AK DEVICES

HERSE

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INDEX

1. THIS IS HERSE

Thank you for choosing HERSE!

HERSE is a Max For Live audio effect designed to slice and process incoming audio in many possibilities.
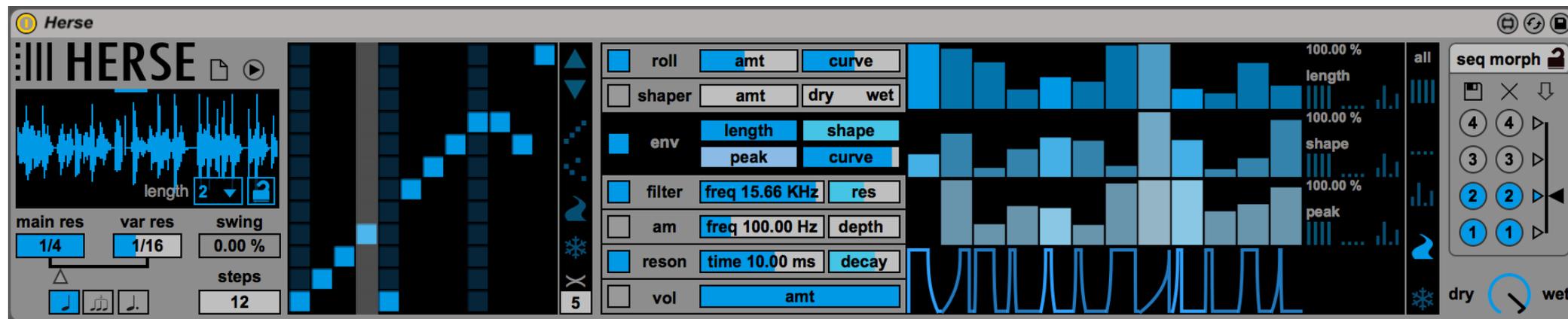
This document will guide you through a complete overview of the product. After reading it, you should be able to use it on perfect, so we recommend that you take the time to read this guide in its entirely.

Ableton Live 9 and the Max For Live add-on are required (refer to our website to know which are the Live version supported for every released version): HERSE is a Max For Live device and works both on Mac OS® X and Windows®.

HERSE is currently available as single product.

Thanks to the Max For Live total integration, each HERSE parameter is described in the Live Info View.

We suggest to follow K-Devices via Facebook, Twitter or sign up our Newsletter, in order to stay updated with K-Devices news and HERSE future updates.

2. INSTALLATION

To install the device double click on the .alp file contained in the downloaded package. Device, presets, live sets and Ableton Live Lessons will be automatically installed.

HERSE device will be installed in the Ableton Live Library: you can find it in the "packs" tab of the Live 9 browser.

3. PACK CONTENTS

In addition to the Max For Live device, HERSE contains:

- 41 presets;
- 3 Live Sets.

4. HOW HERSE WORKS

HERSE is a signal processor based on several effects applied to a main slicing section. Each effect takes advantage of exclusive step sequencers, in order to apply different effect amount per each step: these include roll, a waveshaper, an amplitude envelope, a low pass filter, amplitude modulation, resonator and an output volume control.

1. SAMPLING AREA

HERSE stores incoming audio in a temporary buffer, allowing the real time slicing.

Choose the length of the sampling buffer using this value: you can choose between 1, 2 and 4 bars. Keep in mind that these lengths will change in relation to the time signature in use (4/4, 3/4, 6/8, 9/8, and so on). As soon as the last sample is written in the buffer, the recording goes back to the beginning, overwriting the previous signal sample by sample.

You can avoid to overwrite the sampled audio locking the buffer with the padlock icon. This can be very helpful in order to use only a defined loop for HERSE, and change the dry signal source. The lock is not quantized, so it locks or unlocks exactly when you press it.

The waveform box previews the audio stored in the buffer.
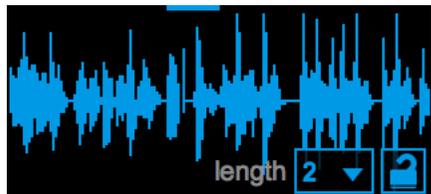
The blue bar on the top highlights the sample area which is playing. Usually, it appears differently than other highlights in the slicer grid or in the sequencers. This because the length of the waveform (1, 2 or 4 bars according to the time signature in use) can be really different from the length of a cycle of the grid or of the sequencers (let's call it "cycle" from now).

Here's a brief example: you can use 16 steps with a length of 1/4, obtaining a "cycle" length of 16/4. If the time signature is 4/4 and the buffer length is 1 bar, the blue bar will cycle 4 times. The fact that you can use triplets, dotted notes, any number of steps between 2 and 16, a time signature of 4/4, 7/4, 12/8, or any value you want, creates a lot possible combinations.

Please note that the buffer is automatically cleared when:

- the device is loaded
- the tempo changes
- the time signature numerator or denominator changes
- the transport is in stop and the padlock is disabled

2. TIME RESOLUTION
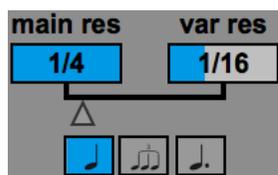
Both slicer and sequenced effects are based on a time resolution: this means that each column in the slicer grid and each step in the effects sequencers are triggered at a defined time, and obviously they have a defined length. HERSE can use two different time resolution: the main or the var (variation) resolution, or a combination of both, obtaining a dynamic time variation. The main resolution is designed to be the longer, and the var the smaller, like 1/4 for the main and 1/8 for the var.

You can do this using this slider, that sets which probability has the var res to be used.
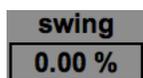
When using the main res and normal note length, you can also take advantage of the swing: in a sequence of two note with the same time resolution, the swing sets how much the first note will increase its length. The amount goes from 0% to 87.5%:

0% - Same length

50% - First note length is equal to a dotted note

66.66% - First note length is equal to the sum of the two first notes of a triplet

75% - First note length is equal to a double dotted note

87.5% - First note length is equal to a triple dotted note
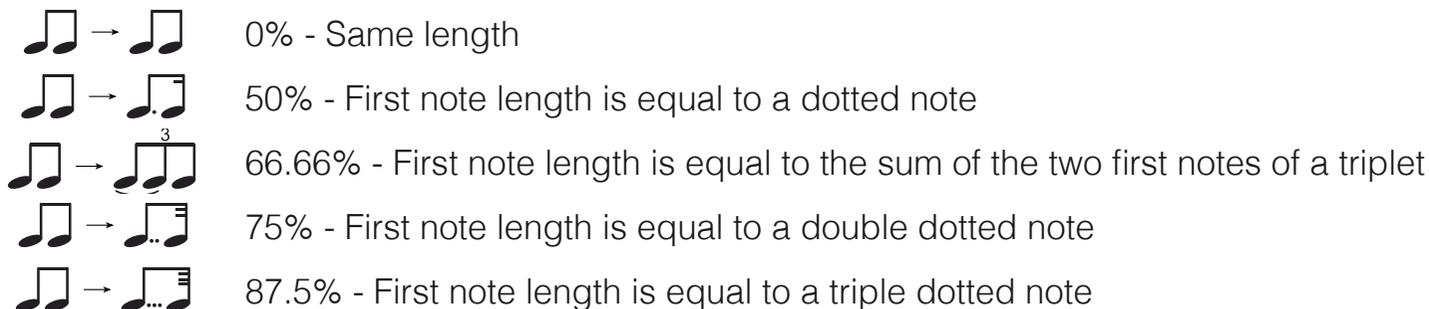
The steps number sets how many steps and rows/columns will be used in the sequencers and in the slicing grid.

PLEASE NOTE

HERSE transport is always linked to the main transport: this means that if you start playing at the middle of a bar, even HERSE's slicer and sequencers will start from that point. In this way you can be sure that the audio signal is processed in the same way all over the transport.

When the time variation is applied, HERSE will trigger non consecutive grid slices and sequencers steps: this is normal since with a main resolution of 1/4 and the var resolution in 1/8, the variation completes its cycle in the half time than the main, unlinking the result from the ideal transport position.

3. SLICER GRID
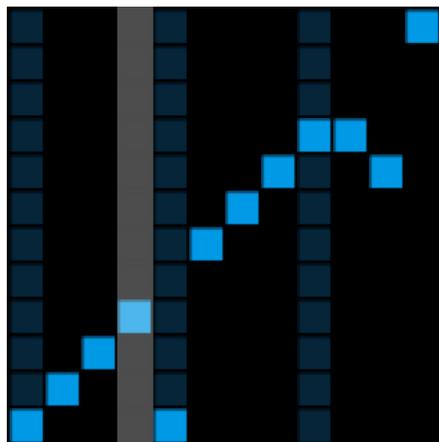
The slicer grid can be used to select which audio slice should be played according to the column number / step number.

It plays from left to right: each column can be associated with only one slice per time (slice number starts from the bottom to the top).

Rows and column are always the same number and, as the sequencers steps, they refer to the steps number.

Use these up/down buttons to move all the grid up or down, keeping the relation between the selection.

Use the crossfade control to apply an interpolation between the slices. This may be helpful when non consecutive slices are used, decreasing the chance of creating noises in the audio signal.

4. SEQUENCER BASED EFFECTS

The output of the slicing grid is sent to the effects section: here all slices are processed in series.
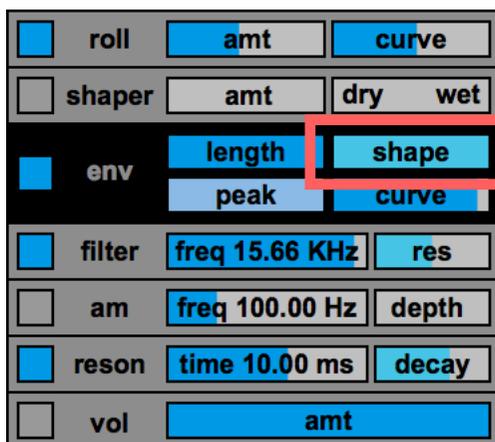
The effects are:

- roll
- waveshaper
- amplitude envelope
- low pass filter
- amplitude modulation
- resonator
- output volume
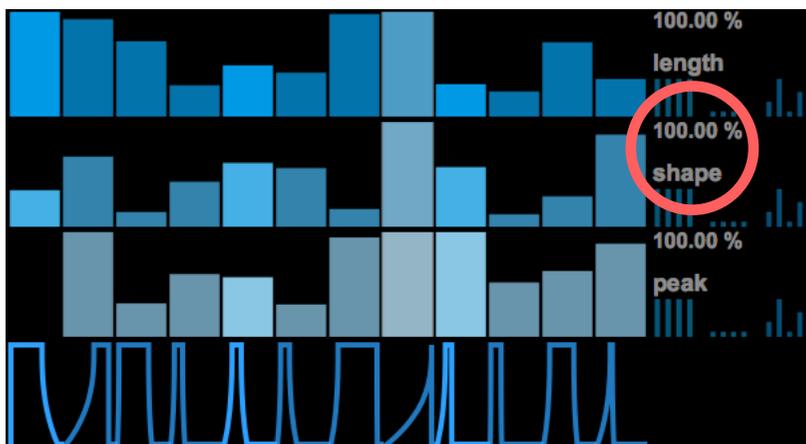
All effects parameter (excluding the two curve) are based on the combination of a main maximum amount (see the picture above) and on a exclusive step sequencer (see the picture on the side, in this case the envelope sequencers): with the maximum amount you can set a maximum level of effect and refine it using the step sequencer. The effect amounts per each step are always linked across all the 13 sequencers.

Please note that the maximum amount is always displayed (in percentage) in the top right side of each sequencer, with the parameter name.

You can bypass each effect using their relative bypass switch in the left of the section.

one slice | one slice | one slice
1st sub slice | repetition | 1st sub slice repeated many times
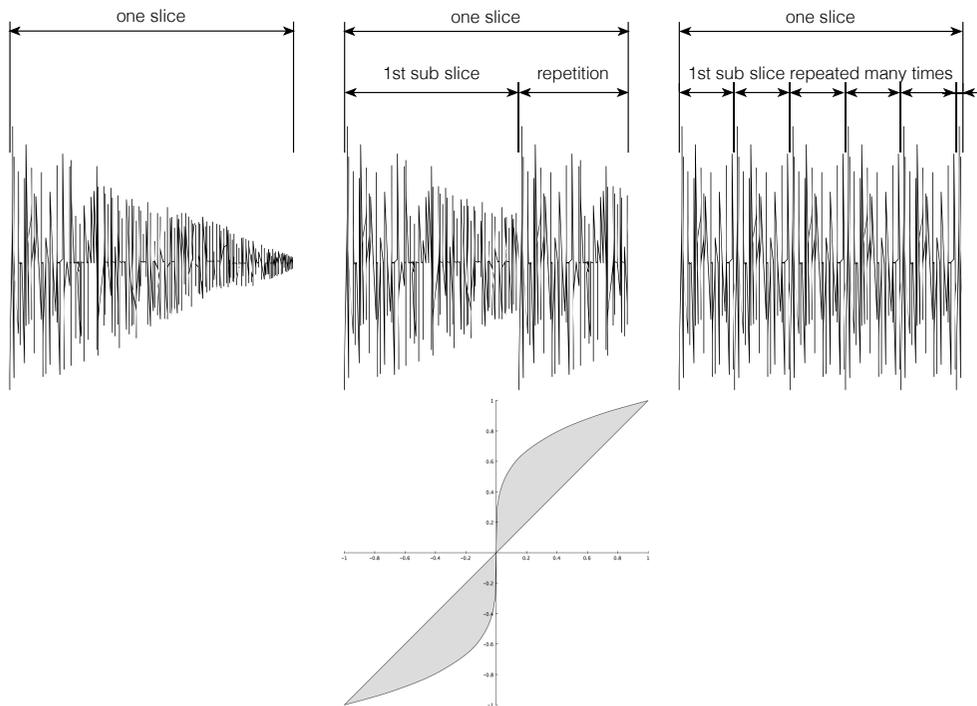
The Roll effect can create very fun "drill" effects, repeating a small portion of audio many times per each slices. The roll amount sets the length of the sub slices: that portion is read at the normal rate, so the pitch is not altered. Since each sub slice is smaller than the slice itself, the playhead will come back to the beginning, re-reading it from the first sample. As much as you increase the roll amount, as much as the sub slice is shorter. In extreme situation, this may result in change of pitch, caused by the sub slice repetition frequency.

The waveshaper is a signal processor that modifies the shape of the incoming audio, basing on a variable function. This effects has two parameters: the amount, modifies the function itself, while the dry/wet defines the balance between the incoming and the processed signal.

curve 0%

length 100%
shape 0%
peak 0%

length 70%
shape 0%
peak 0%

length 70%
shape 40%
peak 0%

length 70%
shape 100%
peak 0%

length 70%
shape 100%
peak 50%

length 70%
shape 100%
peak 100%

curve 100%

length 100%
shape 0%
peak 0%

length 70%
shape 0%
peak 0%

length 70%
shape 40%
peak 0%

length 70%
shape 100%
peak 0%

length 70%
shape 100%
peak 50%

length 70%
shape 100%
peak 100%
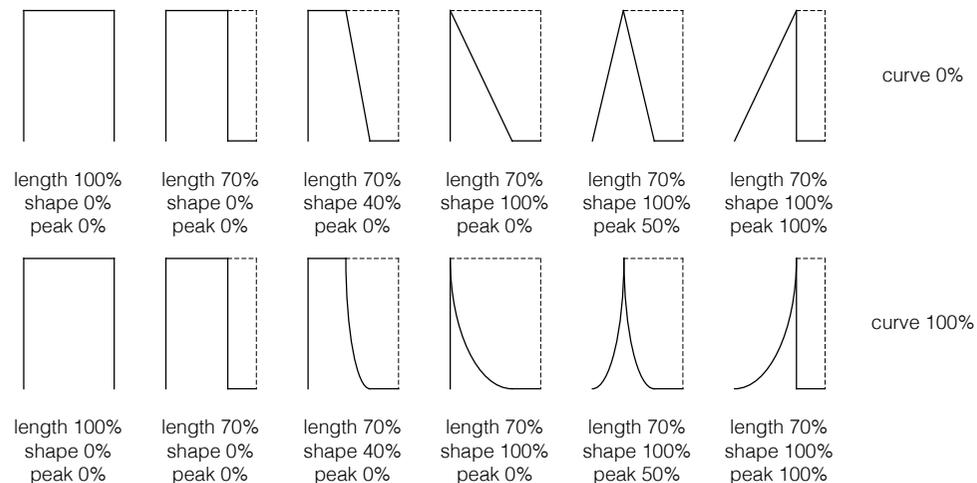
With the amplitude envelope you can shape each step differently. All these envelopes are relative to the length of the step itself: this means that you are not working with times in milliseconds but with a percentage shape, for example at 120 bpm each 1/4 note is 500ms, each 1/8 is 250 ms, so setting a length of the 50% you can obtain envelopes of 250 and 125 ms for 1/4 and 1/8.

The length parameter sets the maximum length of the envelope. The shape at the minimum value equals to a straight envelope, while increasing that value you will morph it through a trapezoid, until it reaches its maximum value, obtaining a triangle. With the peak control you can decide where the triangle is "oriented" and adding some curve, you can change the shape used by the envelope to change from the minimum to the maximum value.

The filter used in HERSE is a two poles low pass filter and works as any other filter: change the cutoff frequency with the freq parameter and the resonance using the res parameter.

The amplitude modulation is obtained multiplying the audio signal with a unipolar sine oscillator. You can set the frequency of this modulator oscillator, and adjust the modulation depth.

The resonator introduces a feedback loop in the audio signal, something like a very short delay. You can adjust the delay with the time and set the amplitude for this delayed signal with the decay.

With the volume you can limit the maximum amplitude of each step: it is very useful when you use certain kind of effects before (like the roll, the filter, if used with a lot of resonance, amplitude modulation or the resonator).

1. MORPHING
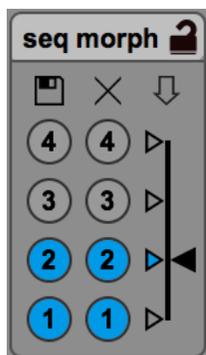
You can store and recall up to 4 sequencer configurations per each preset in the sequencer morph area and morph between them linearly.

The first column of buttons is used to store the current multislider configuration in the selected slot, the second is used to delete the stored configuration.

With the slider on the right side you can morph between them: use the small triangles to reach the desired configuration on the fly without morphing.

The padlock item, at the right side of the "seq morph" description is used to disable the store and delete buttons: this may be very useful to avoid any accidental modification of the stored values.

2. FULL OR COMPACT VIEW

HERSE can be used in two different ways: the full view (default) and the compact view. This view hides all the sequencers and is very useful to gain space in Ableton Live's Device View.
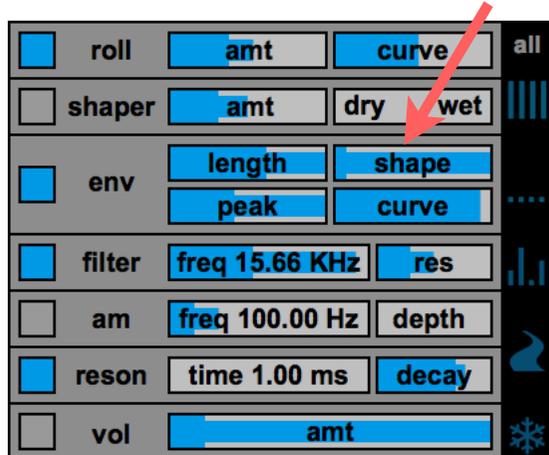
All the modulations created by the sequencers are still applied. You can morph between the stored configuration using the morphing section and see how they works step by step in the main effect parameters: the "background sliders" are a bit different in this mode, showing you which is the level reached in that point, instead of being full as in the full view. For sure you can still change the maximum amount or bypass each effect: in this case you will see that the modulations created by the step sequencers will be scaled following the maximum amount.

5. DRY / WET

With the dry-wet dial, you can mix the dry signal that comes into HERSE and the signal processed by the slicing grid and the effects.

6. QUICK PARAMETERS

This button reset all device parameters to the default position.

This button brings the slicing grid to the default position.

This button randomizes the slicing grid.

This button sets all the steps of its step sequencer to the maximum value.

This button sets all the steps of its step sequencer to the minimum value.

This button randomizes all the steps of its step sequencer.

7. ADVANCED PARAMETERS

This button freezes the grid or all the step sequencers to the current step, looping their slice, value or envelope.

This buttons activates the drunkwalk mode: in this mode the steps or the slices will be triggered randomly.
Please note that HERSE is linked to the transport: this means that as soon as you switch off the drunkwalk mode it will go back triggering the step that it should trigger in that moment.

5. SIGNAL FLOW
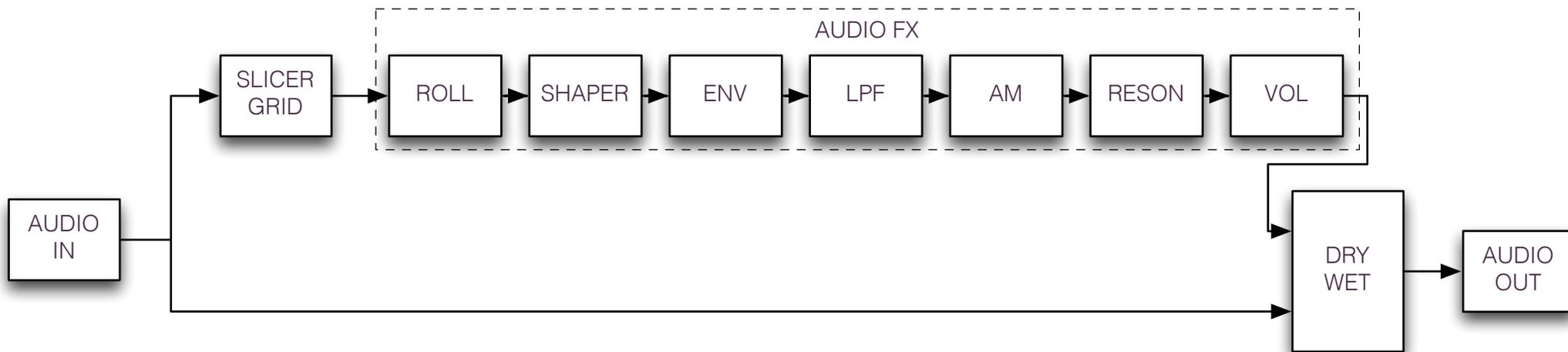
6. PUSH IMPLEMENTATION

	1	2	3	4	5	6	7	8
1st page	Steps N	Main Res	Var Res	Res Kind	Time Var	Swing	Morph	Dry Wet
	9	10	11	12	13	14	15	16
2nd page	Length	Lock Buf	Grid Def	Grid Rand	Grid Up	Grid Down	Grid Freeze	Grid Drunk
	17	18	19	20	21	22	23	24
3rd page	Roll Amt	Roll Curve	Shap Amt	Shap D-W	Env Length	Env Shape	Env Peak	Env Curve

4th page

25	26	27	28	29	30	31	32
Flt Freq	Flt Res	AM Freq	AM Depth	Rsn Time	Rsn Decay	Vol Amt	X-Fade

5th page

33	34	35	36	37	38	39	40
FX Select	Roll Byp	Shap Byp	Env Byp	Flt Byp	AM Byp	Rsn Byp	Vol Byp

6th page

41	42	43	44	45	46	47	48
Seq Full	Seq Empty	Seq Rand		Hide Seq		Seq Freeze	Seq Drunk

7th page

49	50	51	52	53	54	55	56
Roll Amt Full	Roll Amt Empty	Roll Amt Rand			Vol Amt Full	Vol Amt Empty	Vol Amt Rand

8th page

57	58	59	60	61	62	63	64
Shap Amt Full	Shap Amt Empty	Shap Amt Rand			Shap D-W Full	Shap D-W Empty	Shap D-W Rand

9th page

65	66	67	68	69	70	71	72
Env Length Full	Env Length Empty	Env Length Rand			Env Peak Full	Env Peak Empty	Env Peak Rand

10th page

73	74	75	76	77	78	79	80
Env Shape Full	Env Shape Empty	Env Shape Rand					

11th page

81	82	83	84	85	86	87	88
Flt Freq Full	Flt Freq Empty	Flt Freq Rand			Flt Res Full	Flt Res Empty	Flt Res Rand

12th page

89	90	91	92	93	94	95	96
AM Depth Full	AM Depth Empty	AM Depth Rand			AM Freq Full	AM Freq Empty	AM Freq Rand

13th page

97	98	99	100	101	102	103	104
Rsn Time Full	Rsn Time Empty	Rsn Time Rand			Rsn Decay Full	Rsn Decay Empty	Rsn Decay Rand