MOTION!

hgsounds.com

Changelog

1.11

- Added Global Lofi Bypass

1.1

- Pitch Bend Extended to 48 Semitones Max

- Pitch Bend now ignores Preset change

- Pitch Bend Glissando Mode Added (on the FX Panel)

- Bank of 43 great presets kindly created by aMUSEd called Tangents

1.0 – Initial Release

Motion L S < > W F D R VELOCITY TRANSPOSE 0 ARP
LIMIT BEND 2 HOLD

ENV1 ENV2 LFOS XY1 XY2 ARP FX Preset Loaded: | KEY Bells

A VOLUME ENV FILTER ⊟ SV HP1 ⊞ ⊟ 070 BD 08 ⊞ BANK HITS D R
SHP A H D S R % WAVE TUNE START UNST BR SR NOIS SAT LVL D R W F
S D R - LOFI SAT BEND V XY

B VOLUME ENV FILTER ⊟ SV LP2 ⊞ ⊟ 114 Attack 1 ⊞ BANK FM1 D R
SHP A H D S R % WAVE TUNE START UNST BR SR NOIS SAT LVL D R W F
S D R - LOFI SAT BEND V XY

C VOLUME ENV FILTER ⊟ Ladder HP1 ⊞ ⊟ 087 Metal 2 ⊞ BANK FM1 D R
SHP A H D S R % WAVE TUNE START UNST BR SR NOIS SAT LVL D R W F
S D R - LOFI SAT BEND V XY

D VOLUME ENV FILTER ⊟ DAFT HP ⊞ ⊟ 035 Wood 7 ⊞ BANK FM1 D R
SHP A H D S R % WAVE TUNE START UNST BR SR NOIS SAT LVL D R W F
S D R - LOFI SAT BEND V XY

VOL
A
T
C W D
P
B
D R

D R FREQ AMT
(V) VOL REC PLAY 8 ARP
(T) TUNE REC PLAY 8 11 ARP
(P) PAN REC PLAY 8 100 ARP
(F) FILT REC PLAY 8 100 ARP
(A) CUTA REC PLAY 8 100 ARP
(B) CUTB REC PLAY 8 100 ARP
(C) CUTC REC PLAY 8 100 ARP
(D) CUTD REC PLAY 8 100 ARP

FILTERS
D
B
⊟
C
A
D R
<- CUTOFF ->
<- RESONANCE ->

General

Sliders and Knobs are moved by left clicking and dragging up and down, holding the ALT key will allow fine control.

Button are simply On of Off.

Value Edits are used by clicking on them and dragging up or down to change the value, you can also click on the up and down arrows which appear when you hover over them.

These are the Global Random and Default Buttons. Global Randomize will randomize most parameters. Default loads the Default file to reset the synth to it's default state. You can overwrite the default file with your own by using Save Default in the Browser section.

These are Section Random and Default, Randomize will Randomize a selection of parameters in the section. Default will set the section to the default file.

Synth Structure

Motion was initially inspired by a Yamaha SY 35 Synthesizer and so at it's core it uses a similar architecture although takes the concept much further. The main feature which makes the SY35 interesting is the joystich which like other vector based synths allows cross fading between 4 separate synthesizers. The thing that makes the SY35 even more interesting is that the joystick movements can actually be recorded as part of the preset. It is this concept that Motion explores to the full.

So Motion uses 4 identical synthesizers called A,B,C and D. Each Synth has a single Oscillator, a Filter, Volume Envelope, an Assignable Envelope and 2 LFOs. At the side of each Synth Lane there are a few global controls which are always visible:

- **ENABLE**
  Switches the Synth on or Off

- **S – Solo**
  Solos the Synth making is easier to work on that particular Synth. Note that the V XY Control is also bypassed whilst Solo is engaged

- **D – Default**
  Sets the Synth to Deafult

- **R – Randomize**
  Randomizes the Synth

- **- Option Menu**
 Has Options for Copy the Current Synth to any or all of the others.

Oscillators
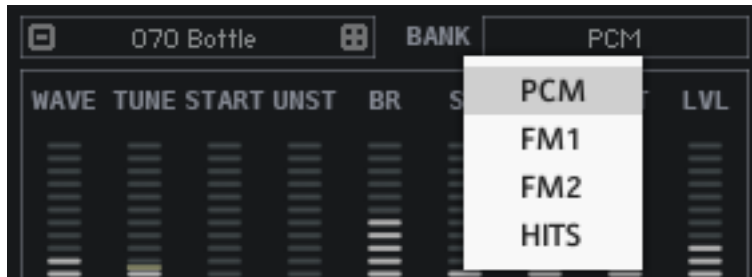
Each of the 4 Synths uses a single Oscillator. The waveforms are contained in 4 Banks and each Bank has 126 Waveforms available. There are different types of sounds, many are single cycle style waveforms, others have an attack phase before the loop and others are one-shot samples such as Drum Sounds.

The Bank and Waveform Selection for each Synth are shown on The ENV1 and ENV2 Panels.

- **Bank A – PCM**
  Has Pulse Code Modulation style samples.
- **Bank B – FM 1**
  Samples which have FM type Characteristics
- **Bank C – FM 2**
  A second Collection of Samples based on FM Synthesis
- **Bank D – Hits**
  This Bank contains many One shot drum Samples which are useful for an Attack Sound and especially useful when using the Arpeggiator. This Bank also contains many of the Digital Waveforms that were added to Cassetto.
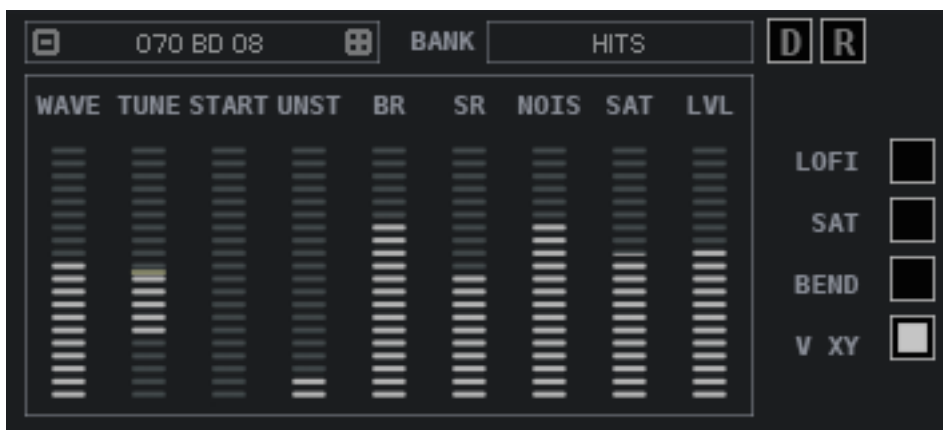
The Oscillator section controls Waveform selection as well as some tuning controls.

- **WAVE**
  Waveform Selection has a dedicated Slider which selects from the Currently selected Bank. It is also possible to use the drop down menu to select or to increment/decrement using the +/- buttons. The Wave slider is useful if you want to automate Waveform selection in your DAW.

- **BANK**
  This Pop up Menu allows selcting the current Bank which the Waves will be loaded from.

- **TUNE**
  Allows changing the pitch of the synth in semitones by +/- 2 Octaves

- **START**
  Allows offsetting the Start Position which is useful when using samples with an Attack Phase that you don't want.

- **UNST** (Unstable)
  Like Cassetto this adds a warble to the pitch of the Synth which gives it a nostalgic slightly Broken Feel.

- **BR** (BIT DEPTH)
  If Lofi is enabled sets the Bit rate Reduction for the Current Synth.

- **SR** (SAMPLE RATE)
  If Lofi is enabled, reduces the Sample rate of the Synth

- **NOISE**
  If Lofi is enabled, adds Noise to the Sound.

- **SAT** (SATURATION)
  Saturates the Sound of the Synth

- **LVL** (Level)
  Overall Level of the Synth Output.

- **LOFI**
  Enables Lofi Mode for the Synth

- **BEND**
  Switches on Pitch Bend for the Synth, Gl;obal Pitch Bend Amount is set in the Master Section at the top right of Motion.

- **V XY**
  When enabled this allows the synth to be Quadra Panned using the V XY Controller. It is enabled by default, but switching it off allows a Synth to play the same volume regardless of it's position.
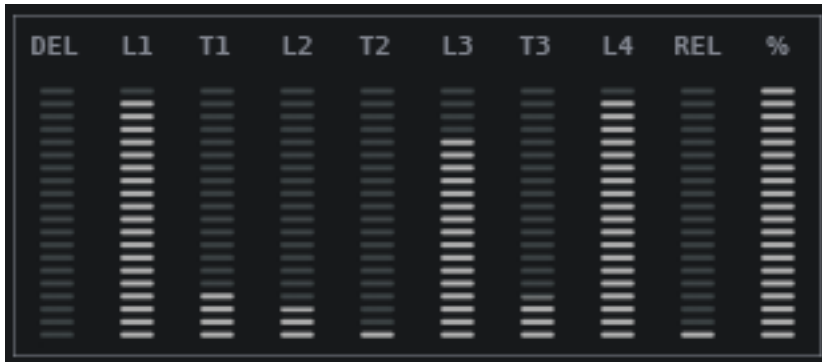
VOLUME ENVELOPE/ENVELOPE 2
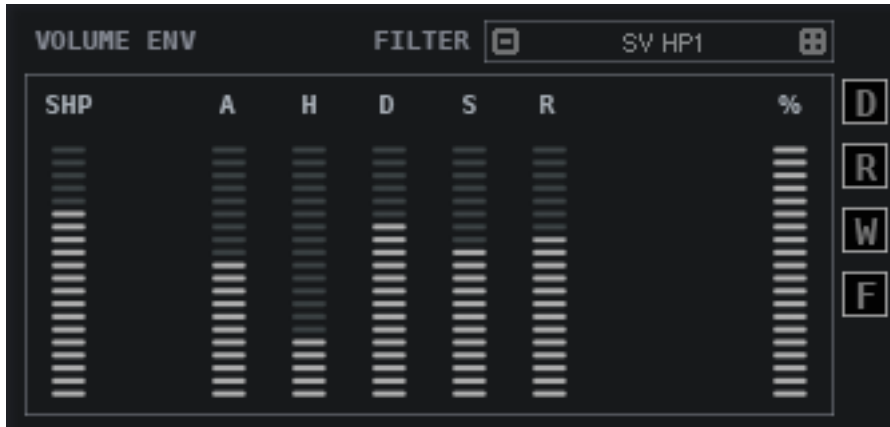
The Volume Envelope controls the Volume of the Oscillator. Envelope 2 can be assigned to various destinations.

The Envelope is a standard ADSR used by most synths, which has Attack, Decay and Release Times as well as the Sustain Level used after the Decay stage has completed.

- **SHP** (Shape)
  The Shape of the Attack Phase

- **A** – Attack
  The Attack Time of the Envelope to get the maximum Level

- **D** – Decay
  The Decay Time of the Envelope to Get from the Maximum Level to the Sustain Level

- **S** – Sustain Level
  The final volume of the Sound after the Attack/Decay Stages.

- **R** – Release
  The release time of the Envelope - how long it takes to fade out.

- **W**
  Randomizes the Waveform of the synth

- **F**
  Randomizes the Filter of the Synth

Note that Motion initially had 8 Stage Envelopes inspired by the SY35 with the addition of looping ability, however there is a serious Kontakt bug that makes it impossible to use more than 1 Flexible Envelope in an instrument. I'm hoping this will be fixed and so have left the Envelopes in place and built a system where it is possible to mix and match them with ADSRs. As soon as the bug is fixed I will re-enable this feature.

- **DEL – Delay**
  Delay Time of the Envelope before it begins

- **L1 – Level 1**
  Start Level of the Envelope

- **T1 – Time 1**
  How long the Envelope takes to reach stage 2 Level

- **L2 – Level 2**
  The Level between stages 1 and 2

- **T2 – Time 2**
  How long the envelope takes to go between Level 2 and Level 3

- **L3 – Level 3**
  The Level between stages 2 and 3

- **T3 – Time 3**
  How long the Envelope takes to travel from Level 3 to Level 4

- **L4 – Level 4**
  The final Level of the Envelope before it begins looping from the start.

Filters
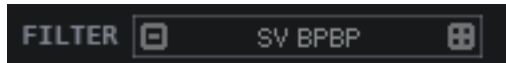
Each Synth has a single Filter which can be selected from a selection of 39 Filter types as well as being disabled altogether.

The Cutoff and Resonance for all Synths is controlled by the 2nd XY Pad so that Motion Recorders can be used to Modulate them which forms a large part of the character of Motion's sound.


A,B,C and D control the Cutoff and Resonance of each Synth Respectively.

F – This acts as a Global Offset for all Filters so for example it is moved downwards then it will reduce the Resonance of all 4 Synths equally.

In the Envelope 2 Mod Section the following controls are also available:

- **Key** – Assigns the Keyboard to Filter cutoff
  Offset – Offsets the Filter Cutoff in case it is necessary.
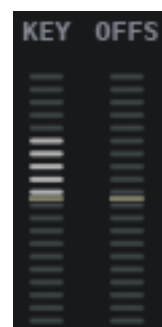
Envelope 2 Destinations

See the previous Envelope Section for how the Envelopes operate.

Envelope can be assigned to the following Destinations by either positive or negative amounts:

- Filter Cutoff
- Filter Resonance
- Oscillator Tune
- Lofi Bit Depth
- Lofi Sample rate
- Lofi Noise
- Saturation

LFOs

Each Synth has 2 LFOs which can be assigned to various destinations and each has an assortment of different shapes.

LFO1 always re-triggers with each Note Played and can be assigned so that the Amount is ether controlled by the Mod Wheel or Aftertouch, or can be sent to Constant so that the Amount is always full on. It can also be set to Clocked Tempos using the Sync button.
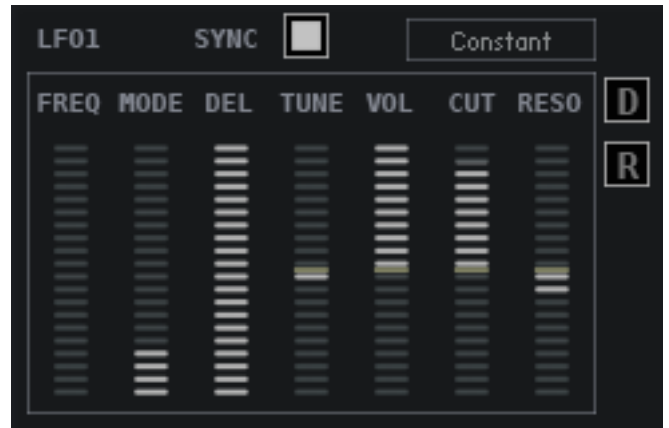
- **FREQ – Frequency**
  Sets the speed of the LFO

- **MODE**
  Selects which Shape is used for the Modulation, shapes include the usual Sine/Triangle/SAW/Ramp/Random as well as a collection of more complex shapes.

- **DELAY**
  Amount of time before the LFO kicks in after a Note is triggered.

- **TUNE**
  How much the LFO will affect the Oscillator Pitch

- **VOL**
  How much the LFO will affect the Synth Volume

- **CUT**
  How much the LFO will affect the filter Cutoff

- **RESO**
  How much the LFO will affect the Filter Resonance
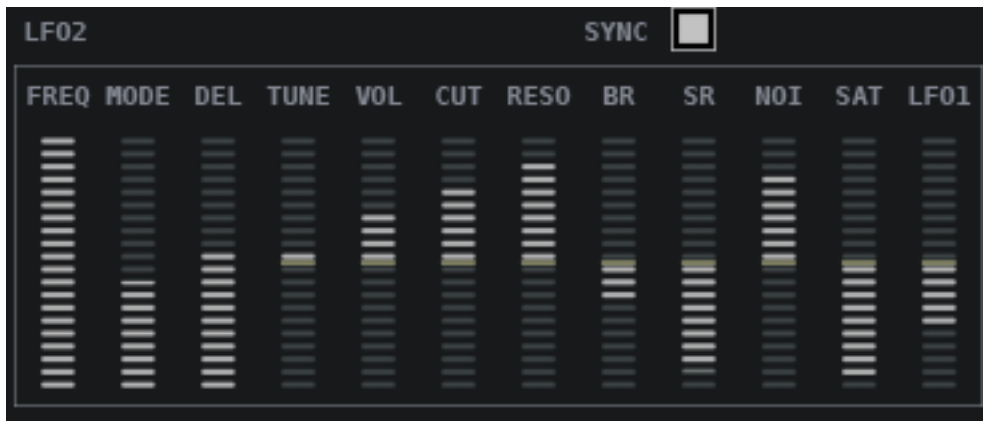
LFO 2 is always free Running (it doesn't restart on a new note). It has the same options as LFO 1 with these additional Destinations:

- BIT Depth

- Sample rate

- Noise

- Saturation

- LFO 1 Frequency

LFO Shapes

- Sine
- Cosine
- Square
- Square Inv
- Triangle
- Inverse Triangle
- Saw
- Ramp
- Random
- CUSTOM 1-30 (Blended LFO shapes)

XY Controllers/Motion Recorders

The most important feature of Motion are the Motion Recorders which allow recording Mouse movements which then playback as part of the Preset. These are available for the following parameters:

- **V – VOLUME**
  If you notice the A,B,C,D labels on the XY Pad, the V XY Mixes between the 4 Synths. So when centralized all synths will play at equal volume. If V is moved to the top (A) the A will be full Volume and B will be inaudible.

- **T – TUNE**
  This XY Controller offsets the tune of each oscillator and has no effect in the centre, as it moves away from the centre it will detune the Synth pairs in opposite directions. Mostly useful for subtle tunings, it is best used with the Amount set to a low number (see below).

- **P – PAN**
  This XY Controller Acts as a spread function between A/B and C/d, so that when central all synth are in the Centre stage, the further that the controller moves away from the centre the more each synth moves towards the Left or Right. A always moves in the opposite direction to B and similarly with C and D.

- **A,B,C,D,F – Filters**
  Although this has already been described in the Filter section, each Synth has its own Cutoff/Reso XY Controller as well as F which is a Master offset which affects all filters equally.
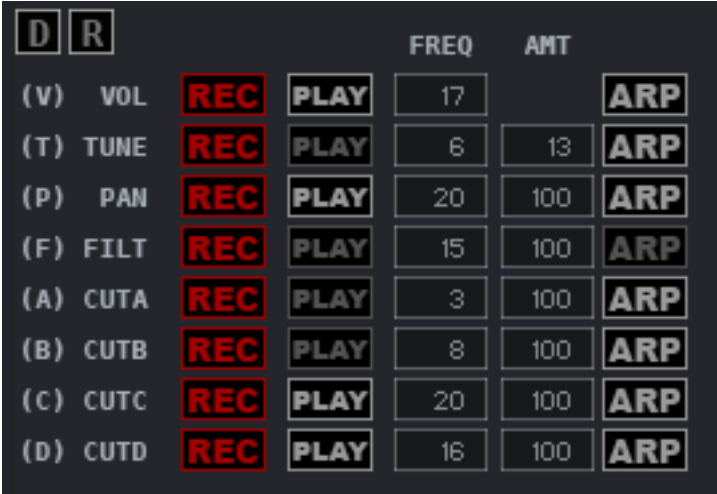
Motion comes with 200 pre-recorded Sequences built in and using the Randomizer will select random sequences from the database if you do not wish to record your own.

Each Motion Recorder has the following
Controls:

- **RECORD**
  Make sure no Notes are playing,
  Press record and then play a Note
  whilst operating the XY Control and
  all movement will be recorded. Once
  the cycle is complete Record will be
  disabled and the Sequence will
  begin to play back.

- **PLAY**
 Whether the sequence should play back.

- **FREQUENCY**
  The Sequences are 128 steps and the clock operates in 32nds of a bar, so 1
  is the fastest speed and will play back at 32nds. The Frequency Control slows
  down this speed by skipping steps so for instance setting it at 4 means that
  each step will play every 8th.

- **AMOUNT**
  This is the percentage of how much the XY affects the Destination.

- **ARP**
  When using the ARP retrigger Sequences, this setting decides whether each
  of the XY Controllers are included. See the ARP Section for more details.
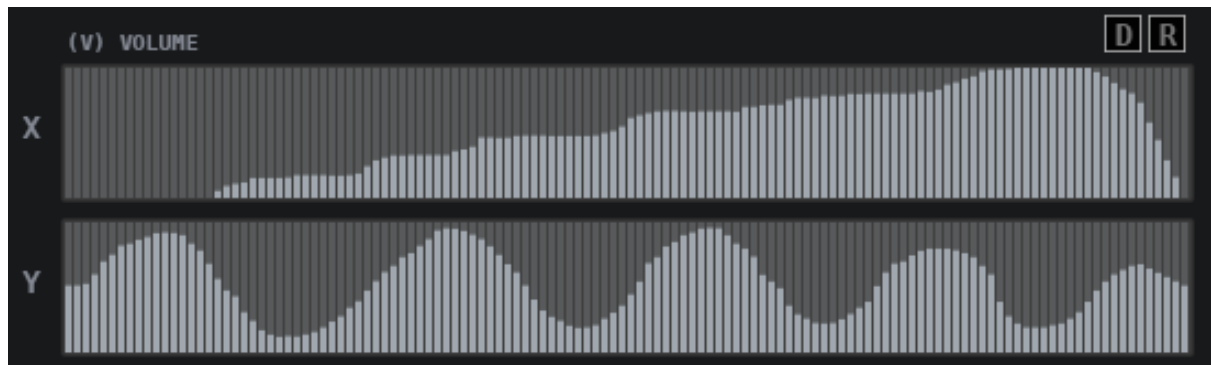
You will notice that when you record you will automatically be taken to the XY Panel which is relevant to the XY Control you are recording so that you can see it recording visually. It is also possible to draw these by hand on these pages.

Master Controls

There are a number of controls which are always visible along the top and left hand side. The top section contains the following:
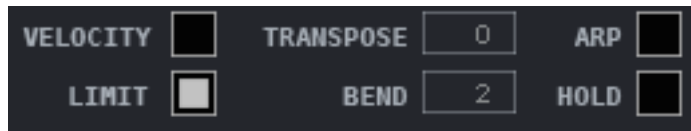

- **Velocity**
  By Default Motion does not use Velocity as Volume emphasis is on the Motion Recorder. Additionally native Kontakt Velocity was used to select Waveforms instead which made the instrument much more efficient. However a scripted Velocity is available to use by enabling this setting.

- **Limit**
  The limiter Prevents the output from overloading and helps to equalize the volume.

- **Transpose**
  This will transpose the entire instrument by +/- 24 Semitones.

- **Bend**
  Pitch Bend Range

- **ARP**
  Enables the Arpeggiator

- **HOLD**
  This enables a special hands free mode so that any keys played will be held until more keys are played. The Sustain Pedal also switches this on or off.

- **L – Load Preset**
  This is a replica of the Load Preset Button next to the Browser

- **S – Save Preset**
  This is a replica of the Save Preset Button so that it is always available.

- **< >**

  Preset Left and right arrows – Please note that in order for these to work a preset must be loaded using the Browser First.

- **W – Random Wave**

  Randomizes the Banks/Waveforms of All Synths

- **F – Random Filter type**

  Randomizes the Filter Types of all Synths

- **D – Global Default**

  This reset the entire Synth to a default State. You can save your own by using the Save default Button above the Preset Brower

- **R – Global Randomize**

  This Randomizes the Preset. There are several Randomize Modes on the FX Panel and you can assign any of them to this Button

The Master Volume is top Right of the Synth Next to the XY Pad.
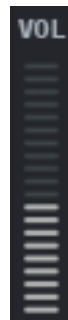
# Chorus/Flanger/Phaser/Delay/Reverb

REVERB IR ⊟ Cavern 3 ⊞ R

■

Reverb

The Reverb uses Impulse Responses from a selection of 51 using the menu. You can use the +- buttons and the randomize button.

- ■ **SIZE**
  The Size of the Reverb Decay

- ■ **AMT**
  The Amount of Reverb between 100% dry and 100% Wet.

- ■ **Pre Delay**
  Sets the Pre Delay time of the Impulse Response.

- ■ **HP**
  The Reverb High Pass Filter

- ■ **LP**
 The Reverb Low Pass Filter
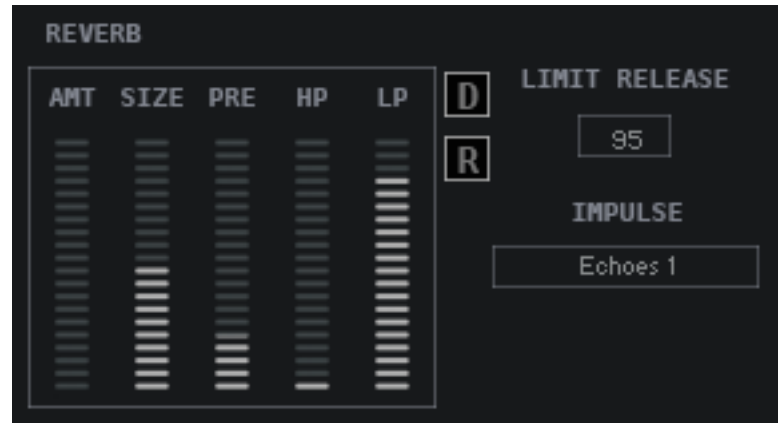
Reverb Impulses

- ■ Assembly
- ■ Bright 1
- ■ Bright 2"
- ■ Cathedral
- ■ Cavern 1
- ■ Cavern 2
- ■ Cavern 3
- ■ Cavern 4
- ■ Cavern 5
- ■ Chamber 1
- ■ Chamber 2
- ■ Chamber 3
- ■ Chorus
- ■ Church
- ■ Concert Hall
- ■ Concrete
- ■ Early Reflect
- ■ Echo Room
- ■ Echoes 1
- ■ Echoes 2
- ■ Hall 1
- ■ Hall 2

- Hall 3
- Hall 4
- Hall 5
- Hall 6
- Hall 7
- Hall 8
- Hall 9
- Large Church
- Long Hall
- Piano Hall
- Plate 1
- Plate 2
- Plate 3
- Plate 4
- Plate 5
- Reflection
- Rich Verb
- Ringer
- Room 1
- Room 2
- Room 3
- Room 4
- Small Hall 1
- Small Hall 2
- Spring
- Stage
- Subdue
- Universe
- Wide

Delay

The Delay is Tempo locked.

- **AMT**
  The Amount of Delay between 100% dry and 100% Wet.

- **TIME**
  The Delay Time

- **DMP**
  Damp Amount dampens the delay feedback Path

- **PAN**
 Fades between Mono and full L/R Separation.
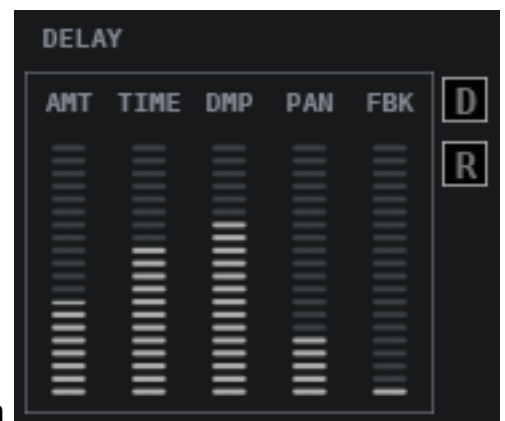
■ **FDBK**
The Feedback Level of the Delay

Modulator (Chorus/Flanger/Phaser)

Chorus can be switched between Chorus, Flanger or Phaser by Clicking on it's name which produces a menu. The FX Order is Modulator→Delay→Reverb.

■ **FREQ**
The Frequency of the Modulators LFO

■ **AMT**
The Amount of Chorus between 100% dry and 100% Wet.

■ **DPTH**
The depth of the Modulation

■ **PHASE**
Stereo Phase Offset of the effect

■ **FDBK**
The Feedback Level of the Flanger and Phaser.

■ **COLOR**
The Central Delay time of the Flanger.
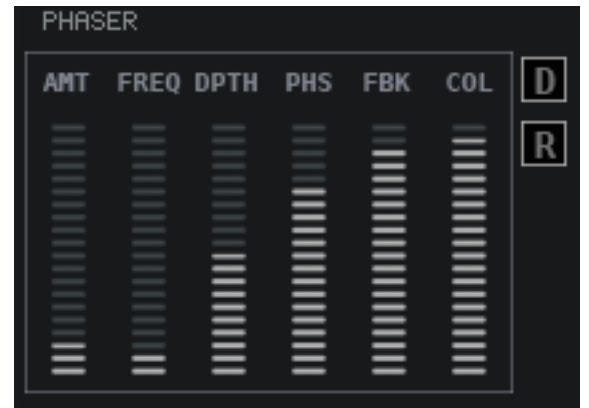
Preset Browser
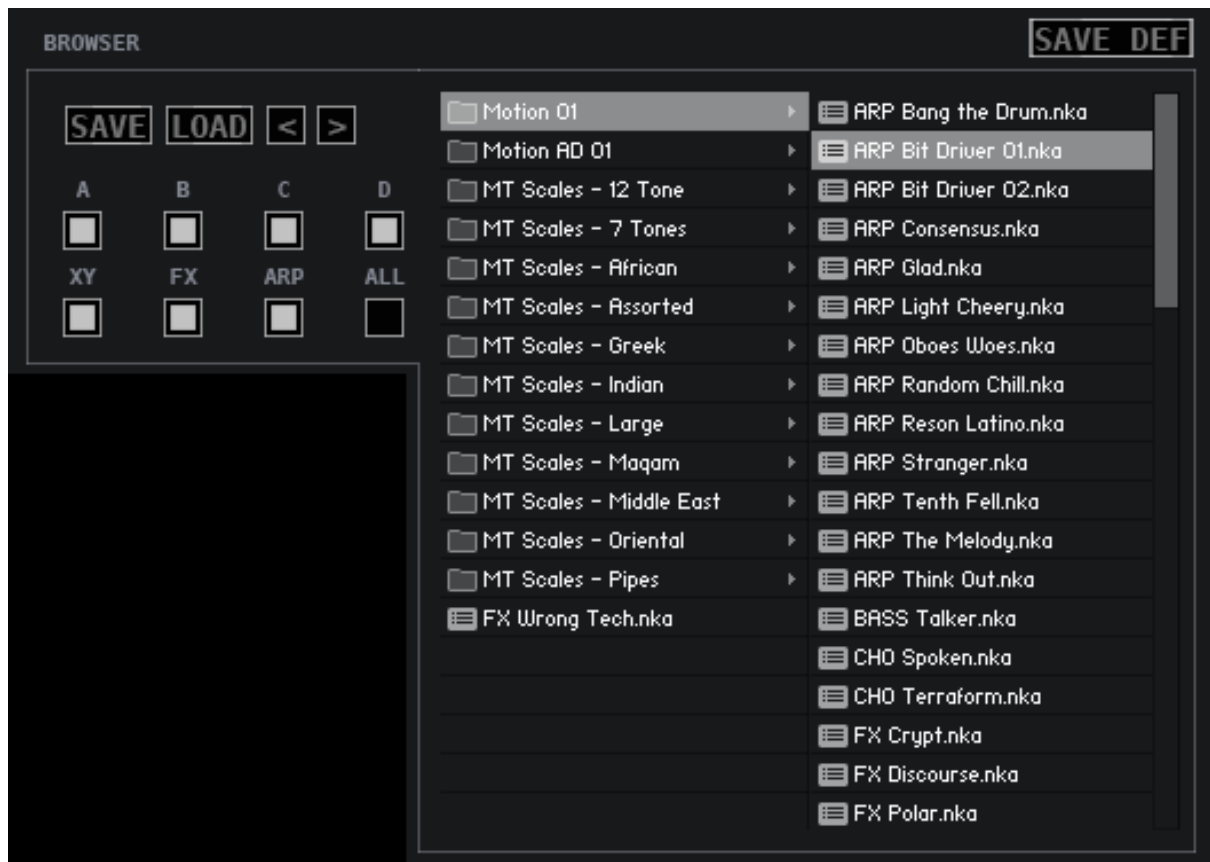
The Preset Browser allows loading Presets from the Motion presets Folder as well as Microtonal Files into the Microtuner. When saving a Preset you must select the Preset Folder in the save dialog and you can make your own Folder if you want, but bear in mind that Kontakt will only update the Browser when the Synth is loaded and so your saved presets will no be visible until then. If you want to loada preset you have save before then you may use the Load Preset button to find it manually.

- **Save**
  Saves a Preset
- **Load**
  Loads a Preset
- **< >**
  Load Previous and next Presets. Note that a Preset must be loaded via the Browser before this will work.
- **FILTERS**
  The Load Filters allow loading just certain parts of a Preset instead of the whole Preset. You can choose any combination of Synth A, B, C and D as well as the XY Section, FX and ARP. The All Button will either Select all options or Disable all alternately to make it easy to select All or None.
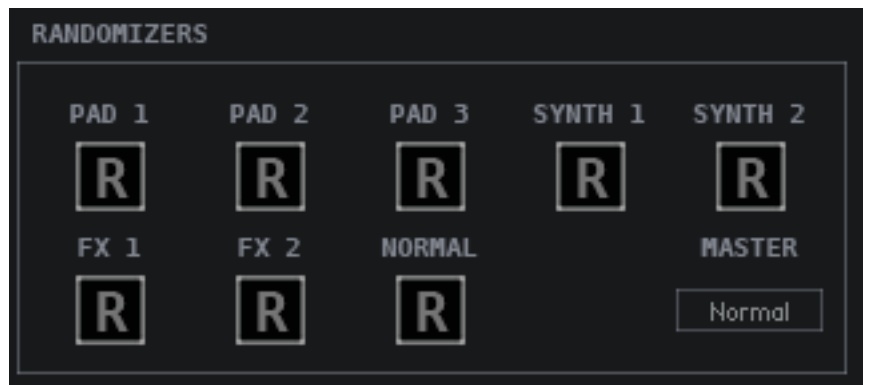
- **SAVE DEFAULT**
  This will replace the Default Preset which is used by all Default buttons.

Randomizers

A Selection of Tuned Preset Randomizers with varying styles. Please note that if using a few different ones, it's wise to use the Global Default every now and then.

You can select any of these modes for the main Global randomizer to use via the Master option.

Mod Wheel/Aftertouch Assignments
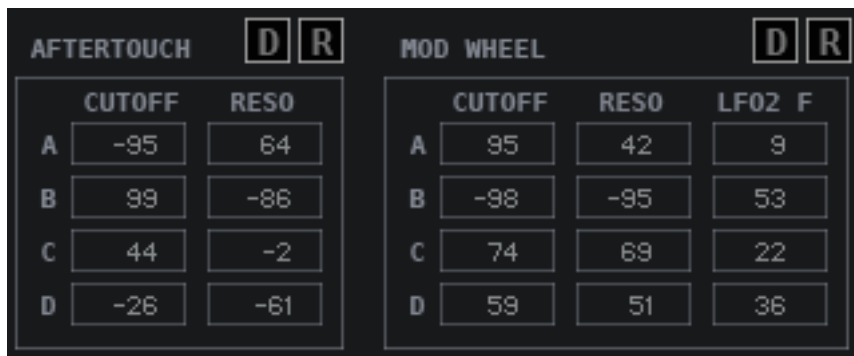
This Section allows assigning the Mod Wheel and Aftertouch to individual Synth Parameters. The destinations are Filter cutoff, Filter Resonance, and LFO 2 Frequency.
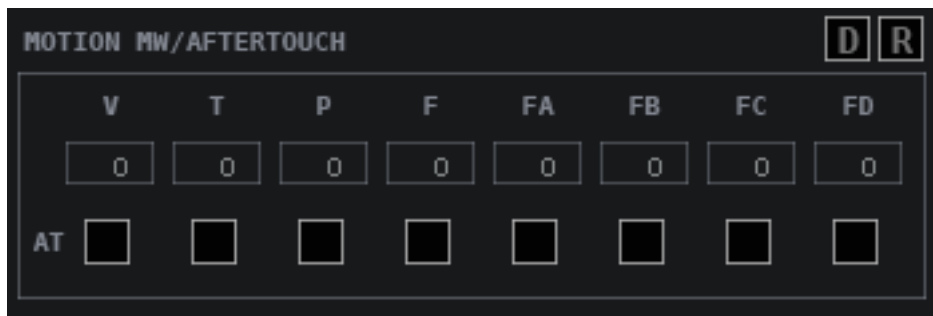
This section allows assigning either Mod Wheel or the Aftertouch to the XY Motion Recorder Frequencies. By Default the Modulations are all assigned to Mod Wheel, ticking the AT Box will use the Aftertouch instead.

Note that increasing Aftertouch/Mod Wheel value will slow down the Sequencers, so it is possible with 100% to almost freeze them.

Arpeggiator
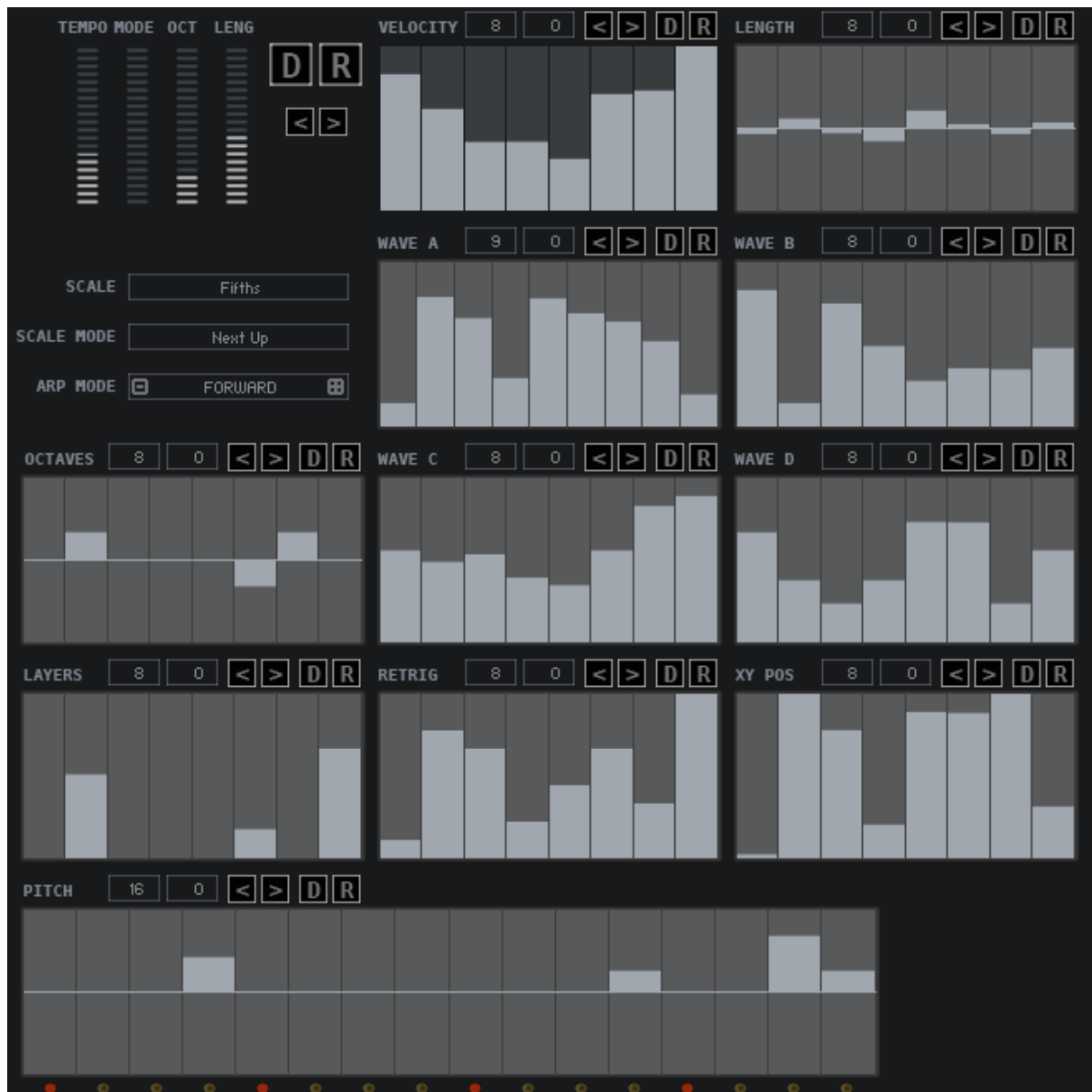
Motion includes a very powerful Arpeggiator, which has a lot of flexibility for experimentation however it can still easily be used as a standard ARP ignoring the additional sequencers.

The ARP works like any standard ARP cycling through all held notes and cycling through the Octave slider setting.

The Sequencers run independently of the ARP. running in the selected Mode Sliders direction and can be up to 64 steps.

The Shift Buttons allow moving each sequence left or right, the global Shift (top right) allow shifting all sequences together. Useful for the times you have a great sequence

but it doesn't start on the right step. Additionally if CTRL is held whilst clicking on Right Shift, it will duplicate the sequence making it twice as long. This can be repeated. CTRL Clicking on the Shift Left Button will half the sequence.

The Default and Randomize buttons either the sequence to flat and randomize the sequencer.

■ **Tempo**
Sets the Tempo Locked Division of the Clock

■ **Mode**
Selects the Mode of the ARP between Forwards, Reverse, Played, Played reverse, Alternative Modes, Chord or Random.
Note that Chord only works in Poly Mode, and when selected will also select it.

■ **Octave**
How many Octaves the ARP will cycle through. This is cycled by running through the held notes at each octave.

■ **Length**
How long each sequenced note is held for between 1 and 300%. The Length sequencer will add or remove from this value. Also making notes overlap will cause the Portamento to trigger for Acid type sequences.

■ **D – Default**
Sets the Arp to it's Default State

■ **R – Random**
Randomizes the Arpeggiator

■ **< >**
Shifts All Sequences Left or Right

ARP Modes

■ **Forwards**
The sequencers run Forwards and the held notes cycle forwards.

■ **Reverse**
The Sequencers Run Reverse and the held notes cycle in Reverse.

■ **As Played**
The held notes cycle in the order they were Played, the sequencers run Forwards.

■ **As Played Reverse**
The held notes cycle in the reverse order they were played, the sequencers run in Reverse.

■ **Alternate 1**
Forwards then Reverse – Adds a note to make up 4/4 repeat.

■ **Alternate 2**
Reverse then Forwards - Adds a note to make up 4/4 repeat.

■ **Alternate 3**
 Forwards then Reverse

■ **Alternate 4**
Reverse then Forwards

■ **Chord**
Plays all held notes simultaneously whilst cycling forwards though the sequencers.

■ **Low & Chord**
The Lowest Note plays the Pitch Sequencer, all higher Notes do not.

■ **High & Chord**
The Highest Note plays the Pitch Sequencer, the lower notes do not.

■ **Root Re-scale 1/2/3**
The Root Re-scalers use the Lowest Note to govern the key and scale output of all other Notes. This has an Omnichord like effect so that changing the low note will retune all other Notes to the Root Key and Scale. Note that a Scale must be enabled for the Root Re-scalers to work, otherwise the Pitch sequencer will be ignored.

■ **Root Re-scale 1** – All Held Notes use the Pitch Sequencer, however the they are re-scaled based on their own Root Note.

■ **Root Re-scale 2** – Only the Lowest Note uses the Pitch Sequencer

■ **Root Re-scale 3** - All Held Notes use the Pitch Sequencer, however they are re-scaled based on the Lowest Root Note. This is probably the most musically useful mode and the most like an Omnichord.

■ **ARP Rescale**
This uses the same Root Note Principle but works with the basic Forward Arpeggiator (Mode 1). So The low Note will dictate the Key and Scale of all Notes.

■ **MOD SEQUENCER MODES**
These Modes do not re-trigger notes, they only use the Pitch/Cutoff/Resonance/Decay and Release sequencers. See the Mod

Sequencer section for more info.

■ **MSEQ FWD/REV/ALT/ALT2**
These 4 modes apply pitch equally to all playing voices as you would expect.

■ **MSEQ ROOT FWD/REV/ALT/ALT2**
Like the Chord Mode, the Lowest Note will define the how the Scale Remapper remaps all higher Notes for an Omnichord type effect. In other words all Notes are mapped to the scale of the Root Note.

■ **MSEQ LOW FWD/REV/ALT/ALT2**
Only the Lowest Note will use the Pitch Sequencer, all higher notes will just use the other Sequencers.

■ **MSEQ HIGH FWD/REV/ALT/ALT2**
Only the Highest Note will use the Pitch sequencer, all lower notes will only use the other sequencers.

The sequencers all have common functions along the top:

- **Number of Steps**
  How many steps the Sequencer will use

- **Number of Repeats**
  How many times each step will repeat before incrementing
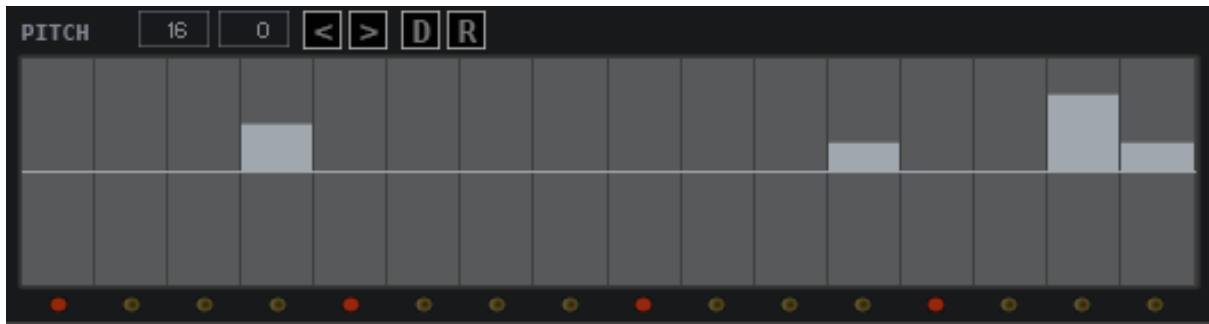
- **< >**
  Shift the Sequence Left or Right

- **Default**
 Sets the Sequencer to Default

- **Random**
  Randomizes the Sequencer

-

The Pitch Sequencer is locked at a fixed size of 16 steps unlike the other sequencers, however you can set the length between 1 and 16.

- **'O'**
  Randomizes the sequence using Octaves only.

- **'<' '>'**
  Shifts the Sequence Left or Right.

The Velocity Sequencer allows creating a sequence of velocity levels to affect the playing notes. If the slider is at zero no note will play on that step. Note that Velocity must be enabled in the Master section for this to work.
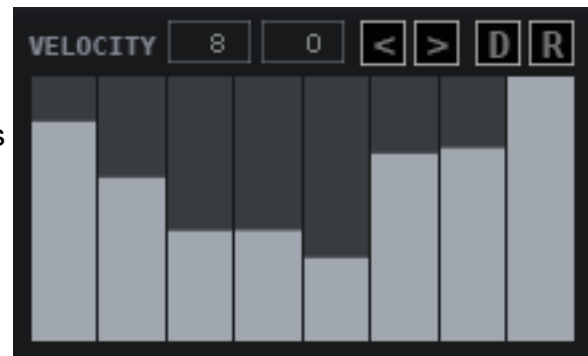
The Length Sequencer offset the Length Slider setting by a positive or negative amount for each step.

The Layers sequencer allows Sequencing different combinations of the Synths:

- 0 Plays All Synths
- 1 Plays Synth A
- 2 Plays Synth B
- 3 Plays Synth C
- 4 Plays Synth D
- 5 Plays Synths A+B
- 6 Plays Synths C+D

There are 4 Wave sequencers one for each synth which allow playing a different Waveform from the current Bank for each step.

The Octaves Sequencer adds -+ 3 Octaves to the Steps current Pitch.

The Retrig Sequencer re-triggers the Motion
Sequencers to the position currently used by the XY
Pos Sequencer. The Motion Sequencers must also
have their ARP button switched on to respond to this
sequencer.

The following values are used:

- 0 - No sequencers are Retriggered
- 1 - V Sequencer
- 2 - T Sequencer
- 3 - P Sequencer
- 4 - F Sequencer
- 5 - A Sequencer
- 6 - B Sequencer
- 7 - C Sequencer
- 8 - D Sequencer
- 9 - All Sequencers
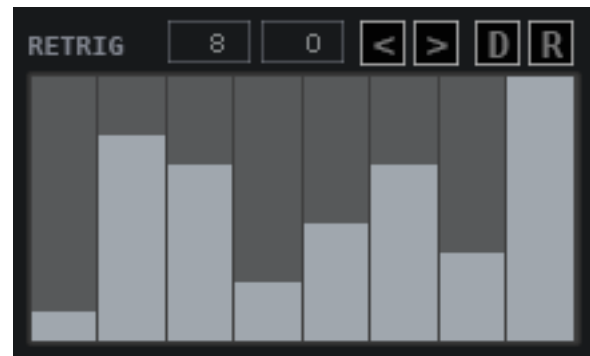
The XY Pos Sequencer selects which step (0-127) is
used for the re-trigger Position. This is very powerful
allowing some complex sequences when the sequencer
lengths are different.

Scale Re-mapper

The Scale Re-mapper is designed to force the output of the Arpeggiator to a specific Scale from a choice of 78.

The pitch from the ARP Sequencer is sent through the selected Scale and Notes are re-mapped according to which Mode is selected. Currently the Modes are:

- **Next Up**
  This will find the next highest applicable note in the scale.

- **Next Down**
  This will find the next Lower applicable note.

- **Alternate**
  This will alternate between Next Up and Next Down with each request.

If you are new to this sort of Scale Re-Mapping I suggest you load the Major Triad Scale which is a basic 3 Note Major Chord. That way you can easily hear the results and it will always sound in key.

OFF	Octatonic 2	Jewish
Major Scale	Dorian	Kumoi
Natural Minor	Phrygian	Neopolitan
Harmonic minor	Lydian	Overtone
Pentatonic Maj	Mixolydian	Pelog
Pentatonic Min	Aeolian	Persian
Pentatonic Blues	Locrian	Prometheus
Pentatonic Neutral	Algerian	Purvi Theta
Augmented	Arabian 2	6 Tone
Blues	Arabian 3	Bhairavi
Fifths	Augmented 2	Marva
Sevenths	Balinese	Ritusen
Acoustic	Byzantine	Egyptian Sus
Altered	Chinese	1
Arabian	Mongolian	2
Hungarian Minor	Egyptian	3
Whole Tone	Spanish 8	4
Maj7 + 5	Enigmatic	5
Minor 6	Asavari	6
Minor 7	Major Triad	7
Diminished	Minor Triad	8
Dimished 7	Hindu	9
Augmented Triad	Hirajoshi	10
Sus 2	Hungarian Major	11
Sus 4	Hungarian Minor	12
7 Sus 4	Japanese 1	
Octatonic 1	Japanese 2	
	Javanese	

Microtuner
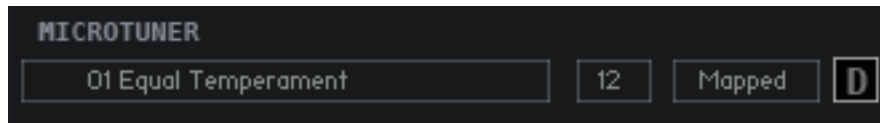
Motion includes a fully fledged Microtonal engine with an [online web page](#) to convert Scala files to Motion/Cassetto Format. The system supports the standard x notes over a single octave as well as x notes over multiple octaves. If you don't know anything about Microtonal Scales I suggest you [read this](#) as a primer which provides a good background.

In a nutshell, western music is base on 12 semitones = 1 Octave, a microtuner allows breaking away from this and having different interval for each note, for example Well Temperament which is a slight modification of Equal Temperament to give a more natural/less sterile sound. Beyond that is the ability to have other tunings for example the Indian Shruti which is 22 notes over 1 Octave. Equal Temperament dominates popular music but there are endless musical scales which exist throughout the musical world.

Cassetto includes a selection of 300+ Scales which are loaded through the preset browser. To add your own, use the web page to convert the .scl file and put it in the preset folder and the next time you load Cassetto it will be visible (Note you can also use the load Button if you want access without reloading).

All Scales are loaded with Middle C (midi Note 60) being the 1st Note of the Scale, and in Normal Mode they will progress chromatically up the keybed.

One issue with using scale sizes other than 12 notes, means it can be difficult to know where the 1st note of the scale is because keyboards/Midi Controllers are based on the 12 Note Scale. To help with this Cassetto includes a Mapped mode which will remap scales so that the 1st note will always be on a 'C' key, and as a result some keys will not make any sound, as an example for a 7 Note scale only the white notes are used, so black notes will produce no sound. You can see on the Kontakt GUI Keyboard which Notes are being used when in Mapped Mode, they are highlighted in RED.The map mode only work with Scales up to 24 notes in length.

NOTE – when using the online converter, the scales will be stored locally and may be added to the Cassetto collection in future releases. At the time of writing, the Converter is working for about 95% of .scl files, if you find one that doesn't work please email me the Scala file so I can take a look.