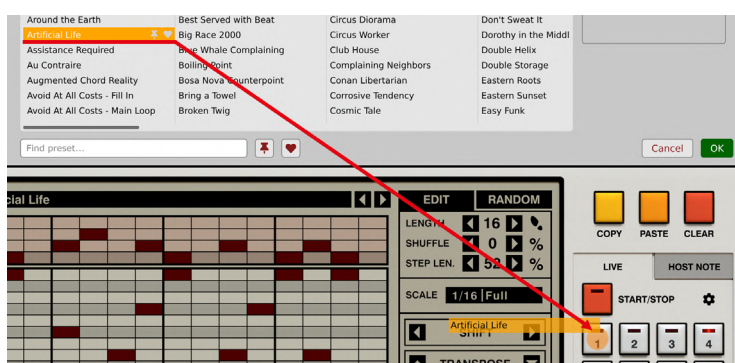
There are a few ways to load a pattern using the browser:

1. You can just open the **Browser**, select a pattern and click **OK**, which will load the pattern into a prior selected **Pattern slot**:



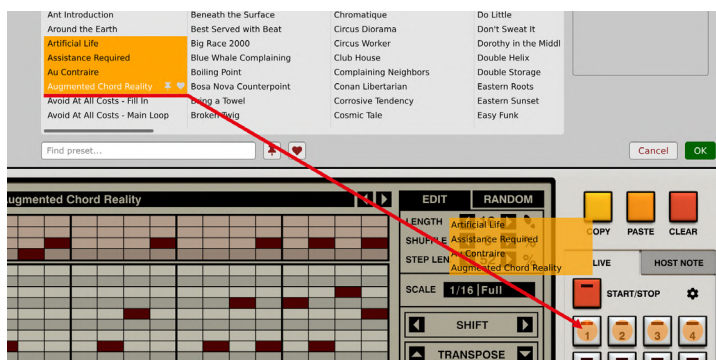
Loading a pattern through a browser

2. You can use drag-and-drop to load a selected pattern into the desired **Pattern Slot** in the **Pattern Selector**:



Loading a pattern using drag-and-drop

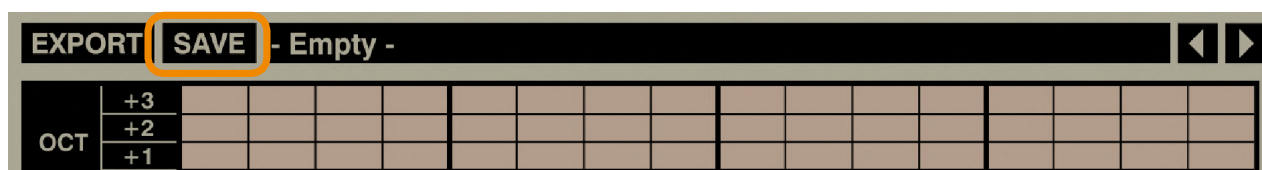
3. You can use drag-and-drop to load a few selected patterns at once into several **Pattern Slots**:



Loading a group of patterns using drag-and-drop

Saving patterns

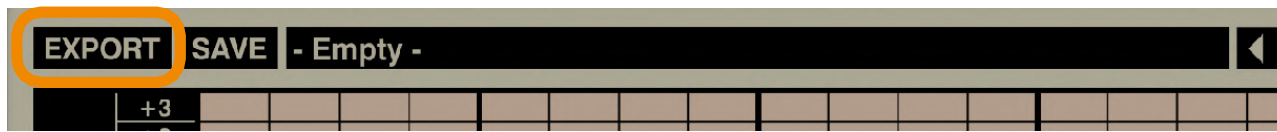
Using the **Save** button allows you to save your pattern.



Saving a pattern

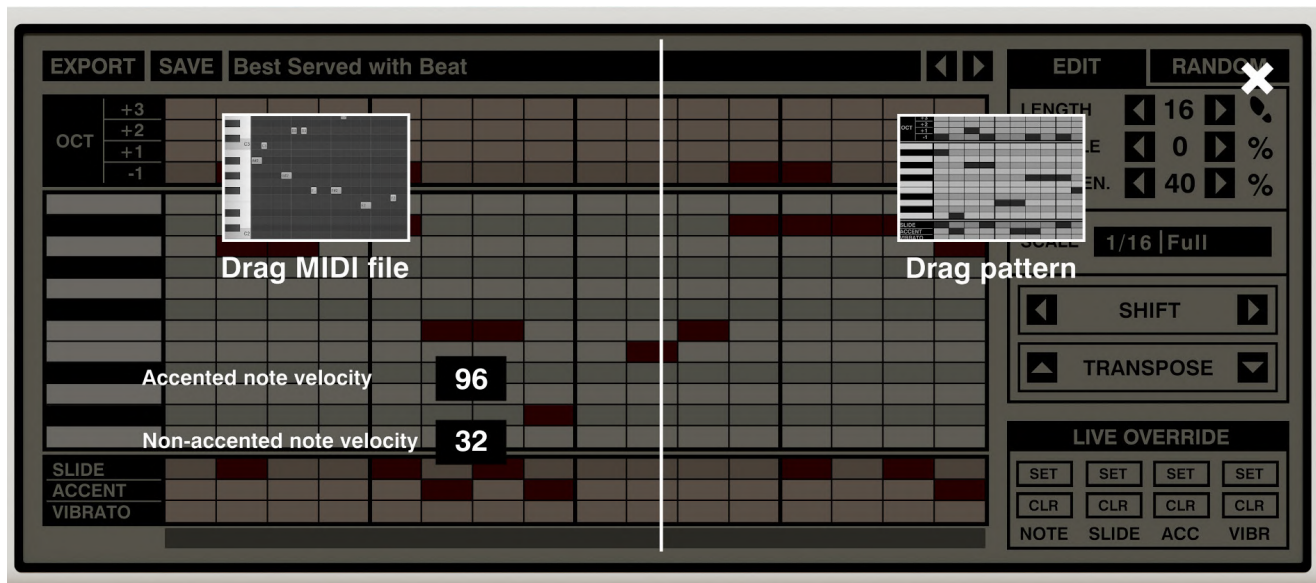
Exporting patterns

Using the **Export** button allows you to export your pattern outside of **Phoscyon**.



Exporting a pattern

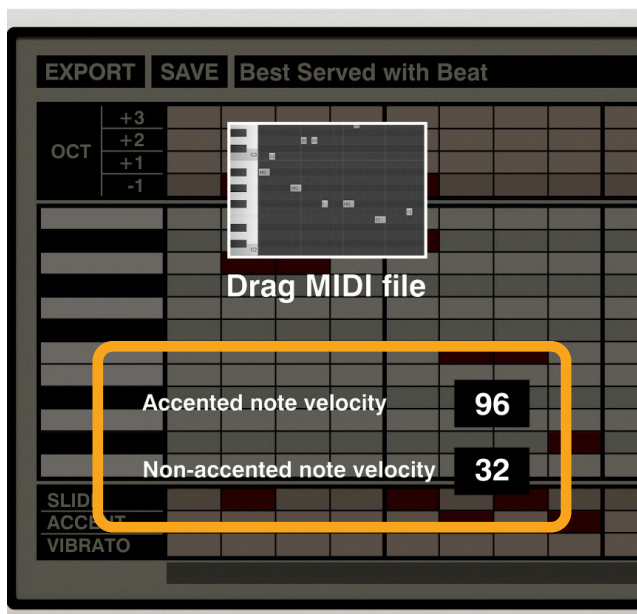
When you click the button, the **Pattern Editor** area will be darkened by the overlay panel:



Dragging a pattern onto a track as MIDI clip, or onto the hard drive in Phoscyon's own format

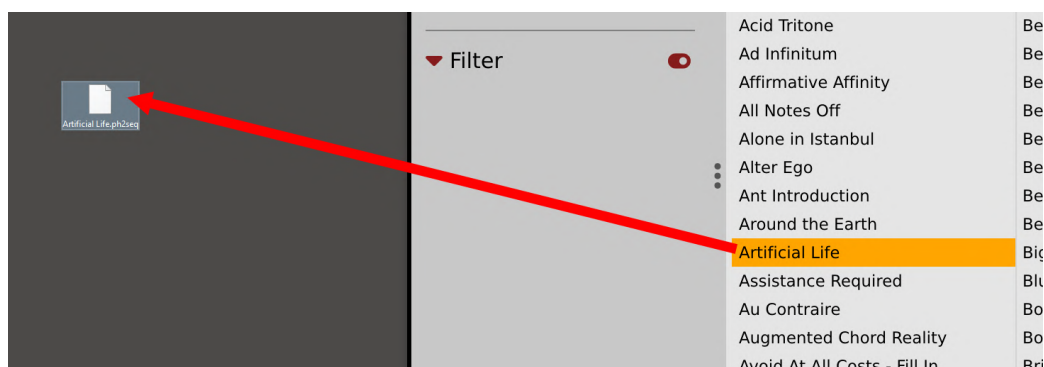
From this panel, you will be able to just drag-and-drop the pattern wherever you like (into your project or a location on your hard drive). Using the left-side option (**Drag MIDI file**) you can drag the pattern as a MIDI clip, while using the right-side option (**Drag pattern**) you can drag the pattern in **Phoscyon's** native file format. Using **Drag pattern** also works between instances of **Phoscyon**.

At this stage, you can also set the velocity levels for the accented and non-accented notes for the exported MIDI clip:



Setting accented and non-accented note velocity levels for exported MIDI clips

Alternatively, you can export patterns directly from the **Pattern Browser** by dragging a pattern from there onto the hard drive or into a project in your DAW:

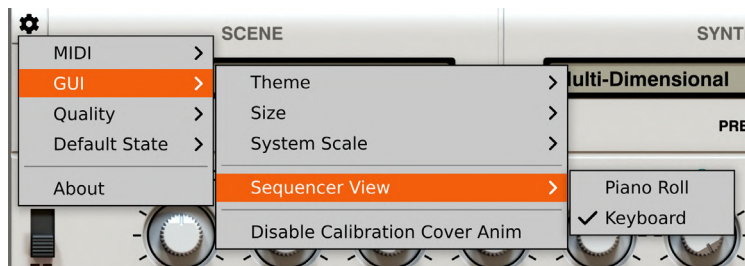


Dragging a file directly from the Pattern Browser

However, this will export patterns only in Phoscyon's native file format. You cannot export patterns as MIDI clips this way.

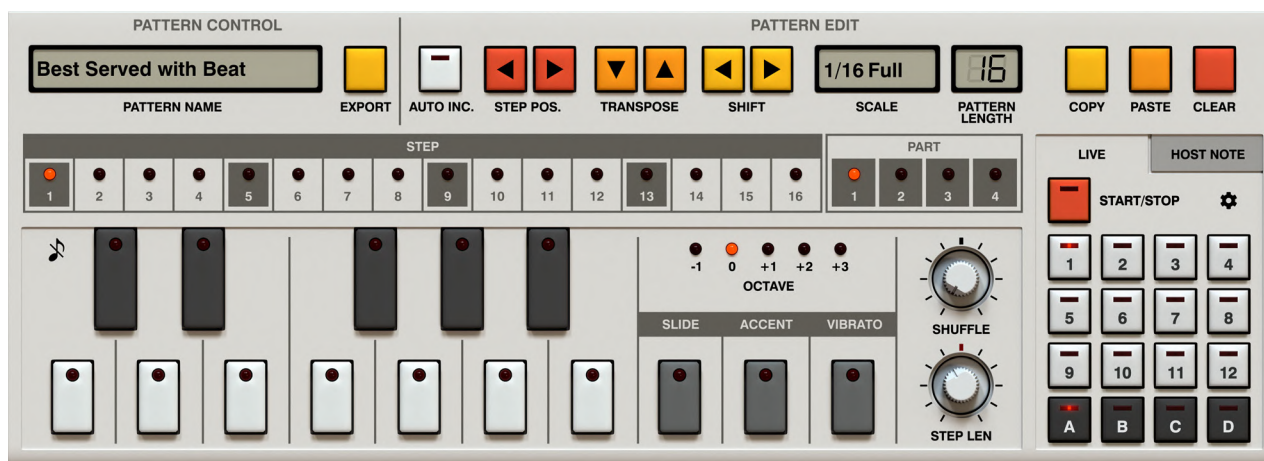
Alternative sequencer view

Using Cog icon in left-upper corner the GUI -> **Sequencer view** submenu allows you to change the sequencer's look:



The Sequencer View option

You can switch the look of the sequencer from the modern one - **Piano Roll** (default) - to one more similar to hardware step sequencers - the **Keyboard**:



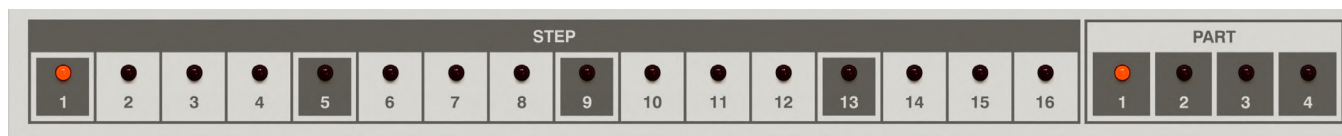
The Pattern Editor in Keyboard View mode

The entire **Pattern Editor** look changes. All the editing controls there have their equivalents in the **Piano Roll** view, so we won't focus much on describing all the functionality here except the pattern editing process itself, since it's a bit different.

❑ The only function that's missing here (compared to the Piano Roll view) is Randomizer. In order to randomize sequences you have to use Piano Roll view instead.

Sequence editing

In this view, you can see / edit one step at the time. First, select a step to edit. You can do that in the **Step / Part** bar by clicking the LED that corresponds to the desired **Step** and **Part**:



The Step selector

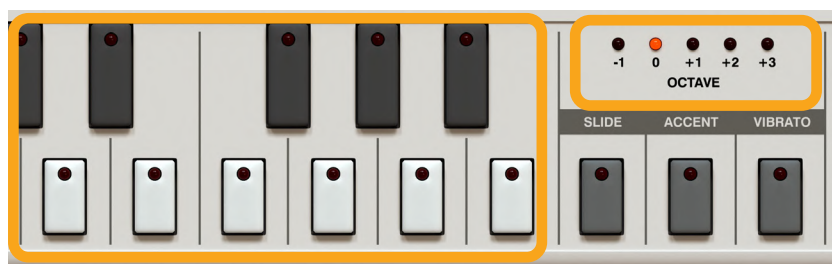
Patterns in **Phoscyon** are up to **64** steps long, hence the **4** parts.

Alternatively, you can scroll through the steps using the **Step Pos.** arrow buttons:



The Next / Prev step position buttons

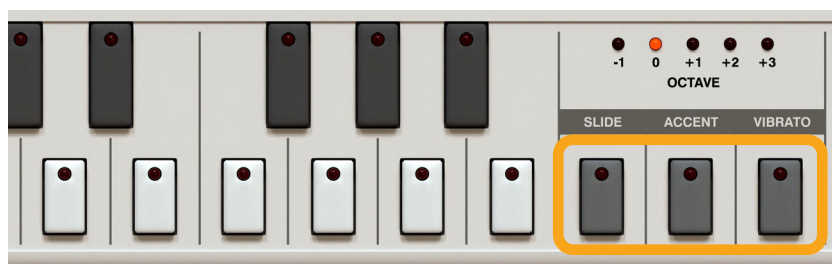
Once the step is selected, you can set **Note Pitch** by choosing an appropriate **Note Name** using the mini piano keyboard and the **Octave** selector in the upper-right corner:



Selecting note pitch using the mini piano keyboard

If **Note Name** isn't selected, it means the step is silenced.

Apart from **Note Pitch**, you can set all desired **Note Attributes** - **Slide**, **Accent** or **Vibrato** for the step too.



Selecting step attributes

Auto Increment

Enabling the **Auto Increment** option allows you to edit a sequence without navigating (selecting a new position) for every edited step. It's done automatically:

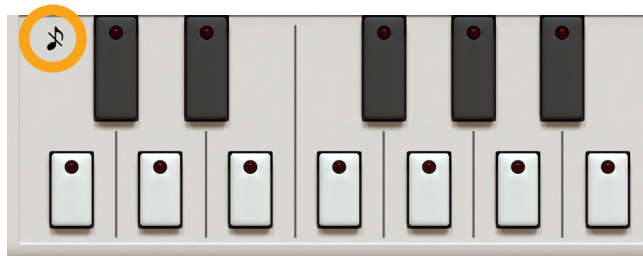


The Auto Inc. option

The **Auto Increment** mode works with the following method; using the mini piano keyboard to select a **Note Name** will trigger the **Step** selector to move to the next step, so you need to edit your sequence in a particular way; for every step, you first need to select **Octave** and/or **Step Attributes**, then select the **Note Name** which sets the current step and moves you to the next step; then you can repeat the process until the 16-step pattern is complete. Once you have set step 16, the **Step** selector will return to the first one.

Note preview

Note Preview is the only function that is exclusively available in the **Keyboard** view:

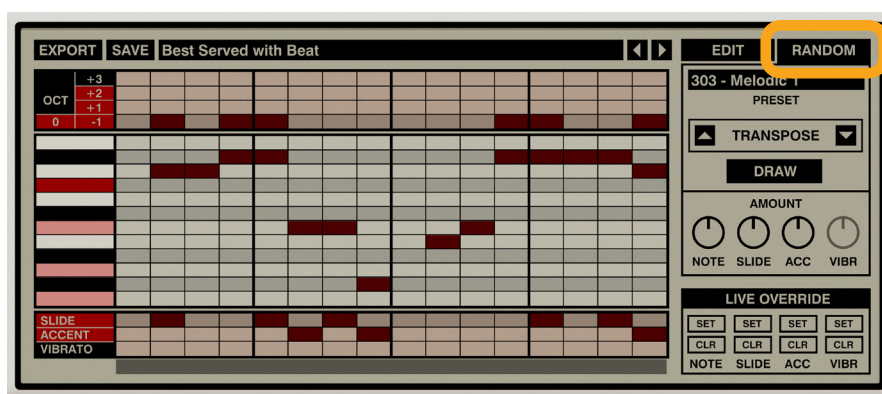


The Note Preview option

When active, you can hear the notes as you enter them, no matter if Auto Increment mode is enabled or disabled.

Randomizer

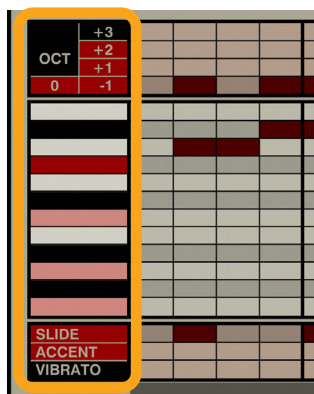
The Randomizer fills the internal patterns with randomly generated content (it works only in the **Sequencer Play Mode**). Select the **Random** tab from the **Pattern Editor** properties column to enable the **Randomizer**:



The Random mode

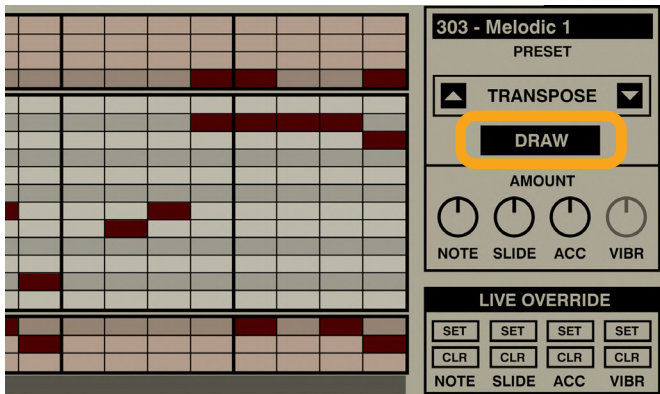
Editing randomization templates and drawing a new sequence

When the randomizer is switched on, the left-most section of the **Pattern Editor** grid becomes active:



Editing a randomization template

You can click to enable / disable (in toggle mode) which parts you desire to be randomized. This lets you select which **Notes** (note names) will be randomized, what **Octaves** (defining the pitch range a generated pattern will span) and which **Attributes**. Once you've selected the parts to be randomized, just click **Draw** to generate a random pattern:

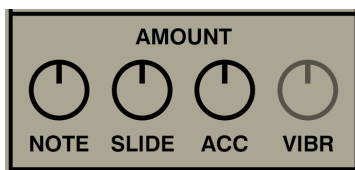


Drawing a new sequence

It's worth mentioning that randomization isn't a special mode; you can switch between **Edit** and **Random** tabs with no restrictions. Also, when the **Random** tab is selected, you can modify sequence content (in the grid), just like you were editing it.

Randomization density

Every time a new sequence is drawn, you can use the **Amount** knobs to precisely set the "density" of the generated sequence individually for each of the randomized parts:

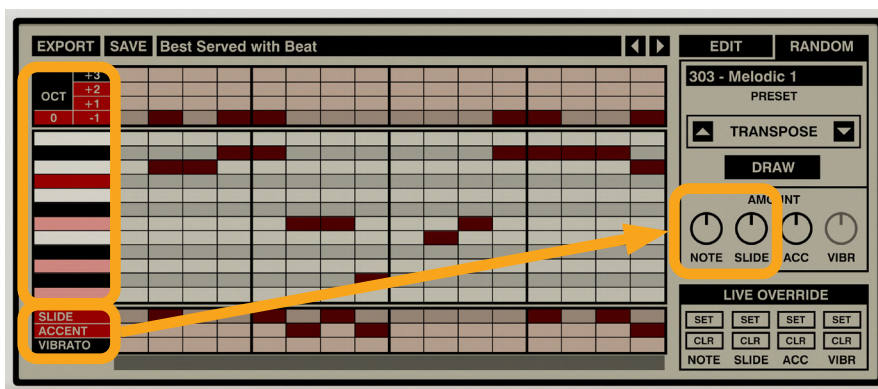


The Randomization densities

- **Note**
- **Slide**
- **Accent**
- **Vibrato**

The greater a knob's value, the "denser" (more numerous) a generated sequence for a particular part will be.

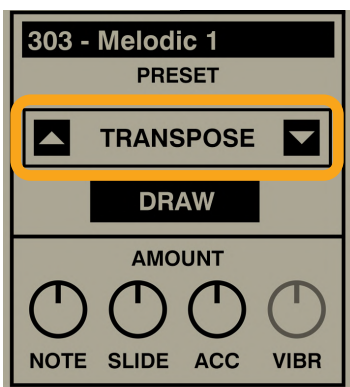
Note that only density knobs for included parts will be available; so for example, if you exclude **Accent** and **Vibrato** from randomization, their **Amount** knobs will be disabled:



The densities of parts selected for randomization

Transposing note template

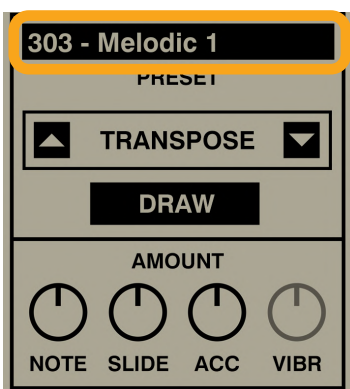
Using **Transpose Up** and **Down** arrow buttons, you can transpose the selected note template for randomization up or down respectively:



Transposing note template

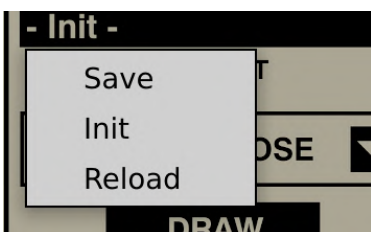
Loading / Saving randomization templates

You can also load / save randomization templates (parts selected for randomization) as a preset:



Managing randomization presets

Click the **Preset** box to open a browser and load a new template. To save a preset, right click on the **Preset** box to open the context menu and select the **Save** option to save the current configuration as a new preset:



Saving a randomization preset

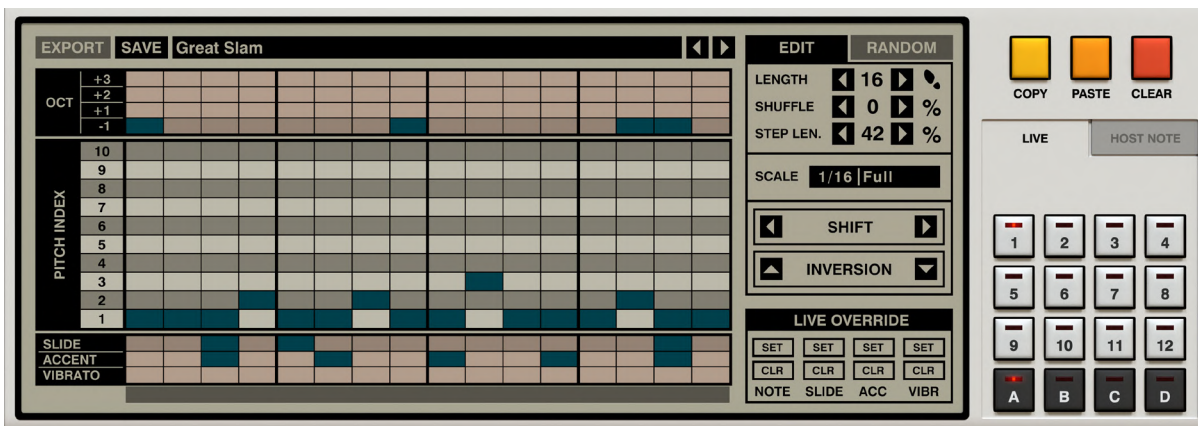
More on using browsers in general can be found in the **Preset Management** part of the manual.

Arpeggiator Play Mode



The Arpeggiator Play Mode

Once you switch **Phoscyon** into **Arpeggiator Play Mode**, the look of the bottom part of the interface (the **Pattern Editor** and **Pattern Selector**) changes:



The Pattern editor in Arpeggiator mode

In this mode, the plug-in generates sequences based on user input (*MIDI Notes*) along with pre-programmed **Arpeggiation Patterns** stored in a structure similar to **Sequencer Play Mode** patterns.

The **Pattern Selector** allows you to load or prepare **Arpeggiation Patterns** and is used the same way as in the **Sequencer Play Mode**. It offers the same storage capacity ($12 \times 4 = 48$ **Arpeggiation Patterns** in total).

There are a few key differences to **Sequencer Play Mode**:

- **Randomizer** and **Export** don't work with **Arpeggiator**
- **Host Note Mode** is unavailable
- Instead of **Note Names** in the grid we have **Pitch Indexes**:

How does the Arpeggiator work?

The plug-in waits for *MIDI Notes* to be sent or played on your *MIDI keyboard*.

Once the notes arrive, a few things happen:

1. All keys / notes that are held down are sorted by their pitch and indexed. The note with the lowest pitch is indexed as no. 1, next note above as no. 2 and so on. The **Arpeggiator** can index up to 10 notes at once (this number was chosen due to the maximum number of fingers we humans possess - cyborgs are excluded at the moment).
2. The **Arpeggiator** starts to move its cursor (with pace dictated by **Scale** - like in regular sequencer) and generates the music sequence.
3. As the cursor moves through a sequence, notes will be played that correspond to the **Pitch Index** of the step.

Let's consider following **Arpeggiation Pattern**:

The screenshot shows the Arpeggiator interface with the following settings and data:

- EXPORT** | **SAVE** | Great Slam
- EDIT** | **RANDOM**
- LENGTH**: 16
- SHUFFLE**: 0 %
- STEP LEN.**: 42 %
- SCALE**: 1/16 | Full
- SHIFT** button
- INVERSION** dropdown menu
- LIVE OVERRIDE** section:
 - SET | SET | SET | SET
 - CLR | CLR | CLR | CLR
 - NOTE | SLIDE | ACC | VIBR

The main grid displays the **PITCH INDEX** (1-10) and **OCT** (+3, +2, +1, -1) for each step. The pattern shows a sequence of notes corresponding to Pitch Index 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, with some notes being repeated or omitted based on the settings.

An example arpeggiation pattern

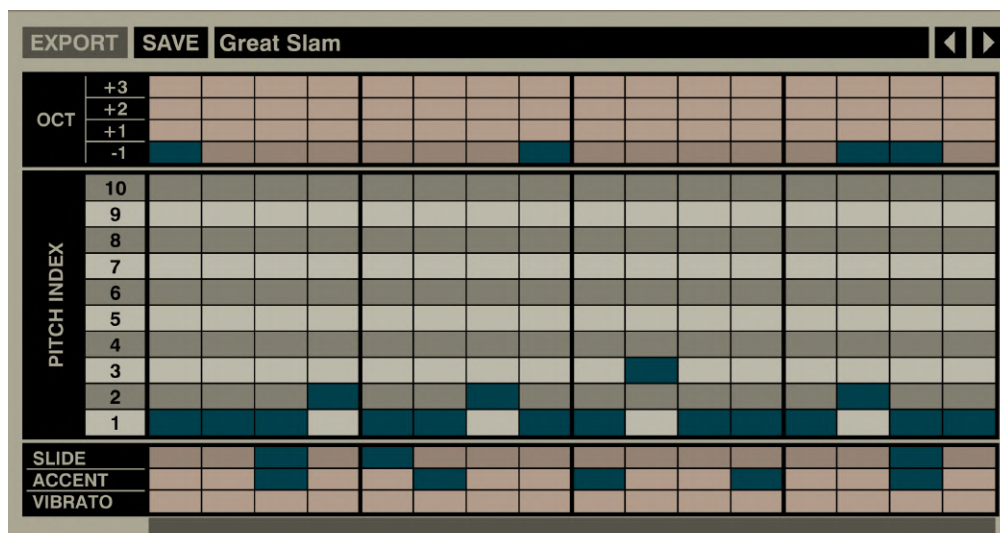
Here, if we hit a **C-maj** chord on the keyboard and as long as all the keys are being held, a sequence of 3 consecutive $1/16^{\text{th}}$ notes will be generated: **C, E, G** playing in loop.

If we change some keyboard keys while leaving at least one note still playing, the **Arpeggiation Pattern** won't restart its cursor position and the sequence will be generated continuously with the new pitches. The cursor will be reset when you take your hands off the *MIDI key - board*. When we press the keys again, the sequence will start from the beginning of the **Arpeggiation Pattern**.

If the plug-in encounters a **Pitch Index** in the **Arpeggiation Pattern** that doesn't correspond to any *MIDI Note* held on the keyboard then the **Note** indexed as **no.1** will be played.

So, let's consider the same **Arpeggiation Pattern** as the picture above but instead we only hit **C** and **E** keys. According to the rule from the paragraph above, the following sequence will be played: **C, E, C** in a loop with the last **C** note being a result of that rule. **Pitch Index no.3** wasn't present in the given set of just two notes, therefore the note indexed as **no. 1** was played instead.

Editing Arpeggiation Patterns



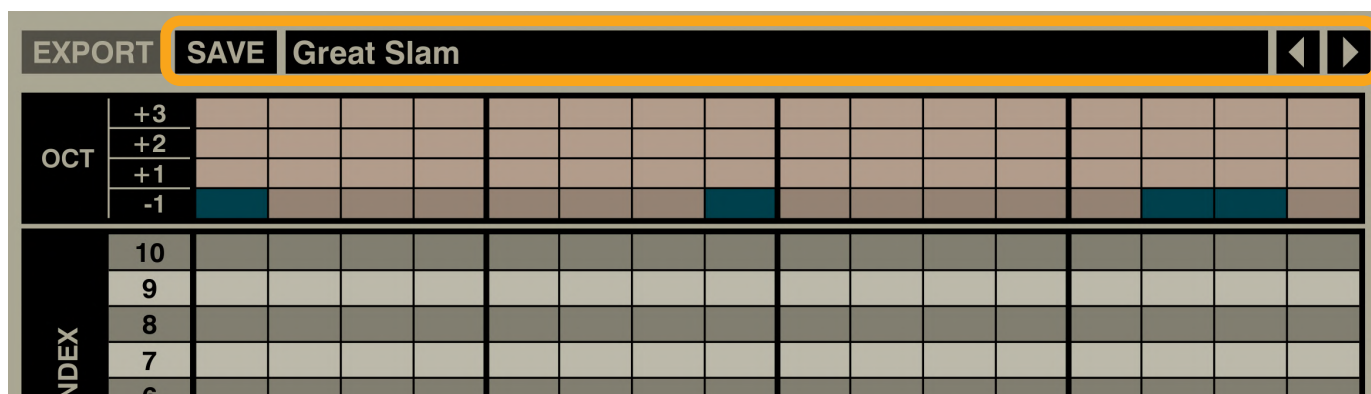
Editing an Arpeggiation Pattern

Editing the **Arpeggiation Pattern** section is performed the same way as with a regular **Pattern**. Mouse-clicks are used to set both the steps (**Pitch, Index and Octave**), and also the **Attributes (Slide, Accent and Vibrato)**.

The properties of an **Arpeggiation Pattern** aren't different from a regular pattern and they are edited the same way. The **Pattern Selector** works the same way too. The only exception is the Inversion edit function, which works like the **Transposition** for a regular pattern, but since we operate on **Indexes** rather than **Note Pitches** it's labeled differently.

Loading and saving arpeggiation patterns

Just like with regular patterns, you can use the controls situated at the top of the section to load and save **Arpeggiation Patterns**.



Managing arpeggiation patterns

Note that resources (factory / user) for **Arpeggiation Patterns** and regular **Patterns** are separate and not interchangeable – you can't use a regular pattern as an arpeggiator and vice versa.

Preset Management

Preset storage

Presets, both from **Factory** content and user ones, are stored as files in proper locations on the disc. Each time a plug-in instance is loaded into a project, these locations are scanned and the presets found there are consolidated into a single linear structure (list) in the **Preset Browser**.

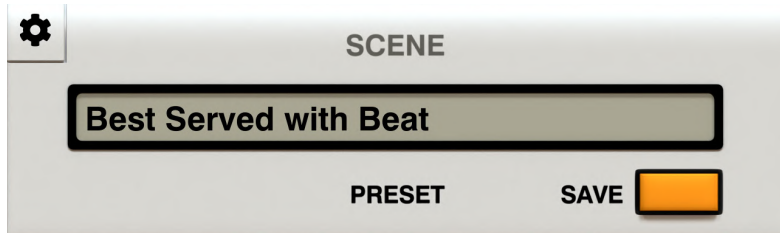
Preset structure

The presets' structure in the plug-in is hierarchically organized; there are a few different kinds of presets and these store different groups of parameters.

- **Scene** - A global preset which gathers all sound parameters, randomization templates, entire pattern storage for the **Sequencer** (48 patterns) + **Arpeggiator** (another 48 patterns) and the selected **Play Mode**:
 - **Synthesis** - Covers all sound parameters (including **Calibration** section) + distortion + fx chain:
 - **Calibration** - Includes only calibration parameters (ones under the cover)
 - **EQ** - Parameters for the fx chain's equalizer
 - **Limiter** - Parameters for the fx chain's limiter
 - **Reverb** - Parameters for the fx chain's reverb
 - **Chorus** - Parameters for the fx chain's chorus
 - **Delay** - Parameters for the fx chain's delay
- **Sequencer pattern** - Includes a single sequencer pattern (notes and attributes) with its additional parameters (like scale, length, shuffle, etc.). This kind of preset can be loaded only with **PlayMode = SEQ**
- **Arpeggiator pattern** - Includes a single arpeggiator pattern (pitch indexes and attributes) with its additional parameters (like scale, length, shuffle, etc.). This kind of preset can be loaded only with **PlayMode = ARP**
- **Randomizer preset** - Randomization template for **Sequencer**. Can be loaded only with **PlayMode = SEQ**

Browsing presets

The **Preset management section** (no matter what kind of preset it concerns) enables quick navigation and browsing of the preset structure:



The Preset management section

- **PRESET** - Displays the name of the currently loaded preset. Clicking the display opens the **Preset Browser** panel, allowing you to browse factory / user presets.
- **Prev / Next** - Hovering over right side of the **Preset** display exposes the **Prev / Next** buttons:



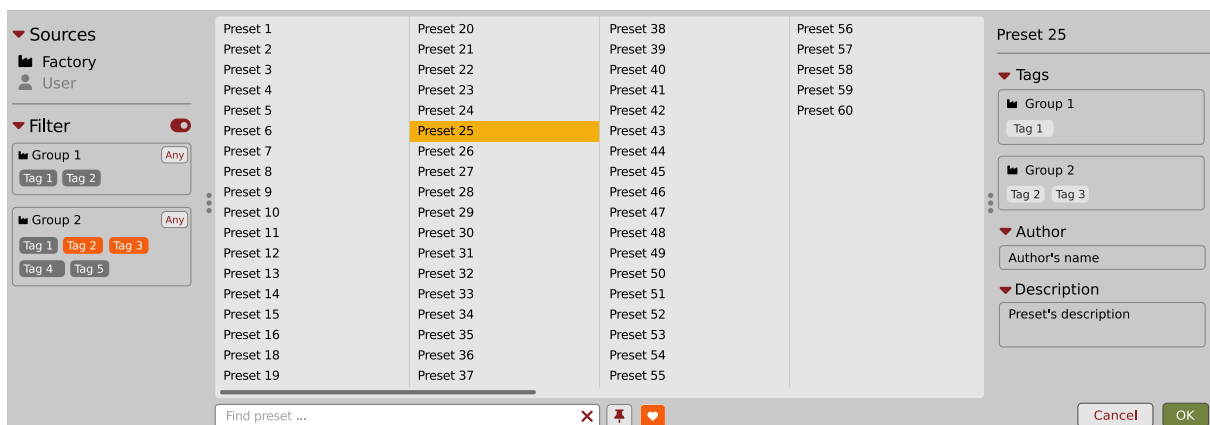
They allow for linear browsing of the presets list (depending on currently set filters - see sections below).

- **Save** - Saves current parameters as a new preset or allows for overwriting of the existing one (see sections below).

Right-clicking over the **Preset** display opens a context menu with two or three additional options:

- **Init** - Restores initial settings of plug-in parameters.
- **Reload** - Reloads the most recently loaded preset.
- **Save** - See description above.

The **Preset Browser** looks as follows:



The Preset Browser

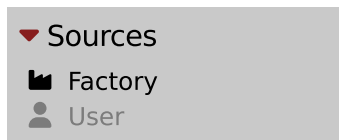
There are four main parts:

- **Sources** - Situated in the left column, filter content **Sources** for displayed presets.
- **Filter** - Below **Sources**, a preset **Filter** that uses the **Tags** system.
- **Results** - List of presets (shown in the middle column) from **Sources** that meet criteria set in the **Filter**.
- **Info pane** - The right column shows information about the currently selected preset(s), divided into several subsections.

If available - For some preset types this button can be hidden and accessible from the contextual menu (accessible via right mouse-click on **Preset display**)
 If available

Sources

In this section, you can choose a **Source / Source(s)** that you want to browse presets from.



Preset Sources

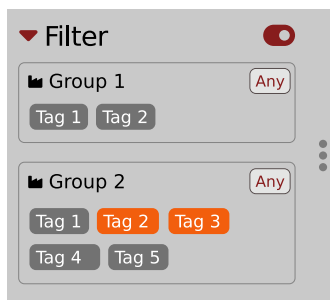
There are two resources to choose from:

- **Factory** - Delivered together with the plug-in and cannot be modified (read-only).
- **User** - Created by the user and can be freely modified or shared with other users.

Choosing any of them will cause the results to narrow to the presets from one resource.

Filter

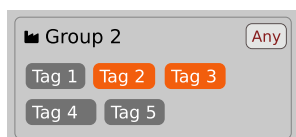
The section below is the **Filter**, which represents a preset filtering system using **Groups** and **Tags** to browse the content.



The Filter section

Groups and tags

Each **Preset** is described by a few common **Groups**. Within each of them there may be one or more **Tags** from a particular set.



The Filter group

Presets from the **Factory** resource were assigned **Groups** and **Tags** when they were created.

Groups and **Tags** describe the content clearly, taking into account the plug-in's purpose.

Editing of the **Groups** and **Tags** for **Factory** content is limited. User presets can be described with the same **Groups** and **Tags** as **Factory** content, or you may define additional **Tags** within factory **Groups** and even create your own **Groups** with your own **Tags** to describe your own presets.

The only limitation is that a user cannot remove factory **Groups** or **Tags** from **Factory** content.

Results

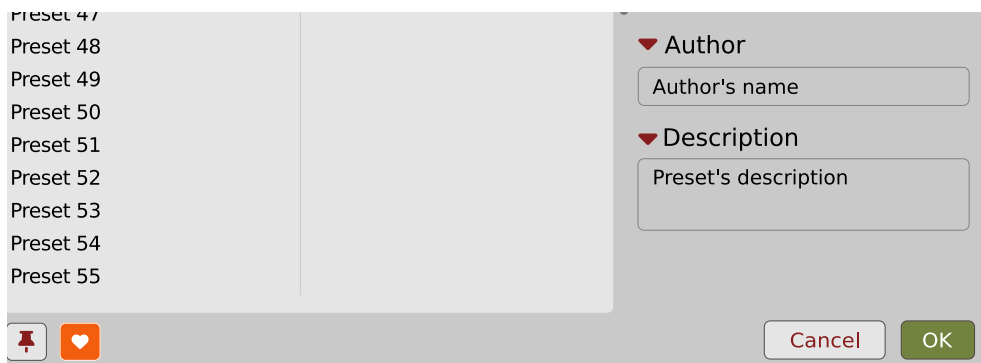
This is a list of presets from chosen **Sources** that meet the filtering criteria. The basic function of this section is to browse and load presets. It can also be used for editing, which is described later.

Preset 1	Preset 20	Preset 38	Preset 56
Preset 2	Preset 21	Preset 39	Preset 57
Preset 3	Preset 22	Preset 40	Preset 58
Preset 4	Preset 23	Preset 41	Preset 59
Preset 5	Preset 24	Preset 42	Preset 60
Preset 6	Preset 25	Preset 43	
Preset 7	Preset 26	Preset 44	
Preset 8	Preset 27	Preset 45	
Preset 9	Preset 28	Preset 46	
Preset 10	Preset 29	Preset 47	
Preset 11	Preset 30	Preset 48	
Preset 12	Preset 31	Preset 49	
Preset 13	Preset 32	Preset 50	
Preset 14	Preset 33	Preset 51	
Preset 15	Preset 34	Preset 52	
Preset 16	Preset 35	Preset 53	
Preset 18	Preset 36	Preset 54	
Preset 19	Preset 37	Preset 55	

The Results list

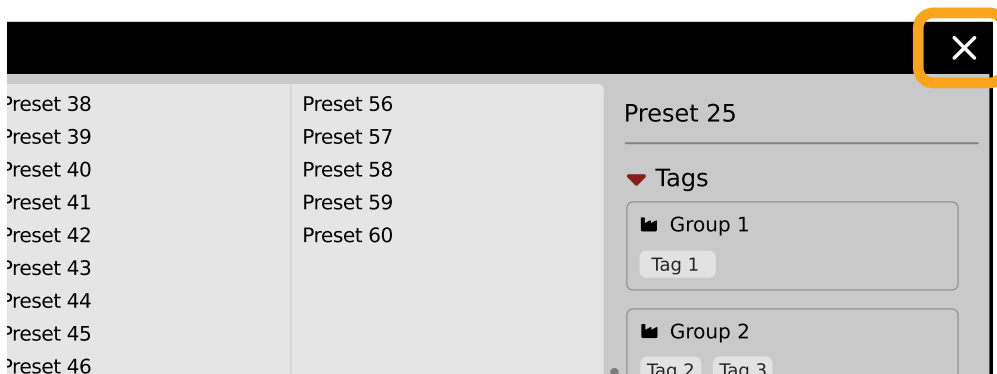
- Click any name to choose and load the preset.
- **Double-click** the name to choose, load the preset and close the browser.

Hitting the **OK** button confirms loading a preset and closes the browser. Using **Cancel** closes the browser but reverts all parameter changes that loading a new preset might have caused.



The OK and Cancel buttons in the browser

Using the **X** icon has the same effect as the **OK** button:



Close Browser window

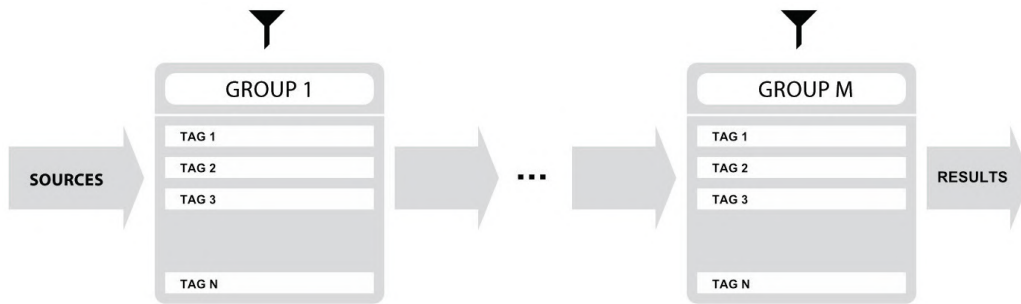
Preset filtering using Groups and Tags

The **Filter** section contains **Groups** of **Tags**. Each Group is represented by a rectangle with the **Group** name + set of **Tags** inside.



Group 2 with two tags set (Tag 2 and Tag 3)

The filtering process cascades from top to bottom. This means that all presets available in the selected **Sources** are filtered by selected **Tags** from the first **Group** (uppermost one), then the **Group** below and so on, until filtered by the last active **Group** (the bottom one).

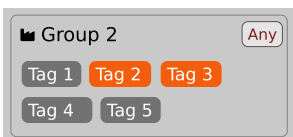


Preset Filtering with the use of Groups

The result of the cascade filtering process is listed in the middle column, the **Results** / presets list section. You can also consider the **Results** list as an intersection of preset sets, found by filtering through every individual **Group**.

Basic Actions

Tags work as toggle buttons. Click to *activate* / *deactivate* a **Tag**; a gray background color means that the **Tag** is inactive, and orange means that the **Tag** is active.



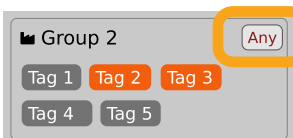
Group 2 with two tags set (Tag 2 and Tag 3)

If at least one **Tag** in a **Group** is active, then the **Group** (filter) also becomes active, otherwise the **Group** chosen doesn't affect the filtering process at all.

Group operator



When a single **Tag** is active in a **Group**, only presets having that **Tag** set are displayed in the **Results**.

If two or more **Tags** in a **Group** are active, the **Results** depend on the **Operator** chosen for the **Group**:



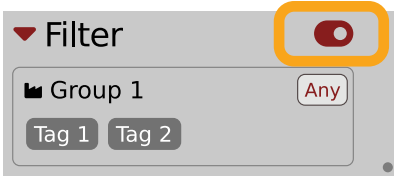
A Group operator

The **Operator** button works in toggle mode and offers a choice of two alternative **Operators** for the **Group**:

- **Any**  - Means that a preset is shown in the **Results** when the preset includes at least one of the active **Tags** from the **Group**.
- **All**  - Means that a preset is shown in the **Results** only when the preset includes all active **Tags** from the **Group**.

Filter enable / disable

You can quickly enable / disable the **Filter** using the toggle switch in the top-most section of the **Filter**:

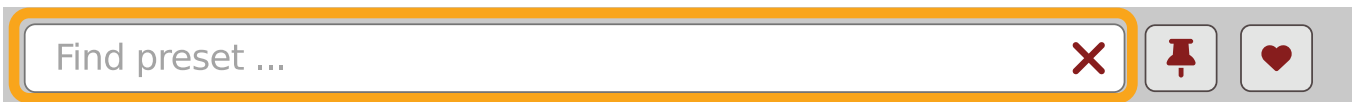


An On/Off switch for a Group Filter

Other types of filtering

Searching by name

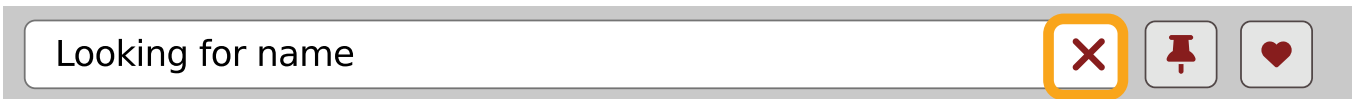
Alternatively, you can look for a preset by entering its name or just a piece of its name into the **Find preset** field:



The Find preset input


The **Results** are refreshed on-the-fly and they work together with the other filters.

Using the **X** icon clears the entire field:






Clearing the search field


Filtering Favorite presets

You can mark presets as a **Favorite** by clicking the **Heart** icon while hovering on preset name . You can unmark presets by clicking the icon again (toggle mode):



Setting a preset as a Favorite on the list

-
-  Logical OR between Tags in the Group
 -  Logical AND between Tags in the Group
 -  It's allowed for every **source** (factory or user)

The flag is stored globally, meaning that a **Favorite** preset will be accessible as such from every other instance of the plug-in  .


Once you have your **Favorite** presets flagged, you can quickly filter them using the toggle button with a **Heart** icon on it:

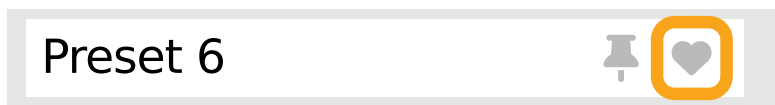


Favorite presets filtering

If the button is active, then only **Favorite** presets will be shown (considering all remaining filters).

Filtering Pinned presets

You can **Pin** one or more presets using the **Pin** icon while hovering over a preset name  . You can unpin a preset by clicking the icon again (toggle mode):



Pinning a preset on the list

Unlike **Favorites**, this flag works locally and it's stored with the project file (not global config), so **Pins** are stored individually for every instance (with total recall, so a plug-in state is recalled if saved in the context of a project).

But, similarly to **Favorites**, you can easily filter presets using the toggle button with the **Pin** symbol on it:

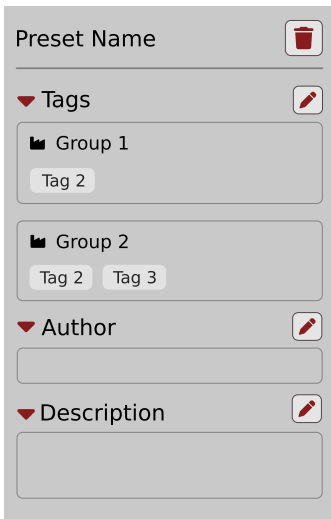


Pinned presets filtering

If the button is active, then only **Pinned** presets will be shown (considering all remaining filters).

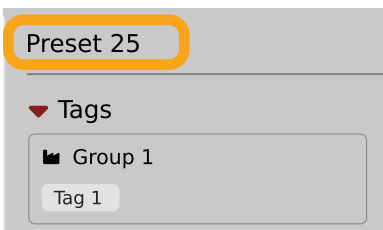
Info pane

The column to the right shows information about the selected preset or presets. It also provides access to some of the preset editing functions.



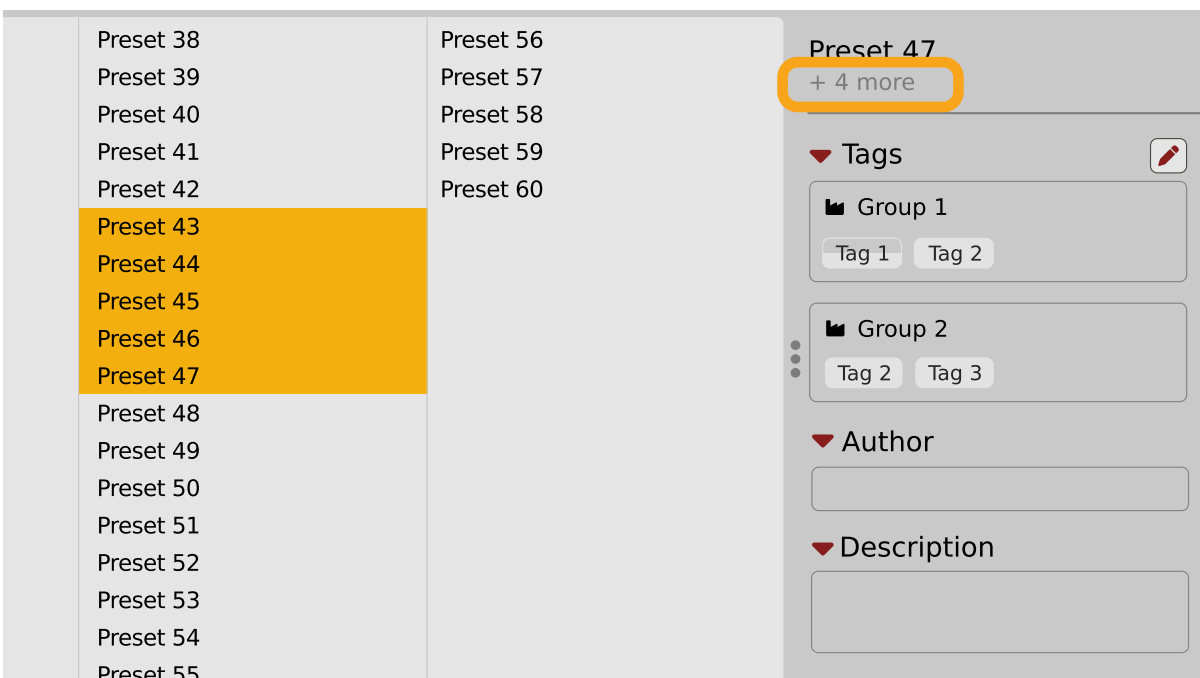
The Info pane

There's a preset name at the top.



The Preset name in the Info pane

Additionally, if you've selected more than one preset there's information about how many more have been selected:



Selecting more than one preset

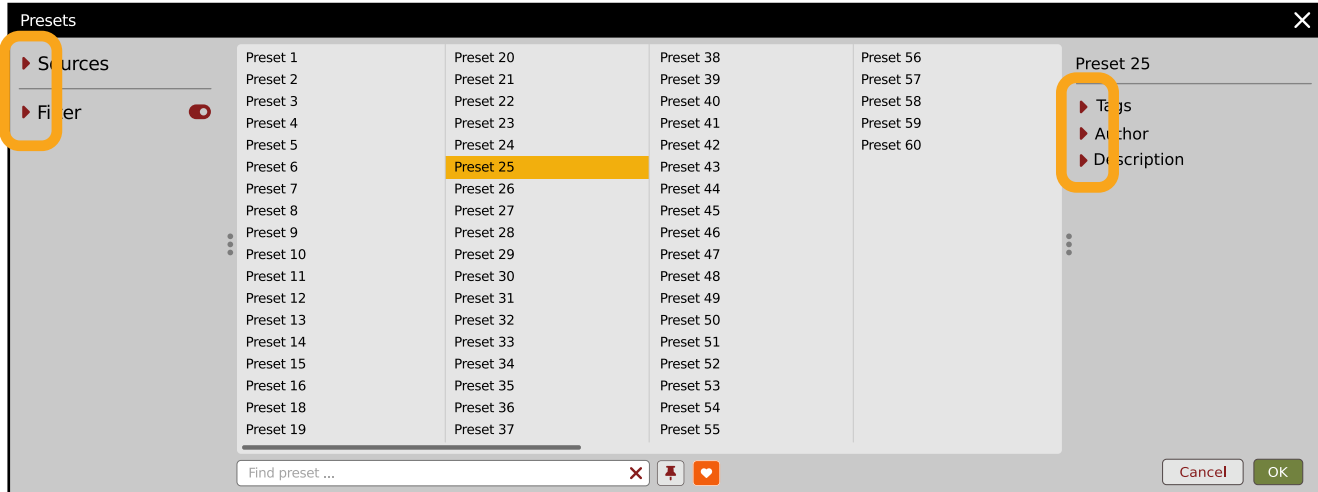
Below the preset(s) name there are few common sections describing selected presets:

- Tags
- Author
- Description

Browser's visual adjustments

Folding sections

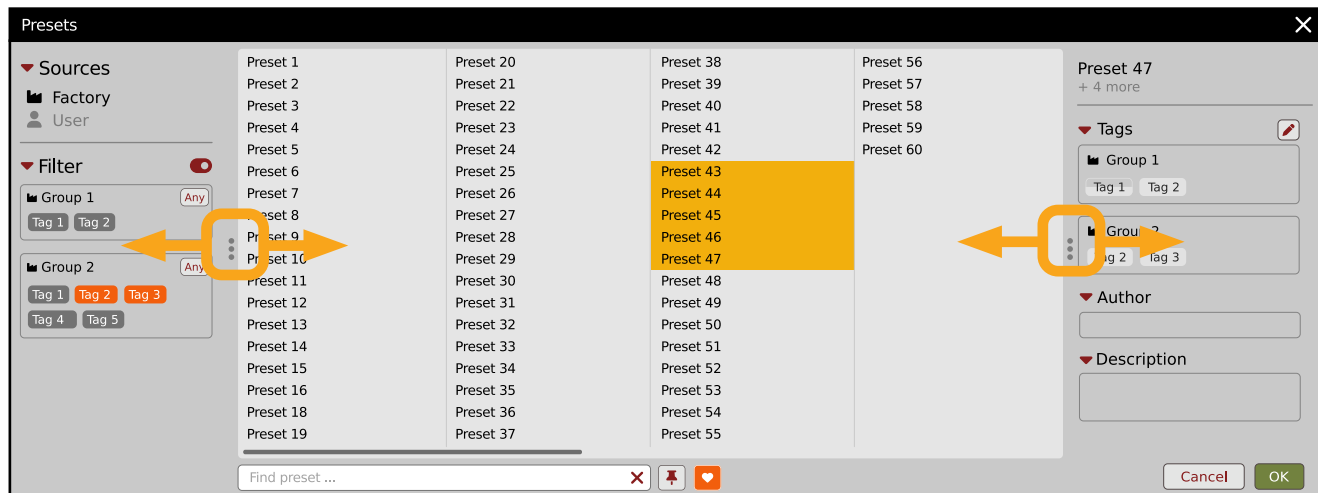
If you don't need to see the contents of every section / subsection, you can fold some of them up using the **Caret** icons:



Sections folded up

Resizing columns

You can use the three-dotted handles to change a column's width to your preference.



Resizing Browser columns

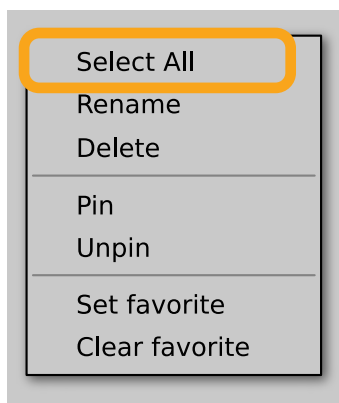
Editing presets

You can perform certain actions on presets, such as adjusting **Groups** and **Tags**, deletion, renaming the presets as well as their export or import. One should bear in mind, however, that some operations are only allowed on user presets but not on **Factory** content.

Preset selection for Edit

Some operations can be done on more than one preset, so you're allowed to select more than one preset at once; in the **Results** section, you can choose a preset or a set of presets in the following ways:

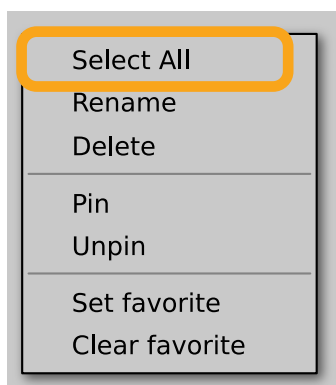
- **Click a preset** - Selects (and loads) one preset from the list.
- Win (**Ctrl**) + **Click the preset**), Mac (**Cmd** + **⌘**) + **Click the preset**) - Adds another preset to an already chosen preset or a set of presets.
- **Shift + Click the preset** - Selects a range of presets from the last chosen preset to the preset clicked with the *Shift key*.
- Right-Click on any **Preset** in the **Results** section and choose the **Select All** option - this selects all presets:



Selecting all presets

Preset renaming

On a selected preset **▶**, right-click to open the context menu and select the **Rename** option:

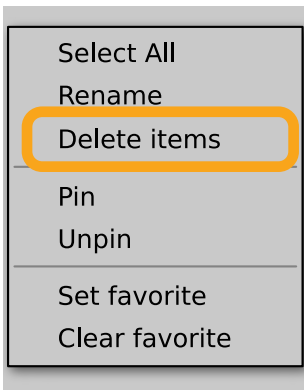


Preset renaming

▶ The option is available only for individual presets and won't work on a selection of two or more presets.

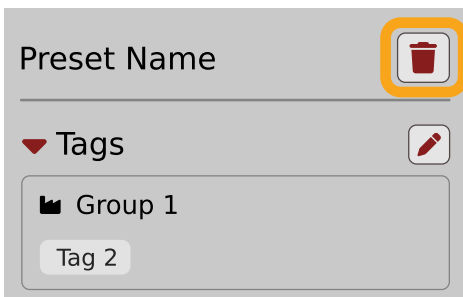
Preset deletion

Once you have selected one or more presets, right-click to open the context menu and select the **Delete items**  option:



Deleting presets

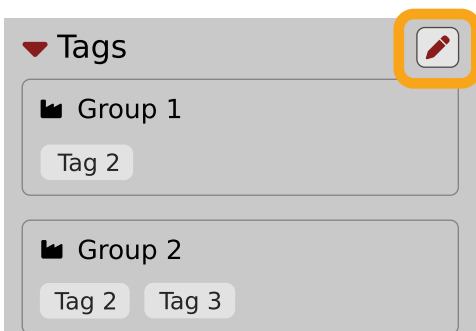
Alternatively, you can use the **Trash bin** button in the **Info pane** to delete selected presets:




The Trash bin button

Tags editing

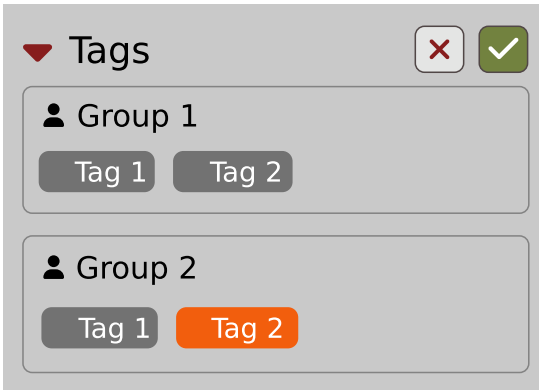
When you select a preset or presets to change their tags, click the **Pencil** button next the **Tags** section in the **Info pane** to enter **Edit mode** for the **Tags**:



Entering the Tag edit mode

 Or **Delete** option (depending on how many presets have been selected).

With the **Edit mode** enabled, you will see all possible **Groups** and **Tags** available for the preset(s):

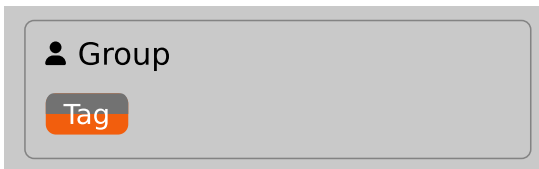


The Tag Edit mode

Tag buttons work in toggle mode, much like filtering. Clicking them either sets or erases a **Tag** for a chosen preset. If a **Tag** is set for a preset, it is indicated by an orange background color, whereas if a **Tag** is not set, it has a gray background color.

If you choose multiple presets with existing tags, **Tag** buttons will appear orange if a specific **Tag** appears in all selected presets, and gray if it appears in none.

When a specific **Tag** is set only for a few of the selected presets, it appears as half-gray and half-orange.



Tags appearing only in part of selection

Changing the **Tag** status for one or more chosen presets sets or erases this **Tag** in all these presets. A status change is signaled by an **Asterisk** to the left of a **Tag**.



A Tag with a status change

Tag buttons highlighted in half-gray and half-orange color (where **Tag** values across the highlighted presets aren't all the same) work in a three-state system when switching between states; they turn gray if you erase the **Tag** for all selected presets, orange if you set the **Tag** for all selected presets, and return to half-gray and half-orange if the selected items remain unchanged or are returned to their initial state.

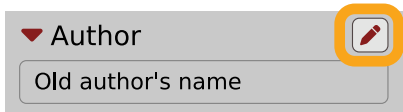
Potential changes have to be confirmed using the **OK / Cancel** buttons at the top part of the **Tags** section:



Confirmation buttons in the Tags section

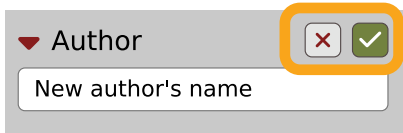
Author editing

When you select a preset or presets to change the **Author**, click the **Pencil** button next the **Author** section in the **Info** pane to enter the **Edit mode** for the **Author** field:



Editing Author

Once you've finished editing the field, confirm the operation using the **OK / Cancel** buttons:

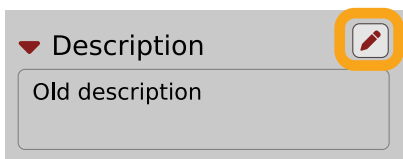


Confirming Author editing

This operation is possible for user content only.

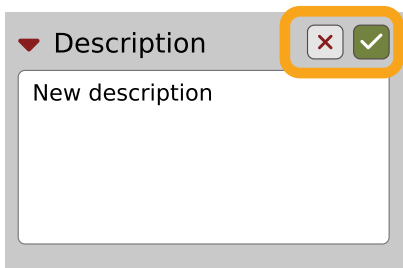
Description editing

When you select a preset or presets to change the **Description**, click the **Pencil** button next the **Description** section in the **Info** pane to enter the **Edit mode** for the **Description** field:



Editing Description

Once you've finished editing the field, confirm the operation using the **OK / Cancel** buttons:



Confirming Description editing


This operation is possible for user content only.

Setting presets as Favorites

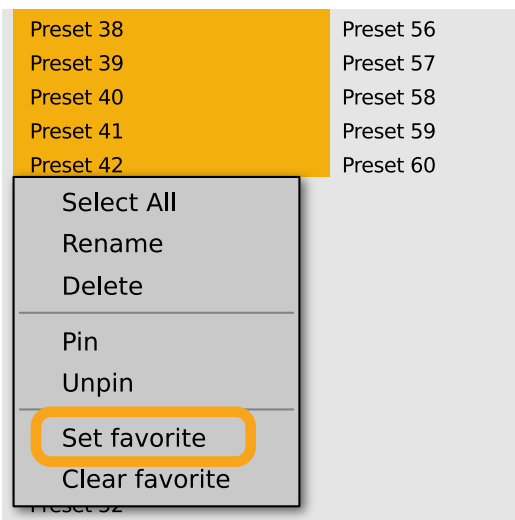
As described in the chapters above, you can mark a preset as a **Favorite** by clicking the **Heart** icon while hovering over the preset name:



Setting a preset as a Favorite

The flag is stored globally, meaning that a **Favorite** preset will be accessible as such from every other instance of the plug-in  .

It's also possible to perform the operation for a selection of presets. After you select the desired presets in the **Results** window, right-click on the presets to open a context menu:



Setting Favorite presets from the context menu

And select the **Set favorite** option.

To clear **Favorite** flags for the selection of presets, use the **Clear favorite** option instead.

Pinning presets

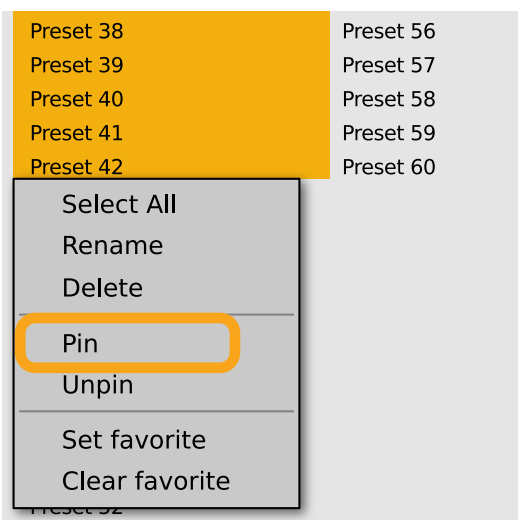
You can **Pin** one or more presets using the **Pin** icon while hovering over the preset name:



Pinning a preset

Unlike **Favorites**, this flag works locally and it's stored with the project file (not globally). This means the **Pins** are stored individually for every instance (with total recall, so a plug-in state is recalled if saved in the context of a project).

It's also possible to perform the operation for a selection of presets. After selecting the desired presets in the **Results** window, right-click on the presets list to open the context menu:



Pinning presets from selection

And select the **Pin** option.

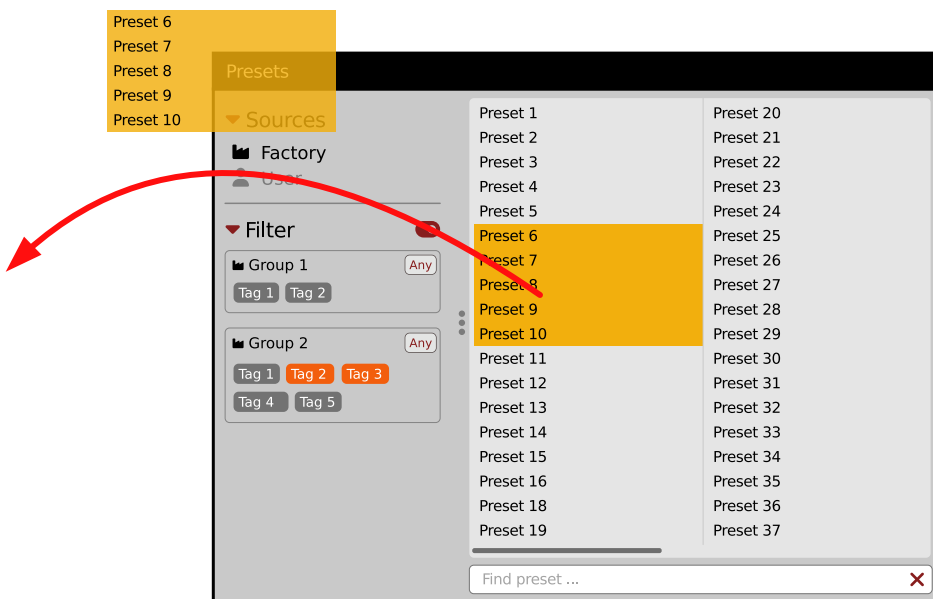
To clear the **Pin** flag for a selection of presets, use the **Unpin** option instead.

Preset exchange

If you want to make a backup, or exchange a preset with a collaborator, you can export / import selected presets.

Export

Select a preset or presets that you're going to export and drag-and-drop them outside your DAW into a location you'd like to store them:

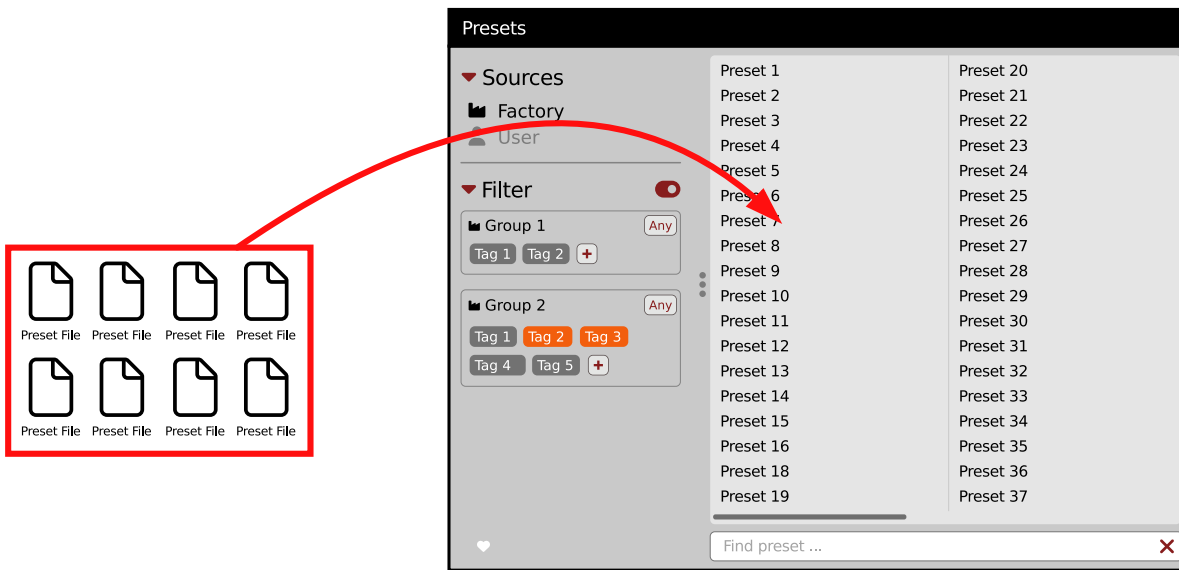


Exporting presets

The presets will be saved as individual files (one per preset) in the plug-in's native format.

Import

If you'd like to import preset files, you can drag-and-drop preset files from where they're stored, into the preset browser:



Importing presets

They will be automatically imported as user presets.


Importing Patterns

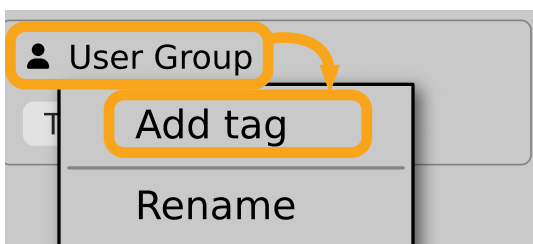
Specifically within the **Pattern browser**, it's possible to import:

- Native **Phoscyon 2** patterns.
- Banks from legacy versions of the plug-in (**Phoscyon 1.x**) - which will be accessible as alternative **Sources**, after you drag-and-drop them into the **Browser**.
- Patterns from *Audiorealism* ABL 2 or 3 instruments - which will be included in **User** patterns after import.

Creating custom Tags and Groups structure

Adding custom Tags

Users are allowed to add their own custom **Tags** to both their own content and factory content. To add a new **Tag** to an existing filter **Group**, click over the **Group's** name to pull down a menu and select the **Add Tag** option  :



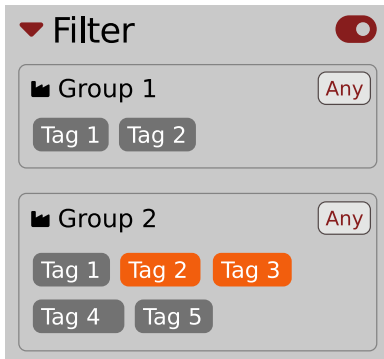
Adding a new Tag

You can do this either in the **Info Pane** (right column, while the **Tag edit** mode is enabled) or **Filter** (left column).

 This operation is allowed for a user's Groups only

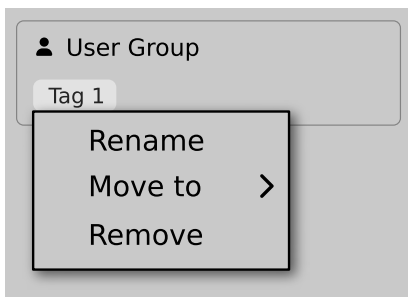
Editing custom Tags

There are a few edit options available for a user to perform on their own **Tags**, which are available by right-clicking a **Tag's** name in the **Filter** section:



The Filter section

You will see a context menu with all the available options:



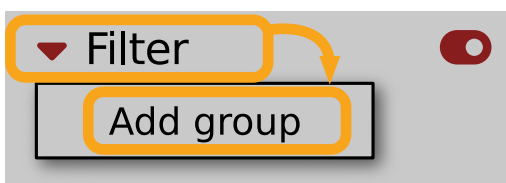
Editing options for a user Tag

- **Rename** - Changes the name of a **Tag**.
- **Move to** - Moves a **Tag** to another **Group**.
- **Remove** - Deletes a **Tag**.

The menu is accessible only for a user's own **Tags**.

Adding custom Groups

You can add a custom filter to **Groups** by clicking the **Filter** label and selecting the **Add Group** option from the pull-down menu:



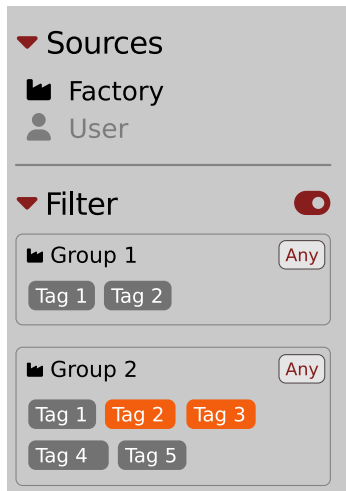
Adding a user Group

From here, you can add **Tags** to that newly created **Group** (see above), or move **Tags** from other **Groups**.

You can also add a custom filter to **Groups** in the **Info Pane** (right column) or **Filter** (left column).

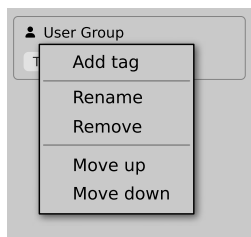
Editing custom Groups

There are a few edit options available for a user to perform on their own **Groups**. Click on a **Group's** name in the **Filter** section:



The Filter section

You will see a context menu with the following options:



Edit options for a user Group

- **Add Tag** - Adds a new tag to the **Group** (described earlier).
- **Rename** - Changes the **Group's** name.
- **Remove** - Deletes the **Group**, possible only when all **Tags** in the **Group** have also been removed.
- **Move up** - Moves a **Group** up in the **Filter**. Possible unless the **Group** is already the topmost one.
- **Move down** - Moves a **Group** down in the **Filter**. Possible unless the **Group** is the last one.

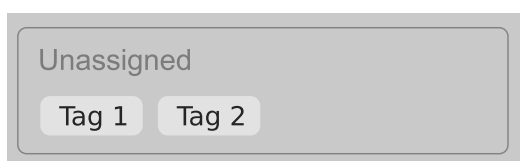
These operations are possible only on user **Groups**.

Groups in the **Filter** are ordered with **Groups** from **Factory** content first, then user groups below.

You can edit user **Groups** in either the **Info Pane** (right column, while **Edit mode** for **Tags** is enabled) or **Filter** (left column).

Unassigned Tags

When you receive content from a collaborator who uses different **Tags** and **Groups**, some Tags may show as **Unassigned**. This happens if the filter structure made by a preset's author is different.



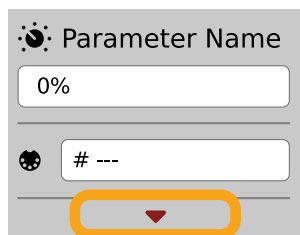
Unassigned Tags

You can move the **Tags** across your **Groups** to make them fit your scheme, or re-tag the collaborator content entirely.

Configuration

MIDI Learn

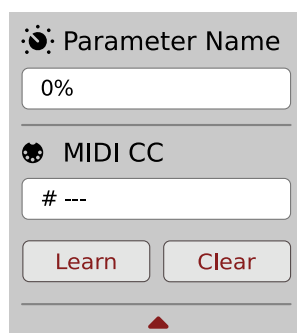
Right-click any plug-in parameter to open the context menu:



A context menu

Left-clicking outside the menu area closes it automatically.

Clicking the bottom arrow expands the menu and displays all available options:

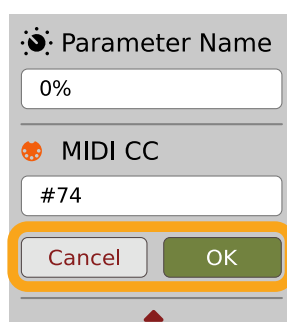


An expanded context menu

Linking a parameter to MIDI CC

The **Learn** function enables a quick assignment of physical controllers (from a MIDI controller) to plug-in parameters.

1. Click the **Learn** button to put the plug-in into a pending state before moving any MIDI CC controller.
2. Once the CC is recognized, click **OK** to save the change or click the **Cancel** button to restore the previous setting.

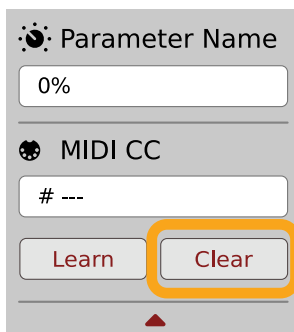


Linking a parameter to MIDI CC

Unlinking a parameter from MIDI CC

You can also delete a MIDI CC code attributed to a parameter from the context menu:

1. From the context menu, click the **Clear** button:

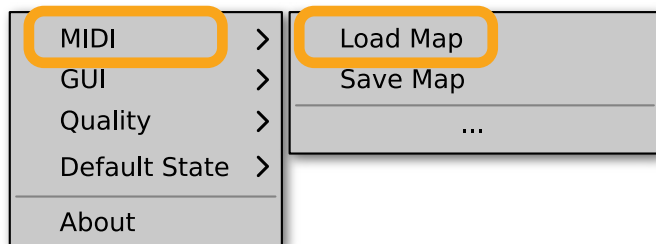


The Clear MIDI CC button

2. Then confirm using the **OK** button.

Loading / Saving a MIDI CC Map

These options are available in the **MIDI** submenu, accessible under **Cog** icon in the left-upper corner:

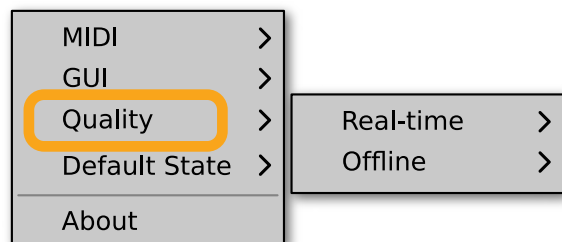


The Load Map and Save Map options

- **Save Map** - Saves the current MIDI CC map to a file.
- **Load Map** - Loads a MIDI CC map from a stored file.

Quality settings

The **Quality** submenu under **Cog** icon in upper-left corner allows to choose sound quality for **Real-time** or **Offline** modes.

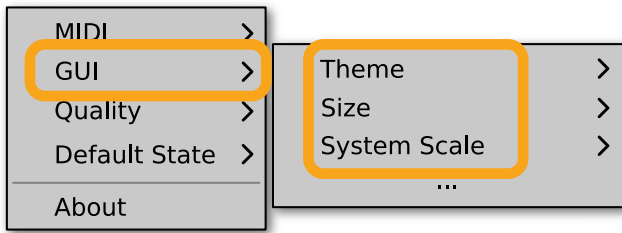


Quality settings

The higher the quality, the bigger the impact on the CPU.

GUI

The **Size**, **System Scale** and **Theme** options are accessible from **GUI** submenu under **Cog** icon in upper-left corner of the plug-in. With these, you can adjust look of the plug-in, according to the pixel density and resolution of your screen:



The GUI Size and System Scale options

Size

This option lets you choose one of several default skin sizes to best match the plugin to the resolution of your computer monitor.

System Scale

System Scale controls the rescale factor for the whole plug-in. For the best visual results, you should set it to the exact value from your system settings (screen properties).

Theme

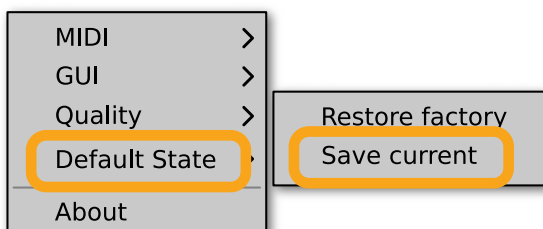
The **Theme** allows you to choose skin color variant according to your preference

Default Settings

You can save your current settings so that the plug-in will default to them for each new instance, or restore the plug-in to load with its factory settings.

Changing default settings

1. Click the **Cog** icon in the left-upper corner of the plugin.
2. Go to the **Default State** submenu and choose the **Save current** option.



Changing the default state of the plug-in

With this option, the current plug-in state will be saved as the default / initial state for when you insert a new instance of the plug-in.

The plug-in state includes: sound parameters (default preset), views, preset filters, sound quality settings, loaded / created MIDI CC map and GUI settings.

Restoring factory defaults

To return the default state for new instances to factory settings:

1. Click the **Cog** icon in the left-upper corner of the plugin.
2. Go to the **Default State** submenu and choose the **Restore factory** option.

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