Kosmology Manual

Homegrown Sounds
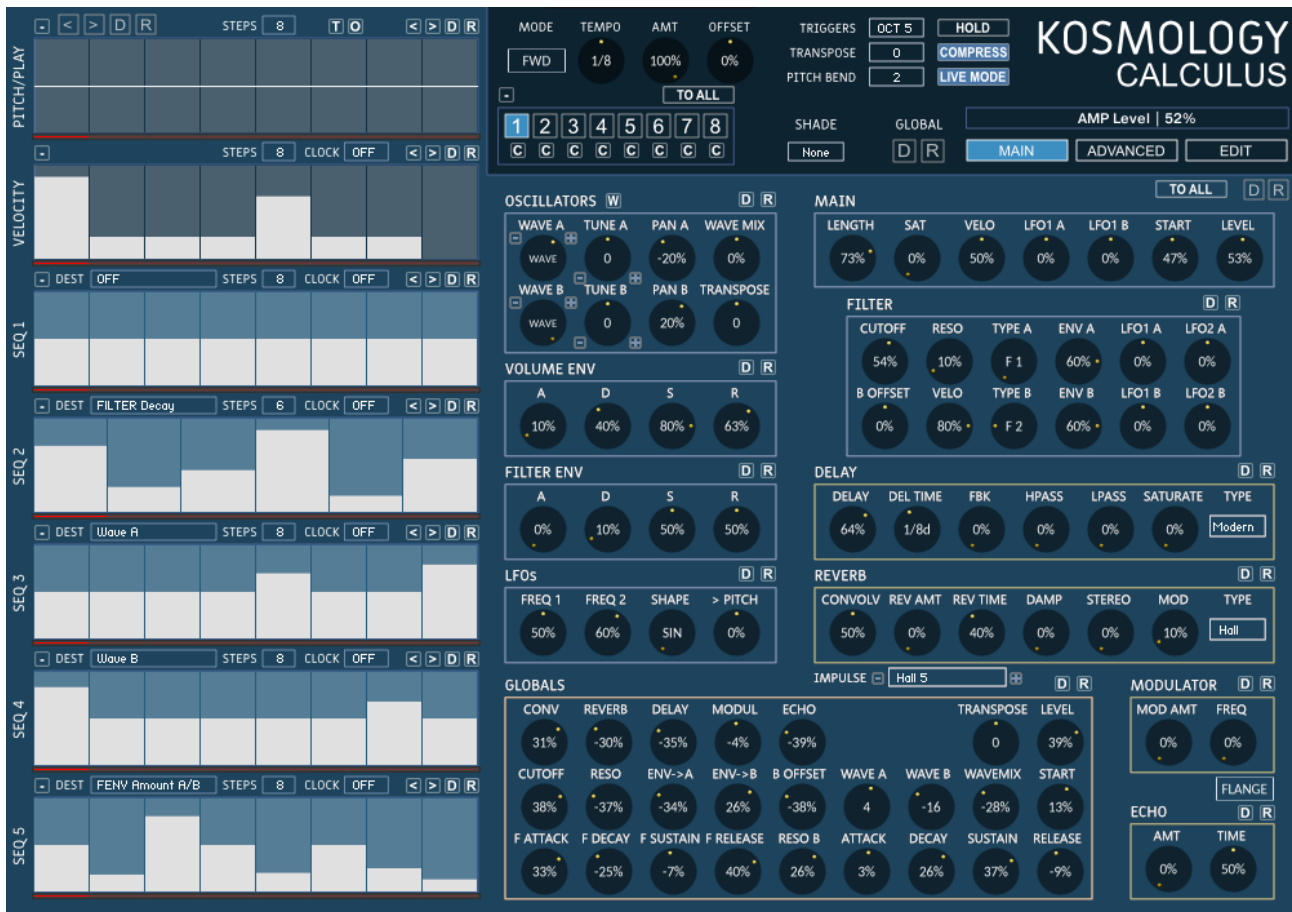
http://hgsounds.com

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Changelog

V2.0 – Initial Release

Introduction

There are 2 Versions of Kosmology, K5 which uses the original FX, and K6 a Kontakt 6 specific Version which uses the fantastic new Reverb and Delay FX, although they do use more CPU.

Kosmology Instruments are included in both Multiverse Collection and Kosmology Collection, which combines all previous releases into 2 Products.

Wave Sequencing

The Golden Crown of Kosmology is undoubtedly the fact that it can perform **Wave Sequencing** which means that you can assign a sequencer to select the currently playing instruments from all the included Sampled instruments. Both Synth A and B can be targeted individually which leads to instant satisfaction, creating an original sounding sequence can be as easy as selecting Wave A/B in a sequencer and hitting the Random Button.

There is also a Globals section which allows affecting 25 Parameters at the global Level, which can be automated in the host. These Parameters can add or remove from the current values, so as an example you could have a complex midi track in your DAW which switches between sequences rapidly and then automate a slow movement on the Cutoff Global which will open and close the filer regardless of which sequence is playing.

Kosmology Key Features:

- **8 Instances** that can be switched on the fly via Midi. each Instance has:
    - control over **48 Distinct Parameters** which include Cutoff, Resonance, Filter and Amp Envelopes Envelopes (Attack, Decay, Sustain and Release), Filter Envelope Amounts, Octave, Various A/B Tune options, FX Sends plus more.
    - **Pitch Sequencer** – Offsets the root note by -+12 semitones and can Tie notes and mute them
    - **Velocity** Sequencer – Velocity in turn can be assigned to both Volume and/or the Filter Cutoff
    - **5 assignable Sequencers** – each of these sequencers can target any of the 46 available Destinations and can like the other synth parameters can be completely different for each of the 8 instances.
    - All sequencers have **independent Clock Divisions**
    - All sequencers have an independent **Step Size** (maximum 64 steps) which is great for Syncopation
- **Dual Synth Architecture -** each synth has its own waveform (sampled Instrument), Filter Type, Pan, Tune and Envelope Depth.
- **FX Engine**:
    - **Convolution Reverb** -Uses Kontakt's Convolution engine with a selection of 50 unique Impulse Responses.
    - **Standard Reverb/K6 Reverb** – Also includes the older Kontakt Reverb which can work well in conjunction with the Convolver
    - **Tempo Delay/Replika Delay** -Stereo Ping Pong Delay with adjustable tempo based times
    - **Modulator** – Has a choice between Flanger, Phaser or Chorus with adjustable LFO Frequency.
    - **Echo** – Can be used as a Comb effect (think Sabres of Paradise) or as a short non tempo delay.
    - **Compressor**
    - **Saturation**
- **2 tempo synced LFOs** – LFO1 has a selection of 20 shapes, and can target Cutoff and Volume individually for both synths A and B, and Pitch B. LFO 2 is dedicated to the main Cutoff and locked to a RAMP shape and is great for the classic Rhythmic Sound.
- **Wave Sequencing** – it is possible to target both synth destinations independently to

switch waveforms on a step by step basis which leads to extremely sophisticated Sequences with very little effort.

- **Integrated Preset Browser** and ability to save Presets and Templates.
- **Re-scalers** – Force notes to a Scale for each Note of the Octave
- **Randomizers** – You can randomize everywhere
- **Large Screen editor** – Allows working on the Pitch plus any other sequencer for easy Editing when needed
- **15 Timing Based Triggers** for Live Manipulation including Freeze Pitch, Freeze Waveforms, Half Step, Double Step, Mute, Reverse, Max Note Length, Min Note Length plus more
- **25 Global Parameters** for Automating across all Instances or radically transforming a Preset on the fly
- **3 Mod Triggers** – You can offset up to 9 Parameters for each of these triggers for an instant remix via the assigned Midi Keys
- **-+1 Octave Triggers**
- **Easy and Intuitive Workflow**

Installation

1. Decide on the location you want to install and create a folder, for example 'HGSounds'

2. Extract the rar file and select the folder you created in step 1

3. Open Kontakt and use the File browser to locate the folder from step 1 and choose the instruments sub folder which contains all of the included instruments.

Installing a Kosmology\Multiverse Update

- An update generally consists of updated Resource Files, simply extract to your chosen install Folder and when asked for permission to replace files choose 'yes/ok'

Notes

Because Kosmology Loads Samples into RAM so that Sample Start can be Sequenced it can require lots of RAM. Because of this the default state has the Samples Purged so that Samples only load when they are used. This can mean a slight pause/glitch when the sample first loads but it's fine after that. It's recommended that when you have finished your track to 'Purge All Samples' and then Play your track through, this will ensure that only the samples you used are loaded into RAM.

Instance Overview

The easiest way to think about an Instance is that it is a complete plug-in in it's own right, everything you see on the screen is specific to the Instance. The only exceptions to this are the Globals, Rescalers and the Global Transpose. So each of the 8 Instances A-B can have completely unique Sequences, Tempos, Step Amounts Synth and FX Parameters.

The Instances are selected via the C5 Octave on your midi Keyboard - indicated by the Red Keys/ Yellow shows the Currently selected (this can be changed via the Trig Menu option) and this is the way that you would switch them live from your DAWs midi track.
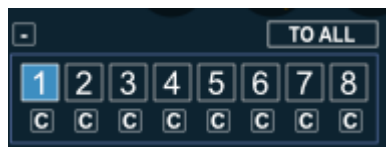
You can also select the Instances via the 1-8 Buttons which always indicate the currently selected Instance. For the most part however it is a much quicker workflow to get used to the Midi Keys. It may also be an idea to enable the Kontakt Keyboard display until you get used to it so that you can visually see where the triggers are located when you hit keys on your keyboard.

The Copy Buttons will copy that Instance state to the currently active one.

Sequencer Basics

First and Foremost it's important to define what type of Sequencer we are talking about. The sequencers in Kosmology are Relational Sequencers inspired by traditional Modular systems.

- The Sequencers are gated and so are triggered when and whilst a Midi note is held.

- The pitch of the Sequence is determined by the note that triggered it. The Pitch sequencer is relational to this adding +-12 semitones to the root value.

- All sequencers reset when they are retriggered. (They do not reset when switching instances however when the original trigger note is still held)

- The benefit of this type of sequencer is that multiple sequencers can be triggered simultaneously at different pitches which allows interesting Polyphonic Possibilities, especially seeing as each sequence resets when it is triggered.

Each Instance has 7 Sequencers available, the first two are dedicated to Pitch/Play and Velocity Respectively and the other 5 are assignable to a selection of 46 destinations. I'll discuss the Common Features and then move on to the Specific Differences.

Assignable Sequencer/Common Controls

There are 5 assignable Sequencers which can be assigned to any of the 46 destinations. When set to default at 50 for most destinations this has no effect and the destinations slider value is used. Anything above the centre line will add to the sliders value and likewise anything below it will subtract. Some Destinations use an absolute value however, see the Destination section for specifics.

- **'MENU' –** Options Menu - This menu contains useful utilities for manipulating the Sequence Data. *See Section Below.*

- *Destination Menu – Allows selecting what the sequencer will control if anything from a list of 46 Destinations. See the Destination List Section for the Full List.*

- **'Steps Menu'** – How many Steps the Sequence will Use. Top Right Hand Value Selector.

- *'Tempo Division' – Each Sequencer uses the Master Tempo by Default, however this setting allows each sequencer to use its own tempo setting. As an example if the Master Tempo was set to 1/16 the above sequence would be moving forward at 1/8 so that the Wave would change every other step.*

- **< > - Shift Left / Shift Right** – Moves the sequence Data one step to the left or right.

- **'D' – Default** - Sets the Sequence to the Mid Point (50) which has no effect on the destination.

- **'R' – Random** – Randomizes the steps to Random Values.

Pitch Sequencer Specifics
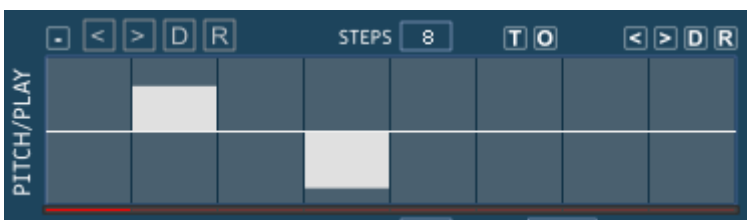
The Play/Pitch Sequencer affects the Actual Triggered Midi Notes Played. The Range is - +-12 semitones from the triggered root pitch. The Centre line equals root pitch/No Change. Below the Line will lower the pitch in semitones and above the line will Add Semitones. Moving a Step to the -13 Position will mute that step so that the Note is not triggered, moving the step to +13 will Tie the previous note extending it's length. You can Have several Ties in a row making a long note.

- **'O' – Octave randomize** – This randomizes the steps with either 0, 12 or -12 so that it is always Octaves.

- **'T' – Tune Randomize** – This randomizes the pitch of any enabled steps

- **'R' – Randomize Played Steps** – This will Randomize just which steps are played and any playing steps will be set to 0. Useful for generating a rhythmic pattern before working on the Pitch itself.

- **'< >'** - These Left Right Buttons to the right of the sequencer are worth mentioning here because they Shift ALL Sequences Left and Right.

Velocity Sequencer Specifics
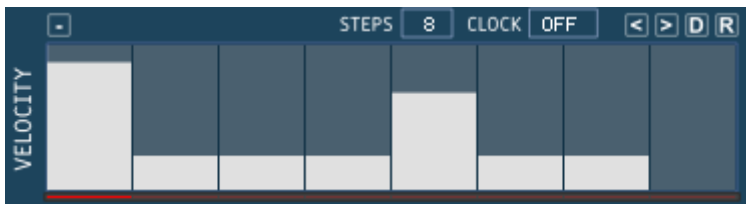
The Velocity sequencer is solely dedicated to Note velocity and so it will affect the Volume of the Note, which depends on the value of the Velocity setting in the Synth section. More interestingly Velocity can also be assigned to Filter Cutoff in the Synth/Filter section. This is special because it is polyphonic as it is sent with a Note On message. Whilst you can also select Cutoff directly as a destination in a Sequencer, this is a global value which changes the Cutoff Value of all playing Sequences. They both have their uses however and also great used in Combination.

Destinations

This section list all the Destinations available at the time of writing, others may be added in the future and will be visible at the end of the menu. Unless otherwise stated the destinations Sequences are relative to the Destinations slider value, meaning that the Mid Line of the Sequencer (50) has no effect, anything below will have a negative affect and anything above a Positive affect.

You will notice lots of A/B Distinctions, this is because Kosmology basically emulates a dual synthesizer and so has Synth A and Synth B. Some controls control both such as Cutoff, however there is also a Cutoff B which offsets the Cutoff for Synth B.

- **OFF** – The sequencer is not used.

- **Sample Start** – This affects the Start Position of the Sample when it is triggered.

- **Sample Start Big** – Has a larger range than Sample Start.

- **Note Length** – The Length of the Sequenced Note, this parameter is not relative to the slider it is actually the absolute value of the Note Length.

- **Wave A –** Controls which Waveform (Sampled Instrument) Synth A will use. If the value goes past the last available waveform it will cycle back to one and start counting from there to determine which Wave will play. Same goes for when the

value falls below zero, it will start counting from the back. There is also a speial mode for the Wave destinations, if 100 is selected which is all the way up on a step, the Waveform will be muted. This is very useful for creating Rhythmic Wave Sequences.

- **Wave B** – Same as wave A but for Synth B.

- **Wave A/B** – Affects both Waves A and B simultaneously, note that because the values are relative to the A and B sliders in the Synth Section you can easily use the sliders to shift the centre point of either/or A and B.

- **Wave Mix** – This affects the slider which mixes between Synth A and B.

- **Mirror Pan** – This affects the Pan of both Synths in a symmetrical manner, so that if the value is 90, Pan A would be 90 and Pan B would be 10.

- **Pan A** – Just affects the Pan of Synth A

- **Pan B** – Pan of Synth B

- **Pitch Octaves x2** – Affects the Midi Note played in Octaves, centre has no effect, up will add an octave and down will lower an Octave.

- **Pitch Octaves x4** – Same as above except it will do +-2 Octaves. You can use this in combination with Octaves X2 and the result will be added together.

- **Transpose** – Affects the entire Midi Note played in the same way as the Pitch sequencer. It can be useful to use in combination. An example would be to have a sequence playing at 1/16 Tempo in the main Pitch sequencer, and then using this as a destination in a Sequencer at 1 bar tempo to Re-pitch the entire sequence.

- **Fine Tune A –** Alters the actual sample pitch as opposed to the Midi Note, adds a small amount of pitch change.

- **Fine Tune B** - Alters the actual sample pitch as opposed to the Midi Note, adds a small amount of pitch change.

- **Quantized Tune A** – This alters the pitch in semitones of the actual sample +-12 semitones. This has a slight slur to the value to simulate a bend.

- **Quantized Tune B** – As above but for Synth B

- **RAW Tune A** – Same range as Quantized Tune but without the quantize for more experimental Pitch.

- **RAW Tune B** – Same as above but for synth B

- **Cutoff** – The Filter Cutoff Frequency, this affects both synth A and B

- **Cutoff B** – This is an Offset value for the Filter Cutoff of Synth B, it can be sequenced separately with this destination, but will still always respond to the main Cutoff as well.

- **Resonance** - Resonance of the Filter.

- **Filter Type A –** Each Synth can have it's own Filter Type, this allows sequencing the Filter Type although it can glitch a little.

- **Filter Type B** - As above but for Synth B

- **Filter Type Mirror** – Affects both Filter Types in a symmetrical way.

- **Saturation** – The Saturation of the signal.

- **Reverb Send** – Amount of Signal sent to the Reverb

- **Convolver Send** - Amount of Signal sent to the Convolution Reverb

- **Delay Send** – Amount of signal sent to the Delay. Can glitch occasionally although I'm not sure why it should, seems to be related to the kind of Sample being played.

- **Modulation Level** – Amount of the Modulation Effect

- **Echo Send** - Amount of Signal sent to the Echo

- **Echo Time** – The Echo Time

- **LFO1 Frequency** – The Speed of LFO1

- **LFO2 Frequency** – The Speed of LFO2

- **LFO2 Amount** – The Amount of LFO2 sent to the Filter Cutoff

- **FENV Amount A** – The Amount of Filter Envelope sent to the Cutoff of Synth A

- **FENV Amount B** – The Amount of Filter Envelope sent to the Cutoff of Synth B

- **FENV Amount A/B** - The Amount of Filter Envelope sent to the Cutoff of Synth A and B. Note that you can offset the amount via the Slider in the synth section.

- **FILTER Attack** – The Attack Time of the Filter Envelope.

- **FILTER Decay** – The Decay Time of the Filter Envelope

- **FILTER Sustain** – The Sustain Level of the Filter Envelope

- **FILTER Release** – The Release Time of the Filter Envelope

- **AMP Attack** – The Attack Time of the AMP Envelope

- **AMP Decay** – The Decay Time of the AMP Envelope

- **AMP Sustain** – The Sustain Level of the AMP Envelope

- **AMP Release** – The Release Time of the AMP Envelope

Sequencer Options Menu

The Options menu has various useful functions for manipulating the Sequence data:

- **Copy Sequence** – Copies the Sequence ready to be pasted into another sequence.

- **Paste Sequence** – Paste a Copied Sequence.

- **Repeat first 16 Steps** – Duplicates the 1st 16 steps and sets the Steps to 32

- **Repeat first 8 Steps** – Duplicates the 1st 8 steps and sets the Steps to 16

- **Repeat first 4 Steps** – Duplicates the 1st 4 steps 4 times and sets the Steps to 16

- **Reverse sequence** – Reverses the Sequence.

- **Copy Sequence to ALL Instances** – This Copies the Sequence in question to all other instances in the same position. So if was the Pitch sequencer it would copy to all other Pitch sequencers.

- **Half Tempo Tied** – Halves the tempo of the sequence by introducing a tied note on every other step when used on the P[itch Sequencer. On other sequencers it will duplicate the value instead.

- **Half Tempo Gapped** – As above except on pitch it will mute every other note and on other sequencers it will set every other note to zero.

Master Options Menu

The Master Options Menu has lots of useful utilities for the whole machine or instances.

- **Copy All Sequence Only** – Copies all sequences in the current Instance ready for pasting.

- **Paste All Sequence Only** – Pastes previously copied Sequences to the current Instance.

- **Everything to <Instance Letter>** - A very useful function which will duplicate the current Instance to any other Instance. The new Instance will also then be selected ready for editing.

- **Everything to all Instances** – Copies the current Instance to All other Instances, be careful with this, there is no undo! Great for working on an Instance and then spreading to the whole machine as the basis for making an entire preset.

- **Save Full Preset** – Saves the full machine state to the Hard Drive. When saving Save in the Presets folder, unfortunately due to limitations with Kontakt it will open in the Data folder and you must manually choose the 'Presets' Folder and then either a sub folder or create a new one. The Browser in Kosmology sees everything below the Presets Folder.
On another note again due to limitations in the Browser there is unfortunately no way to refresh it, so a restart of the Instrument is required before newly saved Presets are visible. You can use the Load Preset below to open them in the meantime however.

- **Load Preset** – An alternative to using the internal Browser so that you can load presets stored outside of the Presets folder for example. Can Load Full machine as well as Single Presets.

- **Save Single Instance** – This saves just a single Instance instead of the whole machine, only really useful if you want to export to import into another Preset. They are not distinguished from Full Presets in their name or location so I suggest you add SINGLE to the name or something similar as a reference. However, the Load command will determine which type they are automatically when loading.

- **Save Default Preset** – This allows setting a Default state for Kosmology which can be restored by using the Load Default state below, or by SHIFT Clicking on the big 'D' Button. This has been left as a courtesy to Kosmos users that are used to it, however it has now been superseded by the more useful Preset Browser, it's suggested that you save templates in the templates folder instead and load them

from the browser.

- **Load default Preset** – See above

- **Step size Randomize On/Off** – Determines if the Step size should be randomized when using the Sequencer Randomize button. Disabled by default.

## The Other Instance Parameters/Master Section
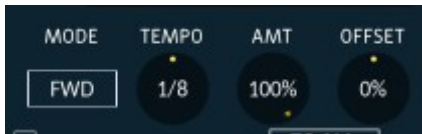
- **Mode** – Selects the current playback mode used by the Instance:
  - **Forwards** – The sequence progresses from step 1 and loops back when reaching the current step length.
  - **Reverse** – Plays the Sequence backwards
  - **Alternate 1** – Forwards and then Reverse with no repeated steps
  - **Alternate 2** – Reverse and then Forwards with no repeated step
  - **Random** – Selects a random step on each triggered step
  - **Alternate 3** – Forwards and then Reverse with repeated steps so that an 8 step sequence will play as a 16 step sequence
  - **Alternate 4** – Reverse and then Forwards with repeated steps so that an 8 step sequence will play as a 16 step sequence
  - **Alternate Double** – Plays Forwards twice and then backwards twice
  - **Advance x2** – Moves 2 steps forward on each step
  - **Advance x3** – Moves 3 steps forward on each step
  - **Advance xKeys** – Advances the sequence by the number of keys held.
  - **Keys Open x1**- First held note plays 2 steps of the sequence, the next held note adds another note and so on. It's an experimental way to open up the sequence length based on how many keys are held.
  - **Keys Open x2** – As previous except 2 steps are added with each additional note
  - **Keys Close x1/x2** – These are the opposite of Open x, the 1st sequence will play normally and each additional held note will reduce the step length.
  - **2/3/4/5/6 Step** – Repeats each step the selected number of times.
- **Tempo** – Select between 1 Bar and 32nd Clock Divisions
- **Amount** - Percentage of Sequencer Values – This will reduce the overall Amount of sequencer signal sent to Destinations. Any destinations with a * in the name are exempt from this, which is good if you don't want filter cutoff, for example, to be affected.
- **Offset** – Offset increases/decreases the sequencer values sent to destinations. Center has no effect. Useful when using a reduced percentage so that you can

increase the minimum value up from zero. Any destinations with a * in the name are exempt from this.
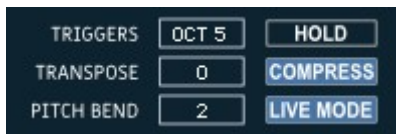
- **Live Mode** – When Disabled prevents the GUI from following the Instance changes via the Midi Note triggers. Very useful for editing a Sequence whilst the DAW is in playback mode.

- **Trigger Octave –** Sets which Octave on your midi Keyboard the Triggers will be based. This is a global setting that only gets save with the project.

- **Transpose** – This is a global Transpose setting – Note that this does not get updated when loading a preset from the Preset Browser. This is because different sample collections are based at different Octave mappings and because the presets are compatible across all collections it does not make sense to change this setting.

- **Pitch Bend** – The amount of Semitones the Pitch Bend will use.

- **HOLD** – This keeps Keyboard Notes Held until more are Pressed.

- **Compress** – Turns on the Compressor.

- **Live Mode** – Enables the GUI updating via Midi Instance Changes.

Large Edit Mode
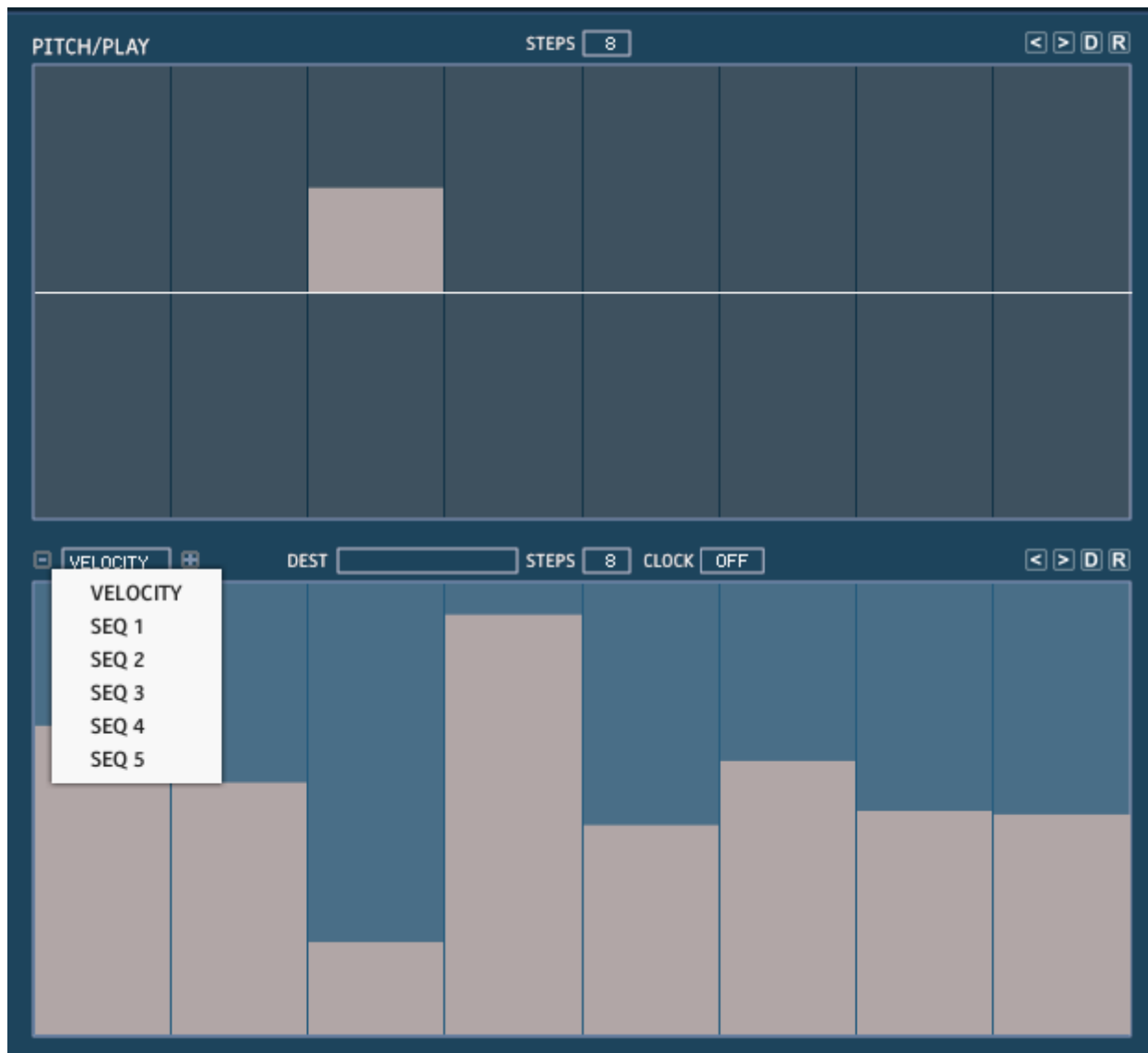
Allows editing the Pitch Sequence and any other below it for detailed editing. Click on the EDIT Panel to open it. You can select any Sequencer in the bottom Pane.

Synth Section

Kosmology gives access to 48 Parameters, the settings of which are unique to each Instance which provides radical sound sculpting options! The Synth panel shows all of the Parameters related to the Synths themselves, but also note that the Knobs on the right are visible in here and also on the FX/LFO Panel as they are useful parameters which are edited commonly, which saves some skipping back and forth when working on an Instance.

The parameters for the most part are Divided into A/B columns where applicable to make editing a little clearer, and the Envelopes take up the 3rd column. The top section deals with the main Synth Parameters whilst the lower section is all Filter related.

All Parameters form the base level for any sequenced destinations, so for example the Cutoff Knob define the centre point of a sequencer when Cutoff is assigned as a destination. Above the centre will add to the Cutoff and below will subtract. So when a sequence is playing, the Range of the sequencer output can be shifted using the Cutoff knob.

Besides the Random and Default Buttons there is also and **'A'** Button which will copy all Synth/FX/LFO parameters to all Instances, be careful there is no undo!

Slider/Knob Control Options

- **CTRL** (or MAC Equivalent) and clicking a slider/knob resets to the default Value.
- **ALT** (or MAC Equivalent) and moving a knob or slider will set the parameter for ALL Instances, be careful as there is no undo!
- **SHIFT** + Click/Dragging allows Fine Control

Oscillators Section

- **Wave A/B** – Selects the base Waveform of each synth Section. To move forward or back by one Wave at a time use the -+ Buttons
- **Tune A/B** – This value is a Raw Tune Value performed on the Sample. If you want to move the value in Semitones use the + - Buttons. You can always reset to centre by holding the CTRL button (or MAC equivalent) and clicking on the control (This works for all sliders and Knobs).
- **Pan A/B** – Sets the panorama position for each Synth section.
- **Wave Mix** – Sets the volume between A and B
- **Transpose –** Transposes the Instance.

Main Section
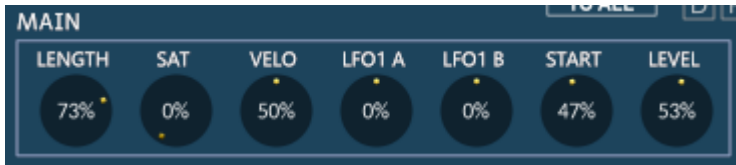
- **Note Length –** How long each sequence step will last between 1 and 125%. Important – Although you can go beyond 100% there are issues because if the same note is triggered in a row the 1st misses it's note off signal and so it can cause a build up of both polyphony and volume. This can be used creatively for swells etc... but it's important to bear this in mind.

- **Saturation** – The level of Saturation applied to the AMP.

- **Velocity** – Sets how much the Velocity will affect the AMP Volume

- **LFO1 > Volume A** – Amount of LFO sent to Volume A

- **LFO1 > Volume B** – Amount of LFO sent to Volume B

-

- **Attack/Decay/Sustain/Release** – Sets the Envelope Times and Level for the AMP Envelope.

- **Start –** This is the Master Start Position of the Sample for the Instance.

- **Level** – This is the Master level for the Instance
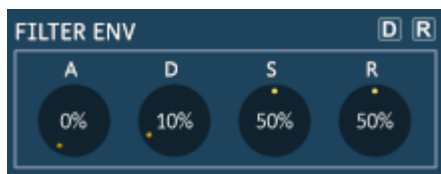

Filter Section

- **Cutoff** – The Filter Cutoff of both A and B Synths

- **Resonance** – The amount of Resonance of both Synths

- **Envelope A/B** – Sets the Amount of Filter Envelope sent to either Synth A or B.

- **Filter Type A/B** – Sets the Type of Filter Used by Synth A or B. The standard Kosmology set uses ARL Low Pass 4, SV Low Pass 2, Daft High Pass,Ladder 2, Daft Low Pass and ARL Low Pass 2.

- **LFO1 > Cutoff A/B** – Amount of LFO sent to Filter Cutoff A

- **LFO2 > Cutoff A/B** – Amount of LFO sent to Filter cutoff B

- **B Offset** – Amount of Offset applied to the Filter Cutoff of Synth B

- **Velocity > Cutoff** – The Amount of Velocity sent to the Filter.

Volume Envelope
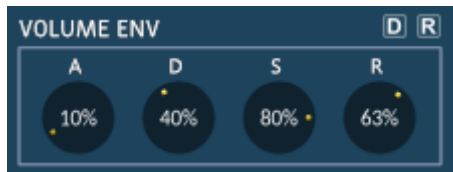
Attack/Decay/Sustain/Release – Sets the Envelope Times and Level for the VOLUME Envelope.

Filter Envelope

Attack/Decay/Sustain/Release – Sets the Envelope Times and Level for the FILTER Envelope.

LFO Section

- **LFO1** does not retrigger when a sequence is started.
- **LFO2** is dedicated to the Filter and always has a RAMP shape, it's sole purpose is to create rhythmic tempo based effect on the Filter. It retriggers when a Sequence is started.

- **LFO1 Frequency** – Sets the Speed of LFO1 in tempo Synced Increments. LFO1 does not retrigger when a note is pressed so it is good for adding movement to a sequence.
- **LFO2 Frequency** – The Speed of LFO2. This is tempo Synced and always a Ramp Wave.
- **LFO1 Shape –** Selects the Shape of the LFO from Sine, Rectangle, Triangle, Saw, Random, Cosine, Inverse Rectangle, Inverse Triangle, Ramp, and Custom 1-12.
- **LFO1 > Pitch B** – Amount of LFO sent to Pitch B

Effects

The Effects section has a Delay, Reverb, Modulation (Flanger/Phaser/Chorus) and Echo. The K6 version uses the the Reverb and Replika Delay.
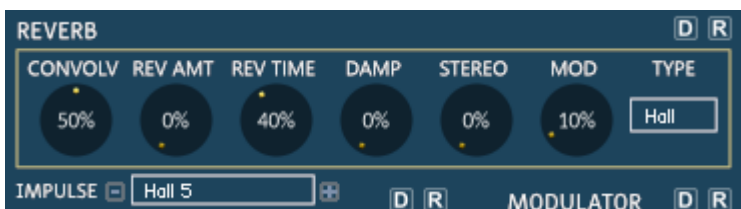
K6 Version

Delay
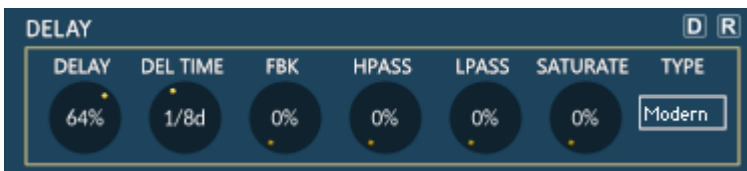
- **DELAY AMOUNT** – The Amount of Stereo Delay.
- **DELAY TIME** – The Clock Synced time division of the Delay Effect.
- **FEEDBACK** – How many Repeats the Delay will use.
- **HIGH PASS** – Cuts the Lower Frequencies
- **LOW PASS** – Cuts the Higher frequencies
- **SAT** – Amount of Saturation in the feedback signal.
- **DELAY TYPE** – Selects between 5 available Models; Modern, Tape, Vintage, Diffusion and Analogue.
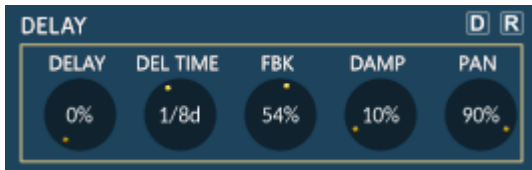
Reverb

- **CONVOLV –** Amount of Convolution Reverb
- **REVERB IMPULSE** – Selects from a list of 50 unique impulse responses for the Reverb effect.

- **REVERB AMOUNT –** The Amount of Reverb.
- **REVERB TIME** – Changes the length of the convolution Impulse.
- **DAMP** – Dampens the reverb.
- **REVERB STEREO** – How wide the Stereo Field is.
- **REVERB TYPE** – Selects between Room and Hall.
- **MOD –** Amount of Modulation used by the reverb.

K5 Version

Delay

- **DELAY AMOUNT** – The Amount of Stereo Delay.
- **DELAY TIME** – The Clock Synced time division of the Delay Effect.
- **FEEDBACK** – How many Repeats the Delay will use.
- **DAMP** – Dampens the Delay Frequencies
- **PAN** – Stereo Width of the Delay

Reverb

- **CONVOLV –** Amount of Convolution Reverb
- **REVERB IMPULSE** – Selects from a list of 50 unique impulse responses for the Reverb effect.

- **REVERB AMOUNT –** The Amount of Reverb.
- **REVERB TIME** – Changes the length of the convolution Impulse.
- **DAMP** – Dampens the reverb.
- **REVERB STEREO** – How wide the Stereo Field is.
- **COLOUR** – The Colour of the Reverb

Modulation

- **MOD AMT** – The Mix of the Modulation Amount
- **FREQ** – The speed of the Modulation Effect
- **TYPE** – Selects between Flanger, Chorus and Phaser.

Globals Section
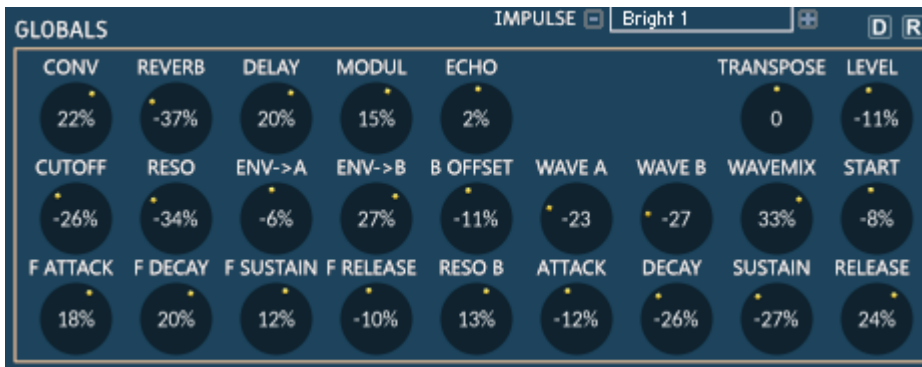
Whilst you can VST Automate the parameters on the Synth/FX/LFO Panels it isn't of much use because the instances have shared controls and so it is only useful if you wanted to override a value permanently. This is where the Global section comes in. each of these controls adds or removes values from it's named parameter, so centre is no effect. What this means is that the Instance controls and their relationships remain intact whilst changing Instances, and the overall output of the sound can be manipulated from here via automation.

You can also assign CCs if you have a Midi Controller by right clicking on a knob add clicking Midi Learn and twisting the appropriate knob. Remember to save afterwards, probably to a new version just in case it gets updated by me. You can then use that .nki in the future so that it is set permanently.

Another useful function of the globals is when loading a foreign preset. What I mean by that is that Kosmology Presets can be loaded into any Kosmology even though the Samples are different. So for example if I loaded a Preset made with Kosmology Infekted Bass, it may not sound quite right and so from the globals Panel I can change the waveforms quickly and that will apply to all instances. That is a very powerful feature even for just altering an existing preset, instant remix!

I won't describe each of these controls again as they are all described in the Panel sections of the manual, so please refer to them.

Rescalers Section

There is a rescaler for each note in the octave, so that sequencers triggered by C for example can be forced to become C Minor, and D can be forced to become D Major. Each knob selects a scale from the 70 diverse scales provided. The idea is that in a traditional step sequencer, transposing a sequence leads to the same key for each transposed sequence. The rescalers provide a way of breaking out of that, by allowing each root note to be assigned it's own scale. Each Sequence is then forced to fit the Scale depending on the selected Mode. So when Next Up is selected (the default) each note will be moved up to the next valid note in the scale. Scales are applied across all Instances.

- **Scale Knob** – Use this to select the Scale for each Root Key, visualized by the keyboard layout. Changing the Scale for C# for instance will then force all Sequences triggered by C# to use that Scale.
- You can randomize the value by holding ALT whilst clicking on a knob.
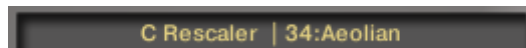
- Click once on a knob to show it's current Scale in the Information Display. It is also shown every time a Knob is moved, displaying the current Note/Knob, the Scale ID and the Scale Name.
- Click and drag whilst holding 'SHIFT' for fine control
- **Randomize ('R')** – This will Randomize all Knobs
- **Default ('D')** – This sets all Knobs to OFF
- **Copy 1 to All ('O')** – This will copy the Scale from Knob 1 to all others for quickly setting a starting point.
- There are 2 special Scales which deserve mention:
    - **1:All Root Notes** – This will turn all Notes to the Root Note, which is handy when playing polyphonically with another Note/Scale.
    - **2:Root Notes Only** – This will only play notes which are set the root note, +12 or -12. This can be interesting to provide a sparse sequence when playing polyphonically, and as it only plays root notes will fit with other playing Scales easily.
- **MODE** – Decides how the Notes are rescaled:
    - **Next Up** – Note is moved up the Scale until a Valid Note is found
    - **Next Down** – Note is moved down the scale until a valid Note is found
    - **Alternate** – Alternates between Next up and Next Down.

Real-Time Triggers

The Sequencer has a series of real-time triggers which can provide a very creative way to make music. The triggers are displayed on the Kontakt Keyboard display in Blue and Green. If you do not like the default octave placement it can be changed to other Octaves by using The Trig menu (top right of the sequencer). Most Triggers can be used in combination with other triggers unleashing a whole work of real-time manipulation!

When using any triggers, after they are released the original timing/playback of the sequence is preserved so it will always remain in sync (with the exception of Reset to Zero).

The **Red Keys** select which instance is currently playing/selected for editing.

There are 15 Timing/Performance based triggers(**Blue**):

- **Freeze Pitch** – Freezes the Pitch, Destinations play normally

- **Freeze Waveforms –** Freezes The currently playing Waveforms, all other sequencers still run. Fantastic when Wave Sequencing for instant Micro Sequences!

- **Mute** – Silences the output

- **Freeze Destinations** – Stops the destinations from advancing, the destination parameters are frozen, but the pitch advances normally.

- **Double Step** – Doubles the speed of the sequence.

- **Half Step** – Plays every other note of the sequence.

- **Note Full Length** – Makes Note length a Full Step.

- **Note Short Length** – Makes the Note Length short.

- **Dotted Destination** – Processes the sequence through a dotted (tempo * 1.5) Clock.

- **Reverse** – Reverses the sequence.

- **Mod 1/Mod 2/Mod 3** – These can be configured using the Offsets on the Triggers Page to create a 3 Trigger variations (see below).

- **Bypass Effects** – When held qill bypass the Reverb, Convolver, Delay Modulator and Echo.

- **Reset to Zero** – Sets all playing Sequence counters to zero and can be held to continuously do so. Unlike all other triggers which work in an elastic way, this trigger alters the counters permanently.

There are also 2 Pitch Based Triggers (**Green**):

- **Add Octave**
- **Minus Octave**

Custom Remix Triggers

There are 3 Mod Triggers which use the 2nd Octave Trigger Keys G#/A and A# Respectively. These triggers allow offsetting the current Instance parameters, so that when triggers will add to the current values. They can be used in many ways, as an example one could be used to just add Reverb whilst another adds delay, and another increases Resonance. Or alternatively they can be used to radically transform the sound. They can also be used together so that the values Accumulate.

You can also offset the Waveforms which is a very handy feature for instant transformation!

Preset Browser

Kosmology has it's own Preset System built in, you can save a Full Preset from the Master Menu at any time and place it in one of the Sub Folders or create a new one. You can use the browser to load these presets into any Kosmology by double clicking.

Because you can load any preset into any Kosmology, they will sound radically different because of the different sampled instruments in the collection. Because of this I've saved the presets into sub folders for the instruments they were created for. A tip for loading foreign sequences (or any for that matter) is to use the Globals to change the Waveforms across all instances for radically changing the whole preset. Instant Remixing!

The Templates folder contains some useful starting points, you can make your own by editing an instance until you are happy with it, then select 'Copy to ALL Instances' from the Master menu. Then 'Save Full Preset' from the Master Menu and place it inside the templates folder with a unique name.

When Saving a Preset you will have to manually select the Presets folder unfortunately as the path always open to show the data folder. Then select or create a Sub Folder to save the Preset. It will not be available in the Browser until the next time Kosmology is opened (Unfortunately there is no way to update the Kontakt File Browser once it is loaded....). But if you want to open a new file in the meantime you can use the Master Menu/Load Preset option to locate it.

The Browser supports Loading Files up to 3 folders deep and so for example inside the Presets/Awakenings folder it is possible to create folders too.

Automation

You can right click on any knob and select midi learn, turn the appropriate knob on your hardware and it will then control the parameter in Kontakt.

VST Automation is supported for all Knobs and Sliders. See your DAW manual for Instructions on using VST Automation.

NOTES/TIPS

- Sequencer Destinations are monophonic, so for example selecting Filter Cutoff will change the Cutoff value for the entire Kosmology output. The last triggered sequence will always have priority and override earlier modulation values. This can lead to very interesting effects if a syncopated polyphonic sequence is playing *(i.e. you have triggered a few sequences with different start times from your keyboard)*. If the sequence has 'OFF' steps, the result would be that when the most recently triggered sequence has an 'off' step, the destination values from the previous sequence are used. I find the result inspiring :)

- If you want to target the Filter Cutoff polyphonically, you can do this via the Velocity Sequencer. On the Kosmology Synth Page turn up the Velocity->Cutoff Knob and {optionally} turn the Velocity->Volume to centre to prevent velocity from affecting the volume.

- The plus of using Cutoff as a destination is that it will step through tied notes, as opposed to Velocity>Cutoff which is only triggered at the start of each note.

- Occasionally the quantize may not be aligned with the host clock, if this happens simply press stop and start on your host to re-align them.

- When using the Start Time as a modulation source you may hear clicks at the attack phase of the sample, whilst sometimes this is a useful percussive Attack, other times it may be undesirable. To solve it, increase the Attack time slightly on the AMP Envelope.

- There are a few combinations of settings that can cause clicks occasionally, although they are rarely noticeable especially if the Sequence triggers are quantized on the DAW Midi track. Some known offenders are changing the Modulation type and occasionally Delay send when sequenced. When Waves use the same waveform on the same step it can cause issues, I've minimised this as much as possible, but due to the nature of sending so many parameters for each step, sending them all to the same Group should probably be avoided. Finally there are also WAVs that Kontakt does not seem to like Wave sequencing with, I haven't managed to determine why as yet. But on the other hand I am asking so much of Kontakt scripting that it actually does amazingly well :)

- Switch on the Info Button in Kontakt to get context sensitive help within Kosmology.

- Enable the Keyboard to see where the triggers are in relation to the keys you are pressing.

- Use the View Mode to hide most of Kontakt whilst working on the Sequences