HY-MPS2 ver 1.0.0

VST is a trademark of Steinberg Media Technologies GmbH
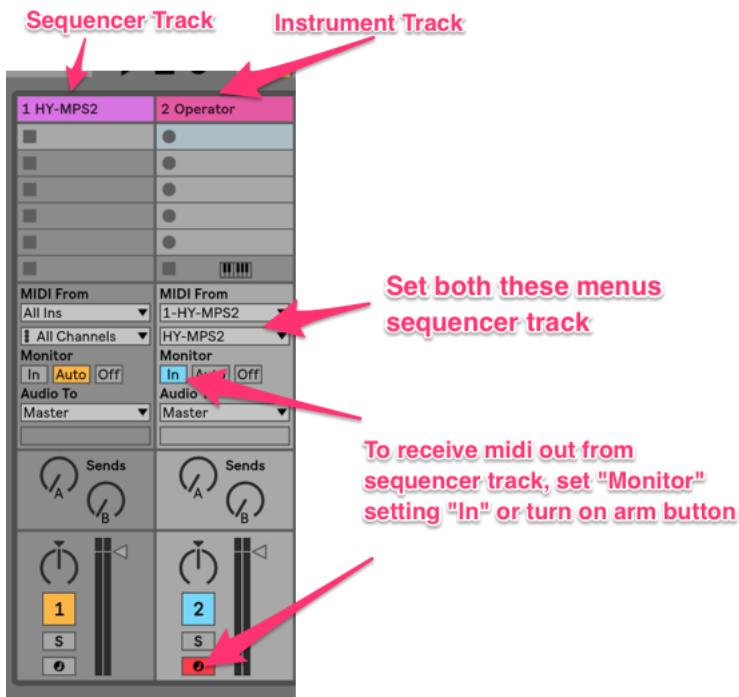
Audio Units is a trademark of Apple Inc

Table of Contents

Plugin Setup

Ableton

Sequencer Track

Instrument Track

Set both these menus sequencer track

To receive midi out from sequencer track, set "Monitor" setting "In" or turn on arm button
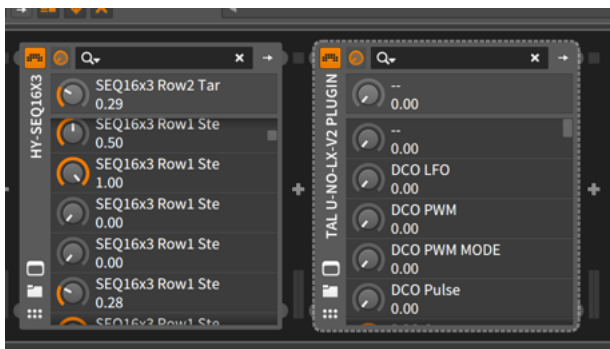
1, Load HY-MPS2 as an instrument
2, Add another midi track
3, Set "Midi From" menu like the picture left
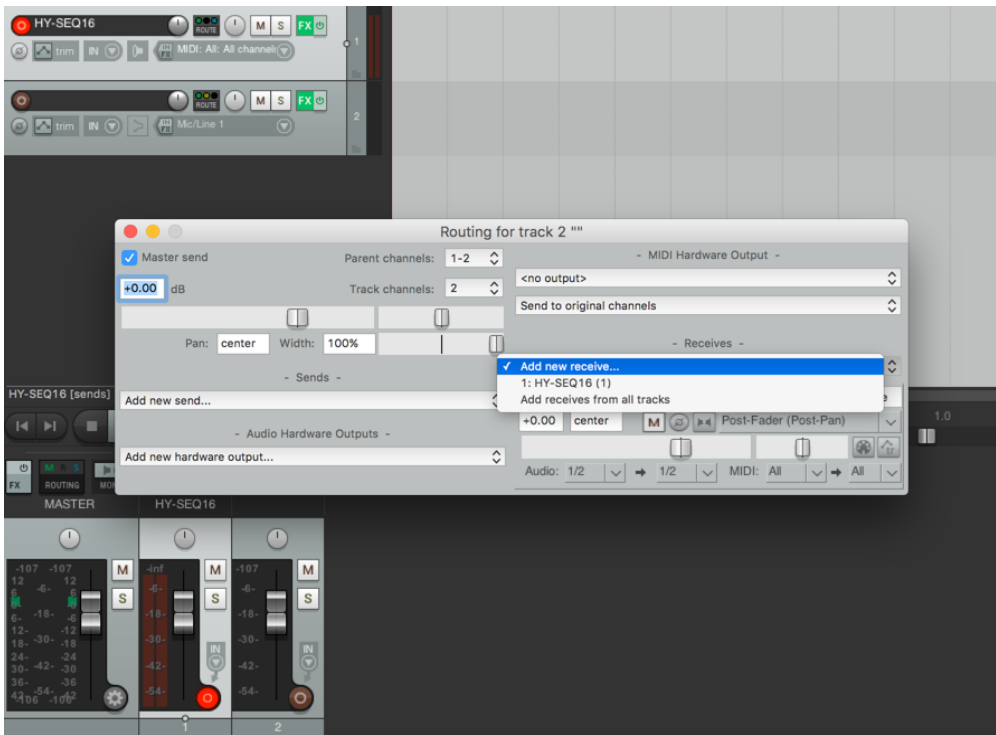4, Turn on **track arm** button or set **monitor "In"** for receiving midi out

Bitwig Studio

1, Load HY-MPS2
2, Insert your instrument plugin after it

Studio One

1, Create an instrument track and insert HY-MPS2
2, Add another instrument track and insert your instrument
3, Set instrument input HY-MPS2, with this setting midi output of HY-MPS2 will be routed to the target track

REAPER

1, Load HY-MPS2 as an instrument
2, Add another instrument track
3, Open routing menu of new instrument track
4, Set "**Receives**" menu HY-MPS2

Cubase

*If you use ASIO-Guard and its level is high, lower the level to normal or low.

With high setting, the sequencer will not work property.

1, Create an instrument track and load HY-MPS2
2, Add another instrument track and load your instrument
3, Set midi input menu HY-SEQ16x3
4, Turn on **monitor button** or **speaker button** of your instrument track

SONAR
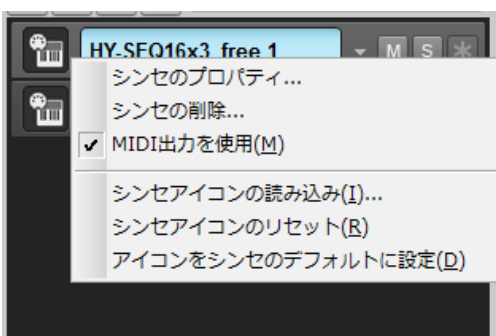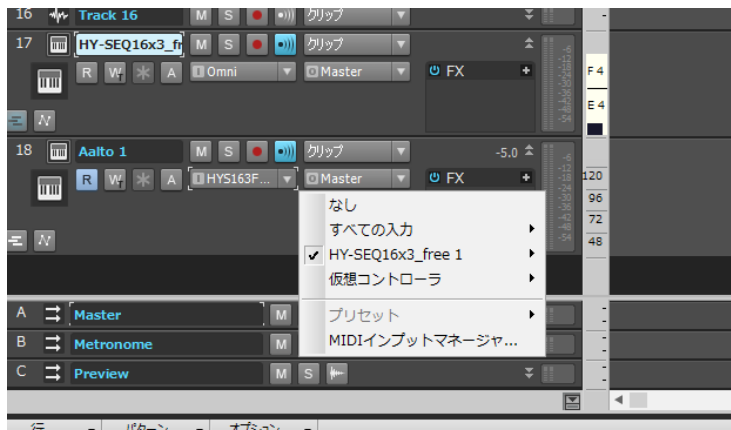
1, Add instrument track and insert HY-MPS2
2, Check "**Enable Midi Output**" Option
3, Add another instrument track and insert your instrument
4, Set midi input menu HY-MPS2

Tracktion
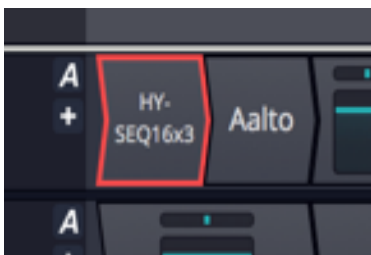
1, Load HY-MPS2
2, Insert your instrument plugin after HY-MPS2

Fruity Studio
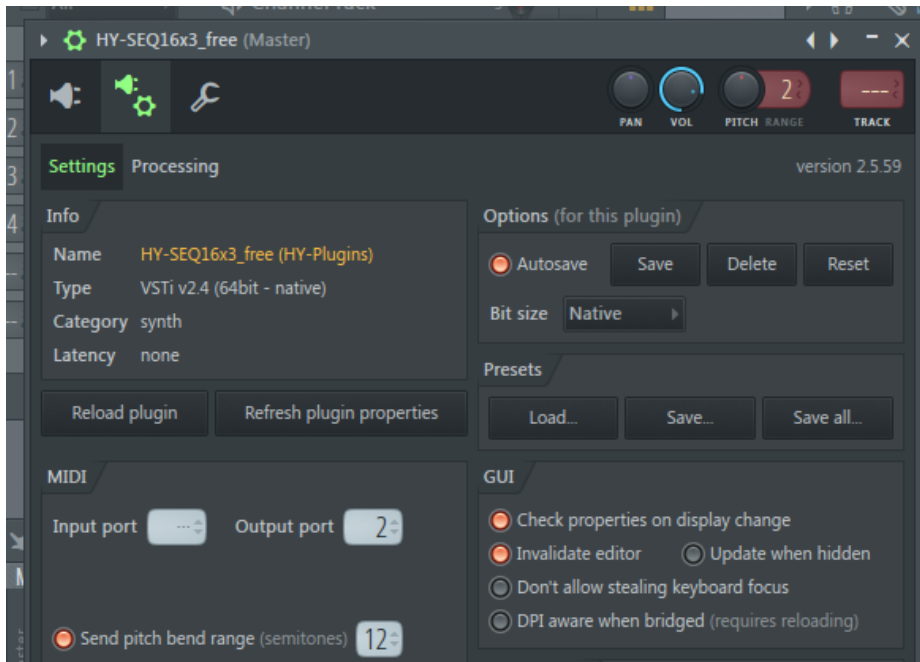
1, Load HY-MPS2 as an instrument

2, Load your instrument

3, Set **Midi Output Port** of HY-MPS2

and **Midi Input Port** of your instrument **same number**

Registration

There are 2 ways for the plugin registration.

1, Drag and drop

Drag and drop your **keyfile** onto the plugin window directly.

2, Copy & paste

1, Open your **keyfile** with text editor and copy all strings

2, Click "**Demo**" button > select "**Register**" > paste it > press "**register**"
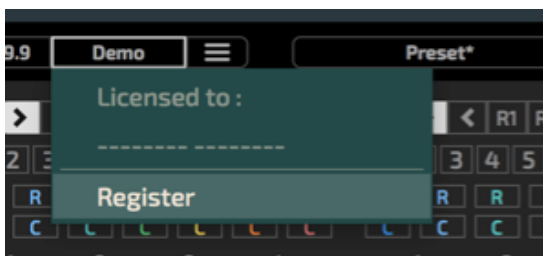
Once the pleugin is registered, "**Demo**" text will be changed to "**Registered**".

Plugin Menu
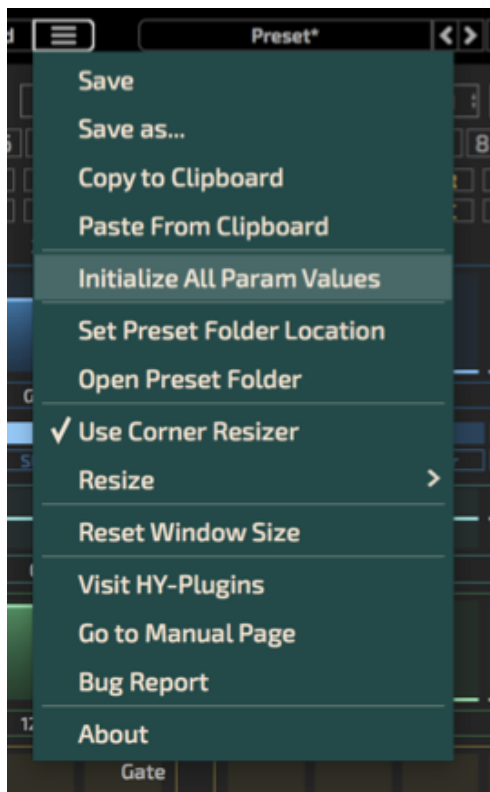
Save : overwrites current loaded preset file

Save as : creates a new preset file

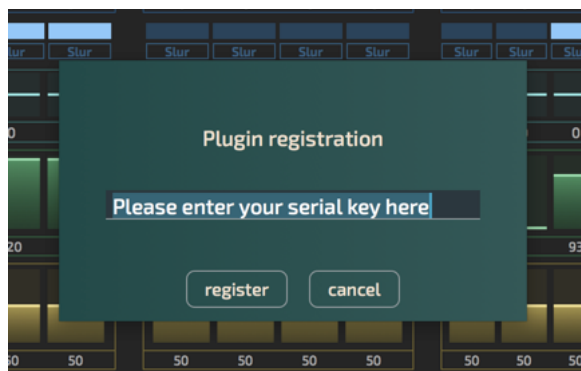**Initialize All Param Values** : initializes all parameter values

Set Preset Folder :

if you want to change preset folder location, you need to set new location with this function

Open Preset Folder : opens preset folder

Use Corner Resizer : turn on/off corner resizer

Resize : you can resize plugin window with this menu instead of using the corner resizer

Reset Window Size : resets window size

Visit HY-Plugins : jumps to our homepage

Go to Manual Page : jumps to the manual page

Preset
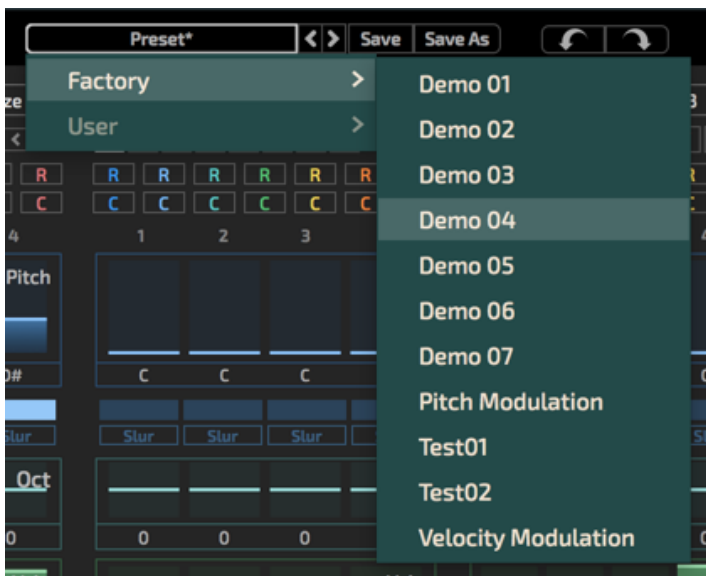
You can load a stored preset file with clicking preset button or arrow buttons.

Save : overwrites current loaded preset file

Save as : creates a new preset file

Default Preset Folder Location:

Mac : *Library/Audio/Presets/HY-Plugins/HY-MPS2*

Win : *C:\Users\user name\Documents\HY-Plugins\HY-MPS2*

Resizing Plugin Window

You can change plugin size with this corner resizer.

Signal Flow
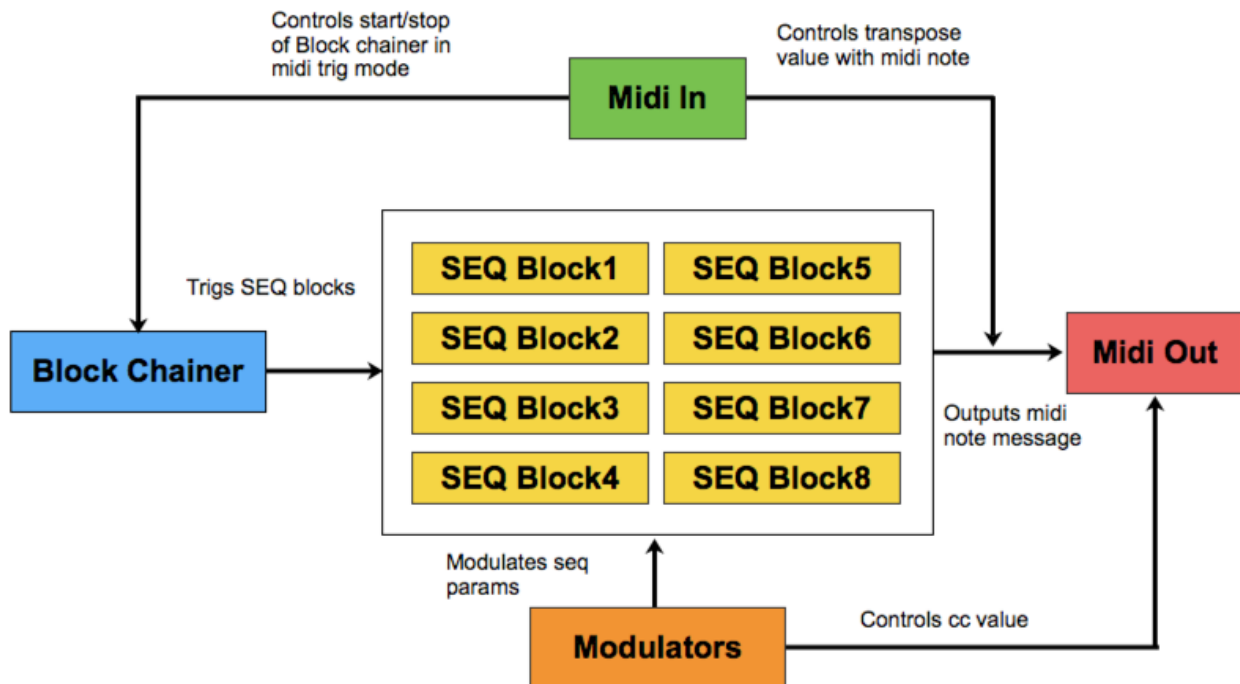
It's a block based step sequencer.

There are 8 **sequencer blocks** which can be controlled independently(step size, speed, direction).

Block chainer is a step sequencer for triggering sequencer blocks.

There are 4 modulation units available, they are used for modulating seq params and cc outputs.

And each modulation unit has 5 modulation engines.

(LFO, Prob LFO, Step LFO, Multi Point Envelope, Sample & Hold)
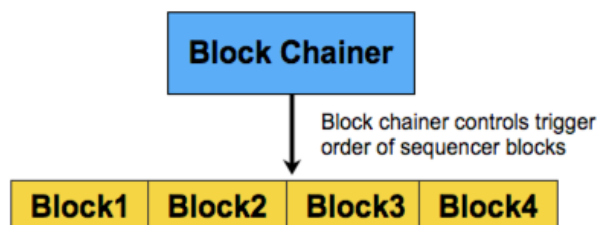
Block chainer trigs seq blocks in any order.

This is the core of this plugin.

Plugin Window Overview
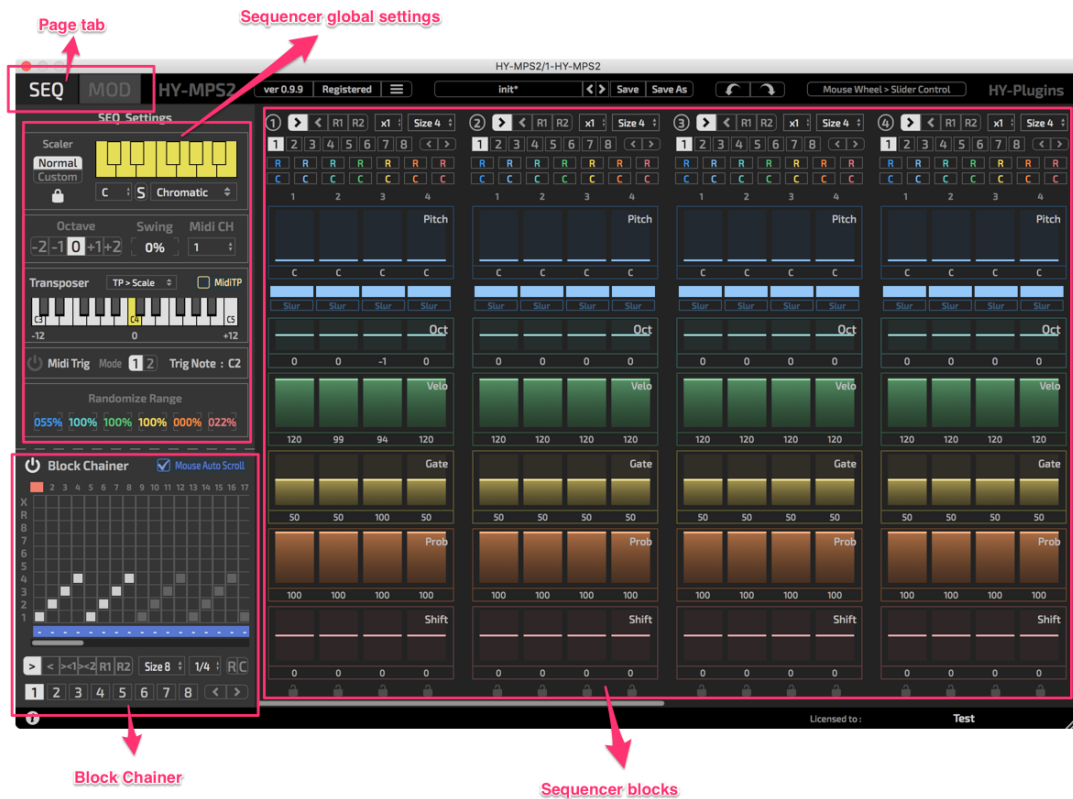
You can change sequencer/modulation window with page tab button.

Modulation window
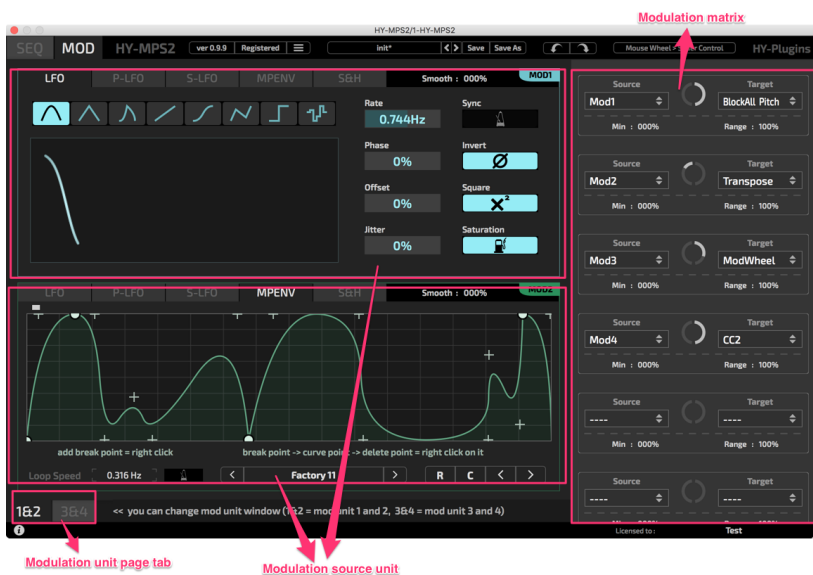
You can control modulation engine and modulation matrix here.

There are 4 modulation units

and each unit has 5 modulation engines.

Block Chainer
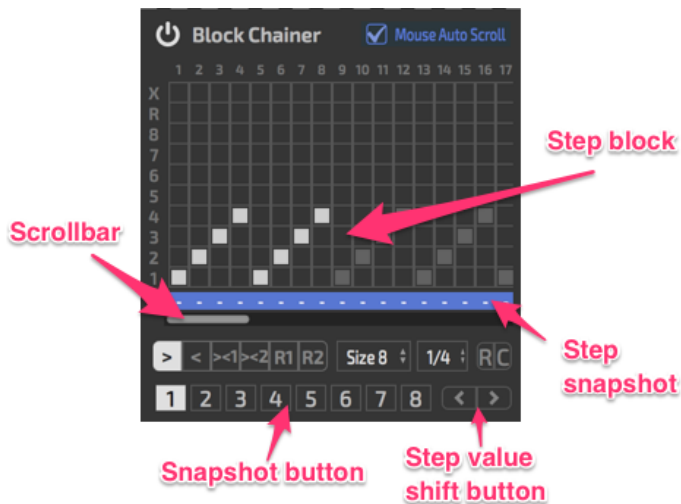
Block chainer is a step sequencer for triggering sequencer blocks.

Each step of output, block chainer outputs target seq block index with snapshot number.

So you can trigger different snapshot of seq block per step.

Example
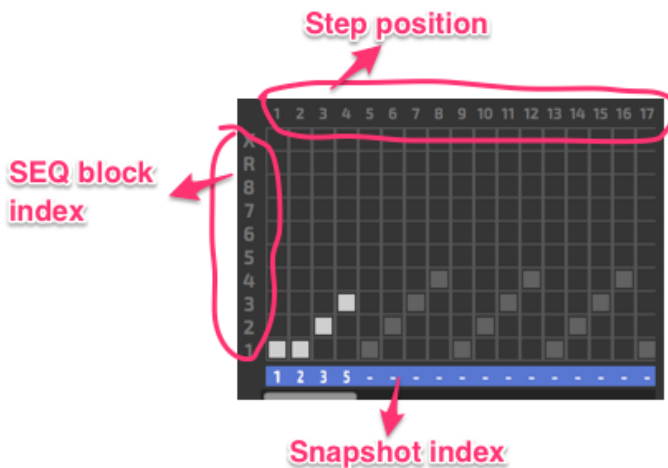
In this case **step 1** of block chainer sequencer will trig **seq block1** with **snapshot1**.

Step2 trigs seq block1 with snapshot2.

Step3 trigs seq block2 with snapshot3.

Step4 trigs seq block3 with snapshot5.

If you set each snapshot index "-", current active snapshot of each seq block will be trigged.

Block Chainer Control
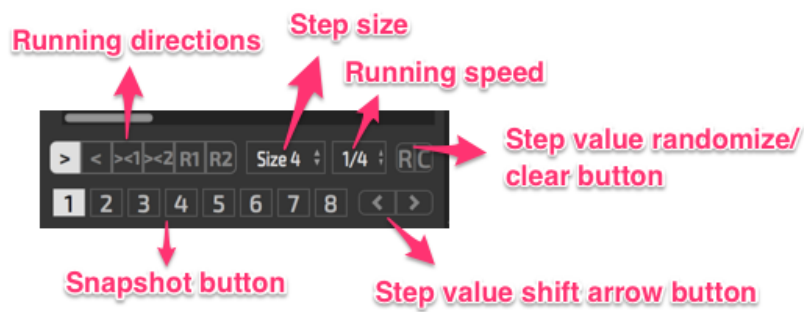
You can control block chainer here.

Maximum step size is 64 step.

Running speed is sync to host tempo.

If you change running speed of block chainer,

it will affect to rrunning speed of sequencer blocks.

You can make 8 snapshots of block chainer state.

Right-clicking snapshot button, snapshot copy/paste menu will be appear.

Sequencer Block

Sequencer block is a step sequencer unit.

There are 8 block units available and each unit can be set independently (running direction, speed, size).

Sequencer block contains 6 multi-slider units and 2 grid units for controlling output midi notes.

- **Pitch** : output midi note
- **On/Off** : step on/off, if off, that step will not trigger any midi note.
- **Slur** : step slur on/off, if next trigger note is same as this step, slur becomes tie.
- **Oct** : octave of each step (-2 ~ +2 octave)
- **Velo** : velocity value of each step
- **Gate** : gate factor of each step (0~100%)
- **Prob** : trigger probability of each step(0~100%), if value is 0, that step will never be triggered, and 1 that step will always be triggered
- **Shift** : trigger timing shift, if this value is negative, trigger timing will be earlier than just timing, and positive, trigger timing will be later.
- **Lock** : step lock, if lock is active, that step will not be affected by randomize action.

SEQ Block Control
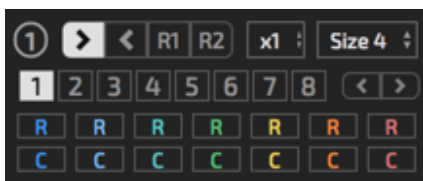
You can control seq block behavior here.

From the top left :

- Running Directions : set the running directions
- Clock multiplier factor
- Step size(= Clock divide factor)
- Snapshot button
- Step value shift arrow
- Randomize/Clear button

Running Direction :

"**>**" : forward direction

"**<**" : backward direction

"**R1**" : random (normal)

"**R2**" : random (order)

For example, in "R1" same step can be triggered multiple times, in "R2" each step will be triggered once, only trigger order is random.

Example:

"R1" :

2 > 2 > 4 > 1

3 > 2 > 3 > 2

1 > 4 > 4 > 2

"R2"

2 > 4 > 3 > 1

1 > 3 > 4 > 2

3 > 1 > 2 > 4

Step size (= Clock divide factor) :

Master clock of seq block is supplied by block chainer.

Running speed of seq block is defined by **step size(clock divide factor)** and **clock multiplier factor**.

And you can set those settings per block unit.

So you will be able to have different rhythm per seq block unit.

Example 1:

Block chainer speed = ¼, Divide factor of SEQ Block = **4,** Clock multiplier factor of SEQ Block = x**1**

In this case, running speed of this seq block will be "**1/16**" (¼ divides (4*1))

Example 2:

Block chainer speed = ¼, Divide factor of SEQ Block = **3,** Clock multiplier factor of SEQ Block = x**1**

In this case, running speed of this seq block will be "**1/12**" (¼ divides (3*1))

Example 3:

Block chainer speed = ¼, Divide factor of SEQ Block = 4**,** Clock multiplier factor of SEQ Block = x**2**

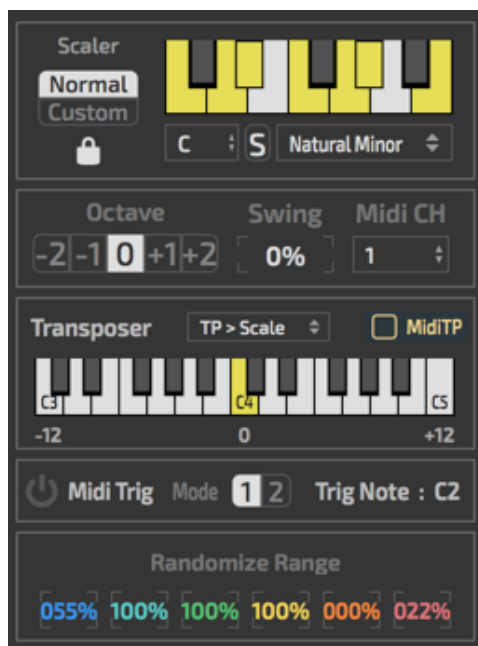In this case, running speed of this seq block will be "**1/32**" (¼ divides (4*2))

Global SEQ Setting

Scaler

Scaler is a effect that scaling midi output note based on its settings.

- Normal/Custom : in custom mode, you can create your own scale map.
- Lock : scale lock, if lock is active, scaler setting will not be affected by preset changes
- MenuBox1 : root note
- "S" button : root shift on/off
- MenuBox2 : internal scale mappings

Octave/Swing/Midi CH

- Octave : global octave
- Swing : swing amount (-100 ~ +100%)
- Midi CH : output midi channel

Transposer

You can control transpose value.

Turn "**MidiTP**" on, you can control transpose value with midi note input (C3 ~ C5)

- MenuBox : you can set the process order of transposer and scaler, there are two choices, "**TP > Scale**", "**Scale > TP**"

If the order is "**TP > Scale**", process transpose first then process note scale.

And the order is "Scale > TP", process order is, scaler first then transposer.

In the first case, output midi notes will always be in scale mapping.

In the second case output midi notes can be out of scale mapping.

If you shift scaled midi notes with fixed semitones, you can use "**Scale > TP**" order.

In normal case, "**TP > Scale**" will be fit.

Midi Trig

You can control block chainer step sequencer start/stop via midi note "C2" with this mode.

Turn on power button, midi trigger will be active.

There 2 trigger modes.

Mode1:

In this mode the step sequencer starts to run when receiving midi note C2.

And when receiving C2 note while the step sequencer is running, it will stop to run.

Mode2

In this mode the step sequencer will continue running while **C2** note is pressed.

Once **C2** note is unpressed the step sequencer will stop.

Randomize Range

You can set randomize ranges here.

Modulation

Modulation unit

Modulation matrix

Page tab button
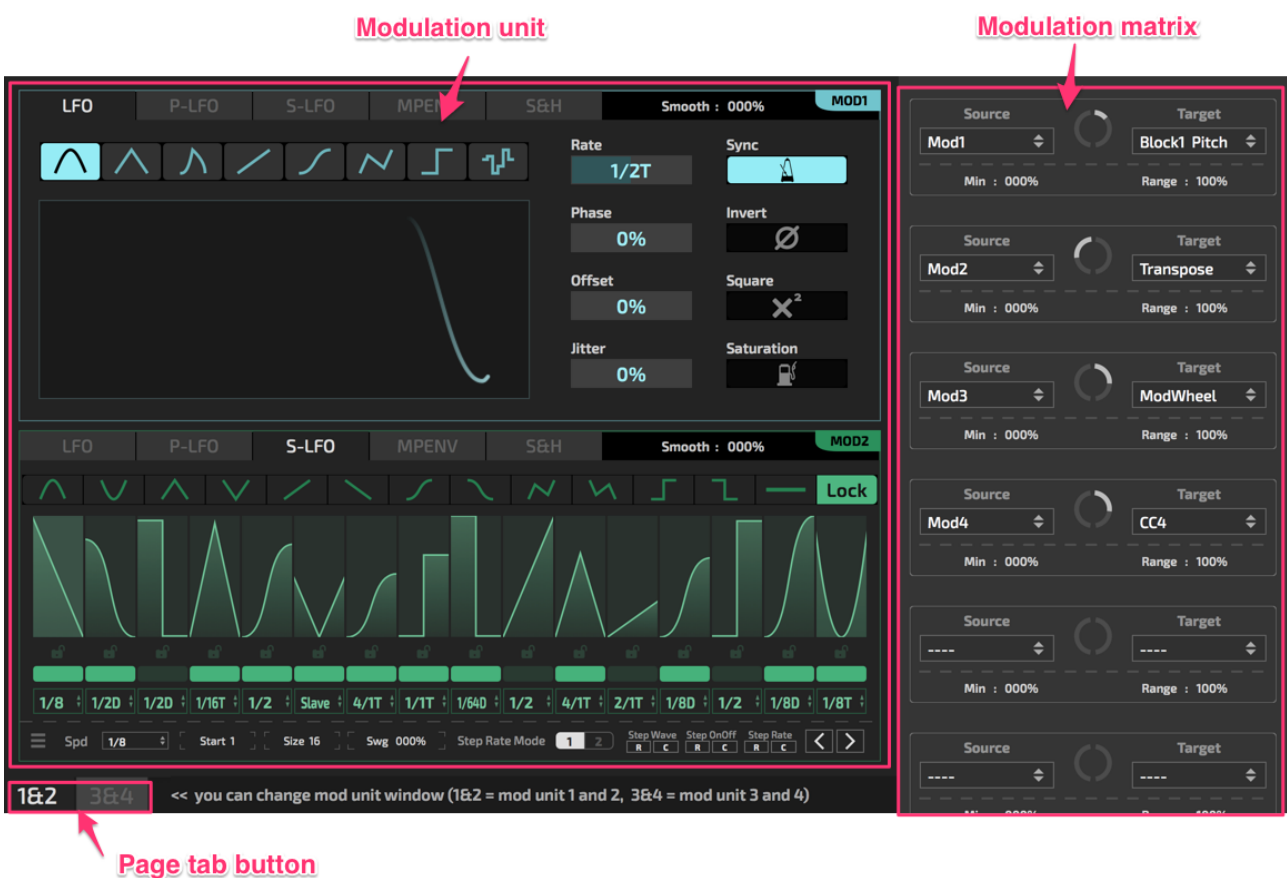
There are 4 modulation units available and each unit has 5 different engines

(LFO, ProbL FO, Step LFO, Multipoint envelope, Sample&Hold).

You can set modulation units and modulation matrix here.

By using there modulation units, you can modulate sequencer parameters and also control midi parameters.

Modulation Engine

LFO

- Waveform buttons : selects waveform

- Rate : sets lfo speed

- Sync : lfo rate bpm sync on/off

- Phase : cycle start position of waveform

- Invert : inverting output signal

- Offset : offsets output signal

- Square : squares output signal

- Jitter : adds noise to output signal

- Saturation : saturates output signal

Prob LFO
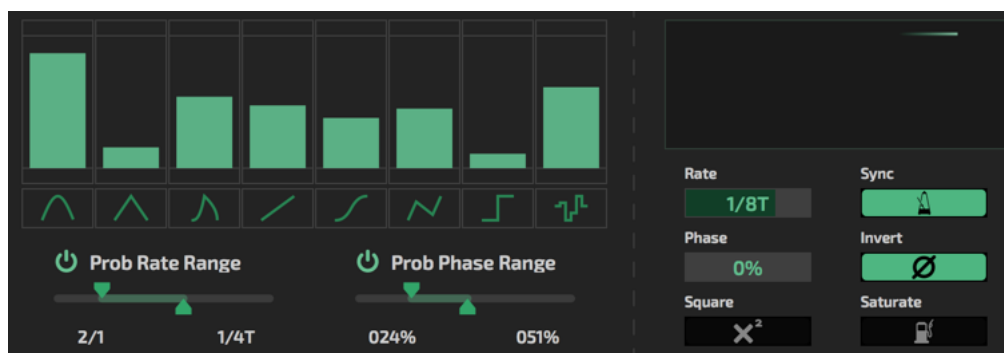
Probability based LFO.

Waveform, rate and phase can be controlled by probability.

Waveform Control
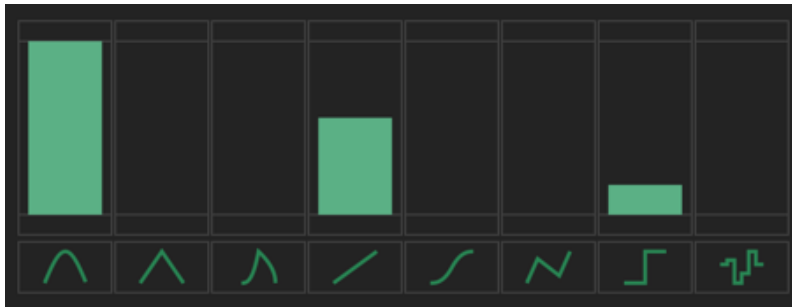
You can control triggered chance of each waveform here.

In this case, sine wave has most chance and up wave has second and square wave has third and reso of waveform has no chance to be triggered.

Prob Rate / Prob Phase
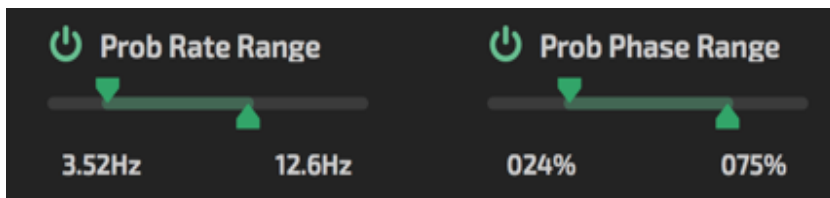
Rate and phase also can be controlled by probability.

Turn power button, probability control of these params becomes active.

You can set value range with two points slider.

In this case, lfo rate will be triggered between 3.52Hz to 12.6Hz and phase will be triggered between 24 to 75%.

Step LFO
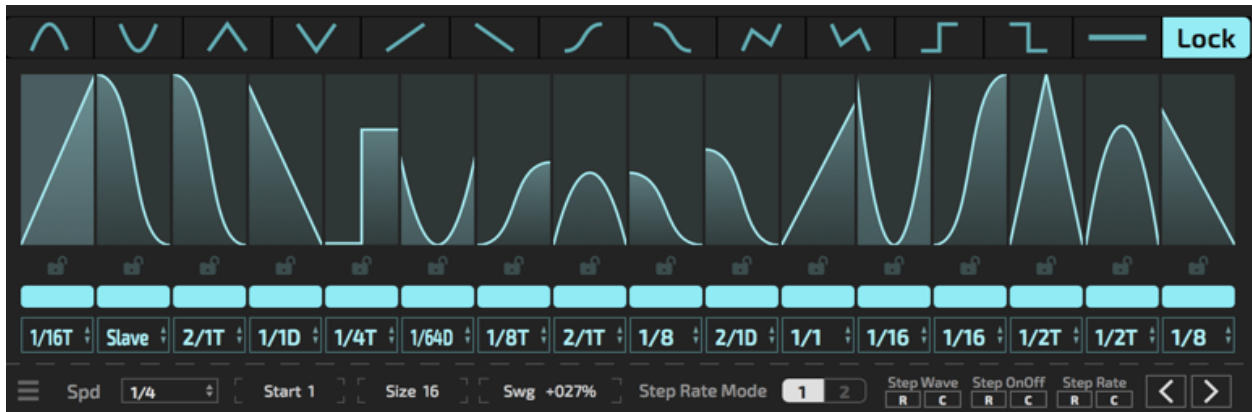
Step LFO can trigger different waveform with different rate per step.

Step LFO Control
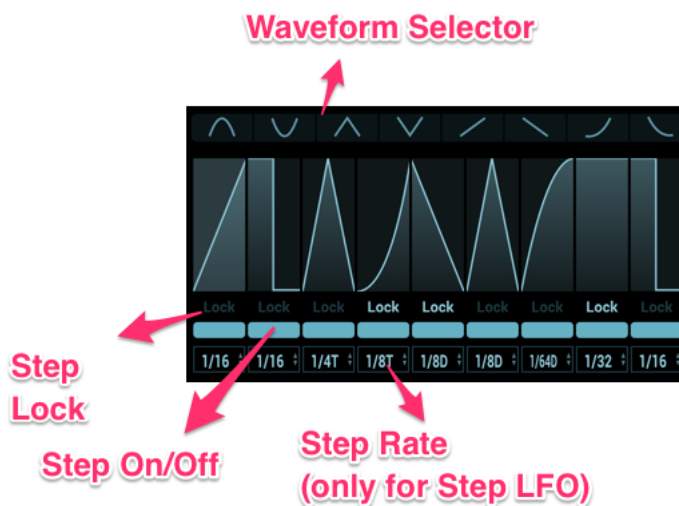
Waveform Selector :

Pick a waveform then click a step slider, you can change step waveform.

You can also change step waveform with right-right menu

Step Lock : toggles the lock state on/off

if lock is on, that step will ignore waveform change or randomize

Step On/Off : toggles the step on/off state

Step Rate : sets the lfo speed of a step

Step Rate

There are 2 step rate modes.

Mode1:

In this mode, step rate is independent from the sequencer speed of the step lfo. (except slave sate)

In the picture left, step rate of first step is "**Slave**".

This case sequencer speed is "**1/8**", so step rate of the first step is "**1/8**".

Step rate value of the second step is "**1/16**", so 2 periods waveform will be triggered at this step.

Mode2:

In this mode, step rate is relative to the sequencer speed of a step lfo.

In the picture left, step rate value of the first step is "x1". This meas "sequencer speed of step lfo x1". So actuall speed of this step is "**1/8**".

Step value of the second step is "0.5",

so in this case actual step rate is half speed of the sequencer speed of the step lfo.

Right-click Waveform Select
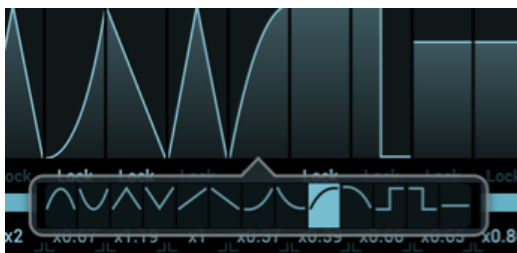
You can change a waveform of each step with right-click menu.

Multi-Point Envelope
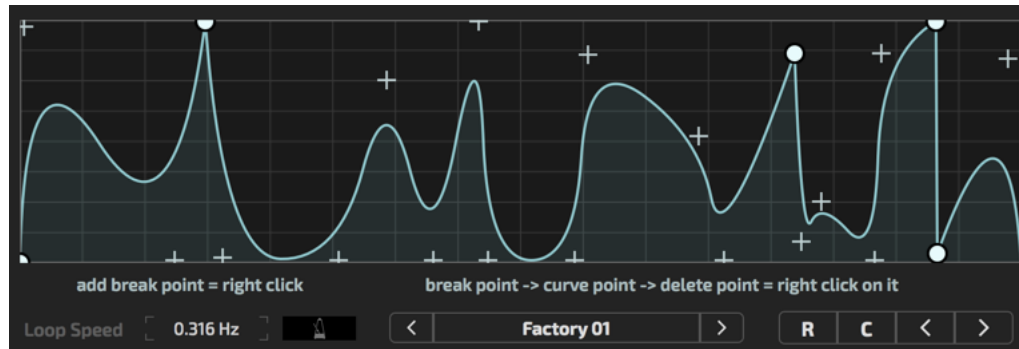
You can create complex shape using with break/curve points.
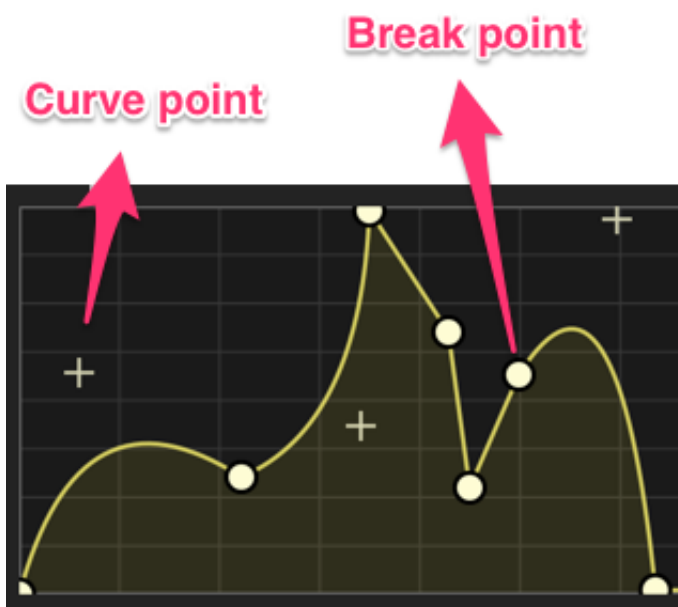
Shape Control Point :

- **Circle** : break point
- **Cross** : curve point

Add/Delete Control Point :

- **Right-click on blank space** : adding a break point
- **Right-click on a break point** : break point > curve point
- **Right-click on a curve point** : curve point > delete

Sample & Hold
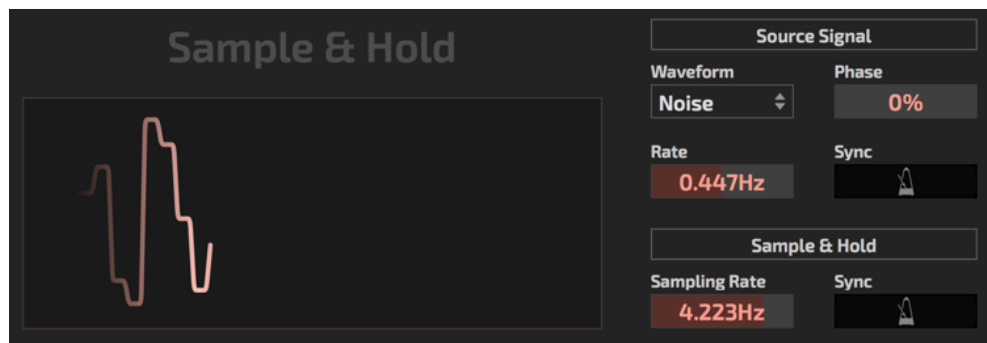
Sample & hold with source signal generator.

This one produce source signal itself and sample&hold it.

Source signal generator is a simple LFO.

Source Signal Generator :

Waveform : sets the source waveform

Rate : sets the rate of the source signal

Sync : turn on/off bpm synced state

Phase : sets the start phase position

Sample & Hold :

Rate : sets the sampling interval

Sync : turn on/off bpm synced state

Modulation Matrix
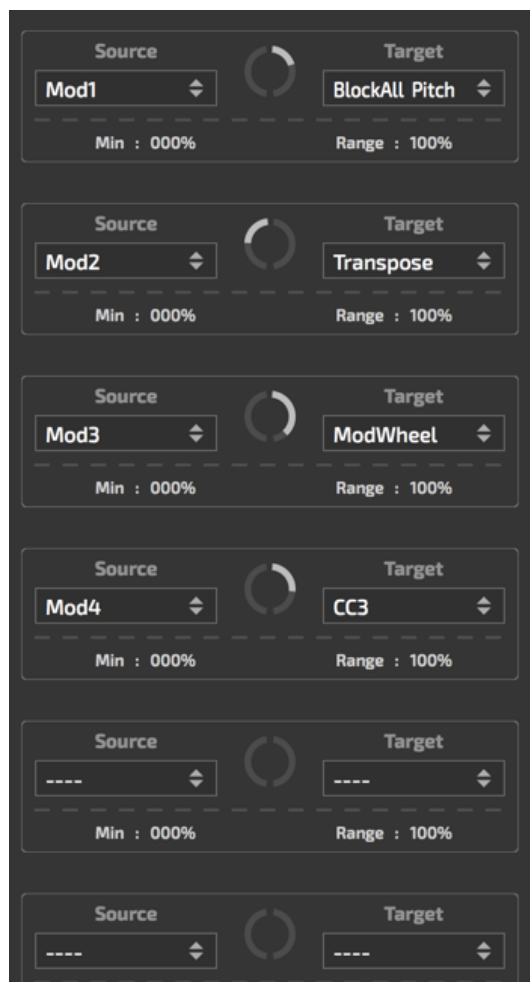
You can route assign mod source signal to target parameter here.

You can make 8 modulation assignments.

Modulation source :

Modulation unit 1~4 produce modulation signal.

Target Parameters :

You can modulate internal sequencer parameters and also control midi parameters.

Min/Range Control

- **Min :** minimum value range of modulation
- **Range** : modulation range

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