

# HY-MPS2 ver 1.0.0



VST is a trademark of Steinberg Media Technologies GmbH

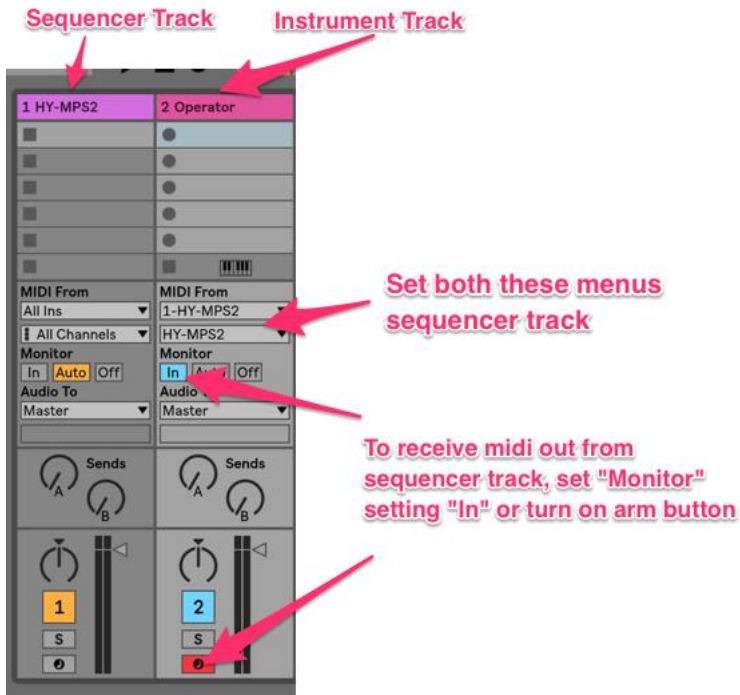
Audio Units is a trademark of Apple Inc

## **Table of Contents**

Plugin Setup.....	3
Registration.....	7
Plugin Menu.....	8
Preset.....	9
Resizing Plugin Window.....	9
Signal Flow.....	10
Plugin Window Overview.....	11
Block Chainer.....	12
Sequencer Block.....	14
Global SEQ Setting.....	16
Scaler.....	16
Octave/Swing/Midi CH.....	16
Transposer.....	16
Midi Trig.....	17
Randomize Range.....	17
Modulation.....	18
Modulation Engine.....	19
LFO.....	19
Prob LFO.....	19
Step LFO.....	21
Multi-Point Envelope.....	23
Sample & Hold.....	24
Modulation Matrix.....	25
License.....	26

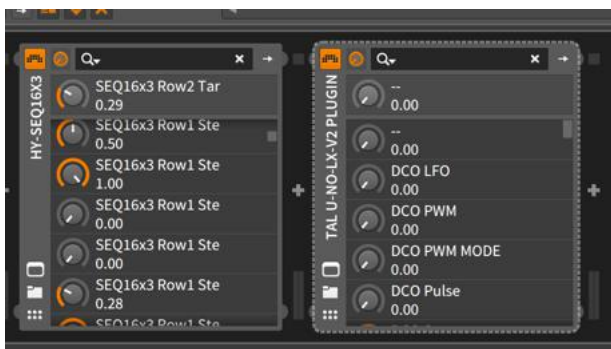
## Plugin Setup

### Ableton



- 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



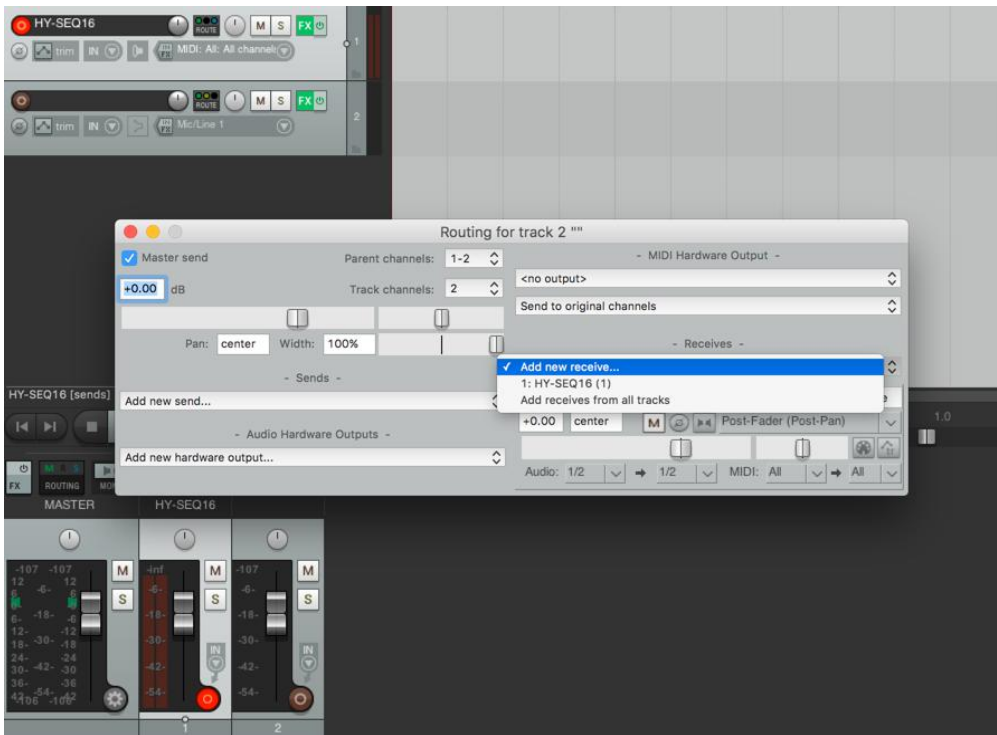
- 1, Load HY-MPS2
- 2, Insert your instrument plugin after it

### 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 properly.

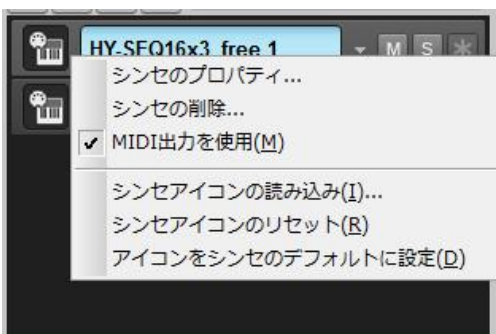
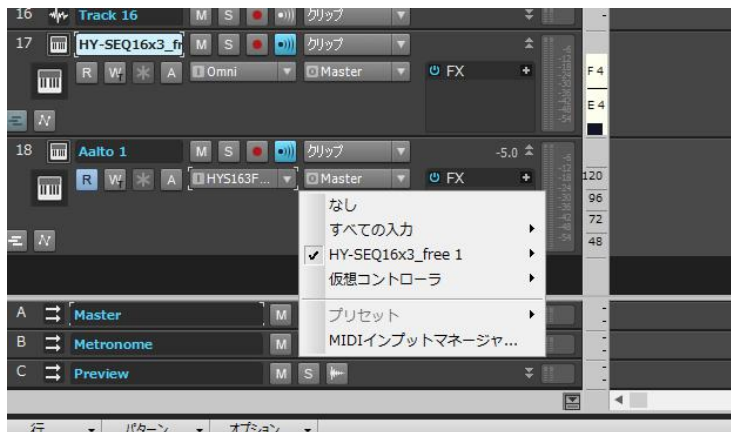


Set midi input  
sequencer out

Turn on arm button  
or speaker icon

- 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

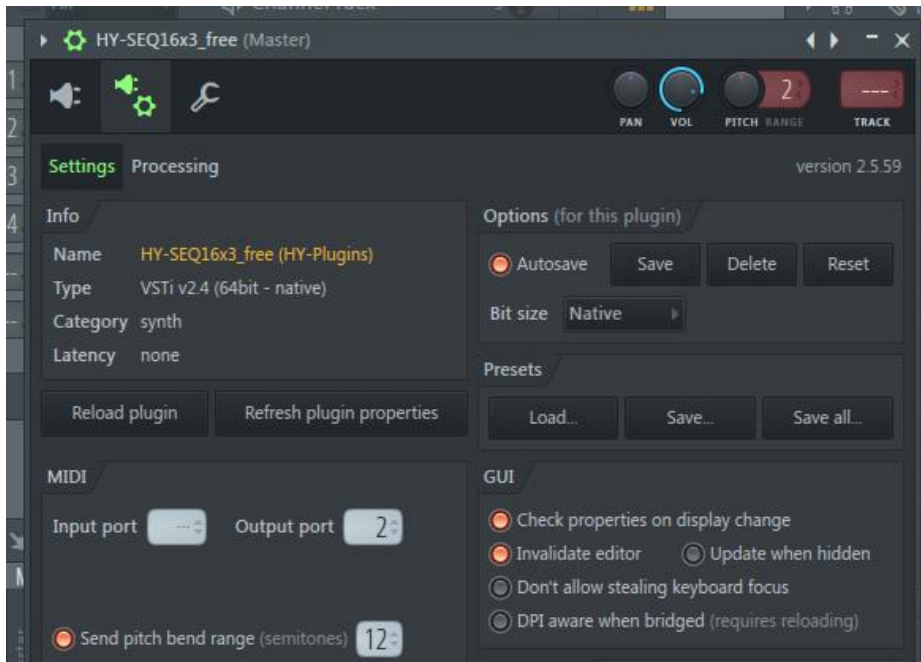


- 1, Add instrument track and insert HY-MPS2
- 2, Check “**Enable Midi Output**” Option
- 3, Add another instrument track and insert your instrument
- 4, Set midi input menu HY-MPS2

## 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**

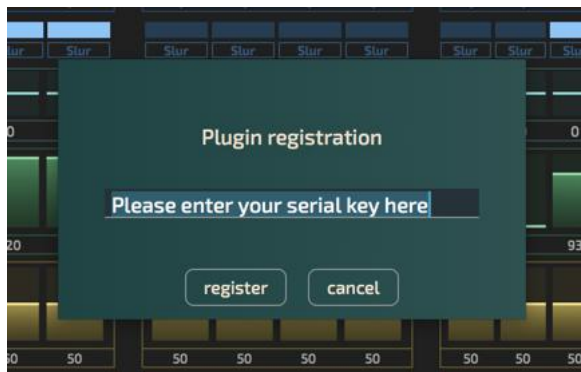
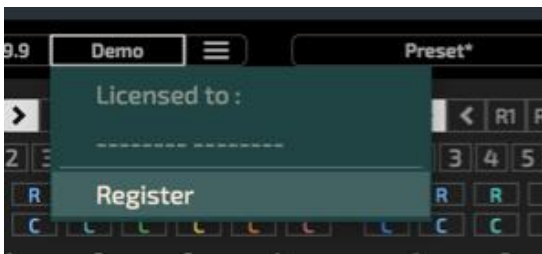
There are 2 ways for the plugin registration.

### **1, Drag and drop**

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

### **2, Copy & paste**

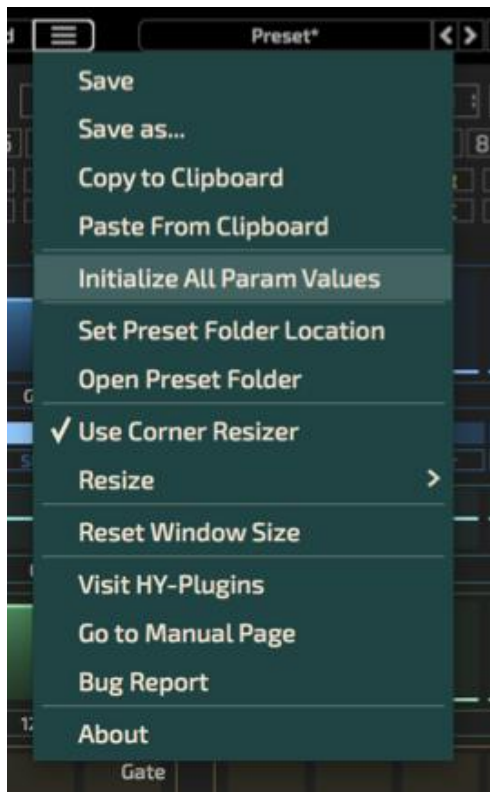
1, Open your **keyfile** with text editor and copy all strings



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

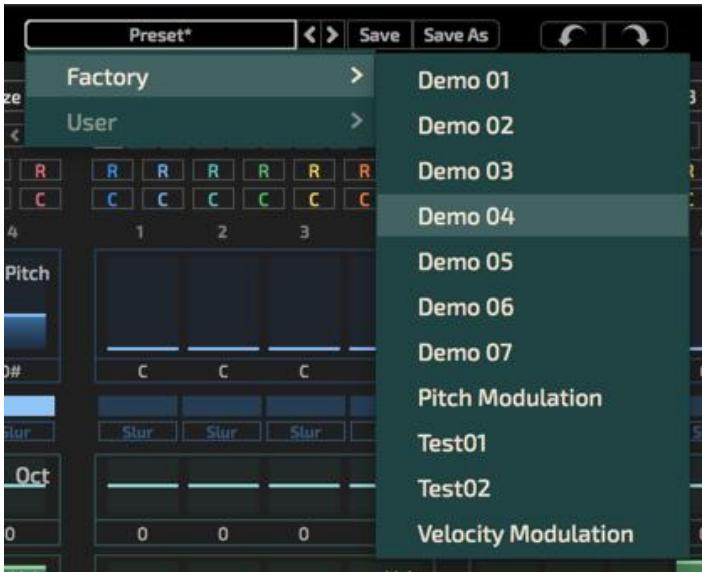
**Reset Window Size** : resets window size

**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*

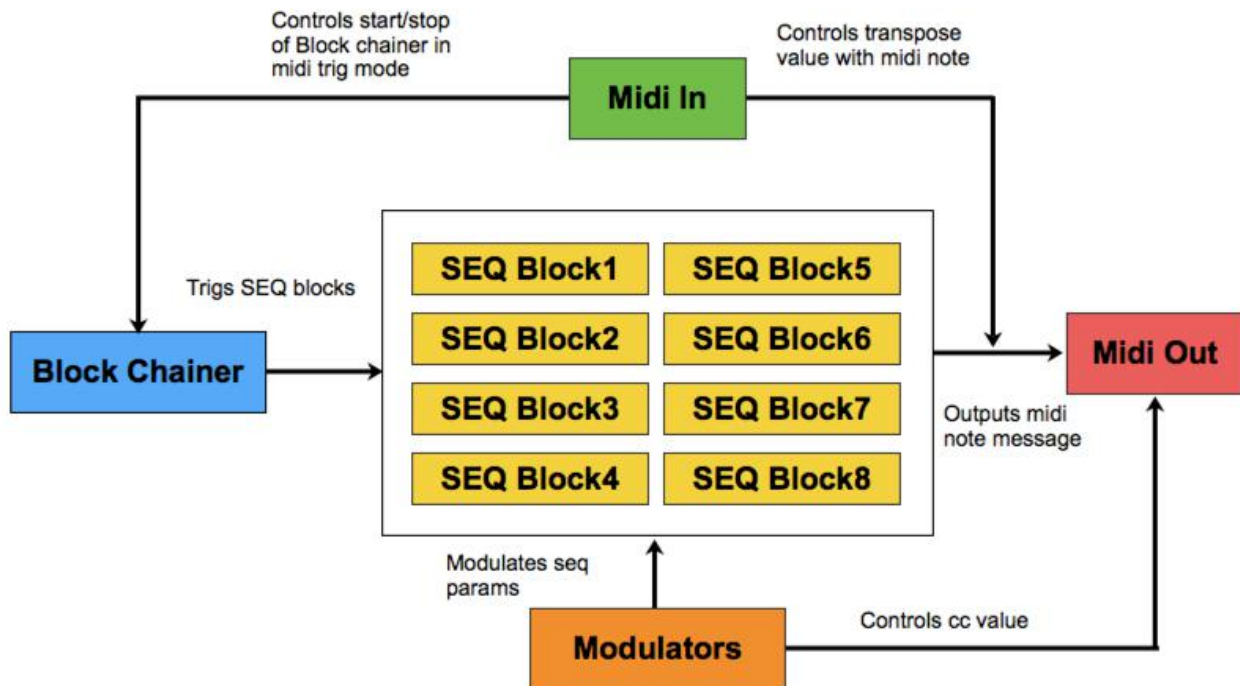
Win : *C:\Users\user name\Documents\HY-Plugins\HY-MPS2*

## **Resizing Plugin Window**



You can change plugin size with this corner resizer.

## Signal Flow



It's a block based step sequencer.

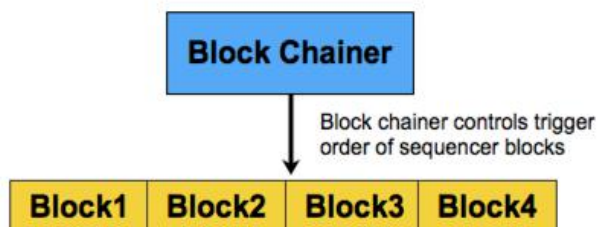
There are 8 **sequencer blocks** which can be controlled independently (step size, speed, direction).

**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

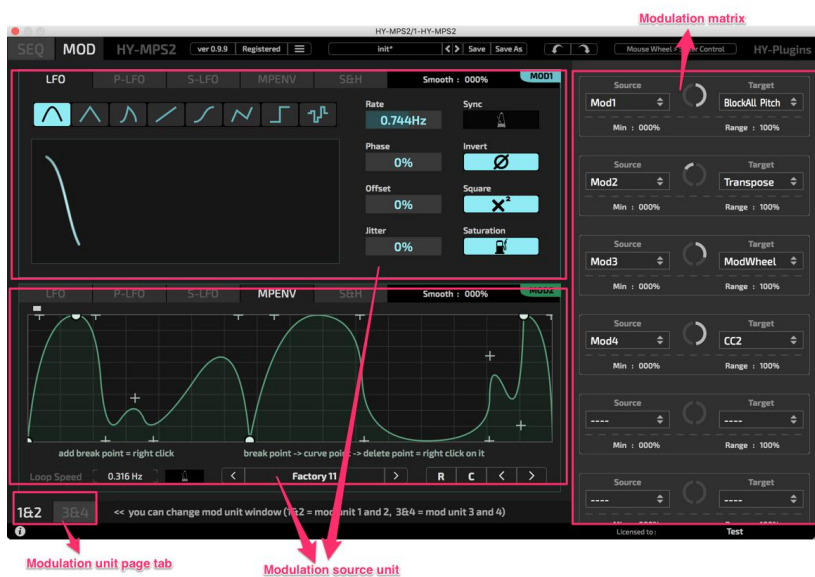


You can change sequencer/modulation window with page tab button.

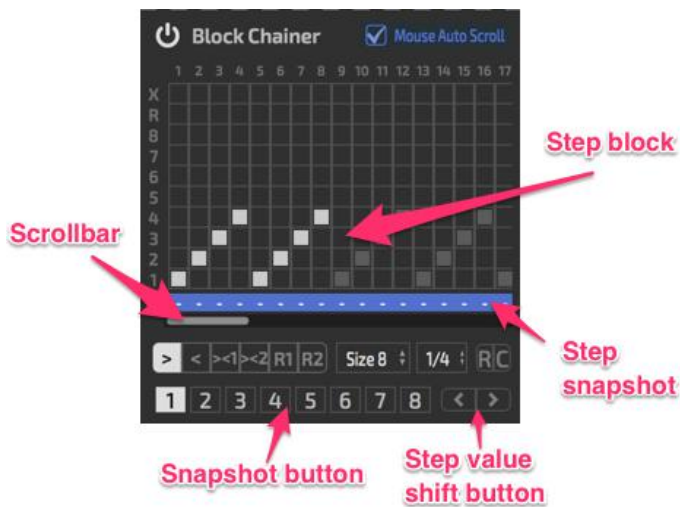
## Modulation window

You can control modulation engine and modulation matrix here.

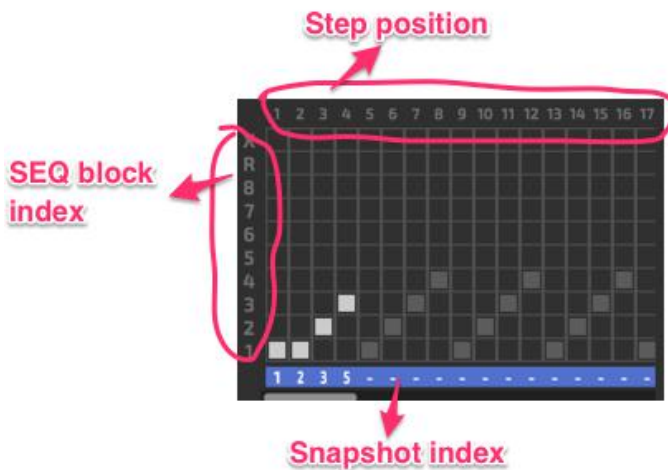
There are 4 modulation units and each unit has 5 modulation engines.



## Block Chainer



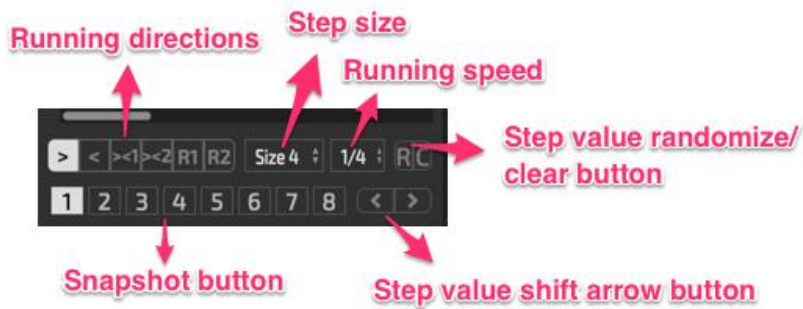
Block chainer is a step sequencer for triggering sequencer blocks.  
 Each step of output, block chainer outputs target seq block index with snapshot number.  
 So you can trigger different snapshot of seq block per step.



### 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 triggered.

## **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 running 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 =  $\frac{1}{4}$ , 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**” ( $\frac{1}{4}$  divides (4\*1))

### **Example 2:**

Block chainer speed =  $\frac{1}{4}$ , 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**” ( $\frac{1}{4}$  divides (3\*1))

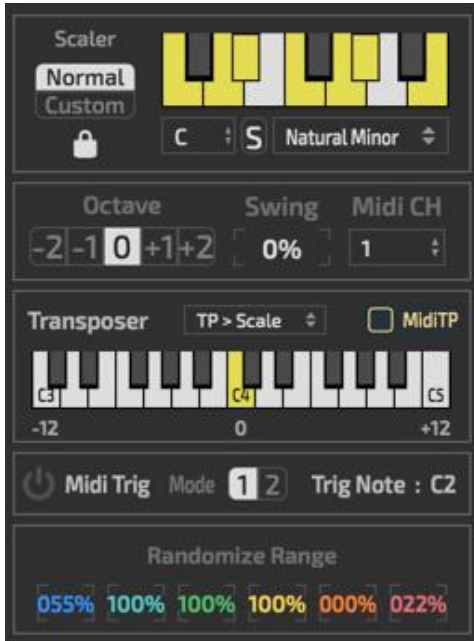
### **Example 3:**

Block chainer speed =  $\frac{1}{4}$ , 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**” ( $\frac{1}{4}$  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.

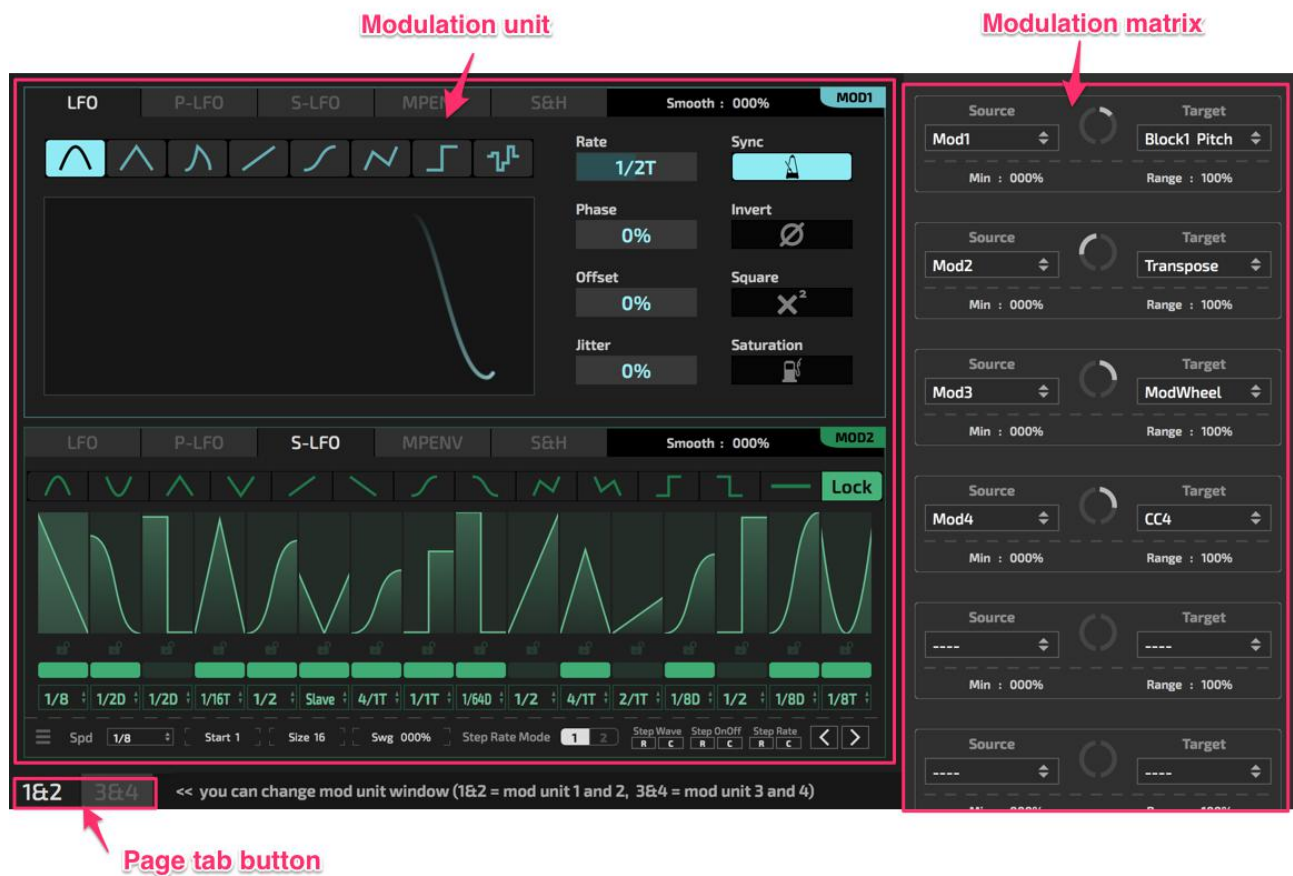
Once **C2** note is unpressed the step sequencer will stop.



## **Randomize Range**

You can set randomize ranges here.

## Modulation



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 these modulation units, you can modulate sequencer parameters and also control midi parameters.

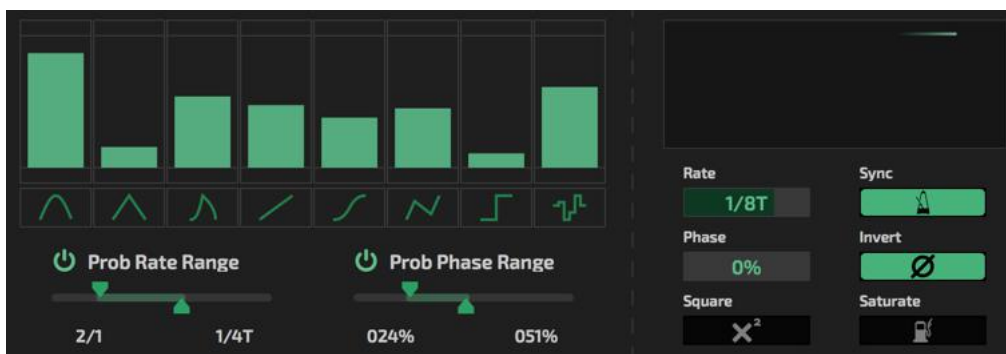
## **Modulation Engine**

### **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

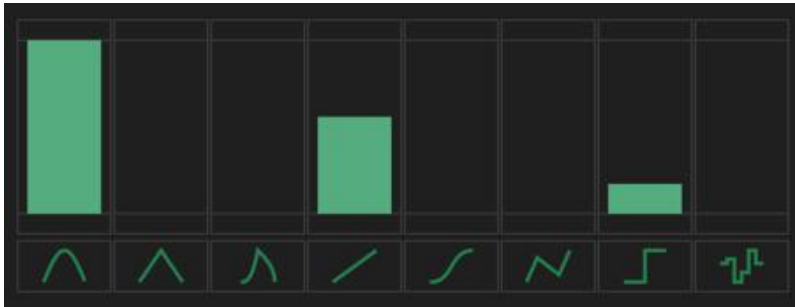
### **Prob LFO**



Probability based LFO.

Waveform, rate and phase can be controlled by probability.

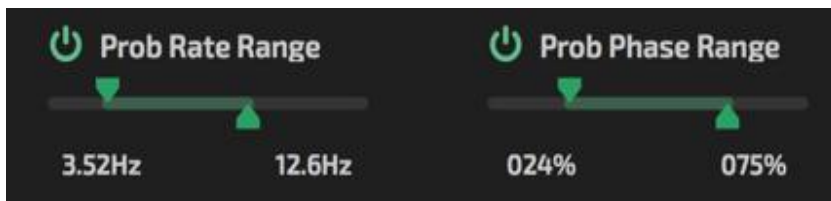
## Waveform Control



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 resonant waveform has no chance to be triggered.

## Prob Rate / Prob Phase



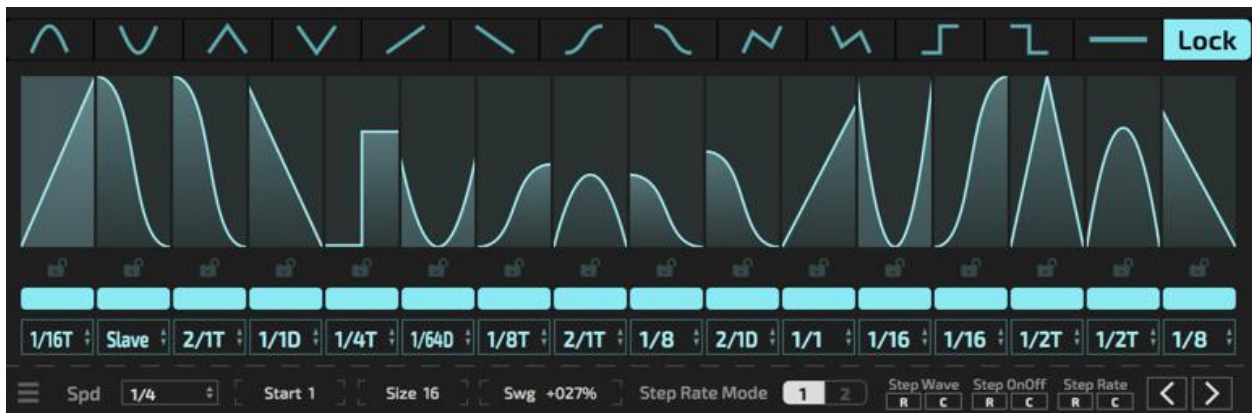
Rate and phase also can be controlled by probability.

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

You can set value range with two points slider.

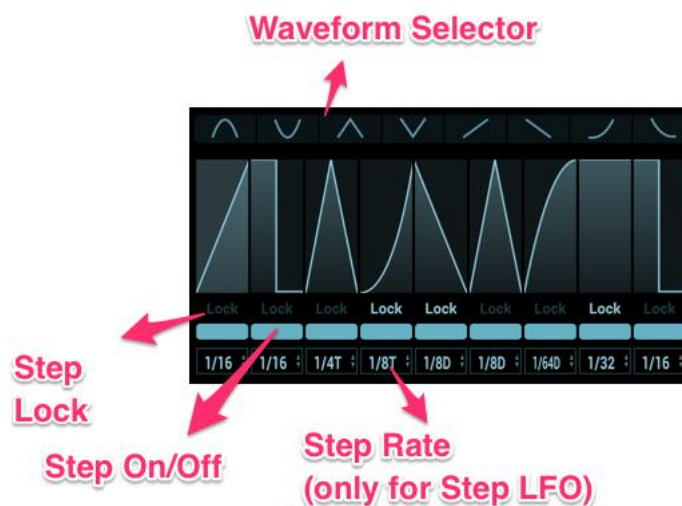
In this case, lfo rate will be triggered between 3.52Hz to 12.6Hz and phase will be triggered between 24 to 75%.

## 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.

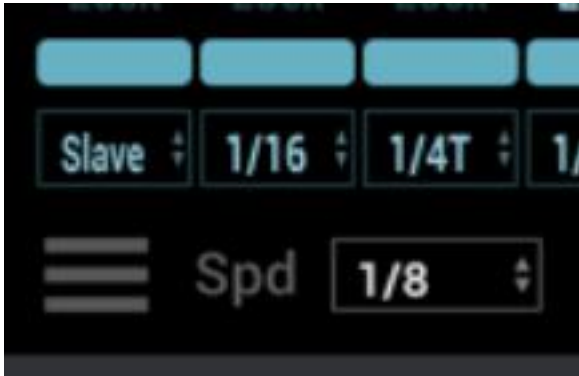


### Mode1:

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

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 means "sequencer speed of step lfo x1". So actual speed of this step is **"1/8"**.

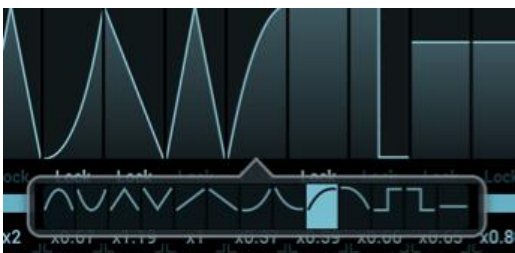
Step value of the second step is **"0.5"**, so in this case actual step rate is half speed of



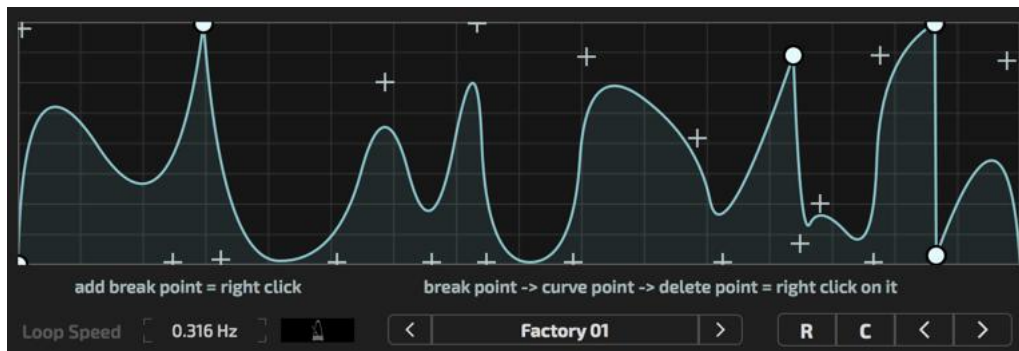
the sequencer speed of the step lfo.

### Right-click Waveform Select

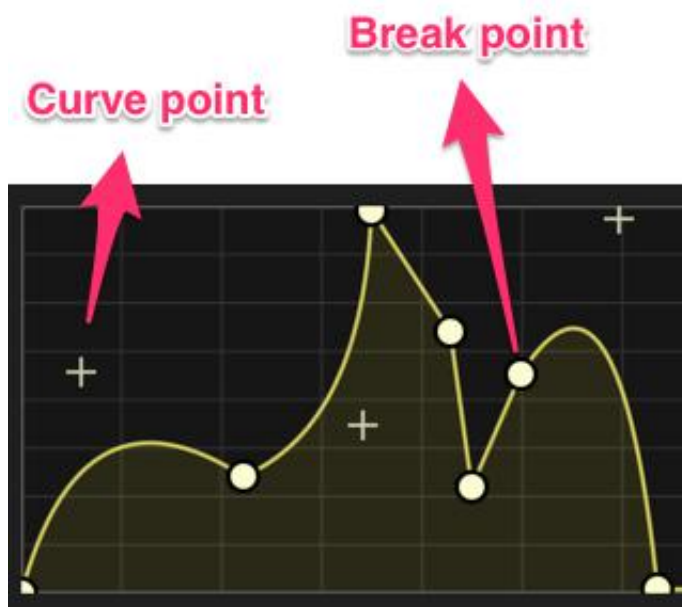
You can change a waveform of each step with right-click menu.



## **Multi-Point Envelope**



You can create complex shape using with break/curve points.



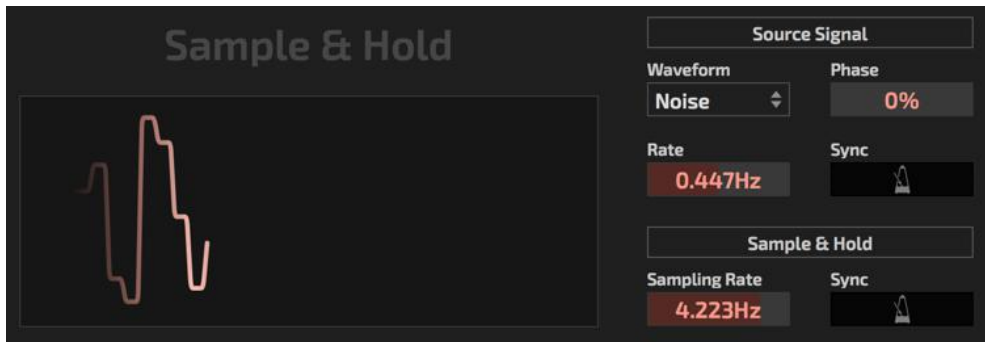
### **Shape Control Point :**

- **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

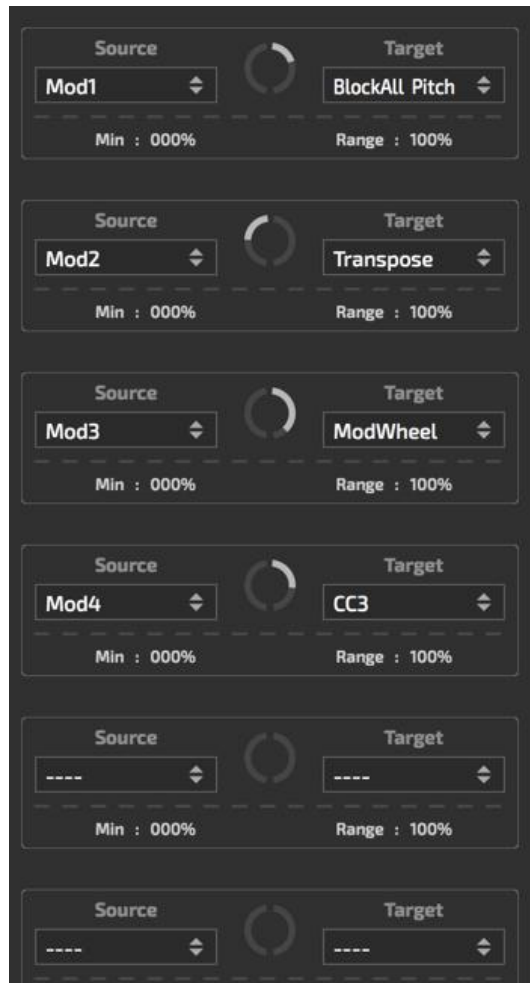
### **Sample & Hold :**

**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

## **License**

HY-MPS2  
Copyright (c) 2018 HY-Plugins

\*\*\* END USER LICENSE AGREEMENT \*\*\*

IMPORTANT: PLEASE READ THIS LICENSE CAREFULLY BEFORE USING THIS SOFTWARE.

### 1. LICENSE

By receiving, opening the file package, and/or using HY-MPS2 ("Software") containing this software, you agree that this End User License Agreement (EULA) is a legally binding and valid contract and agree to be bound by it. You agree to abide by the intellectual property laws and all of the terms and conditions of this Agreement.

Unless you have a different license agreement signed by HY-Plugins your use of HY-MPS2 indicates your acceptance of this license agreement and warranty.

Subject to the terms of this Agreement, HY-Plugins grants to you a limited, non-exclusive, non-transferable license, without right to sub-license, to use HY-MPS2 in accordance with this Agreement and any other written agreement with HY-Plugins. HY-Plugins does not transfer the title of HY-MPS2 to you; the license granted to you is not a sale. This agreement is a binding legal agreement between HY-Plugins and the purchasers or users of HY-MPS2.

If you do not agree to be bound by this agreement, remove HY-MPS2 from your computer now and, if applicable, promptly return to HY-Plugins by mail any copies of HY-MPS2 and related documentation and packaging in your possession.

### 2. DISTRIBUTION

HY-MPS2 and the license herein granted shall not be copied, shared, distributed, re-sold, offered for re-sale, transferred or sub-licensed in whole or in part except that you may make one copy for archive purposes only. For information about redistribution of HY-MPS2 contact HY-Plugins.

### 3. USER AGREEMENT

#### 3.1 Use

Your license to use HY-MPS2 is limited to the number of licenses purchased by you. You shall not allow others to use, copy or evaluate copies of HY-MPS2.

#### 3.2 Use Restrictions

You shall use HY-MPS2 in compliance with all applicable laws and not for any unlawful purpose. Without limiting the foregoing, use, display or distribution of HY-MPS2 together with material that is pornographic, racist, vulgar, obscene, defamatory, libelous, abusive, promoting hatred, discriminating or displaying prejudice based on religion, ethnic heritage, race, sexual orientation or age is strictly prohibited.

Each licensed copy of HY-MPS2 may be used on one single computer location by one user. Use of HY-MPS2 means that you have loaded, installed, or run HY-MPS2 on a computer or similar device. If you install HY-MPS2 onto a multi-user platform, server or network, each and every individual user of HY-MPS2 must be licensed separately.

You may make one copy of HY-MPS2 for backup purposes, providing you only have one copy installed on one computer being used by one person. Other users may not use your copy of HY-MPS2. The assignment, sublicense, networking, sale, or distribution of copies of HY-MPS2 are strictly forbidden without the prior written consent of HY-Plugins. It is a violation of this agreement to assign, sell, share, loan, rent, lease, borrow, network or transfer the use of HY-MPS2. If any person other than yourself uses HY-MPS2 registered in your name, regardless of whether it is at the same time or different times, then this agreement is being violated and you are responsible for that violation!

#### 3.3 Copyright Restriction

This Software contains copyrighted material, trade secrets and other proprietary material. You shall not, and shall not

attempt to, modify, reverse engineer, disassemble or decompile HY-MPS2 . Nor can you create any derivative works or other works that are based upon or derived from HY-MPS2 in whole or in part.

HY-Plugins's name, logo and graphics file that represents HY-MPS2 shall not be used in any way to promote products developed with HY-MPS2 . HY-Plugins retains sole and exclusive ownership of all right, title and interest in and to HY-MPS2 and all Intellectual Property rights relating thereto.

Copyright law and international copyright treaty provisions protect all parts of HY-MPS2 , products and services. No program, code, part, image, audio sample, or text may be copied or used in any way by the user except as intended within the bounds of the single user program. All rights not expressly granted hereunder are reserved for HY-Plugins.

### 3.4 Limitation of Responsibility

You will indemnify, hold harmless, and defend HY-Plugins , its employees, agents and distributors against any and all claims, proceedings, demand and costs resulting from or in any way connected with your use of HY-Plugins's Software.

In no event (including, without limitation, in the event of negligence) will HY-Plugins , its employees, agents or distributors be liable for any consequential, incidental, indirect, special or punitive damages whatsoever (including, without limitation, damages for loss of profits, loss of use, business interruption, loss of information or data, or pecuniary loss), in connection with or arising out of or related to this Agreement, HY-MPS2 or the use or inability to use HY-MPS2 or the furnishing, performance or use of any other matters hereunder whether based upon contract, tort or any other theory including negligence.

HY-Plugins's entire liability, without exception, is limited to the customers' reimbursement of the purchase price of the Software (maximum being the lesser of the amount paid by you and the suggested retail price as listed by HY-Plugins ) in exchange for the return of the product, all copies, registration papers and manuals, and all materials that constitute a transfer of license from the customer back to HY-Plugins.

### 3.5 Warranties

Except as expressly stated in writing, HY-Plugins makes no representation or warranties in respect of this Software and expressly excludes all other warranties, expressed or implied, oral or written, including, without limitation, any implied warranties of merchantable quality or fitness for a particular purpose.

### 3.6 Governing Law

This Agreement shall be governed by the law of the Japan applicable therein. You hereby irrevocably attorn and submit to the non-exclusive jurisdiction of the courts of Japan therefrom. If any provision shall be considered unlawful, void or otherwise unenforceable, then that provision shall be deemed severable from this License and not affect the validity and enforceability of any other provisions.

### 3.7 Termination

Any failure to comply with the terms and conditions of this Agreement will result in automatic and immediate termination of this license. Upon termination of this license granted herein for any reason, you agree to immediately cease use of HY-MPS2 and destroy all copies of HY-MPS2 supplied under this Agreement. The financial obligations incurred by you shall survive the expiration or termination of this license.

## 4. DISCLAIMER OF WARRANTY

THIS SOFTWARE AND THE ACCOMPANYING FILES ARE SOLD "AS IS" AND WITHOUT WARRANTIES AS TO PERFORMANCE OR MERCHANTABILITY OR ANY OTHER WARRANTIES WHETHER EXPRESSED OR IMPLIED. THIS DISCLAIMER CONCERNS ALL FILES GENERATED AND EDITED BY HY-MPS2 AS WELL.

## 5. CONSENT OF USE OF DATA

You agree that HY-Plugins may collect and use information gathered in any manner as part of the product support services provided to you, if any, related to HY-MPS2 .HY-Plugins may also use this information to provide notices to you which may be of use or interest to you.