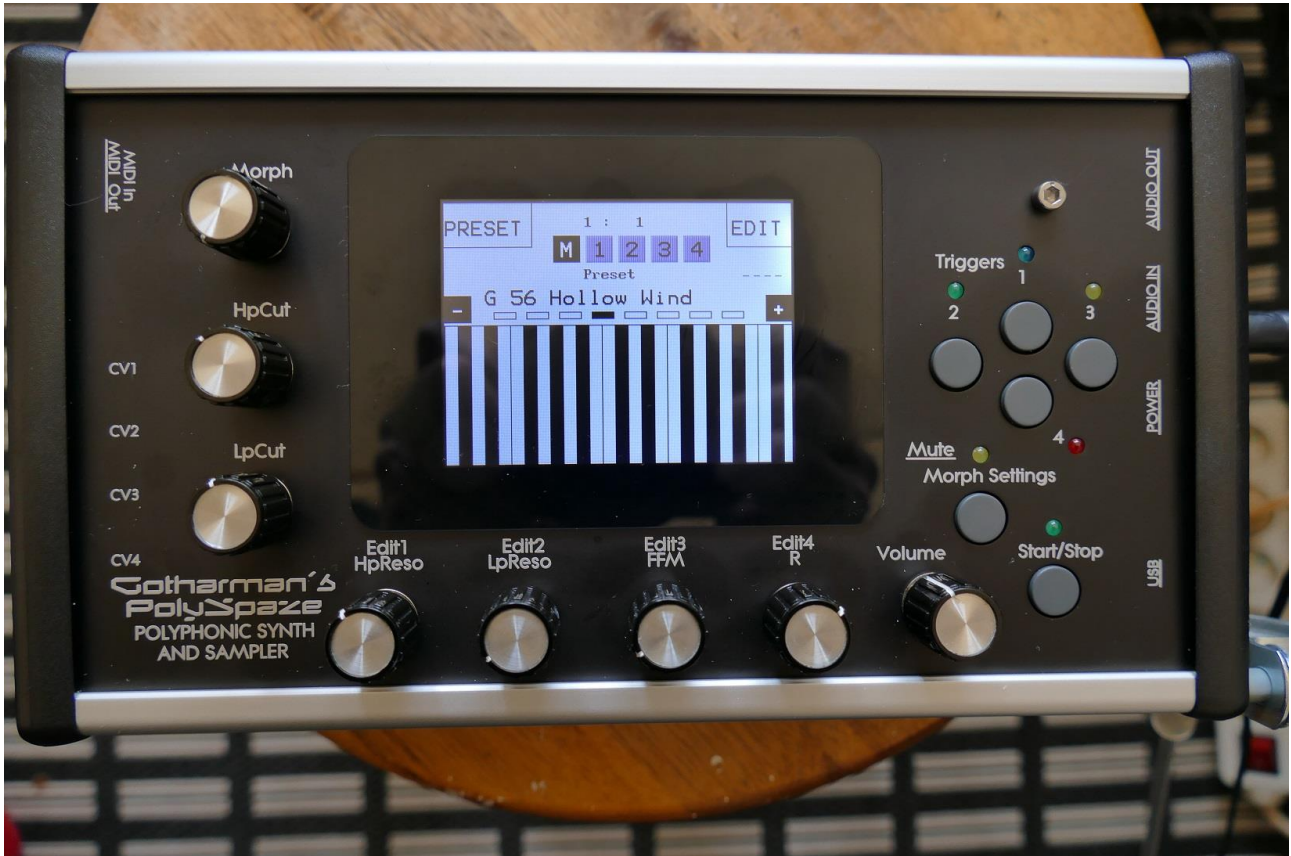# Gotharman's PolySpaze

Polyphonic Synthesizer and Sampler

Update V 3.72

Contents Of This Manual

Synthesizer "B" mode

In the "MODE" block, it is now possible to put the synthesizer of PolySpaze in "B" mode.
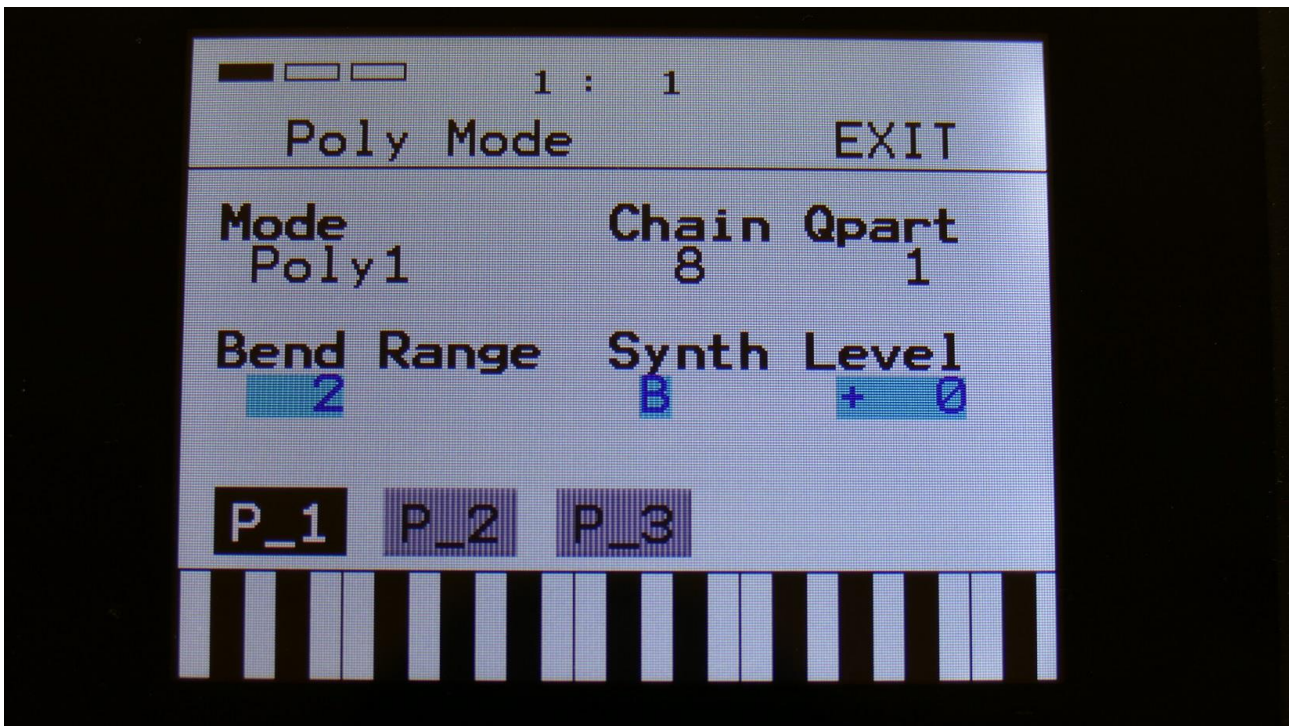
This is set per preset.

When a PolySpaze preset are in B mode, an extra resonant digital filter (DGF) can be placed before, after or in parallel with the 2 analog filters, for a bit of added sound tweaking. It is also possible to route Oscillator 1 to the analog filters, and Oscillator 2 to the digital filter, in "Split" mode.

The digital filter has 16 different modes to choose from. It has various lowpass, highpass and bandpass modes, with different characteristics, but also special modes like Lo-Fi, destruktion and Fat.

When different filter types are selected for Morph Layer A and B, PolySpaze will morph between the filter types.

To gain the extra DSP power needed for these 4 extra filters, there are some restrictions on the effects processors, when in B mode:

-Only EFX 1 and 2 can be set to output effect mode.
-When EFX 1 is in output effect mode, EFX 3 is switched off.
-When EFX 2 is in output effect mode, EFX 4 is switched off.
-Filter effects are omitted in B mode.
-Output effects can't be connected in serial.

List of Digital Filter Types:

LPF1: Lowpass filter with a rather weak character. Resonance does not self-oscillate.
LPF2: Lowpass filter that are a bit sharper than LPF1. Resonance does not self-oscillate.
LPF3: Sharp Lowpass filter with self-oscillating resonance.
LPF4: Very sharp Lowpass filter with self-oscillating resonance.
BPF1: Bandpass filter with a rather weak character. Resonance does not self-oscillate.
BPF2: Bandpass filter with focus on the bass area. Distorts at higher input levels. Resonance does not self-oscillate.
BPF3: Sharp Bandpass filter with self-oscillating resonance.
HPF1: Sharp Highpass filter with self-oscillating resonance.
HPF2: High gained Highpass filter with self-oscillating resonance. Distorts at higher input levels.
HPF3: Sharp Highpass filter with self-oscillating resonance. A bit weaker than HPF1.
Dstr: Destruktion. A rather defective filter. Self-oscillates at some points, distorts at others.
FAT1: Slightly distorting lowpass filter, with a sharp response and self-oscillating resonance.
FAT2: A slightly weaker version of FAT1.
LoFi: A very distorting and unpredictable lowpass filter.
LPF5: A lowpass filter with a very soft character. Resonance does not self-oscillate.
BPF4: A bandpass filter with a very soft character and self-oscillating resonance.
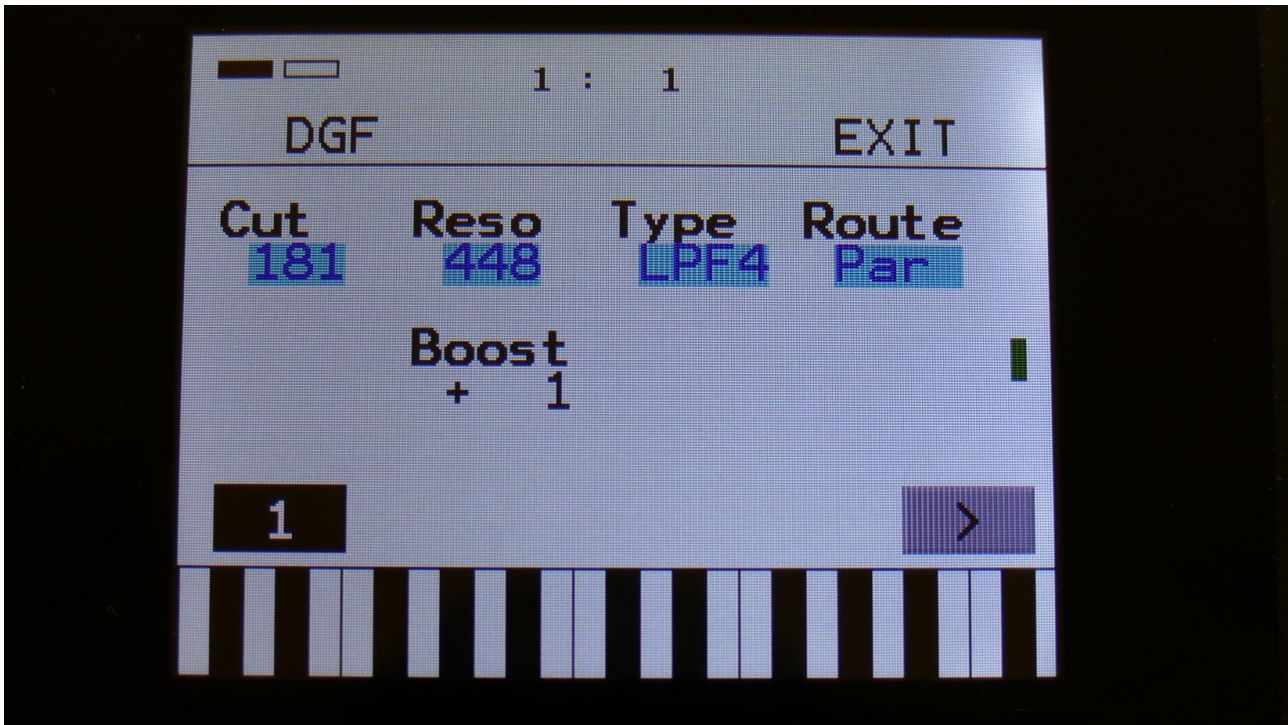
Parameters:

Cut: Adjusts the digital filter cutoff frequency. Range: 0 to 511.

Reso: Adjusts the resonance of the digital filter. Range: 0 to 511.

Type: Digital filter type select. Choices are: LPF1-5, BPF1-4, HPF1-3, Fat1-2, LoFi, Destruktion. Each of the filter types has different characteristics. When different filter types are selected for Morph Layer A and B, PolySpaze B will morph between the filtertypes.

Route: The routing of the digital filter. Can be set to:

        Par: The digital filter is positioned in parallel to the analog filters.

        Split: The digital filter is again positioned in parallel to the analog filters, but Osc1 only goes to the analog filters, and Osc2 only goes to the digital filter.

        Pre: The analog and digital filters are connected in serial, with the digital filter first.

        Post: The analog and digital filters are connected in serial, with the analog filter first.

Boost: Boost/level adjustment of the digital filter. The range of this is -128 to +383, with +0 being the neutral setting.

Digital Filter Modulation

From the digital filter parameters page, touch the arrow button, to enter the modulation page:
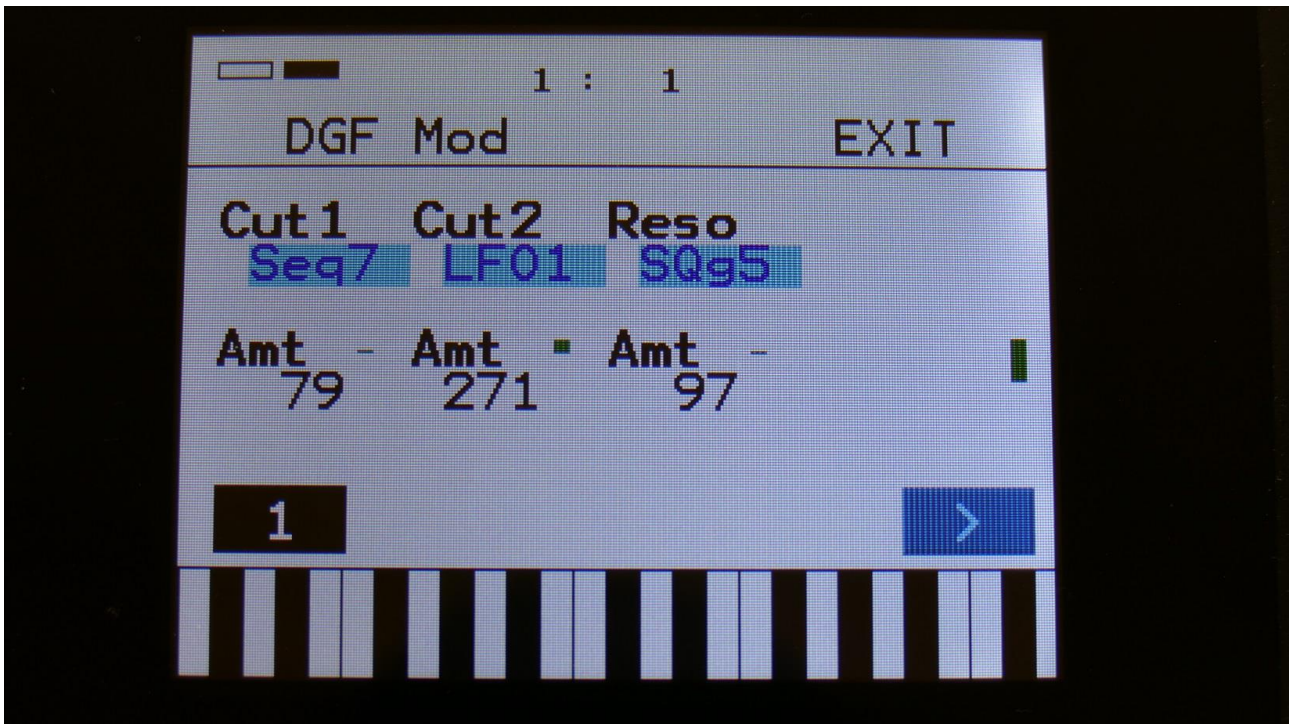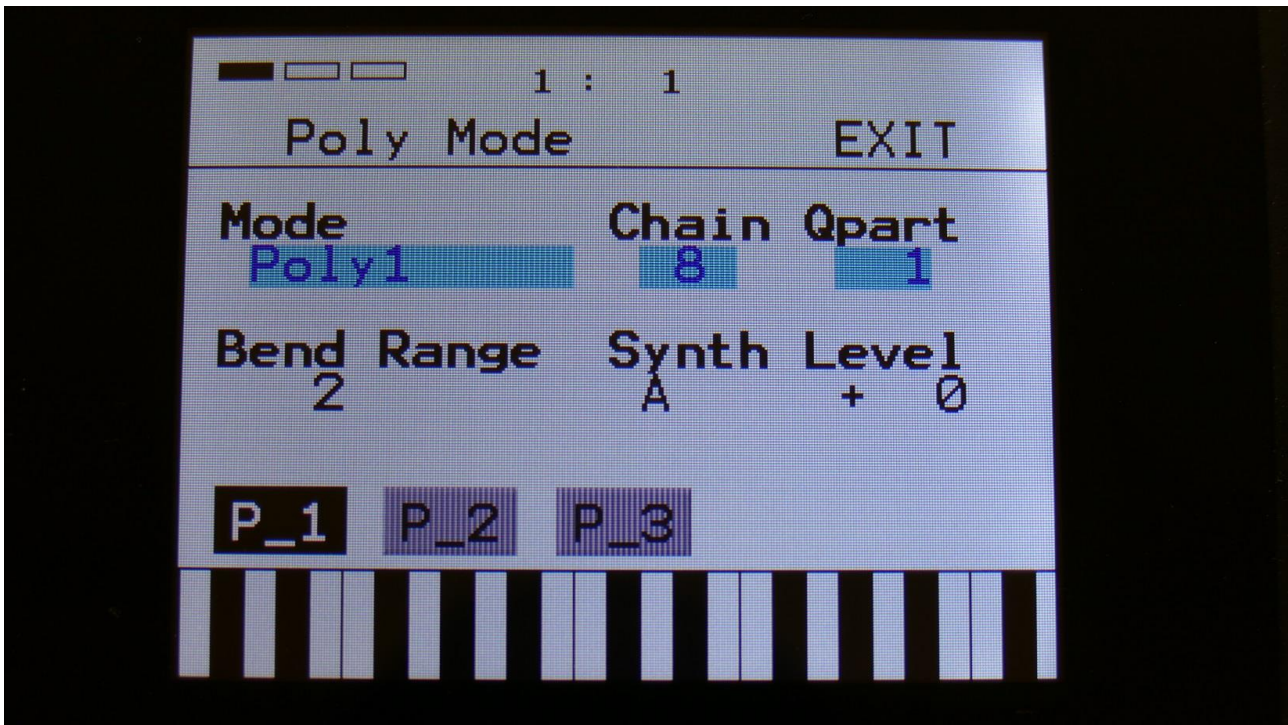

Cut1 and Cut2: Modulates the digital filter Cutoff Frequency.

Reso: Modulates the digital filter Resonance.

PolyChain

It is now possible to poly-chain another PolySpaze to your first one, or even another synthesizer.

To do so, connect MIDI out of the PolySpaze that should be the chain master, to MIDI in on the synthesizer, that should be chained to PolySpaze.

Make sure that both units are set to the same MIDI channel.

Enter the "MODE" page in the Synth section of the chain master, and set the "Chain" parameter to any other value than "Off".

If you would like to chain a monophonic synth, set Chain to 5. Then PolySpaze will play its own 4 voices plus one voice of the external synth.

If you connect another PolySpaze, set Chain to 8. Then PolySpaze will play its own 4 voices, plus the 4 voices of the chained synth.

Knob CC's, PitchBend data, CC's, aftertouch messages and program change messages are re-transmitted to the chained device.

Poly Chain works in the Poly1, Poly2, PolyBank1, PolyBank2, Poly3 and Poly4 modes. It does not work in mono, multi-timbral, multi-bank, stereo bank and Poly3 random modes.
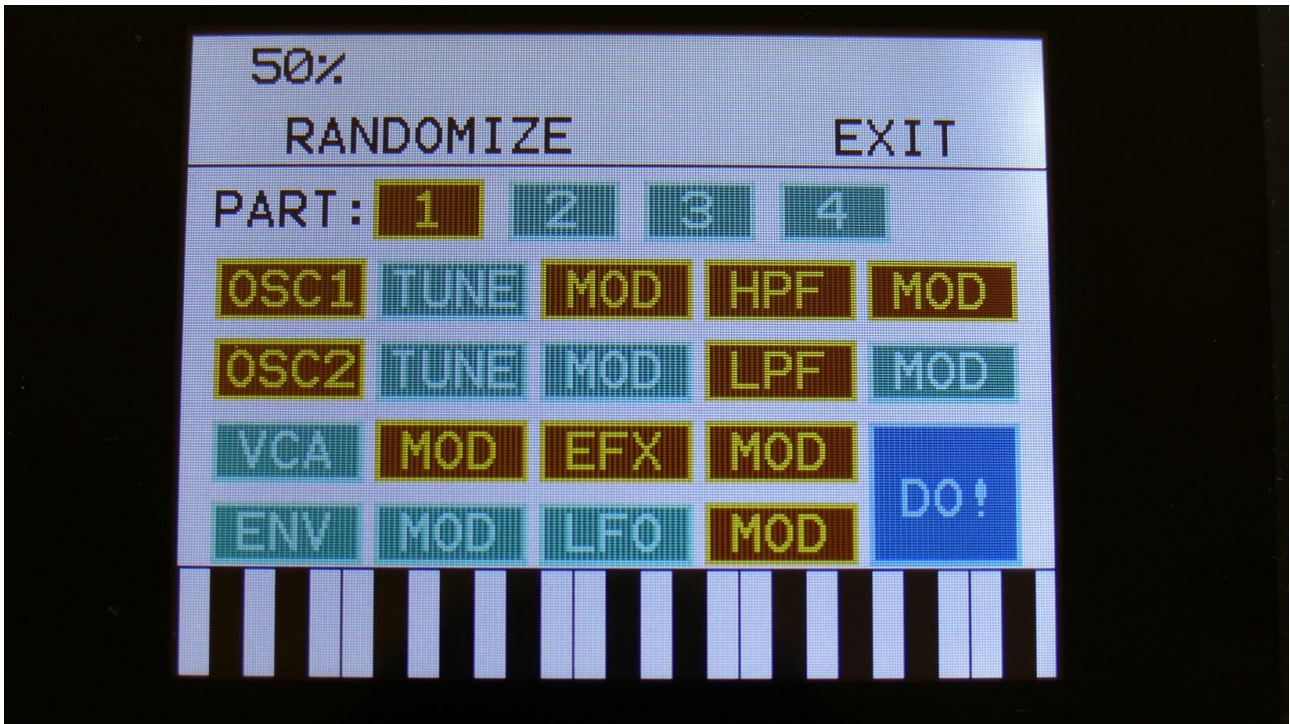
Synth parameters Randomizer

If you should ever need some new inspiration for sounds, or if you just want to surprise yourself with some sounds that you never even imagined, a parameter randomizer has been added.

To enter this, first enter the "RNDM" pages:
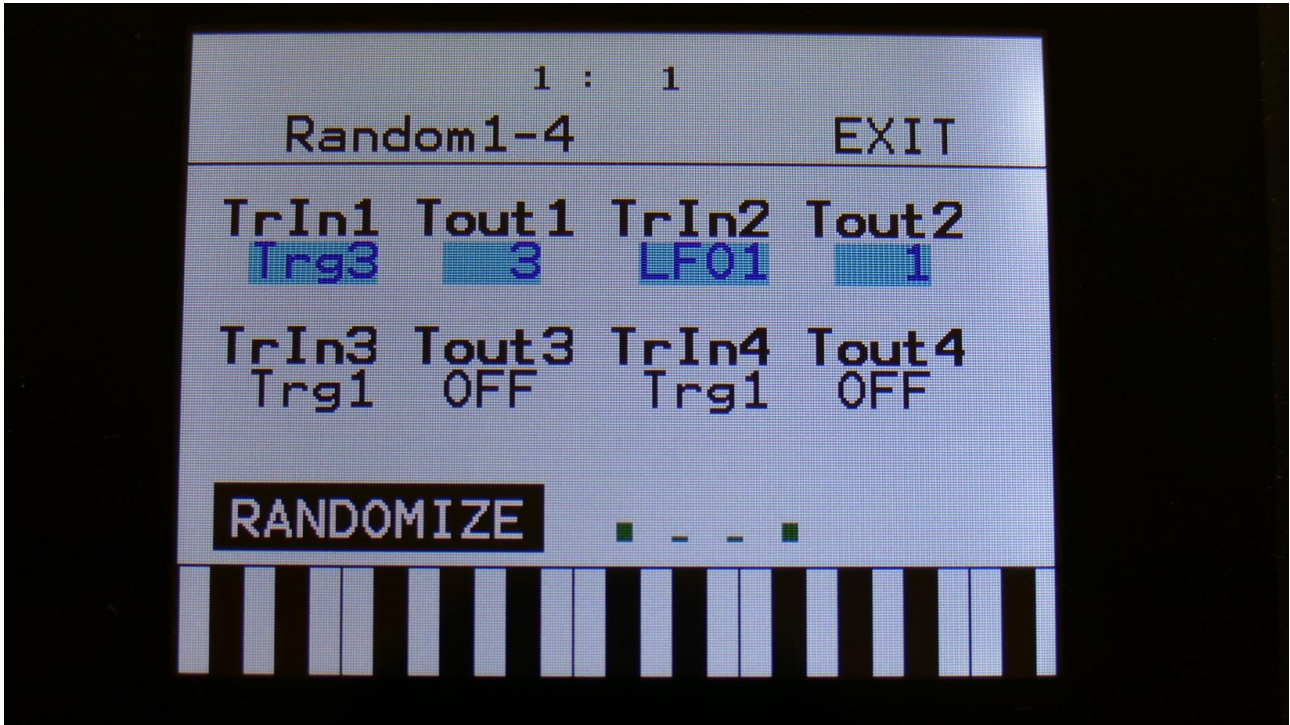
From here, hit the "RANDOMIZE" touch button, to enter the Randomizer page:

Select the part that you would like to randomize, by touching any of the numbers 1 to 4, switch the blocks on, that you would like randomized, simply by touching these, adjust the percentage, that it must maximum change the parameters, using Edit Knob 1, and hit "DO!".

Green blocks are not randomized, brown blocks are.

Listen to the result.
If you like it, exit the randomizer page, and save the preset.

If you don't like the result, hit "DO!" again, and keep hitting it, until something comes up, that you want. Try with different percentage settings, and try to switch different blocks on and off.

When the Randomizer page is entered, all parameters are stored into a temporary buffer, that are used for the randomization. So if you, for instance, first randomizes with 50%, and then with 20%, the result will be maximum 20% away from the initial parameter settings, when the Randomizer page was entered. It does not first randomize 50%, and then randomize 20% on top of that. To randomize things further away, you must exit the Randomizer page, and re-enter it.

If the preset, that you are working on, are set in "B" mode, the Randomizer page will look like this:
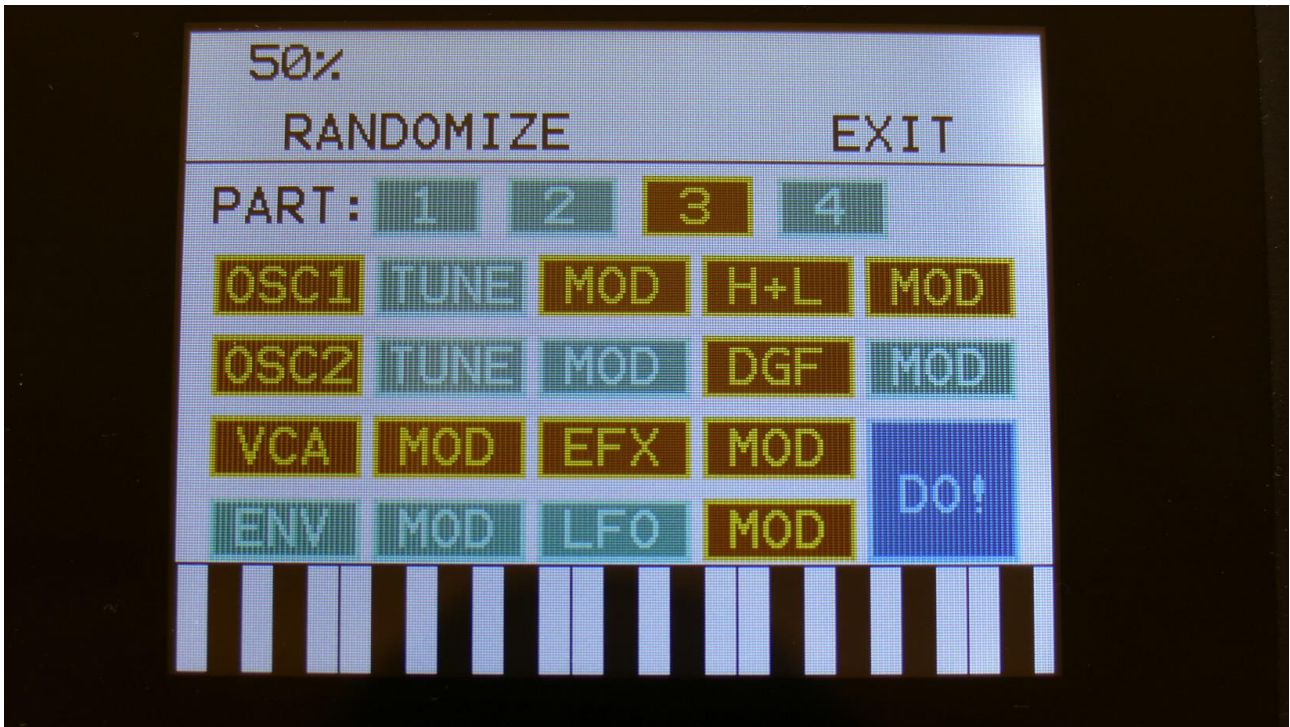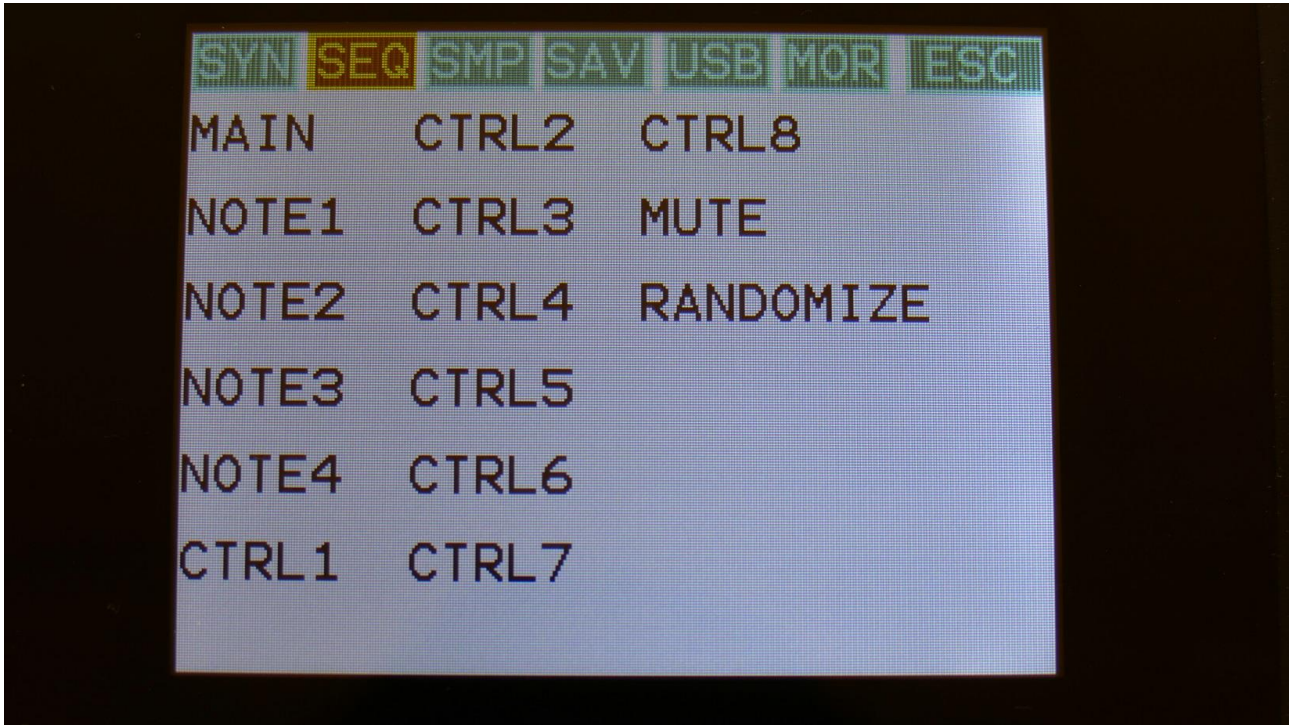

The analog highpass and lowpass filters are now selected for randomization as one block. The digital filter has its own block.
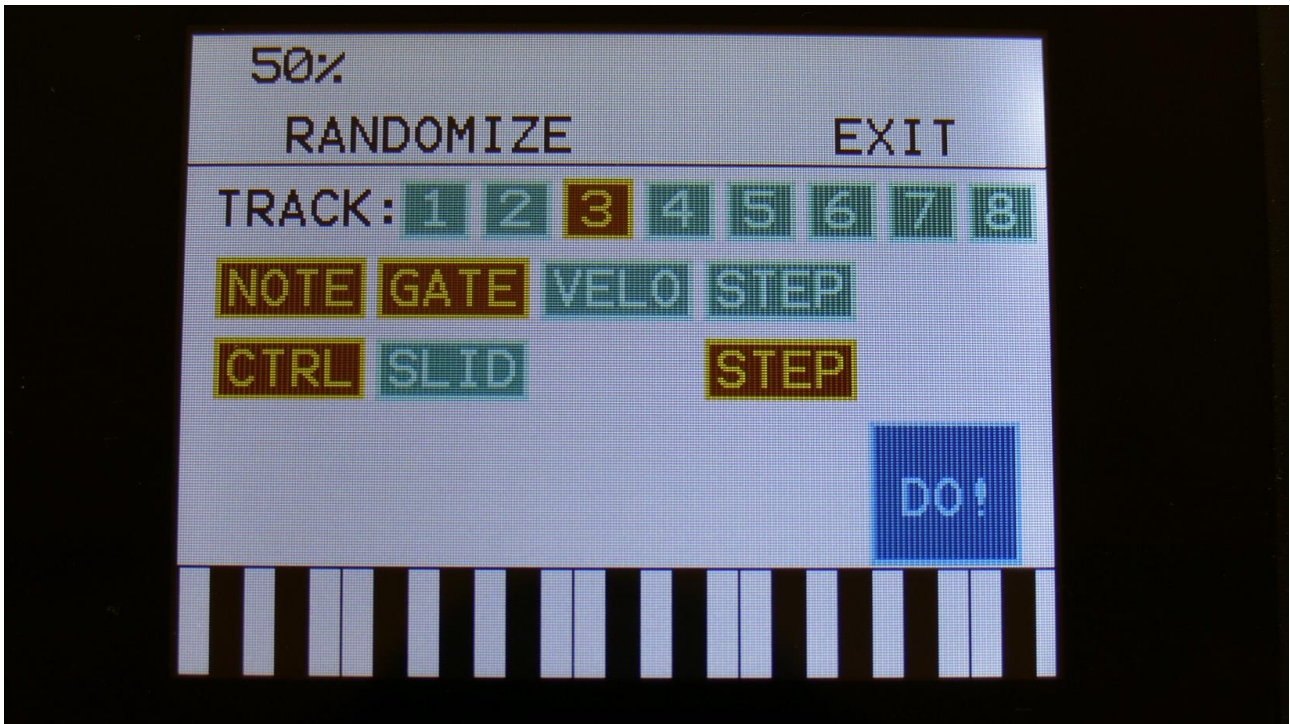
Sequencer parameters Randomizer

If you should ever need inspiration for new tunes, that you never ever would think off, a Sequencer Randomizer function has been added as well.

From the Sequencer overview page, hit "RANDOMIZE":

Now you will enter the Sequencer Randomizer page:

Select the track, that you would like to randomize, by touching any of the numbers 1 to 8, switch the sub-tracks on, that you would like randomized, simply by touching them, adjust the percentage, that it must maximum change the step values, using Edit Knob 1, and hit "DO!".

Green blocks are not randomized, brown blocks are.

Listen to the result.
If you like it, exit the randomizer page, and save the preset.

If you don't like the result, hit "DO!" again, and keep hitting it, until something comes up, that you want. Try with different percentage settings, and try to switch different blocks on and off.

When the Randomizer page is entered, all parameters are stored into a temporary buffer, that are used for the randomization. So if you, for instance, first randomizes with 50%, and then with 20%, the result will be maximum 20% away from the initial parameter settings, when the Randomizer page was entered. It does not first randomize 50%, and then randomize 20% on top of that. To randomize things further away, you must exit the Randomizer page, and re-enter it.

Sustained loop mode
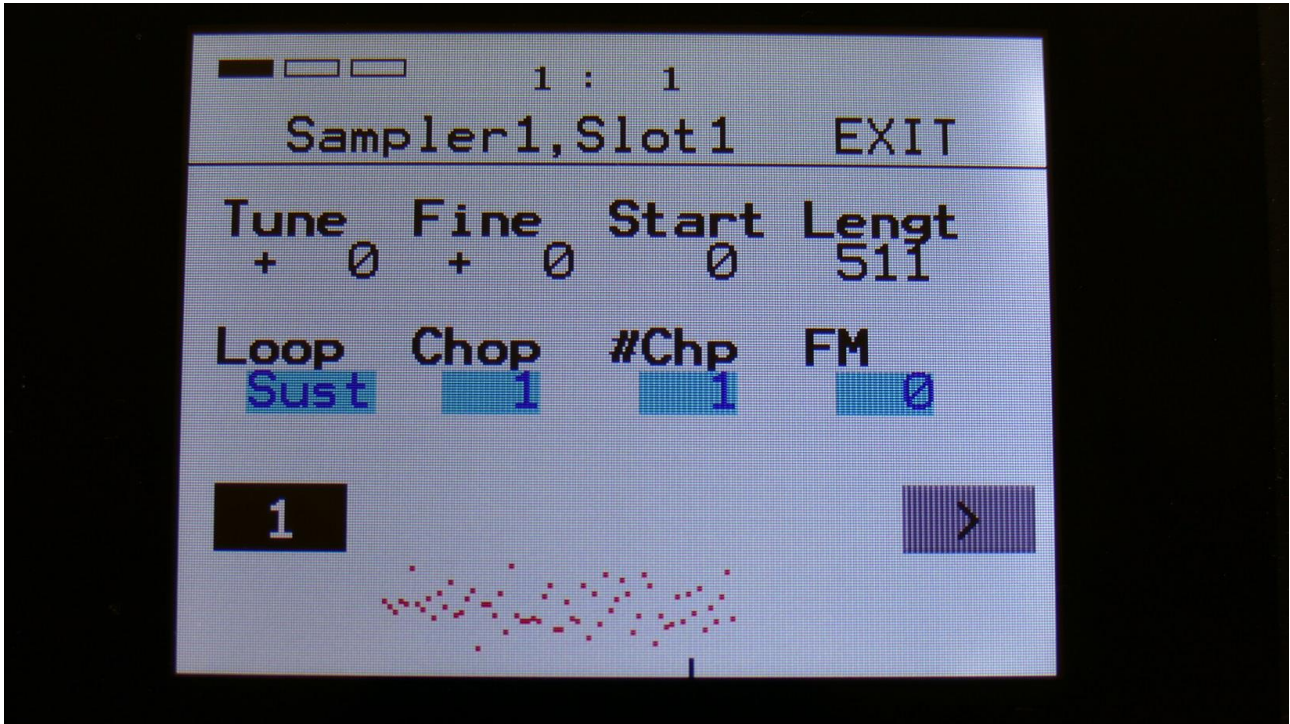
A sustained loop mode has now been added, that makes it possible to play back samples, in the same fashion as many of the vintage keyboard samplers:

When you hit a key, playback of the sampling starts at the sample startpoint.

When the playback reaches the endpoint of the selected chop, it loops back to the chop startpoint, and keeps looping between the chop start and end point, until a key is pressed again.

## Imports loop points together with wav files generated by Awave Studio

Awave Studio are a computer program, that is able to convert samplings from a lot of different formats, to wav format.

When converting samples with Awave, the loop points of the original sample is preserved and saved in the wav file.

PolySpaze now detects these loop points, and imports them as Chop number 1.

So to use the imported loop points, as they were used on many vintage samplers:

After you have imported the sampling, go to the Synth Sampler page, select the sampling, set loop mode to: Sust (Sustained Loop), and select Chop 1:
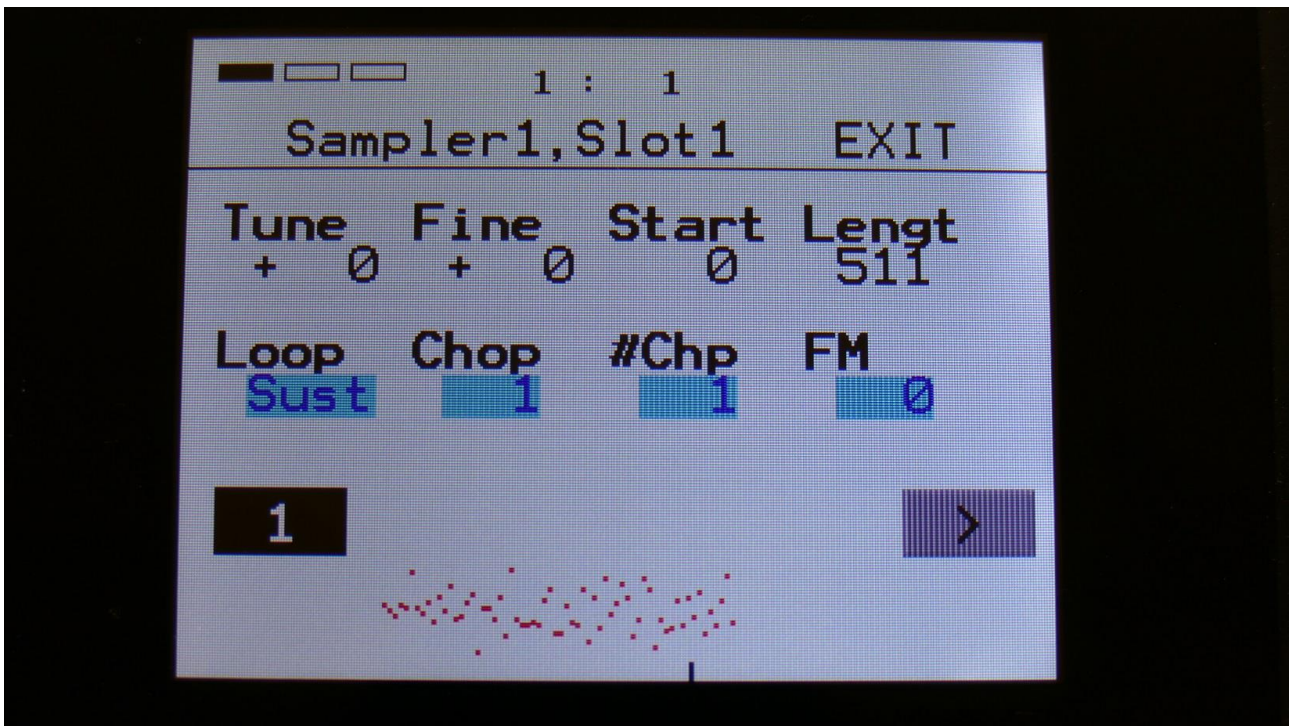
Now the sampling will play back from the start, and then loop between the imported loop points, that are held in Chop 1.

Importing Samplings From Ensoniq Mirage

Even though I think, that there is nothing more cool, than loading samplings from floppydisks, it's hard to deny that it is a bit time consuming.

Therefore I got the idea, that it would be great if I could have some of the great samplings from my Ensoniq Mirage library on PolySpaze, so I at least could audition these fast, and load the samplings I wanted on the Mirage. Since PolySpaze also has analog filters and other possibilities, it might even be able to do something cool…

Therefore I started investigating in how this could be done, and added the loop points import and the sustained loop feature to PolySpaze.

You will need:
-An old PC with build-in floppy drive, that is running Windows XP.
-A free program called Omniflop.
-A program called Awave Studio.

How to do it:
-Insert a Mirage floppy containing samplings in the floppy drive of the PC.
-Use Omniflop to create a disk image of the floppy. Please consult the Omniflop website regarding this. I do not offer any support on this program.
-Change the file extension of the disk image from .img to .edm, simply by using the file rename function in Windows.
-Open Awave Studio, import the disk image, and convert the samplings from it to 44.1 KHz, 16 bit wavs. Please consult the Awave Studio website regarding this. I do not offer any support on this program.
-Save the samplings to a USB stick, and import them to PolySpaze.

Sequencer analog clock, start/stop and reset via the CV inputs
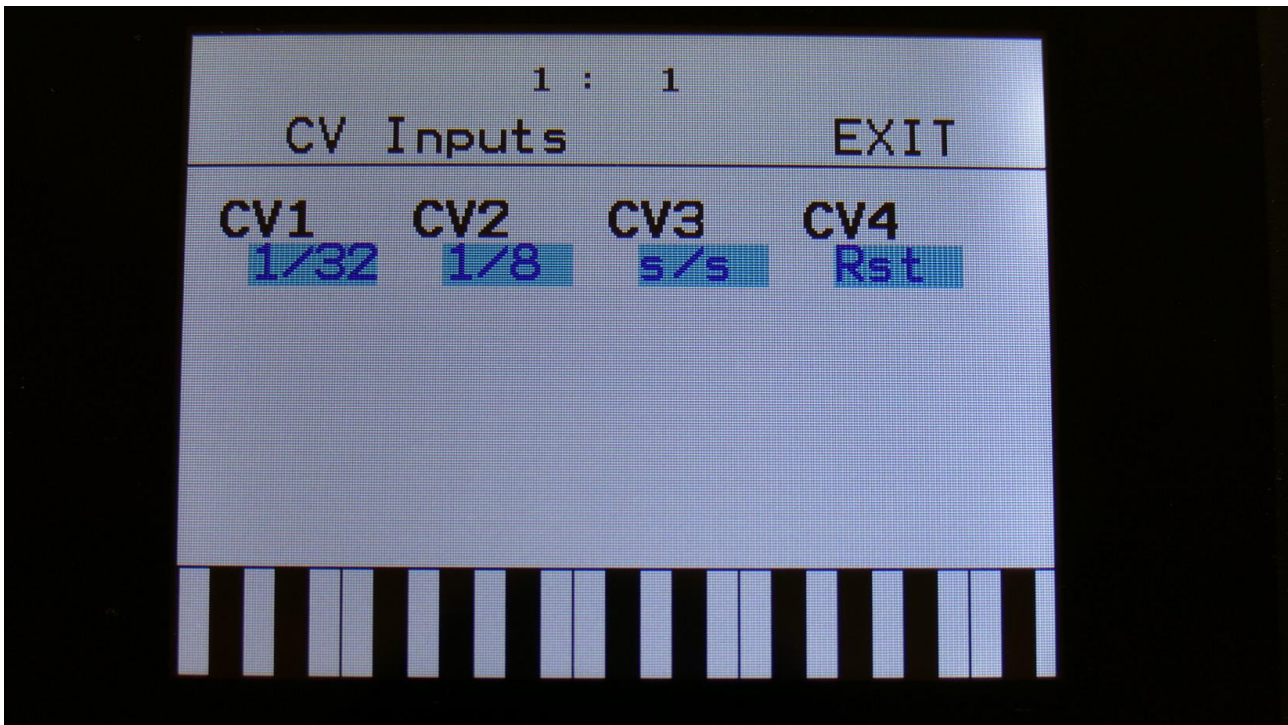
It is now possible to sync the PolySPaze Sequencer to analog gear.

In the CV input menu, simply set any of the CV inputs up to 1/32, 1/24, 1/16, 1/12, 1/8 or 1/6, according to the rate of the analog clock, you are inputting.

If setting a CV input to 1/32, each clock pulse that it receives, will increment the sequencer with one 1/32 step.
If setting a CV input to 1/16, each clock pulse that it receives, will increment the sequencer with one 1/16 step.

When any of the CV inputs is set to a clock division, the internal sequencer clock and any MIDI input clocks will be ignored.

If the ClkOut parameter in the COMMON menu is set to on, PolySpaze will output MIDI clocks, every time it receives an analog clock pulse. This MIDI clock will though not be straightened out, so if the clock CV input is set to 1/32, PolySpaze will transmit 3 MIDI clock messages right after each other, and if it is set to 1/16, it will transmit 6 MIDI clock messages right after each other.
So when using PolySpaze as an analog clock to MIDI clock converter (which it isn't btw. IT'S A SYNTH!), it is recommended to set the clock input to 1/32, and not to sync anything to it, that has, or is set to, a resolution higher than 1/32.

It is possible to have more than one CV input set up to act as clock inputs, at a time, and they will all work at the same time.

Setting a CV input to s/s, will make the sequencer start or stop every time it receives a pulse or a gate on that input.

Setting a CV input to Rst, will make all tracks of the sequencer reset to their respective start step every time a pulse or a gate is received on that input.

Controller track 5 to 8 gate outputs to CV out's and modulation
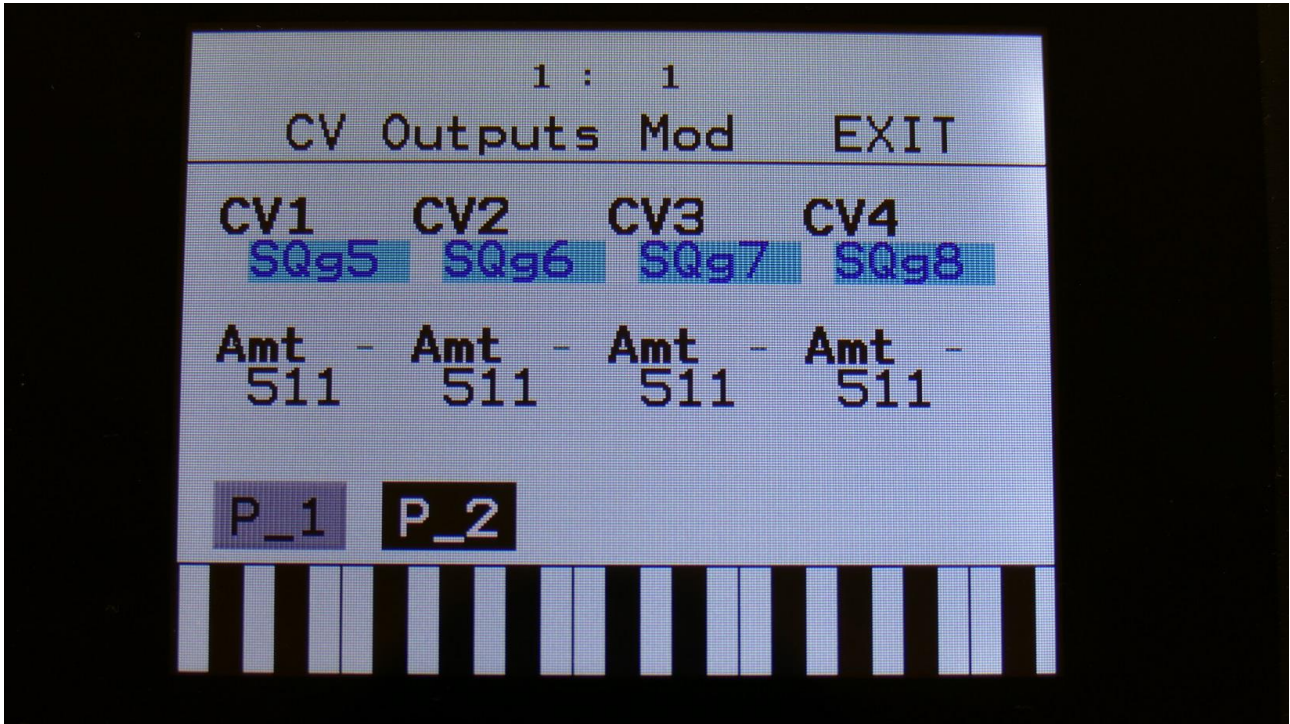
The on/off sub-tracks of Controller Track 5 to 8 has been added to the modulation sources, instead of MIDI CC 35 to 38.

This was mainly done, to make it possible to use the on/off steps of the controller tracks, as an extra source of gates/triggers for the CV outputs, so you do not have to use the note tracks for this.

If you switch all steps of a controller track on, it can be used as a CV clock source.

All the internal parameters of PolySpaze that can be modulated, can also be modulated by these on/off tracks to, for instance, create gating effects.

To assign these subtracks as CV/modulation sources, select **SQg5, SQg6, SQg7** or **SQg8** as the source.

Quantizing of Sequencer controller tracks to 1v/oct and 1.2v/oct added
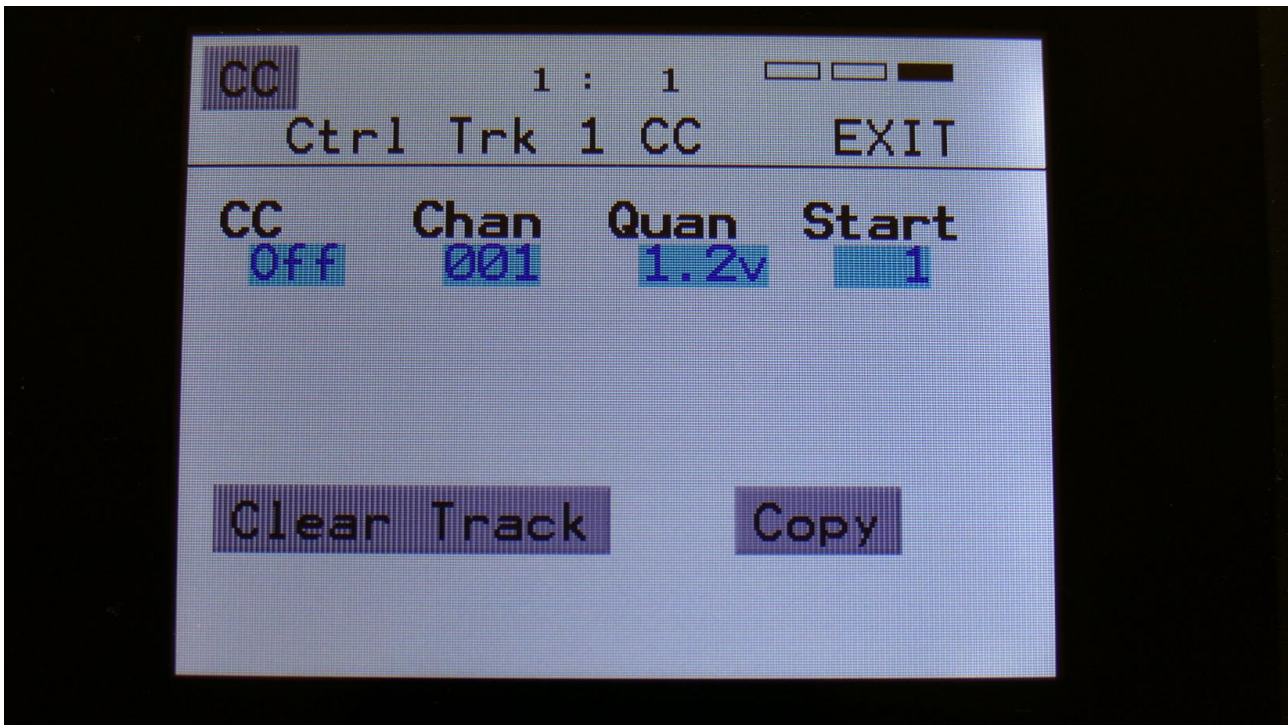
An new parameter has been added to the Controller tracks CC pages: **Quan.**

This can be set to either Off, 1v or 1.2v, for each controller track.

When set to 1v, the output of the controller track is quantized to 1V per octave, when assigned as a source for the CV outputs. When set to 1.2v, the output is scaled to 1.2V per octave.

When Quan is set to any other value than Off, the Slide subtrack does no longer function as slide, since the output is scaled. Instead the slides will create delays.
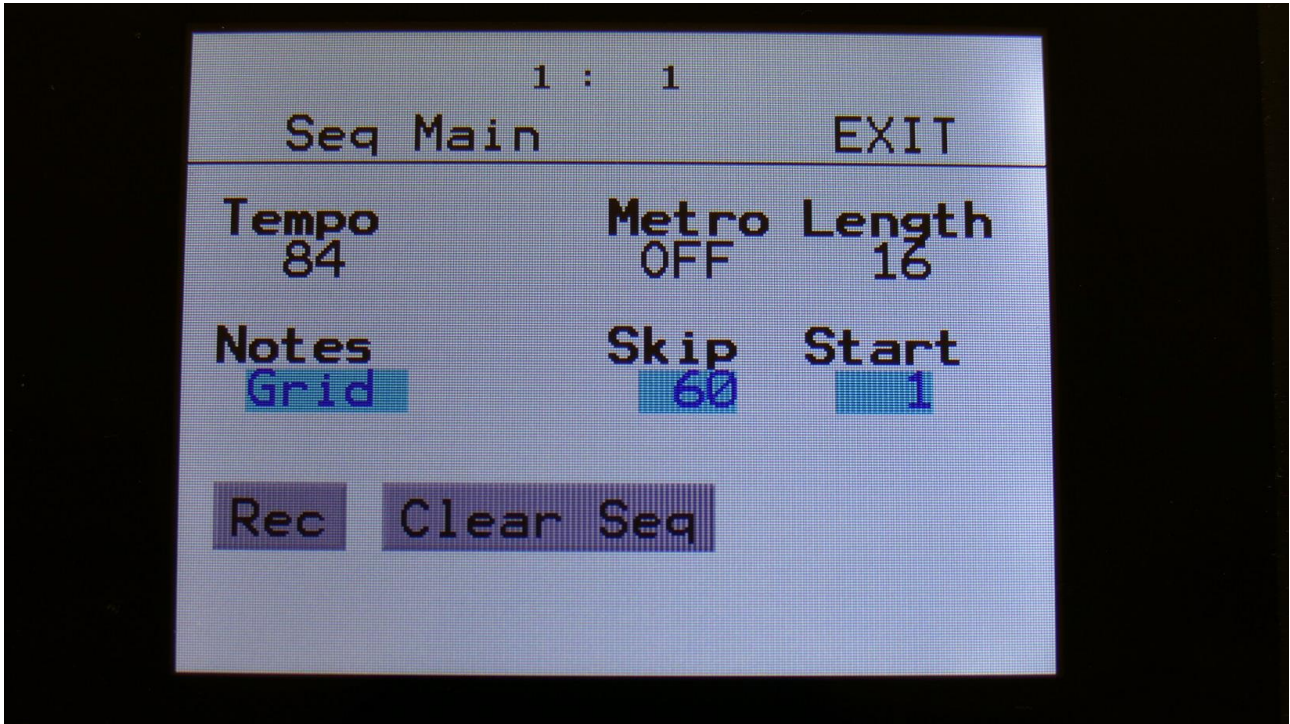
Random velocity added to Note Randomizer
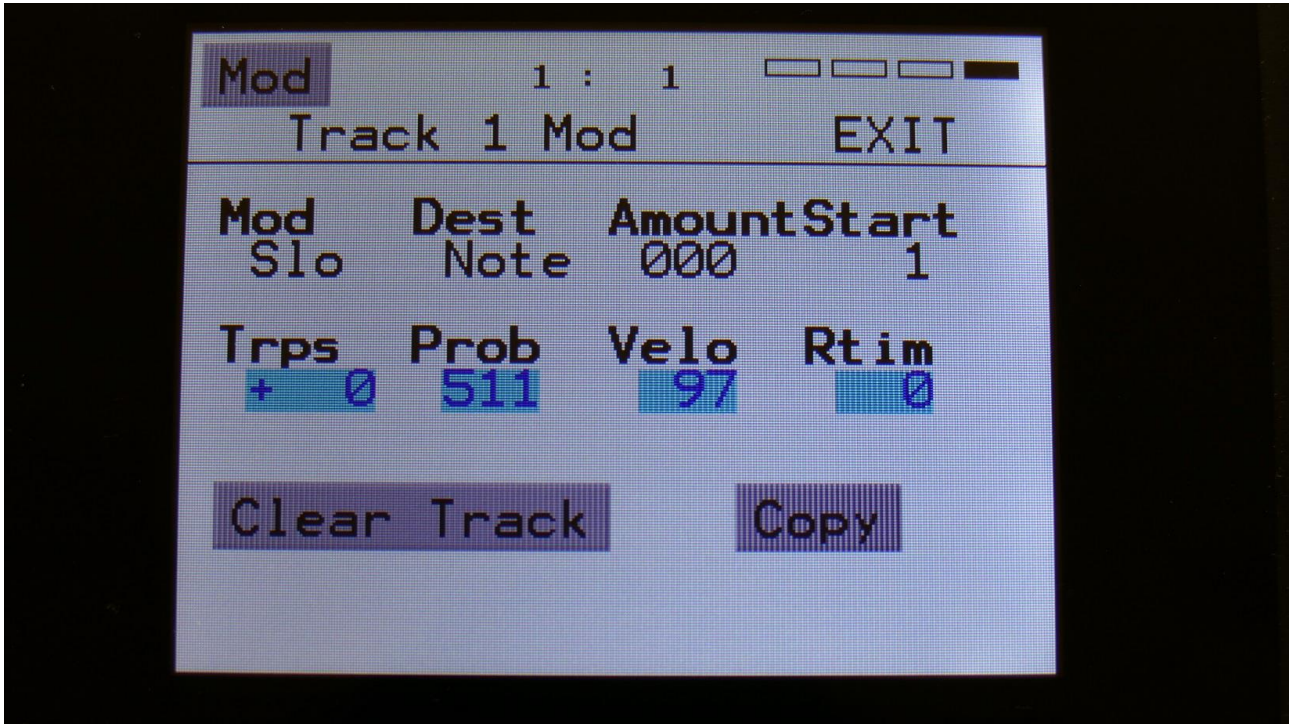
An extra parameter has been added to the Note Randomizers of the Sequencer Note Tracks: **Velo**.

The more this is turned up, the more random values will be subtracted from the velocity value of each note step.

Sequencer Random Skip function added

On the Sequencer Main page, a new parameter has been added: **Skip**.

Turning this up, will cause the sequencer to randomly skip some beats here and there. The more it is turned up, the more it will skip.

This affects all sequencer tracks at the same time.

New touch based sample select system

In earlier PolySpaze firmware versions, sample select on both the Sample Edit page and on the Synth Sampler page, was done by turning knobs. This proved to be a bit impractical. Therefore I designed a new touch based sample select system, that appears to work better.

When on the Sample Edit page, or the Synth Sample Select page, touch the sample name:
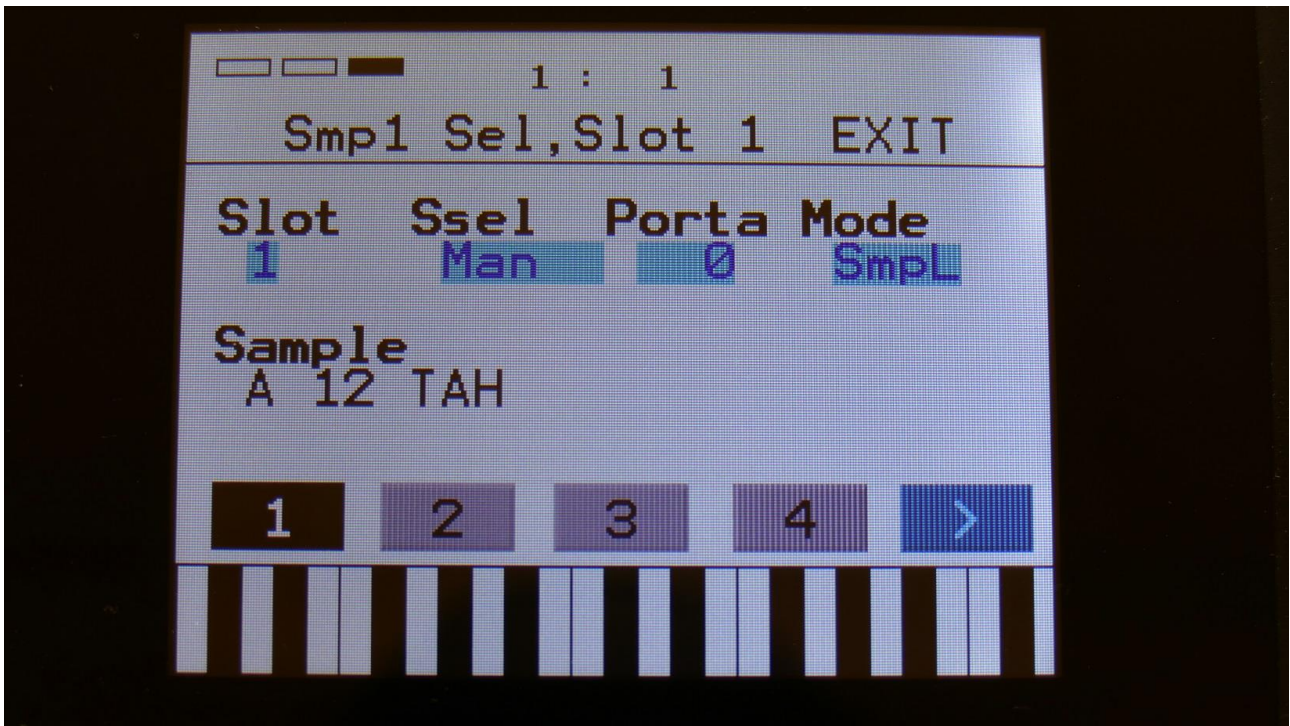
Now a list of the samplings hold in the PolySpaze FLASH memory will appear:
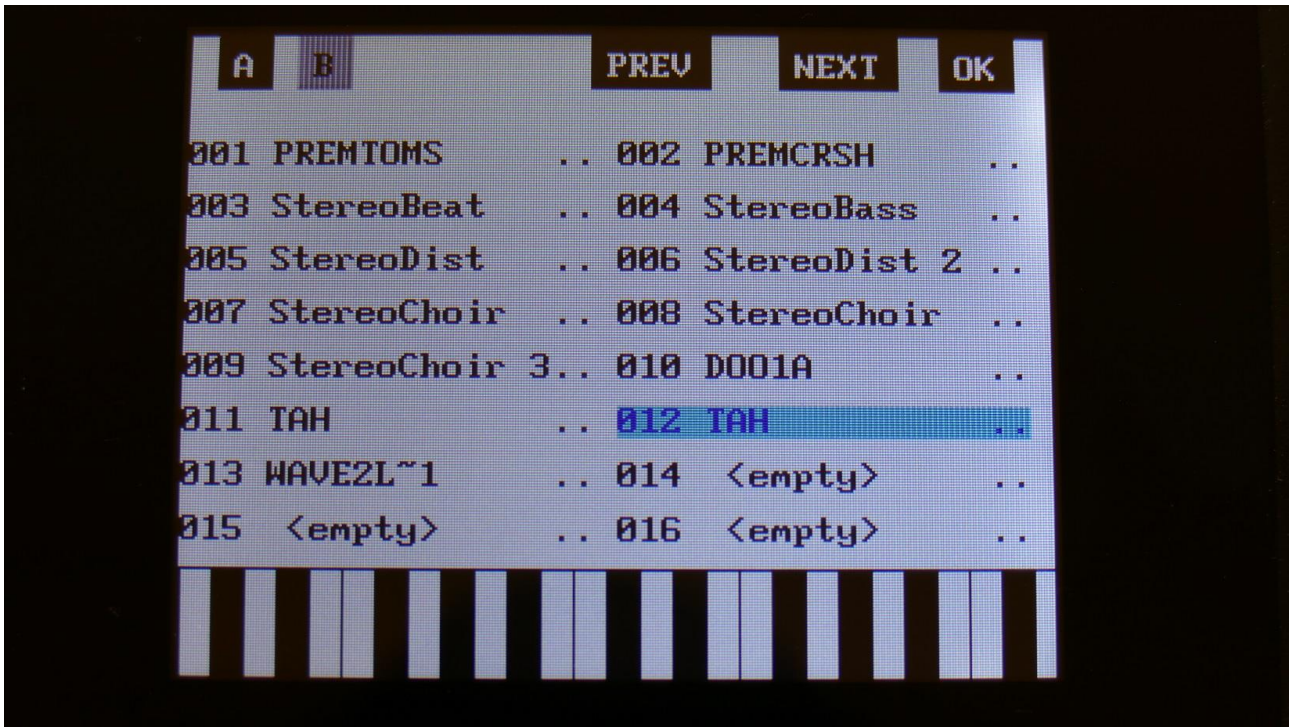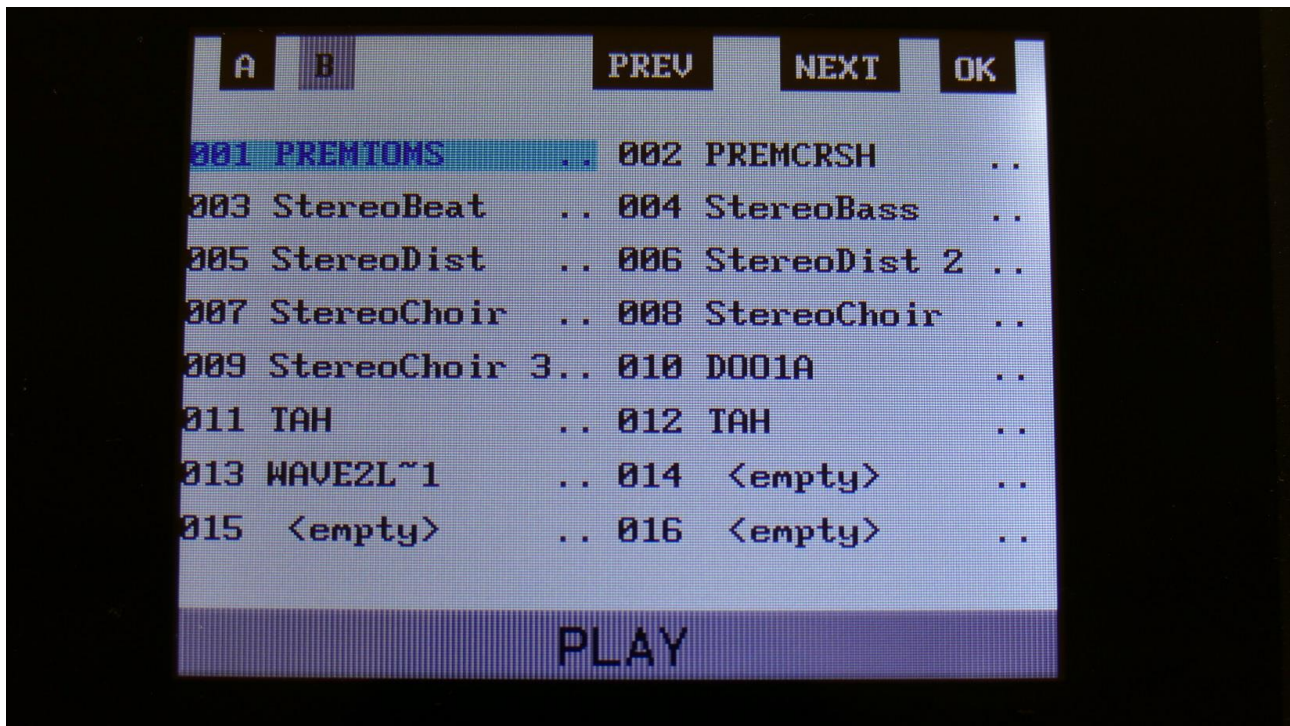

Touch A and B to select sample bank A and B, touch PREV and NEXT to view the previous or next 16 samplings.
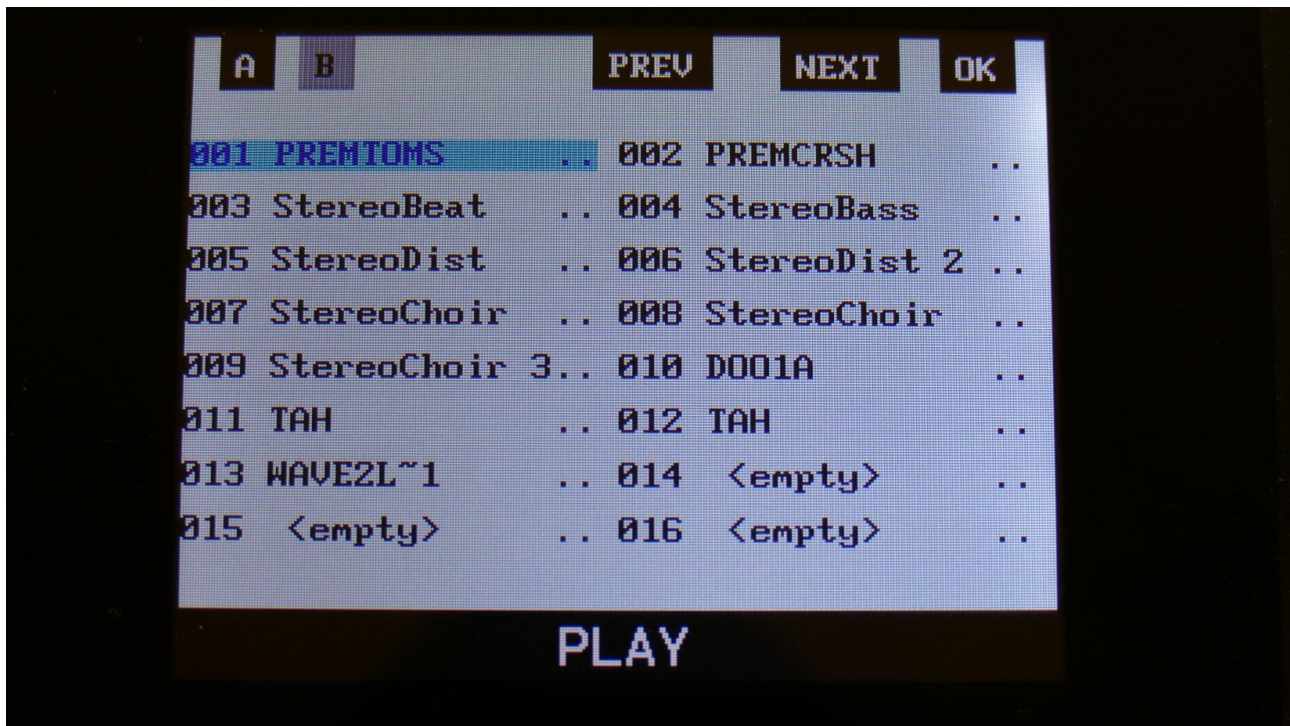To select a sampling, touch the sample name.

When you have found the right sampling, touch OK to return to the Sample Edit/Synth Sample page.

On the Sample Edit page, you will find a PLAY touch button in the bottom of the sample list.
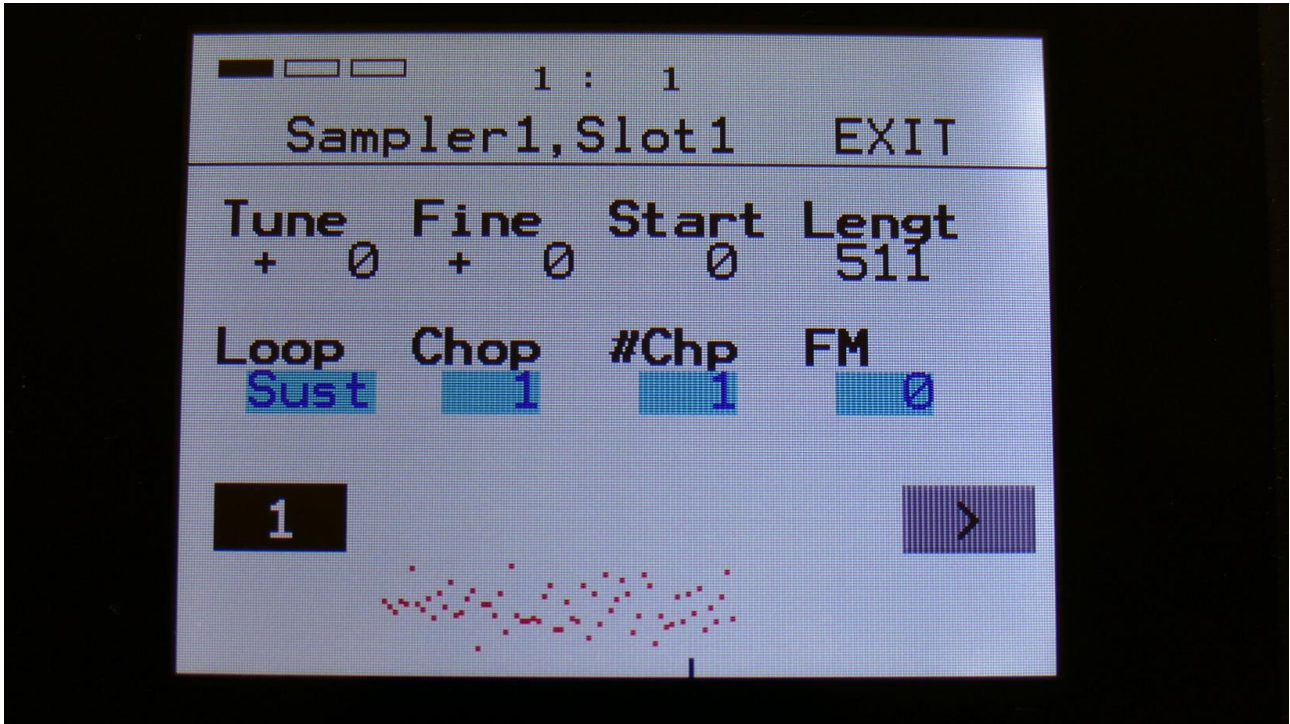

Touch this to audition the selected sampling. While the sampling is playing back, the play button will stay black.
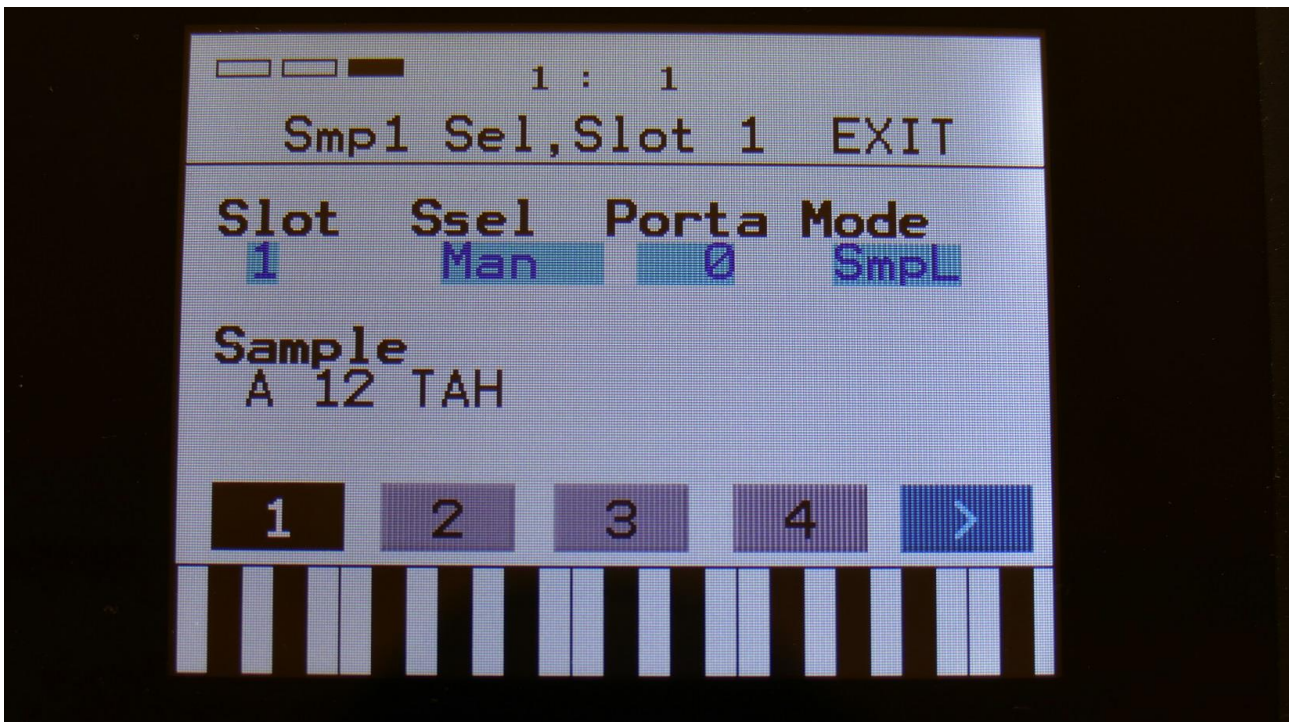
Sample number of chops to play back

On the Synth Sampler pages, it is now possibel to set how many chops that should play back in a row, just like it has always been possible on the Chop Edit page.

To make room for this parameter, the Porta control has been moved to the Synth Sample select page.

Another change is, that it does no longer have the sample channel select parameter. Instead the sample channel to play back, when stereo samples are played back in mono, is selected by the Mode parameter.
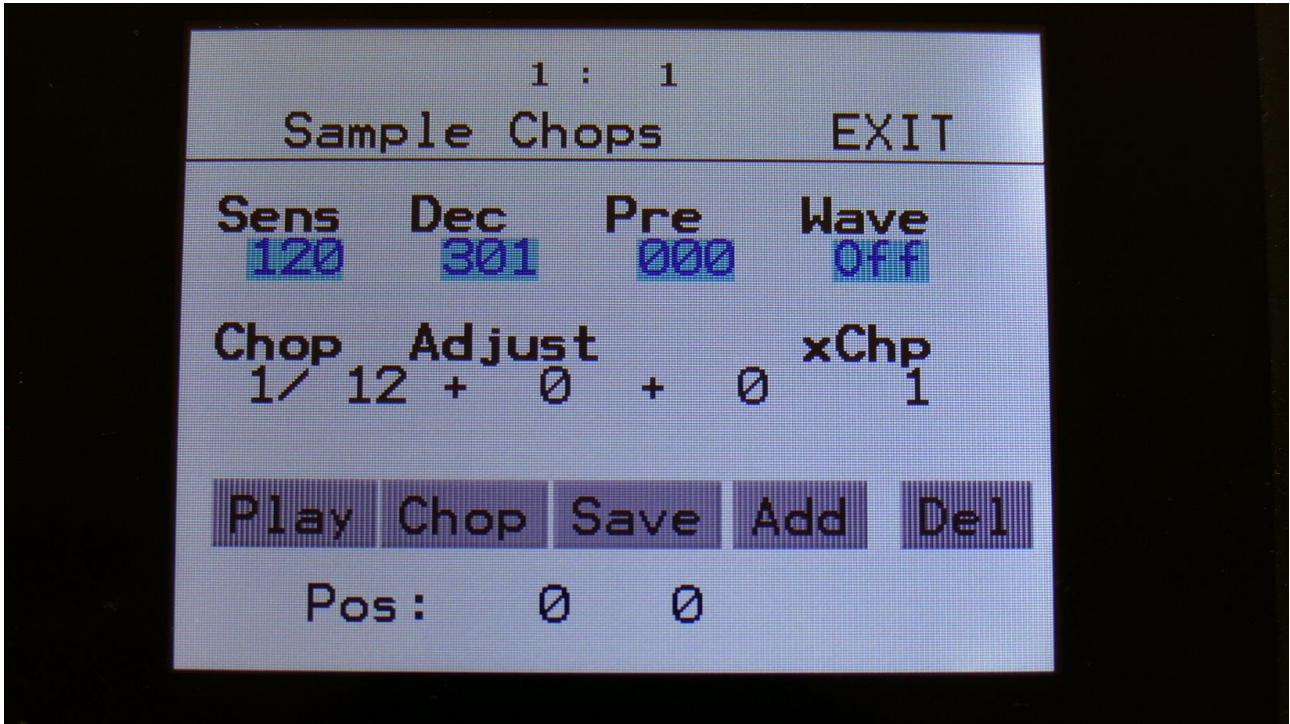
This can now be set to:
Osc – Oscillator mode
SmpL – Sampler mode – Left channel of a stereo sampling will be played back in sample mono modes.
SmpR – Sampler mode – Right channel of a stereo sampling will be played back in sample mono modes.

Chop Edit parameters has been moved around, for a more logical setup

The parameters on the Sample Chop Edit page has been moved a bit around, to make it easier to use.

Now all parameters, that is used for the analysis are in the upper row, and all parameters for test and playback of the analyzed chops are in the lower parameter row.

## Sequencer Realtime Record quick start mode added

Sequencer realtime record can now be initiated by holding down the Morph Settings button, while pushing the Start/Stop button.

Realtime recording will be indicated by the Start/Stop LED flashing in beat with the metronome.

To stop realtime recording, hit the same button combination again.

You can, of course, still start/stop realtime recording by the REC touch button on the Sequencer Main page.

Random Generators re-organized in poly mode
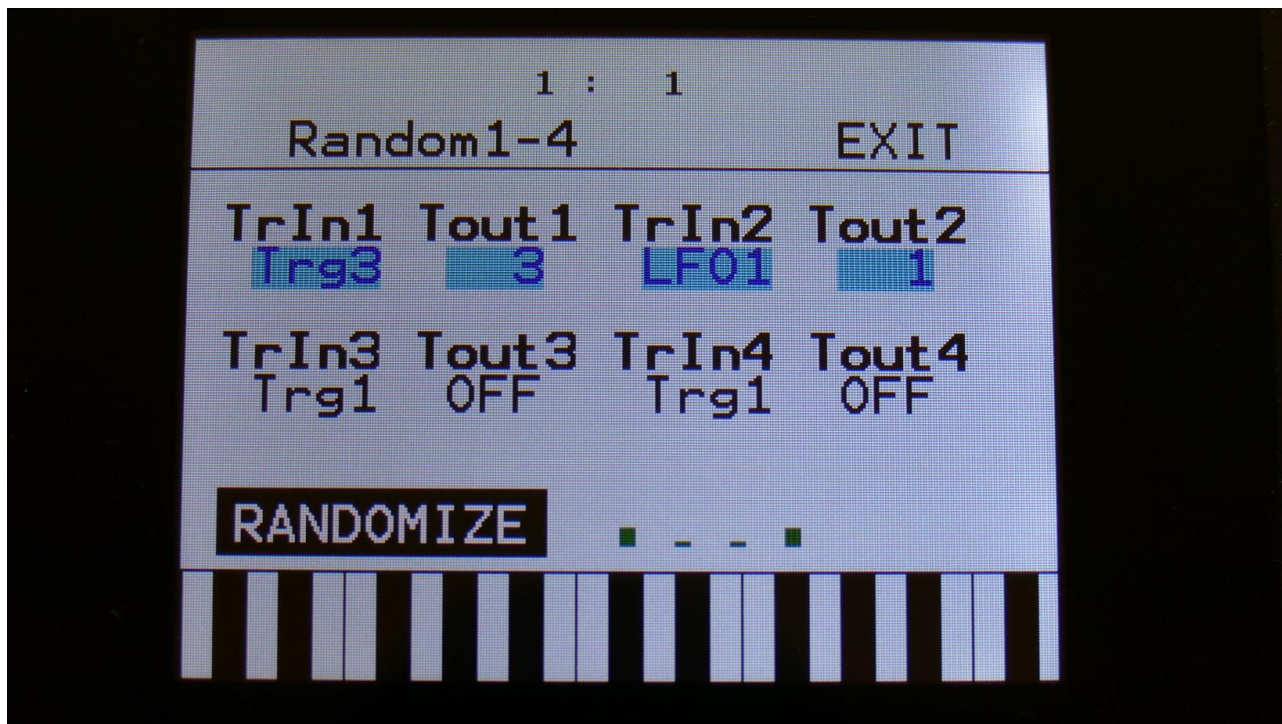
In earlier firmware versions, each of the 4 random generators had to be set up, to be trigged by a specific trigger or an LFO.

In mono, multi-timbral, multi-bank, stereo bank, poly3, poly4 and poly3 random modes, it is still like that.

In poly1, poly2, polybank1 and polybank2 modes, random generator 1 is now always trigged by the voice 1 trigger, random generator 2 is always trigged by the voice 2 trigger, and so on, unless they are set up to be trigged by an LFO.
In these modes, random generator 1 outputs to all 4 random generator modulation slots on voice 1, random generator 2 outputs to all 4 random generator modulation slots on voice 2, and so on.

This modification is done, to get different random values on each tone, when playing polyphonically. In earlier versions, when random generator 1 was selected as the modulation source, and this was set up to be trigged by voice 1 trigger, the random value for all 4 voices would only change, when voice 1 was trigged.

USB exit moved to upper right corner, for a more logical layout
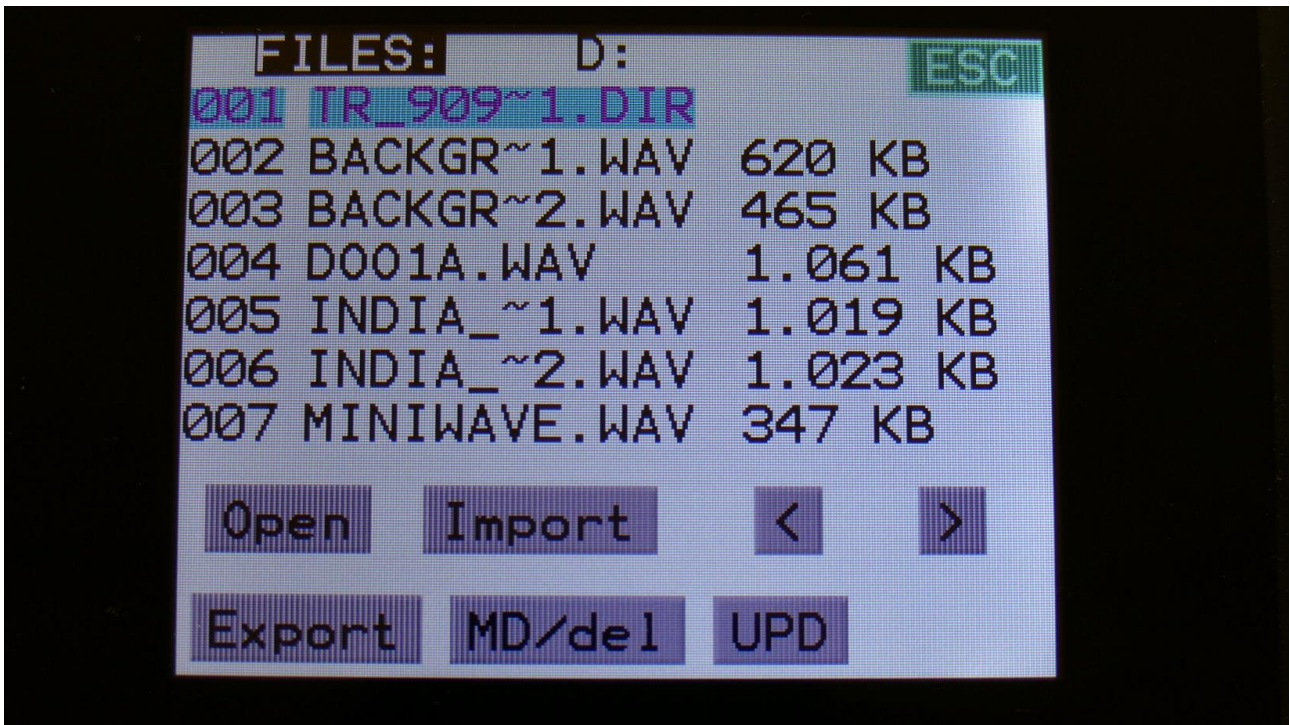
The Exit button has been removed from the lower right corner of the USB page. Instead an Esc touch button has been added in the upper right corner.

Now you will only have to touch the upper right corner, to exit from multiple pages.

Sample and loop playback has been optimized yet another time

When importing and playing with Mirage samplings, I realized that there were still room for improvements, to make sample loops smooth. Loops are now more smooth than ever…

Bug Fixes

-Part 2, 3 and 4 notes were sometimes hanging, when PolySpaze was in multi-timbral mode, and played by the touch keyboard and an external MIDI keyboard at the same time. This has now been fixed.

-Small samples on less than 332 byte, would neither import correctly, or play back correctly. This has now been fixed.

-Part 3 pitched noise did sometimes not work. This has now been fixed.

-Notes played on the touch keyboard were not recorded by the sequencer in realtime record mode. This has now been fixed.

-When heavy effects processing was going on, like reverbs and pitch shifters, stereo sampling/re-sampling could sometimes become unstable. This has now been fixed.

-The LFO's could not be trigged by the Random Generators, and the Random Generators could not be trigged by the LFO's. This has now been fixed.
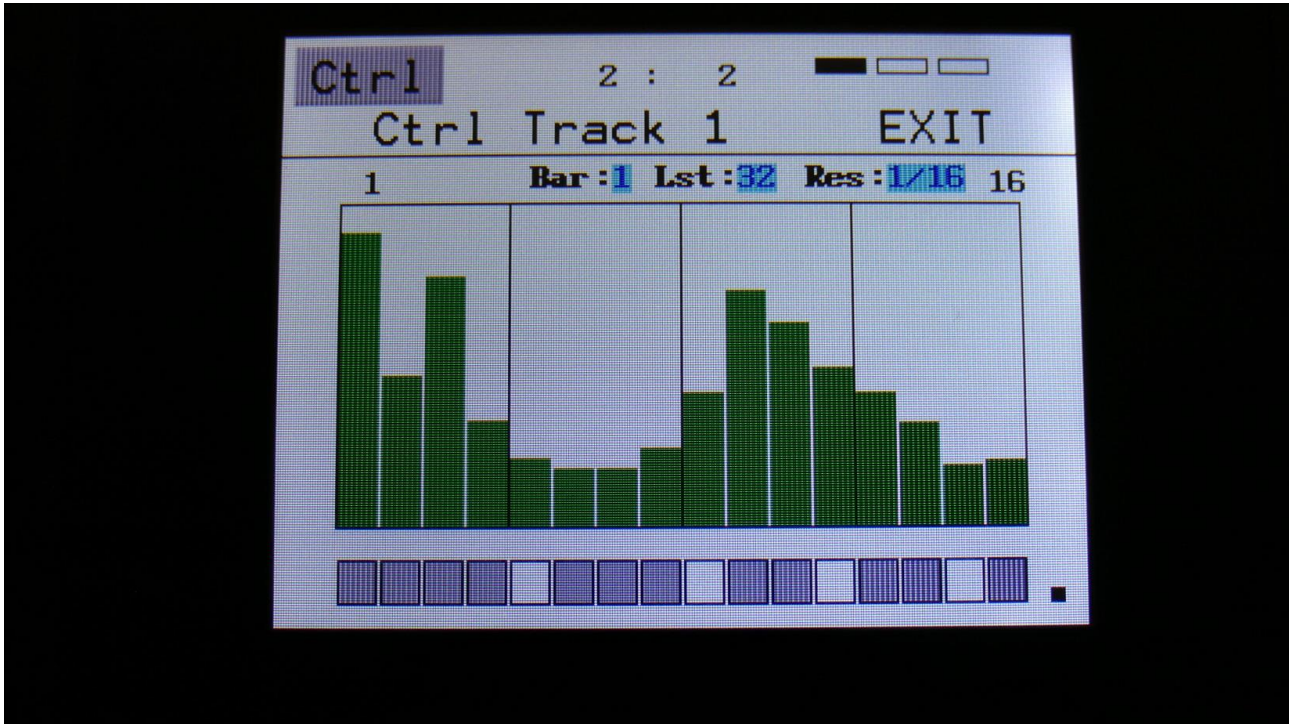
Copy Part –Selection of Morph Layer A/B added
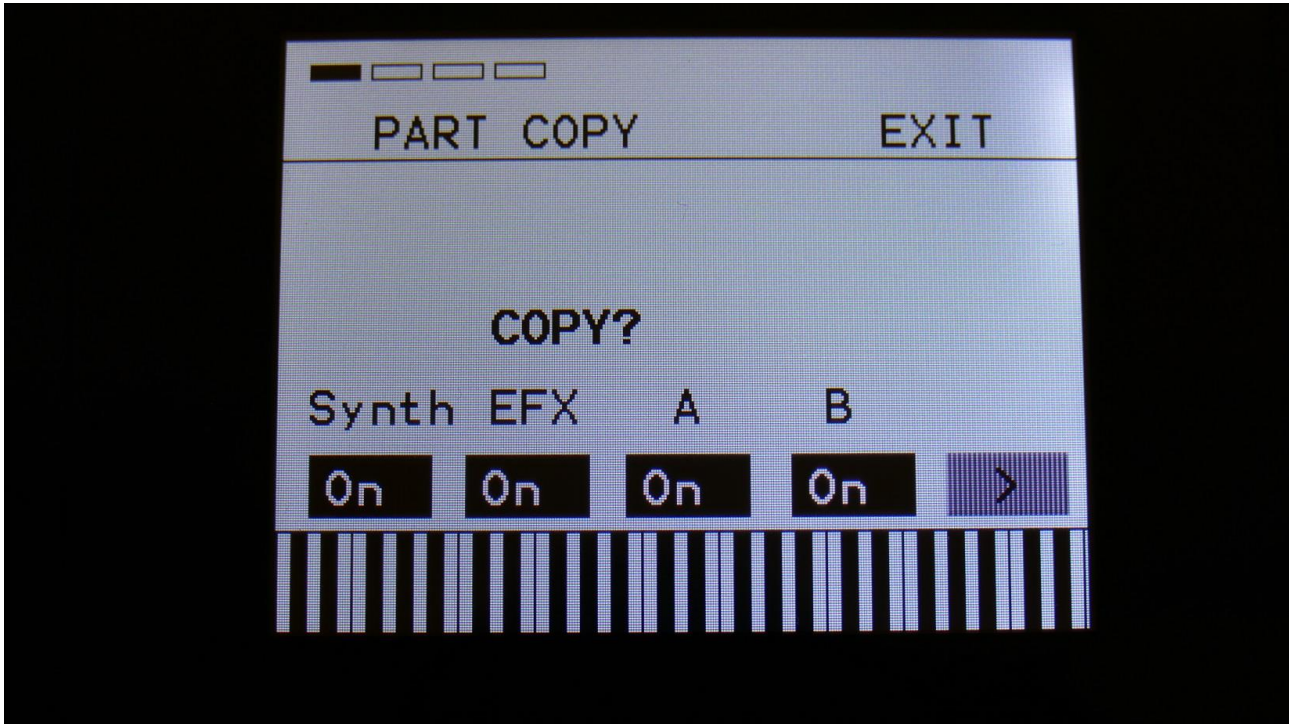
It is now possible to copy one Morph Layer at a time. On the first copy page, select the layer you would like to copy from. The Morph Settings button selects the layer, that will be copied to.

Touch Sequencer optimized

The touch sense of the step on/off buttons has been optimized.

Furthermore a lock mechanism has been added.
If you touch the step on/off buttons first, and then slide your finger, only the states of the step on/off buttons will change. If you finger accidentially slips up in the step values area, no changes of these will happen.

If touching the step vaules area first, it will lock to this, in the same way.

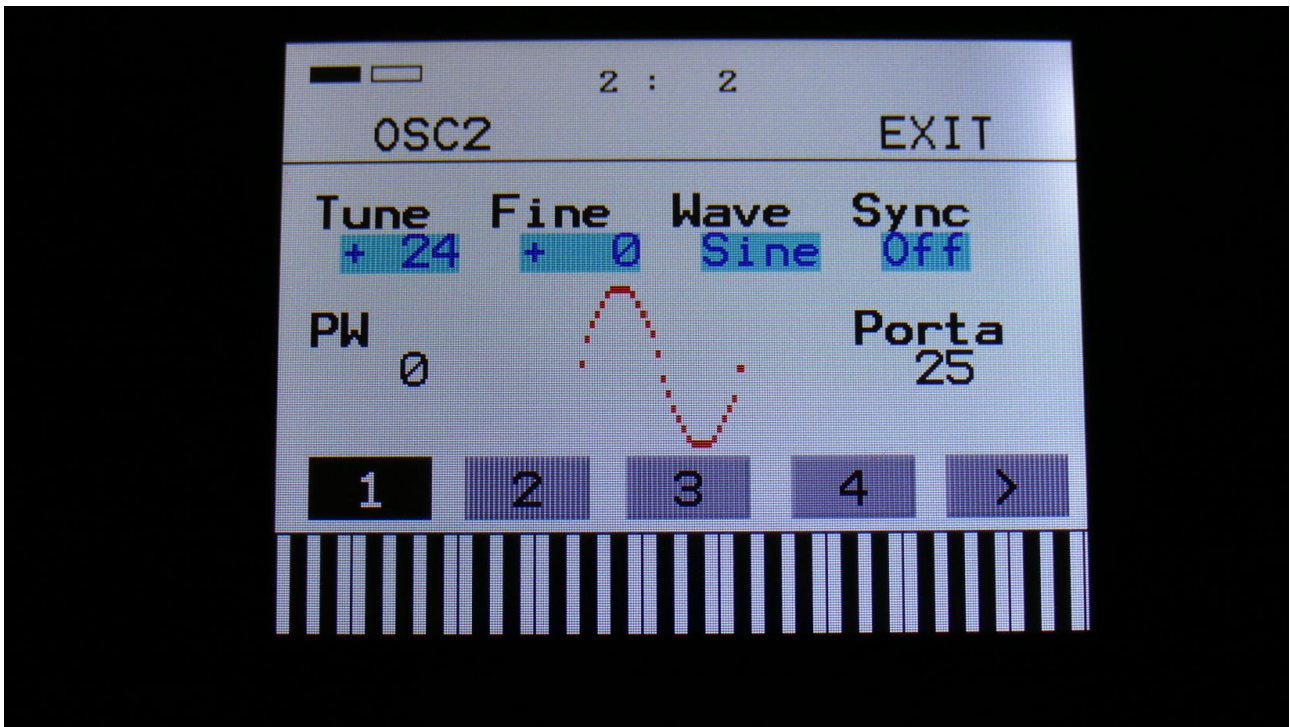To unlock, simply lift your finger from the display, and touch it again.

2 new smooth VCA modes
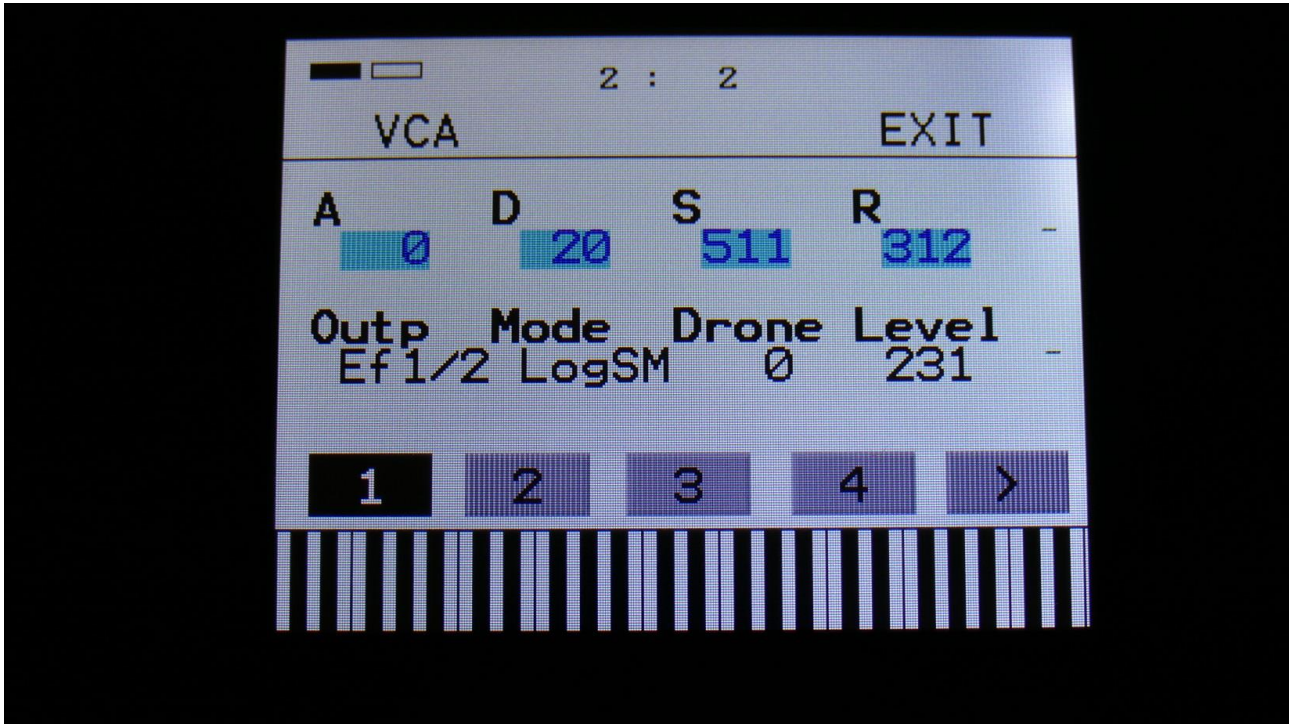
2 new VCA modes has been added, "linSM" and "LogSM".

When any of these 2 VCA modes are selected, the VCA will be completely smooth. This sounds more like many other synthesizers, than the usual Gotharman VCA's ☺

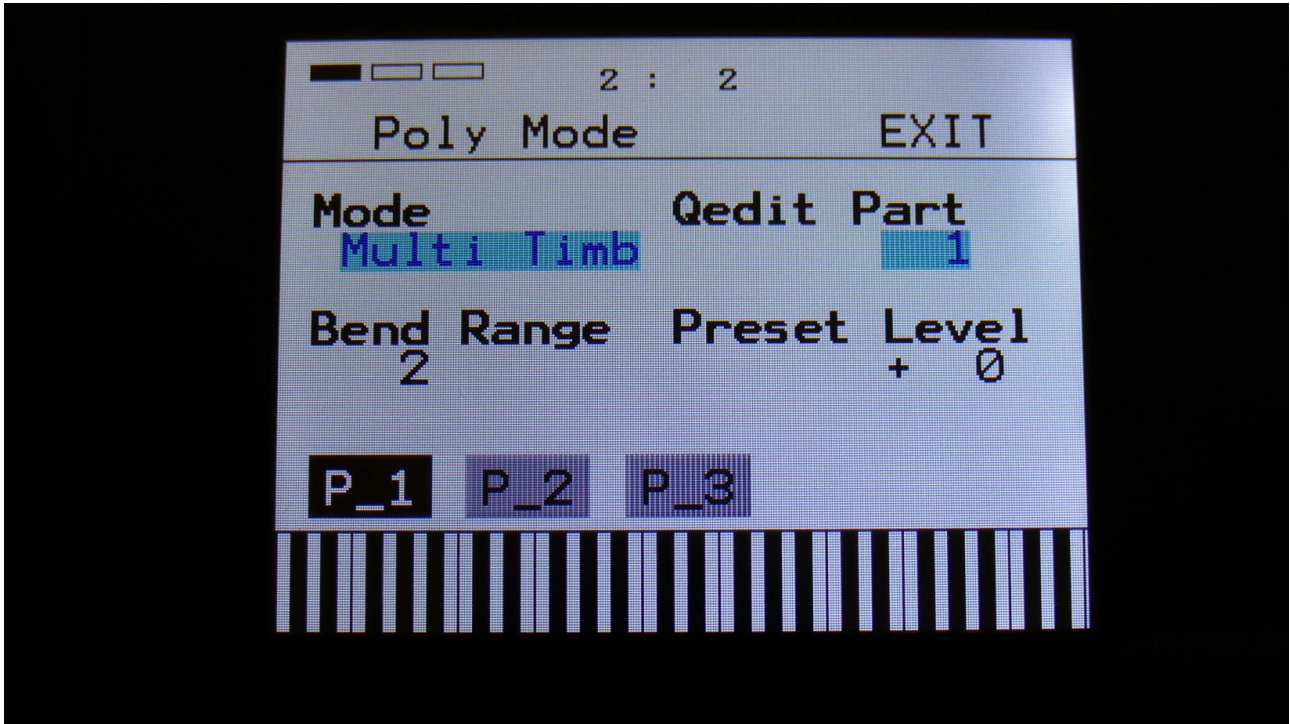**Pitched Noise waveform added to Oscillator 2**

A new pitched noise waveform has been added to Oscillator 2.

When this is selected, Tune and Fine adjusts the noise pitch, and PW adjusts the intensity of the noise.

3 new poly modes added, that plays with different sounds for each voice

3 new poly modes has been added. All of these will allow you to have different sounds for voice 1 to 4. Each sound can be adjusted, or copied from any other preset, just like in multi-timbral mode.

Poly3: The 4 parts plays back the sounds of part 1 to 4, as 4 polyphonic parts, sequentially selected. Each time a note is pressed, the next voice/sound in the row will play back.

Poly4: The 4 parts plays back the sounds of part 1 to 4, as 4 polyphonic parts, selected by number of keys pressed. The first key pressed ia always played back by part 1, the next key pressed is always played back by part 2, and so on.

Poly3rndm: The 4 parts plays back the sounds of part 1 to 4, as 4 polyphonic parts, randomly selected. Each time a note is pressed, a new voice/sound might play back.

Output effects can now be connected in serial
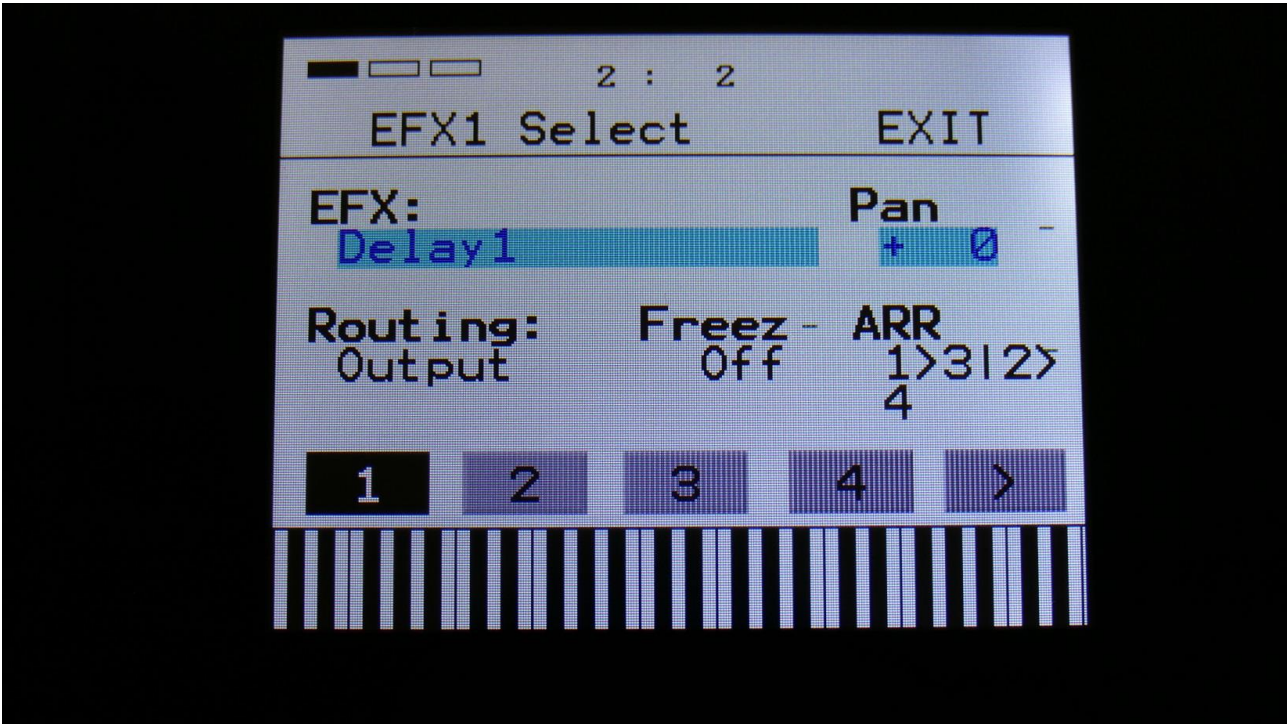
A new "ARR" (arrange) parameter has been added to the effects pages.

This can be set to either:
1|2|3|4, which will connect the output effects in parallel, and EFX ½ from the VCA's goes to output effect 1 and 2, while EFX ¾ goes to output effects 3 and 4.

Or:
1>3|2>4, which will send the output of output effect 1 to output effect 3, and the output of effect 2 to effect 4. Both EFX ½ and EFX ¾ from the VCA's, will now go to the inputs of output effects 1 and 2.

"Preview" function has been added to the Preset Select page
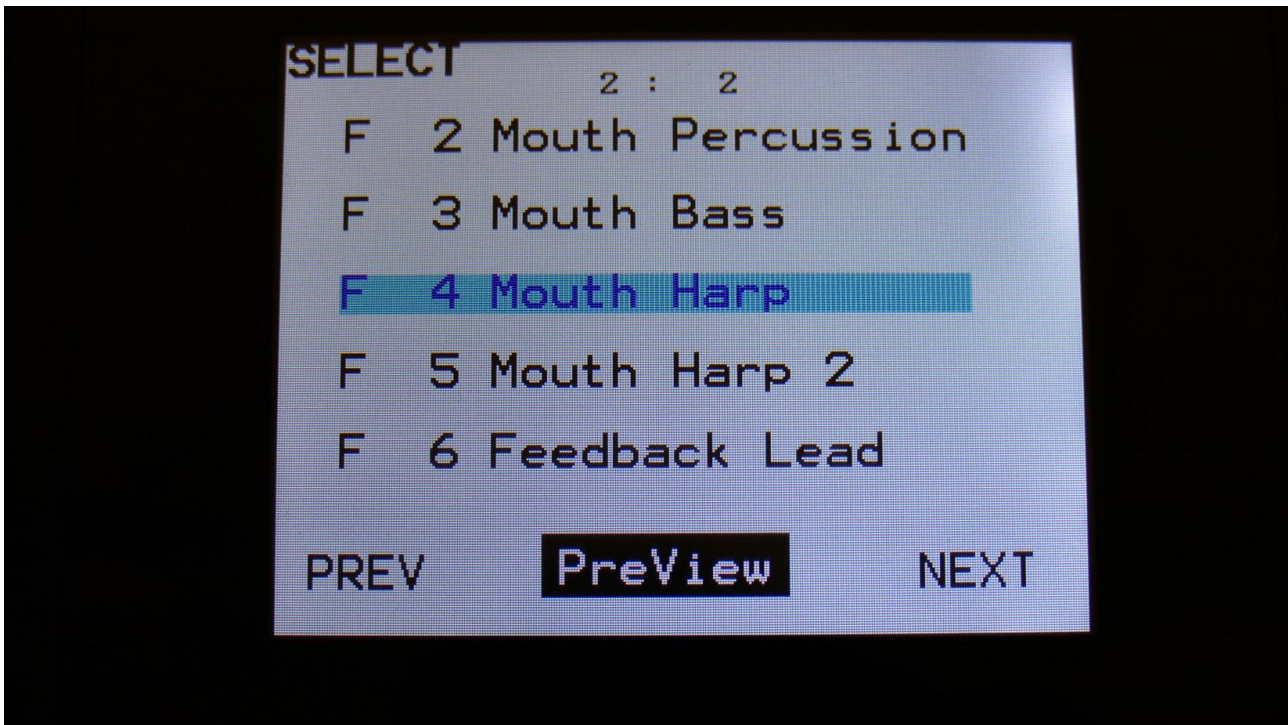
On the Preset Select page, touch "PreView" so it becomes black with white text, to make it active. Now you can preview presets, without PolySpaze going back to the main preset select page.

If the sequencer is running, it will still wait for track 1 to reach step 1, until it jumps to the next preset. This is indicated by the Start/Stop LED flashing.

Overall preset level can now be adjusted
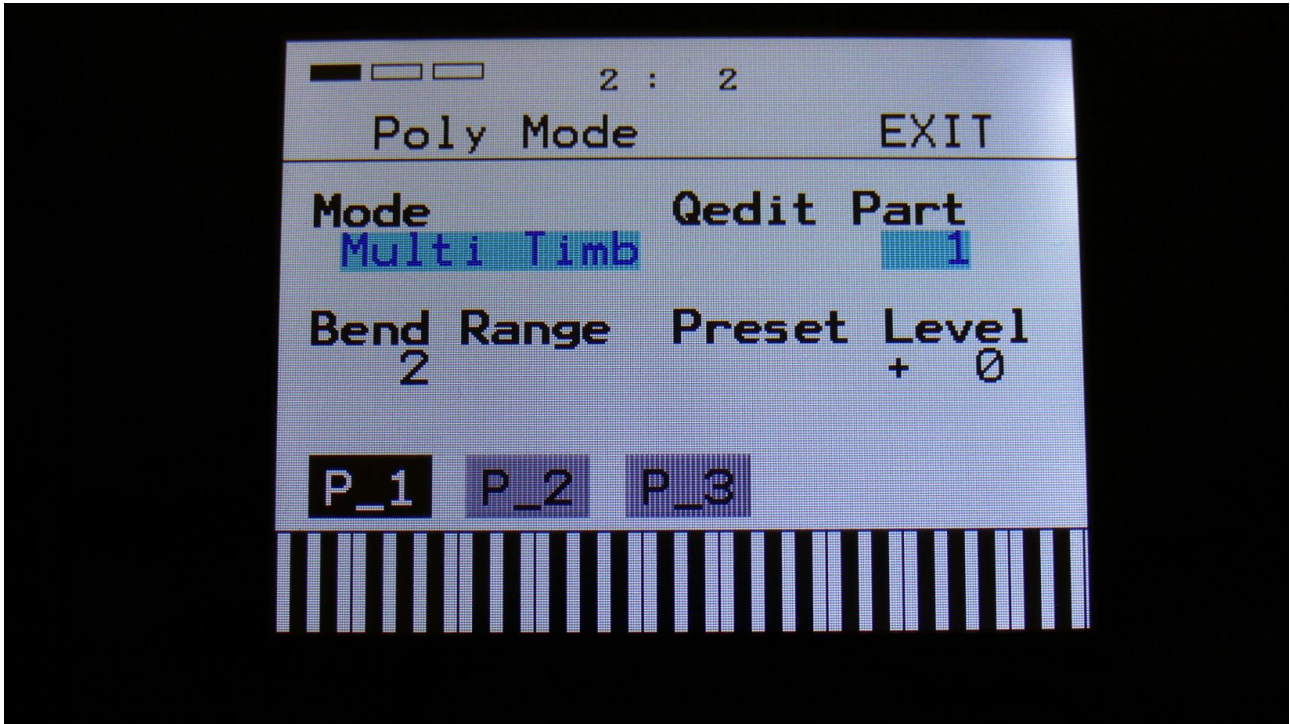
On the "Mode" page, a new "Preset Level" parameter has been added.

This adjusts the overall level of the entire preset. Negative values attenuates the level, positive values boosts the level. For making the presets levels match each other, without having to adjust the levels of all the 4 parts.

All Touch Keyboard controls and part selection are now available on the Preset Select page
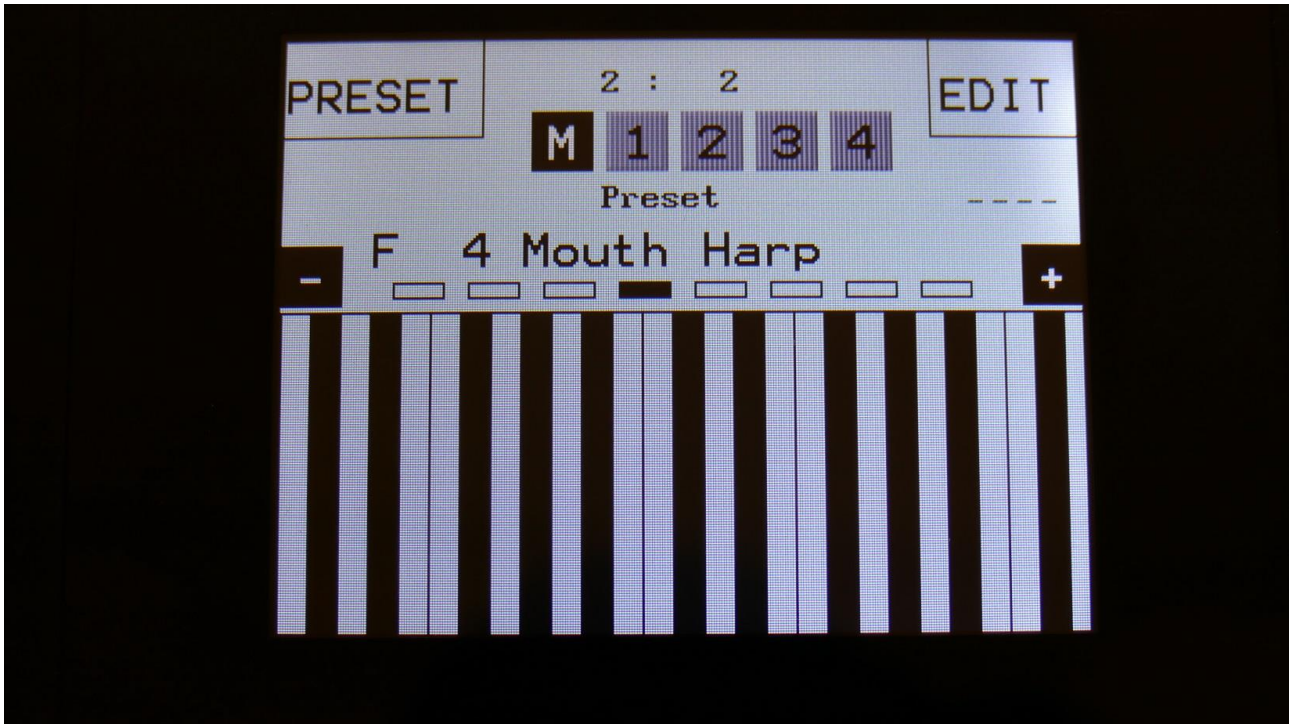
The -/+ touch buttons adjusts the size of the touch keyboard.
Touching any of the 8 rectangles just above the keyboard, selects the keyboard octave.
The 5 touch buttons in the top, marked M, 1, 2, 3 and 4, selects which part should be controlled by the touch keyboard. Selecting "M" will make it control any parts and keysplits on the global MIDI channel (like now).

The "Qedit Part" select parameter on the Mode page, is only active, when part "M" is selected.
When part 1-4 is selected, this is also the part that is edited, when adjusting the Quick Edit knobs.

When playing the touch keyboard, it will lock to this, so you don't accidentially changes the settings. To adjsut the settings, you must lift your finger from the touch screen, and tap the settings.
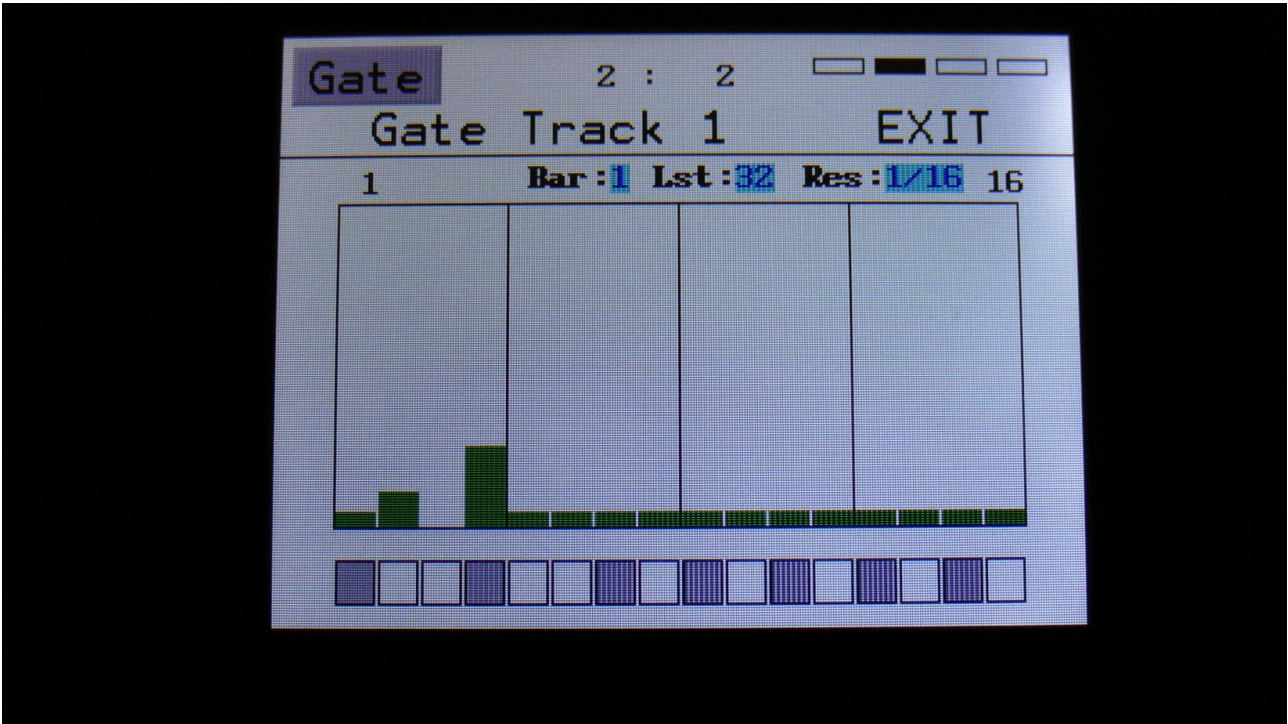
Indicators on all edit pages, for a quick view of where you are
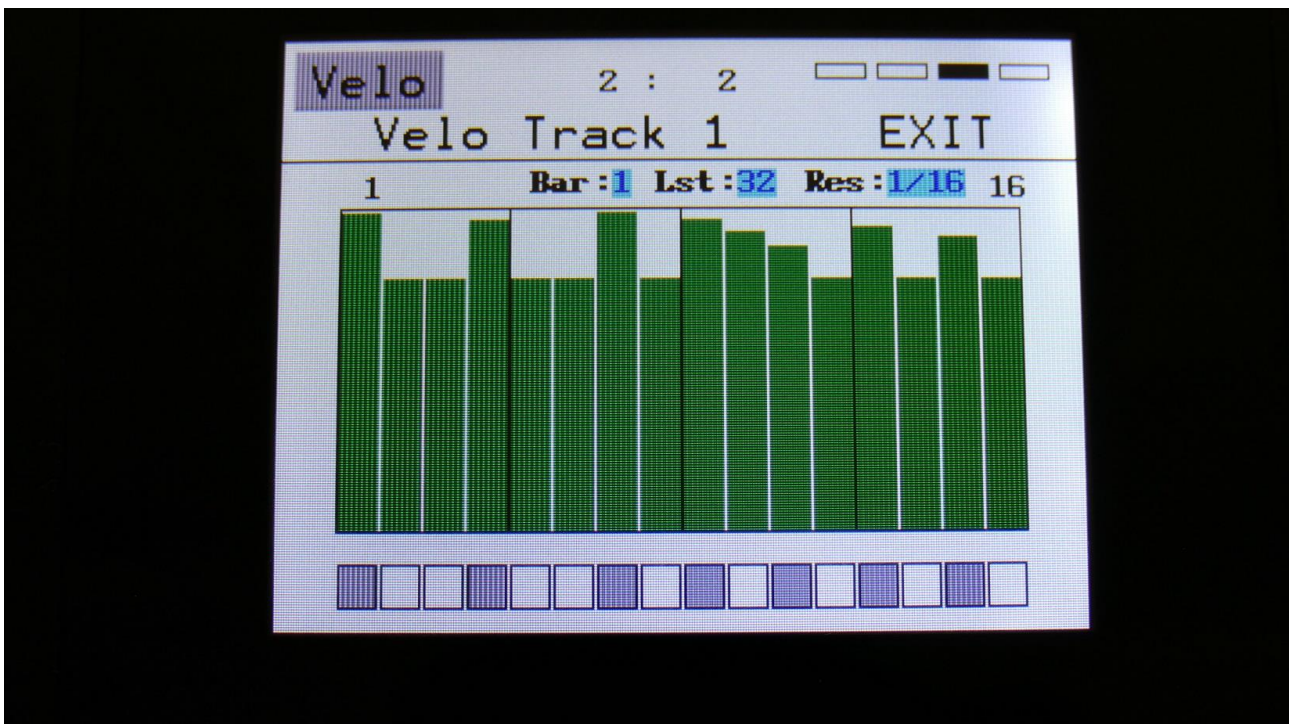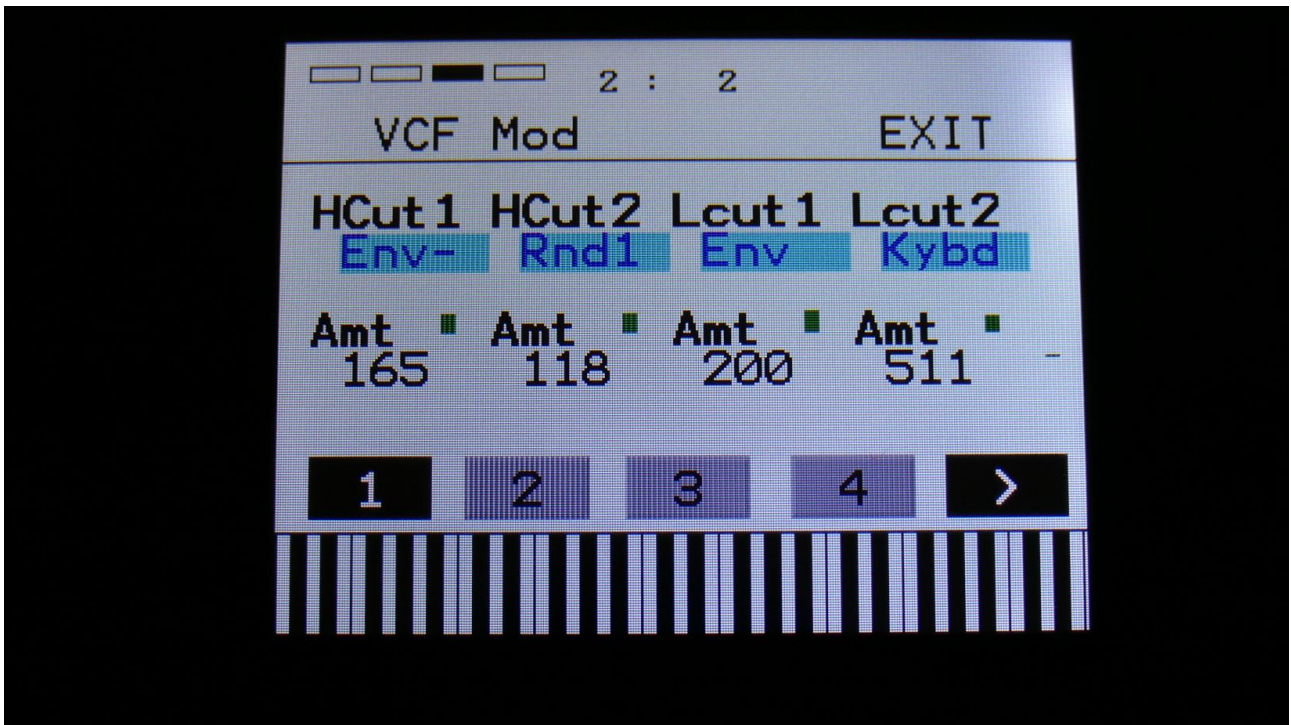
All synth and sequencer edit pages now has indicator rectangles in the top of the pages, to easier view where you are located.

Note track gate time is now also realtime recorded

In previous versions of the PolySpaze firmware, only note and velocity values were recorded, when realtime recording. Now gate time is also recorded, to make things easier.

You should notice though, that the maximum gate time value (127) can't be exceeded.

Bug Fixes

-Velocity modulation are now assigned correctly to each voice in polyphonic modes.

-Sample slot select keyboard split mode now works in polyphonic modes.

-At some conditions, a wrong sample chop would play back. This has now been fixed.

-Pitch Bend messages did not affect Part 4 in multi modes. This has now been fixed.

-Sample recording level is now reset to +0 instead of -256.

Earlier Updates

Copy Part
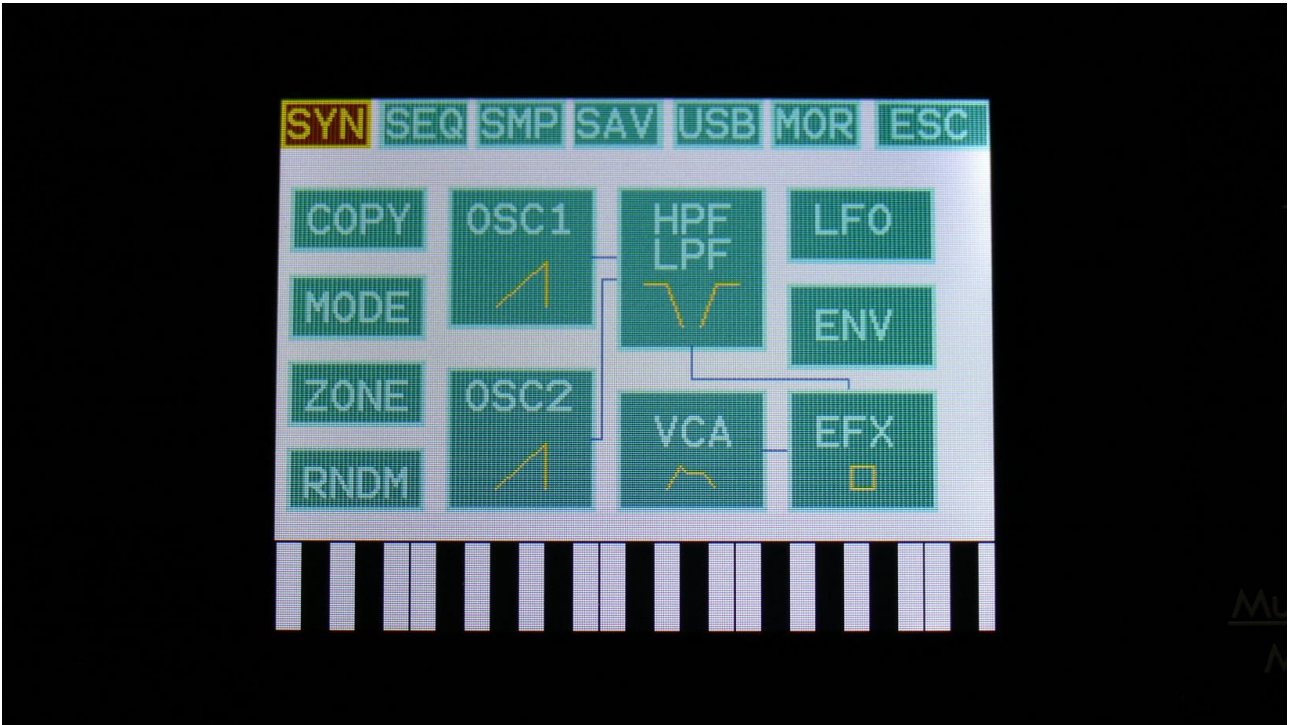
In the upper left corner of the Synth Blocks page, the "Mode" block has now been made smaller, to make room for the new Part Copy function.

With the Part Copy function, you can copy any of the 4 Synth parts, from any preset, Synth/Effects parameters or both, to the current preset.
Like Fuzion's Sound Finder, it is possible to try the sounds from different presets and parts, until you decide what sound to copy.
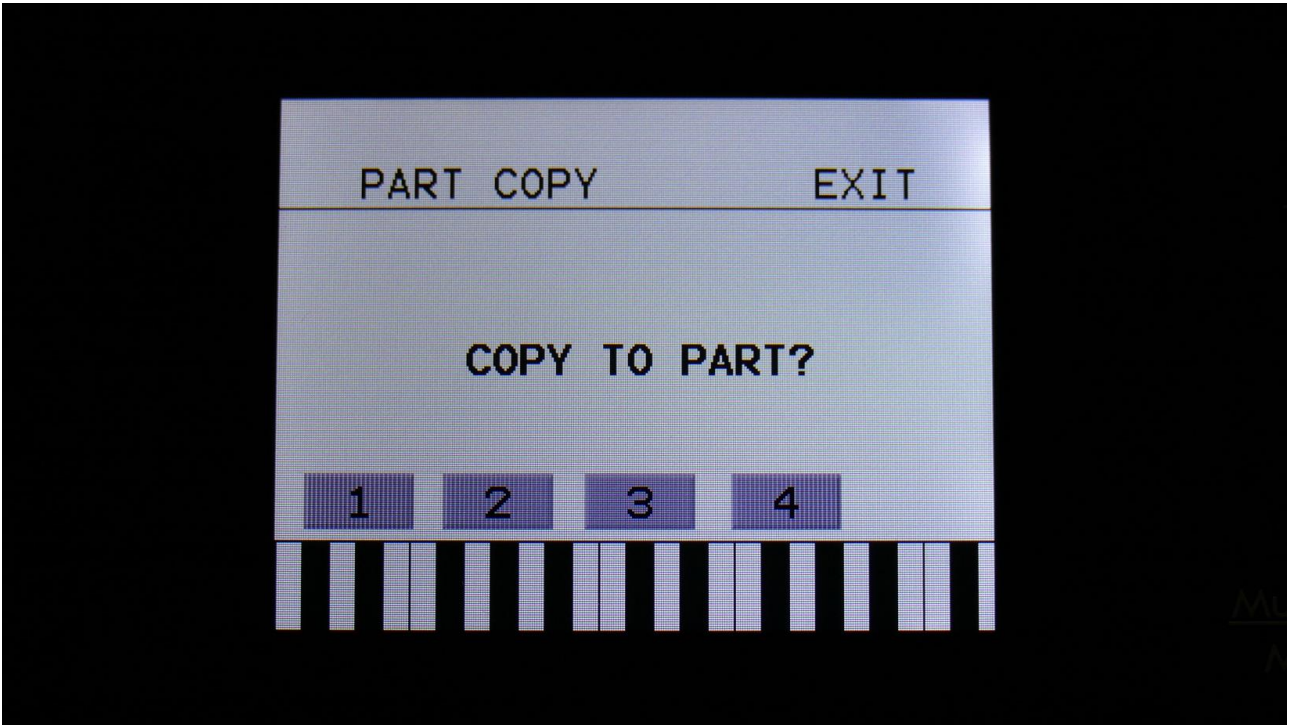
To try out some of the sounds from your other parts/presets, in the current preset, touch the "COPY" block.

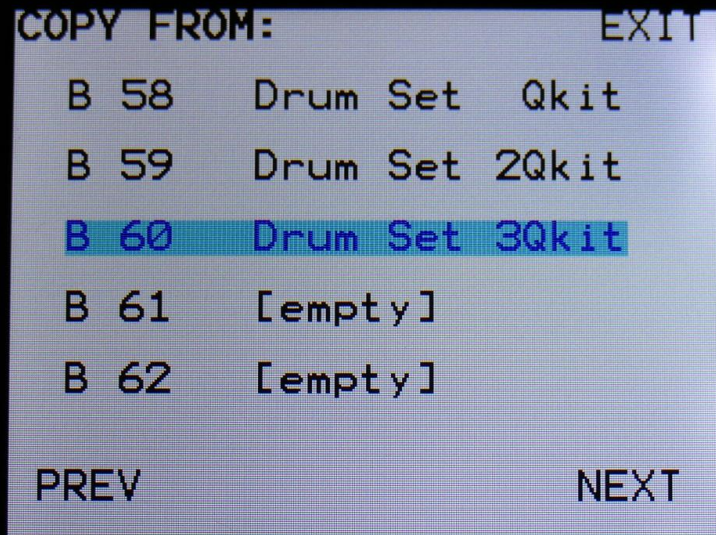You should now enter this page:
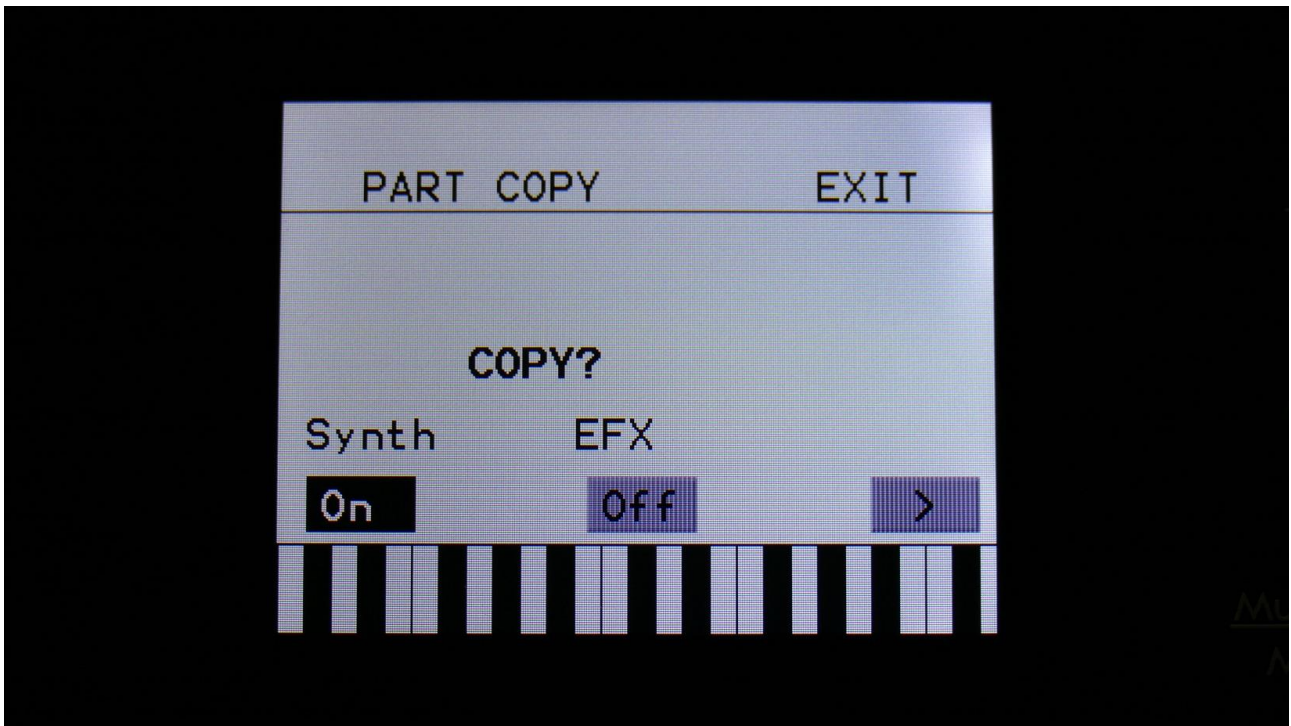
Select if you would like the Synth parameters, the Effects parameter, or both copied, by switching the respective touch buttons on or off.

Touch the arrow button, to go to the next page.

Select the part, you would like to copy to, by touching one of the buttons numbered 1 to 4. As soon as you select a part, you will be directed to the next page.

Here you can select the preset, that you would like to copy from. Five presets are shown at a time. Touch "PREV" or "NEXT", to view five higher or lower numbered presets.

Touch a preset to select it. As soon as you select a preset, you will be directed to the next page.
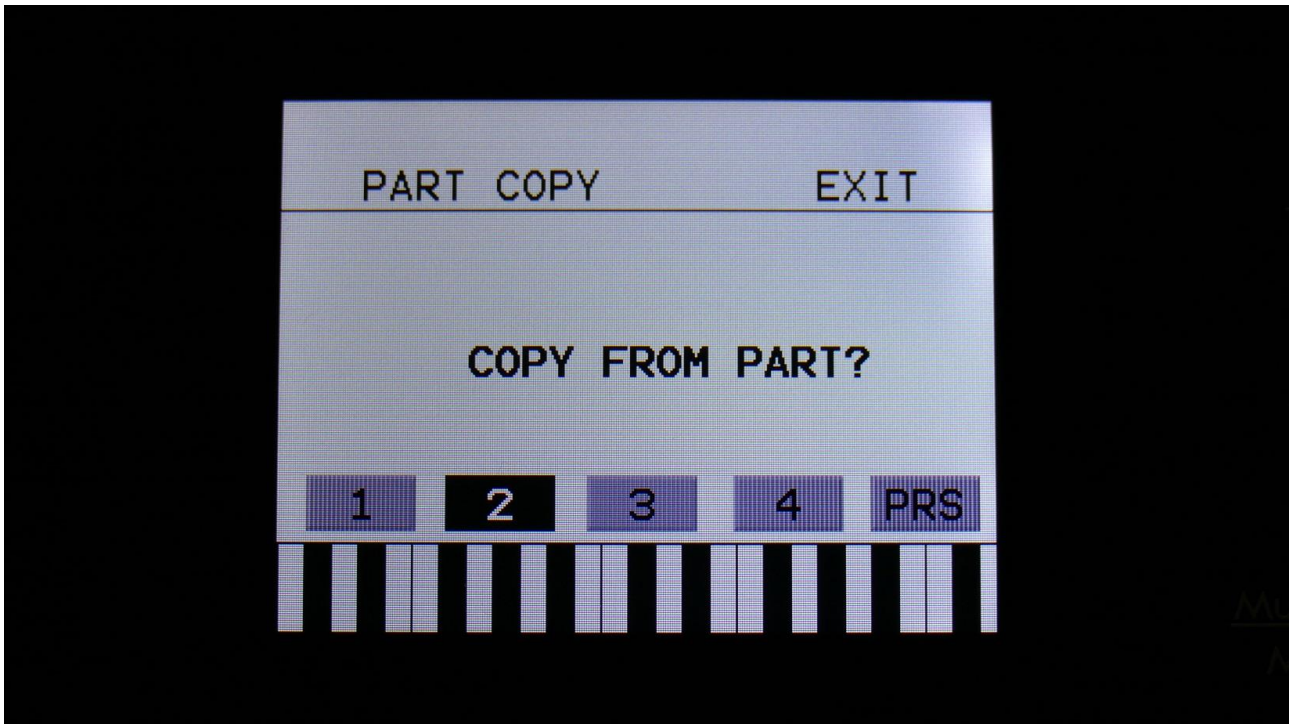
Here you can select the part of the selected preset, that you would like to get the sound from. As soon as you touch one of the buttons numbered 1-4, the touch button will turn black, and the parameters of that part of the selected preset, is copied to the destination part, that you selected on one of the previous pages.

Feel free to try the 4 different parts.

If you would like to try the sounds from another preset, than the selected one, simply touch the "PRS" button, and you will be taken back to the "COPY FROM" preset select screen.

When you have found the desired sound, touch "EXIT" in the upper right of the screen, to exit to the Synth Blocks page.

When you are back on the Synth Blocks page, you can edit all the parameters of the copied sound, just like you would on a sound that you had created from scratch. The part that you copied from, will not be affected.

Remember to save your work. When copying sounds, the result is only held in the preset edit buffer, so it is not permanent. To make it permanent, follow the instructions in the PolySpaze manual, on how to save a preset.

If you should regret, that you copied a sound, you can either:
-Select another preset, without saving this one, and select this one again.
Or:
-Go back to the copy menu, and select the part you just copied to, as both the source and the destination. Then the sound saved in the FLASH memory will return.

Copy Sequencer Track

On the Note Tracks "Mod" page, and on the Controller Tracks "CC" page, a "Copy" touch button has now been added:
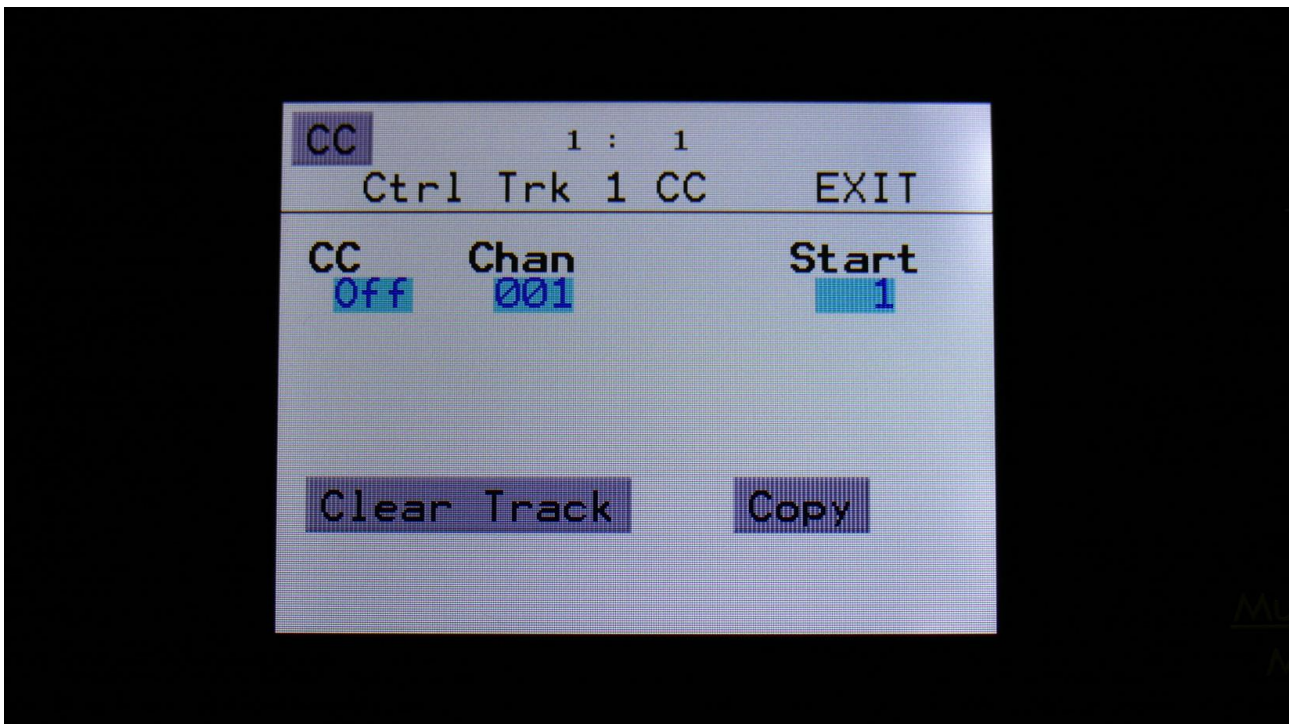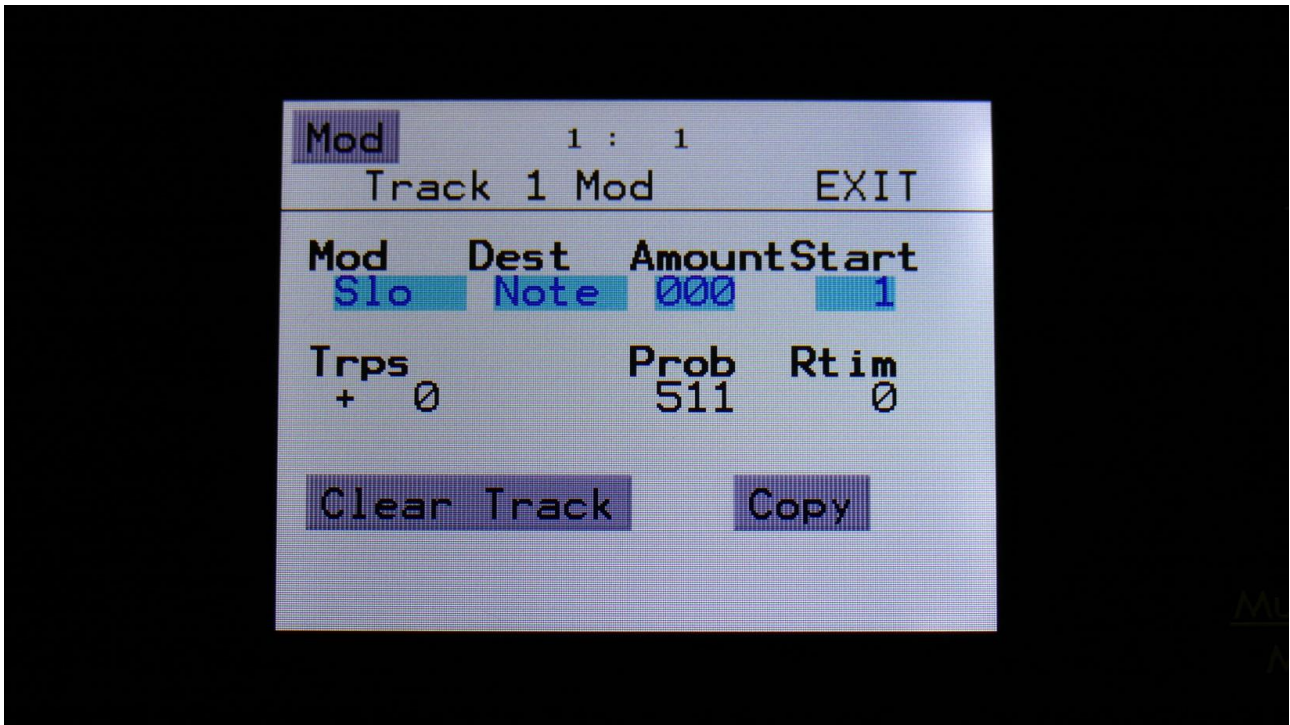
With the track copy function, it is possible to copy any note/controller track, from any preset, to the currently selected note/controller track.

It is only possible to copy a note track to a note track, and a controller track to a controller track.

To do so, hit the "Copy" touch button.

You should now enter this page:

Select the preset, that you would like to copy from. Five presets are shown at a time. Touch "PREV" or "NEXT", to view five higher or lower numbered presets.

Touch a preset to select it. As soon as you select a preset, you will be directed to the next page.

If you copy a note track, the next page will look like this:

Touch the track number, you would like to copy from. As soon as you do that, the track will be copied, and you will return to the note Mod page.

If you copy a controller track, the page after the Copy From Preset page, will look like this:

If you would like to copy from track 1 to 4, simply touch the track number, you would like to copy from. As soon as you do that, the track will be copied, and you will return to the note Mod page.

If you would like to copy from any of the tracks 5 to 8, hit the "5-8" touch button first, and then touch the track number.

Wave Chop System Refined

In this update, the wave chop system has been refined, so it is now working very well and smooth.

This system can take any of the samplings held in your PolySpaze, and chop it up in, up to 64, single cycle waves.

If you already have a library of single cycle waves in .wav format, you can use the "Import Samples From Dir As Chops" funtion, to import the single cycle waves into one sampling with wave-chops.

When you have a sampling with the wavechops added, it is possible, in real time, to select which single cycle should play back, in the samplers in the synth section, using the "Chop" parameter.
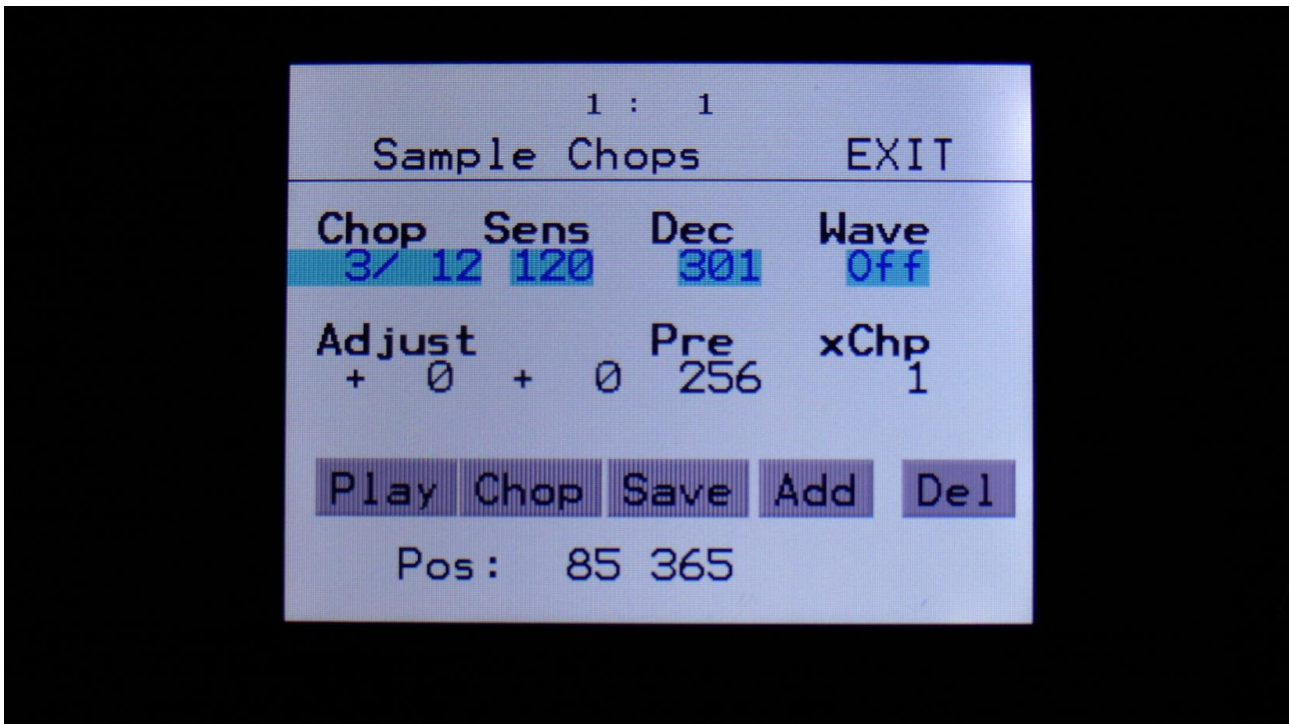It is also possible to select single cycle waves, using any modulation source.

This gives some really cool possilities, like wave sequencing, wave tables and time stretch.

How to wave chop a sampling:
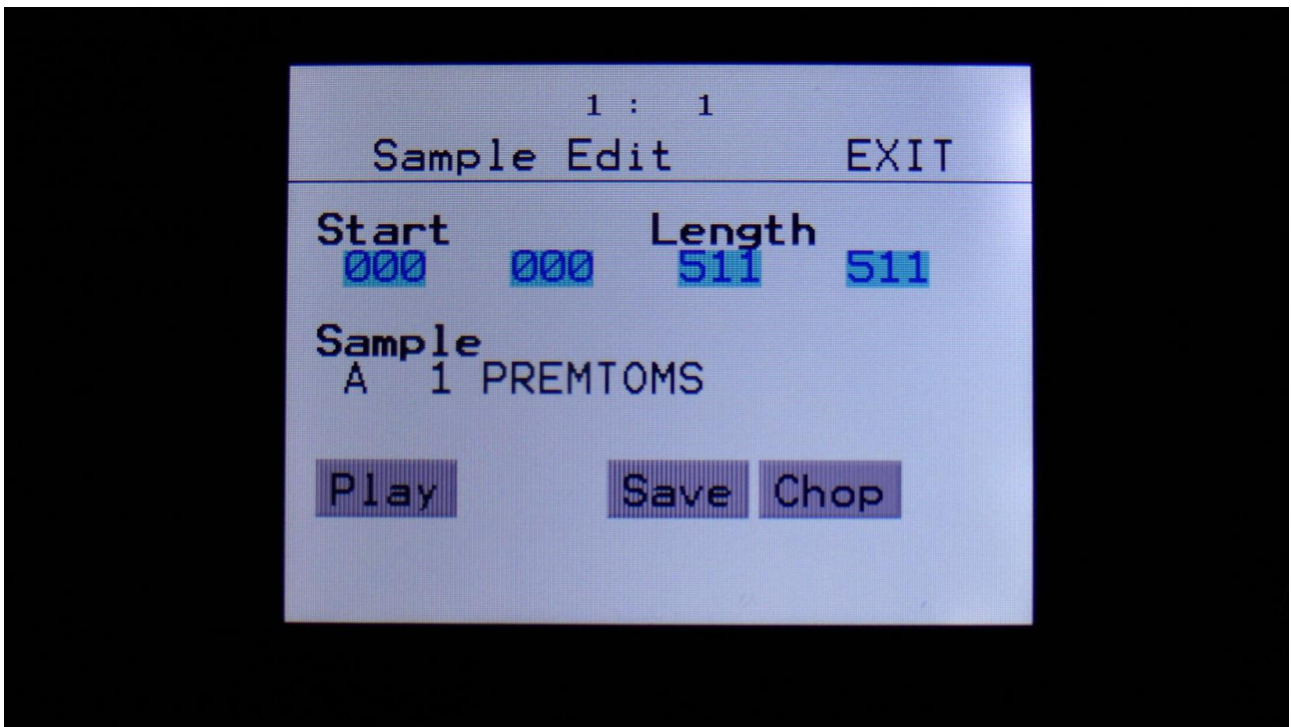
On the sample Edit page, select the sampling, you would like to wave chop, and touch "Chop".

That will get you to the Chop page:

Set the Wave parameter to On.

When in Wave chop mode, the Dec parameter functions in the opposite way, as when in normal chop mode. The lower the value, the faster the decay.

A good startpoint for wave chopping is to set Dec to 1 and Sens to 128. If the wave chops gets too long (very few chop points), try first to adjust Sens down. If this makes things worse, adjust it up. On simple waveforrms, Sens should, in most cases, have a low value. On more complex waveforms, Sens should have a higher value.

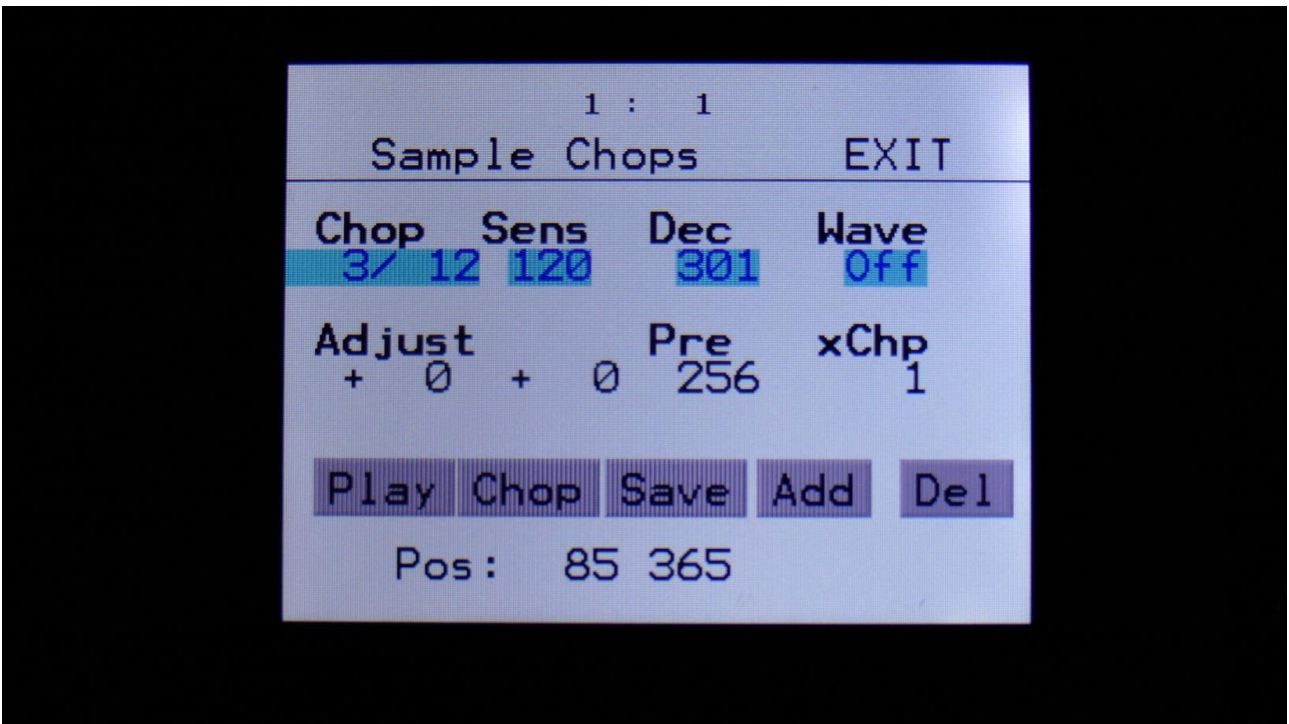If you wish your wavechops to be larger than single cycles, you can either turn Dec or xChp up.

The Pre parameter should be kept at zero.

When you have switched Wave on, and adjusted the settings, touch the "Chop" button.

PolySpaze will now show:
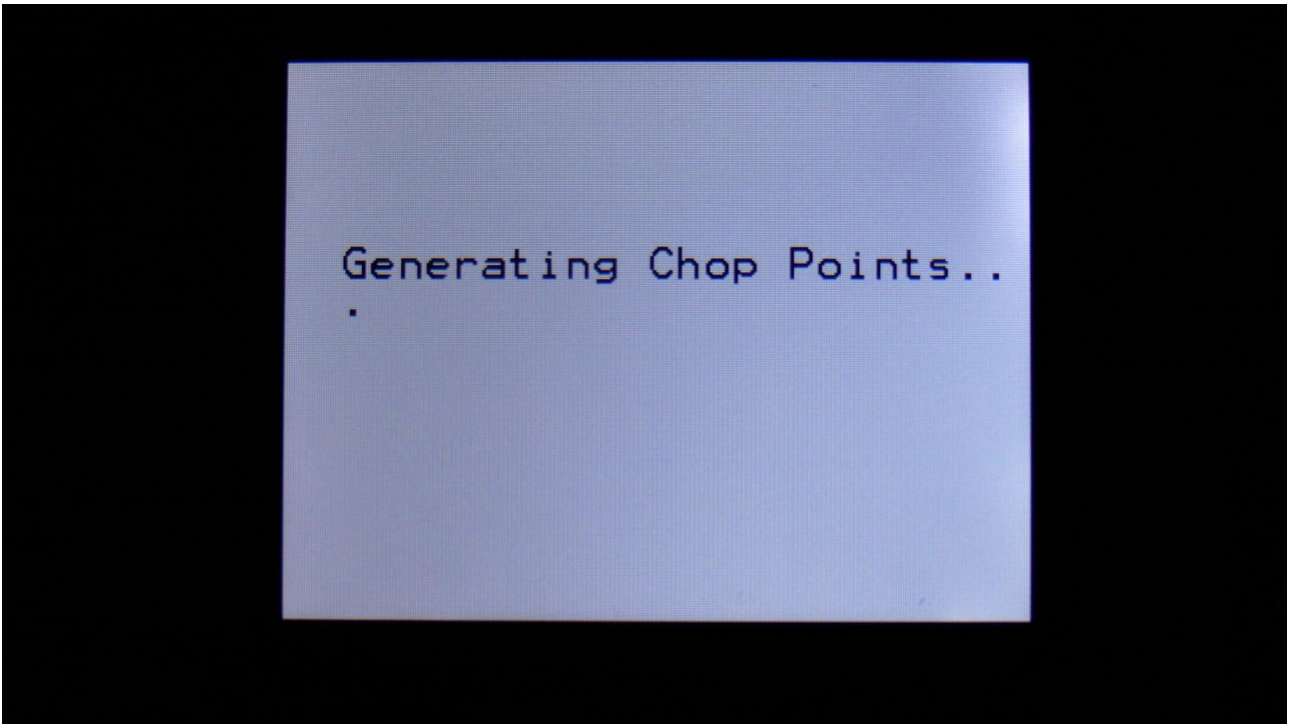
When it has found some chop points, it will return to the Chop page:

Now touch the play button, and select chops by adjusting the Chop parameter, to audition the result.

If you are not satisfied with the result, re-adjust Sens, and hit Chop again.
When you have found a result, that you are satisfied with, please remember to touch the "Save" button.

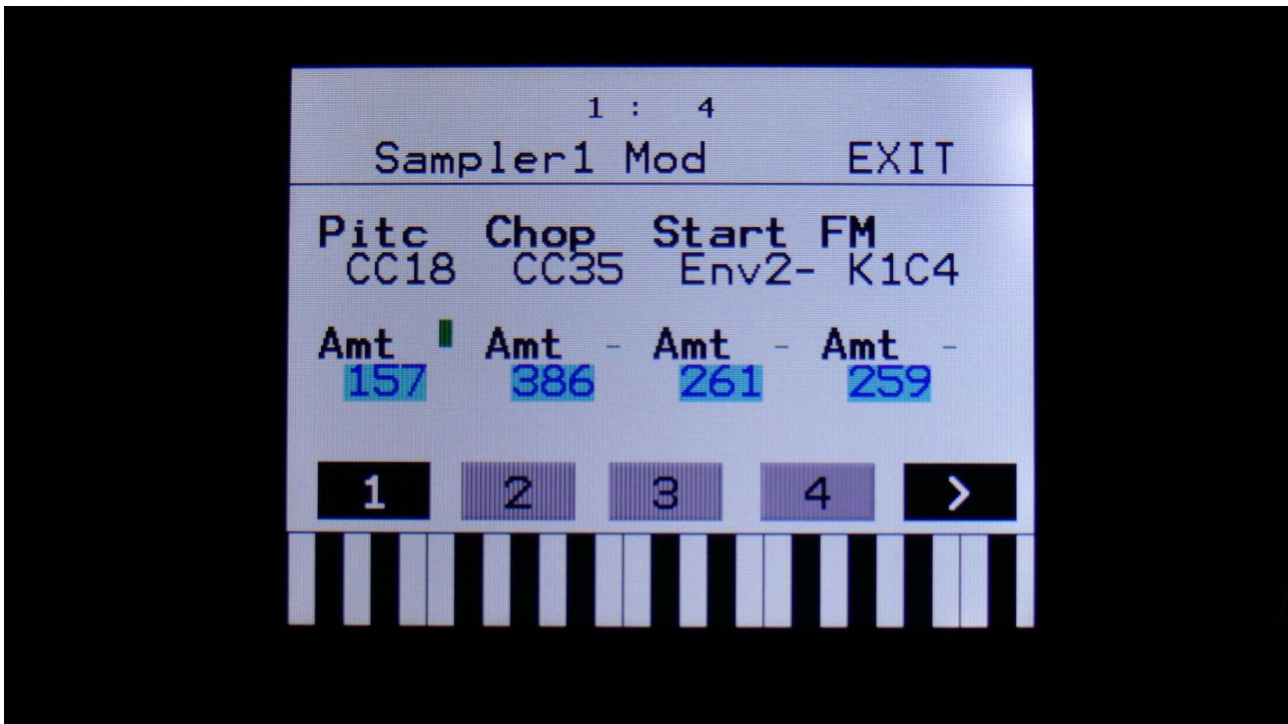To use the wave chops for something, now exit Sample Edit, and go to the Osc1 page.
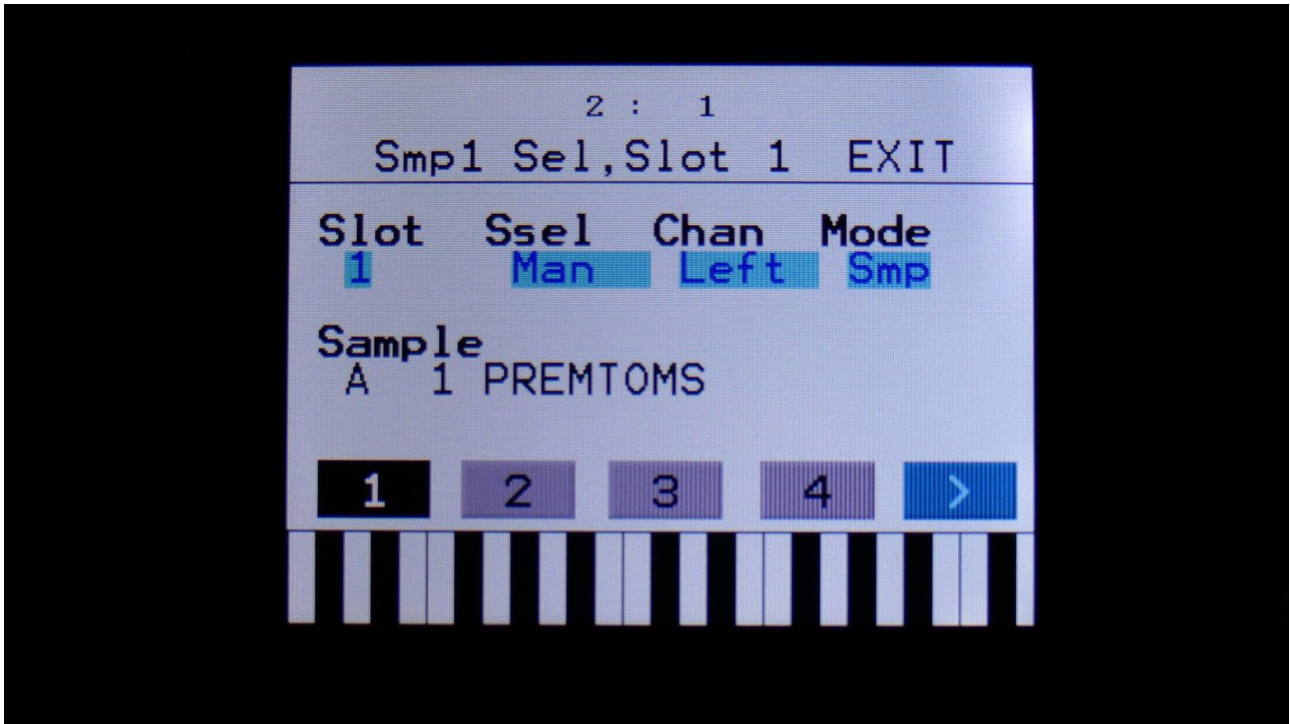
Set Osc1 in sampler mode, and select the sampling, that you just wave chopped (or any other sampling that you have wave chopped).
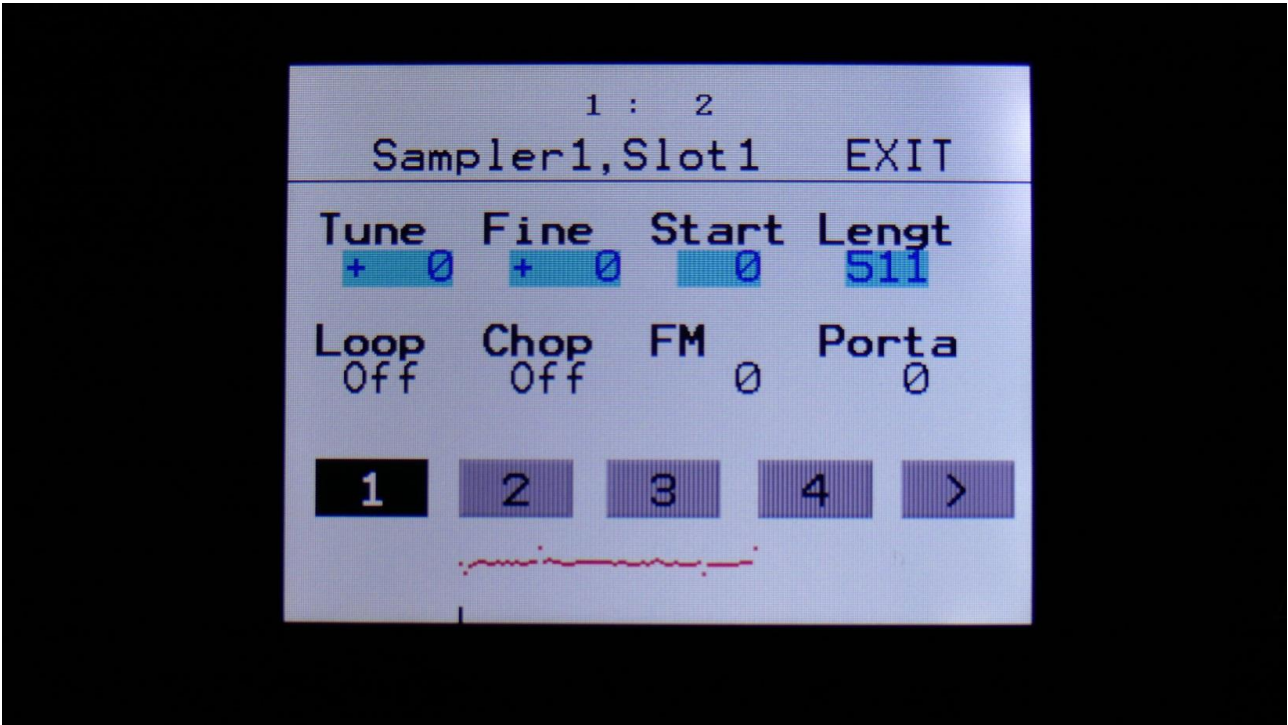
Set Loop mode to On or Free, and adjust the Chop parameter, to select the single cycle waves.

Modulating the Chop parameter

Unlike most other parameters on PolySpaze, only positive modulation are applied to the Chop parameter.
So the Chop parameter selects the lowest possible chop to be played back. If Chop is set to Off, no modulation will be applied at all.

Time Stretch
To time stretch a wave chopped sampling:
-Set the Chop parameter to 1.
-Set up Envelope 1- (Envelope 1 inverted) to modulate the Chop parameter, and turn the modulation amount up. You can obtain different effects, with different values of the modulation amount.
-Adjust the Envelope decay, to make the playback of the sampling faster (low decay values) or slower (high decay values).
-Adjust the attack parameter, to obtain a reverse playback effect, in the start of the sample playback.
-Modulate the envelope parameters, to have dynamic sample lengths.
-The sampling will play back at the exact same speed, over the entire keyboard range, regardsless of the sample pitch.

LFO Key Sync
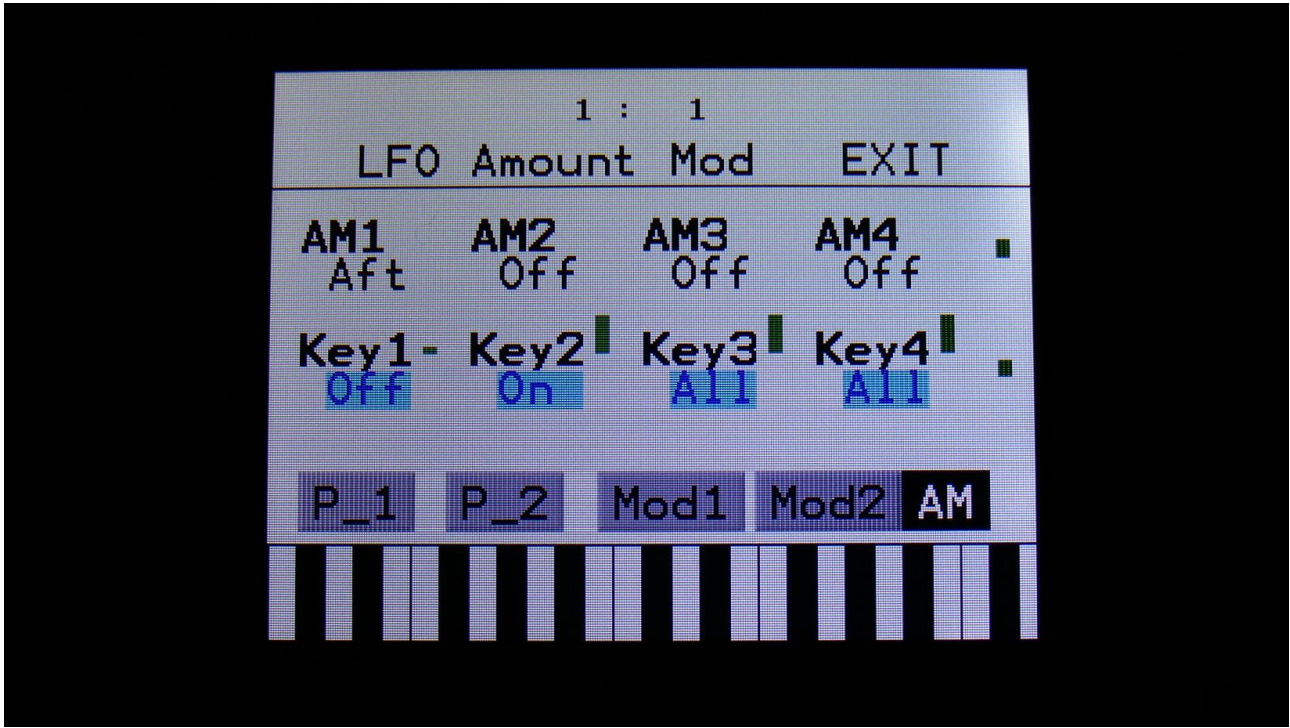
Key Sync has now been added to the LFO's. The parameters for this, can be found on the LFO AM page.

Parameters:
Key1, Key2, Key3, Key4: LFO 1 to 4 key sync.
Settings:
Off: The LFO is free running.
On: Every time the Synth part with the same number as the LFO is trigged, the LFO will reset to its initial value, and start over.
All: Every time any of the Synth parts is trigged, the LFO will reset to its initial value, and start over.

Display Update Rate Tuned A Little Down

It appears, that I was a bit too optimistic, regarding the display update speed in the last update. This caused the display to freeze, when too many things were going on at the same time. I apologize for that.

The display update rate has now been set a tiny bit down, to prevent the freezings.

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