Gotharman's anamono Xmini

Modular Synthesizer

Update Manual v2.01

Compability with VCF8 Dual Band SSI Filter

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Sample slot select via keyboard splits

Sample playback and chop engine has been optimized

Filter Boost parameter

Controller tracks outputs MIDI CC 1 to 127

Draw Sequencer Note and Controller tracks
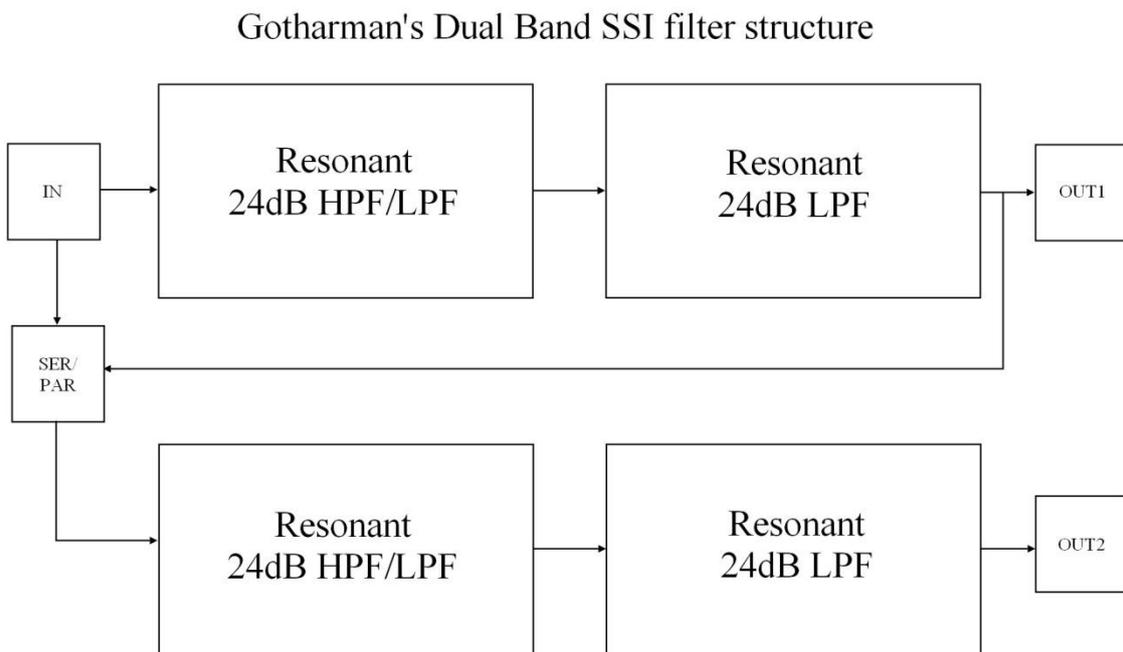
Pitch Bend Range

Bug Fixes

Compability with the new VCF8 –Dual Band SSI Filter

After installing this update, it is possible to select the VCF8, Dual Band SSI Filter, in the filter settings menu, and the parameters of this filter will be shown on the analog filter pages.

This filter has four analog 24dB resonant filters, two that are switchable between HPF and LPF modes and two that are always in LPF mode. This gives four resonant peaks in total, and makes this filter ideal for formant sounds. It is also great for bass sounds and a lot of other sounds. It is based on a bunch of the new great SSI2144 filter chip.

It is organized as two chains of HPF/LPF + LPF in series. The two chains can be connected in parallel or serial to each other, and they output to each of their filter output.

Gotharman's Dual Band SSI filter structure

```
                  ┌─────────────────┐      ┌─────────────────┐
        ┌────┐    │    Resonant     │      │    Resonant     │   ┌──────┐
        │ IN │───▶│  24dB HPF/LPF   │─────▶│   24dB LPF      │──▶│ OUT1 │
        └─┬──┘    └─────────────────┘      └─────────────────┘   └──────┘
          │       ┌─────────────┐
          │       │             │
        ┌─┴──┐    │             │
        │SER/│◀───┴─────────────────────────────────────────────┐
        │PAR │                                                    │
        └─┬──┘    ┌─────────────────┐      ┌─────────────────┐
          │       │    Resonant     │      │    Resonant     │   ┌──────┐
          └──────▶│  24dB HPF/LPF   │─────▶│   24dB LPF      │──▶│ OUT2 │
                  └─────────────────┘      └─────────────────┘   └──────┘
```

After you have installed this filter, you must set it up in the menu's, in order to make it work properly.

Go to "EDIT>More..>Filter Settings", and set the filter type to: 8-Dual Band SSI:
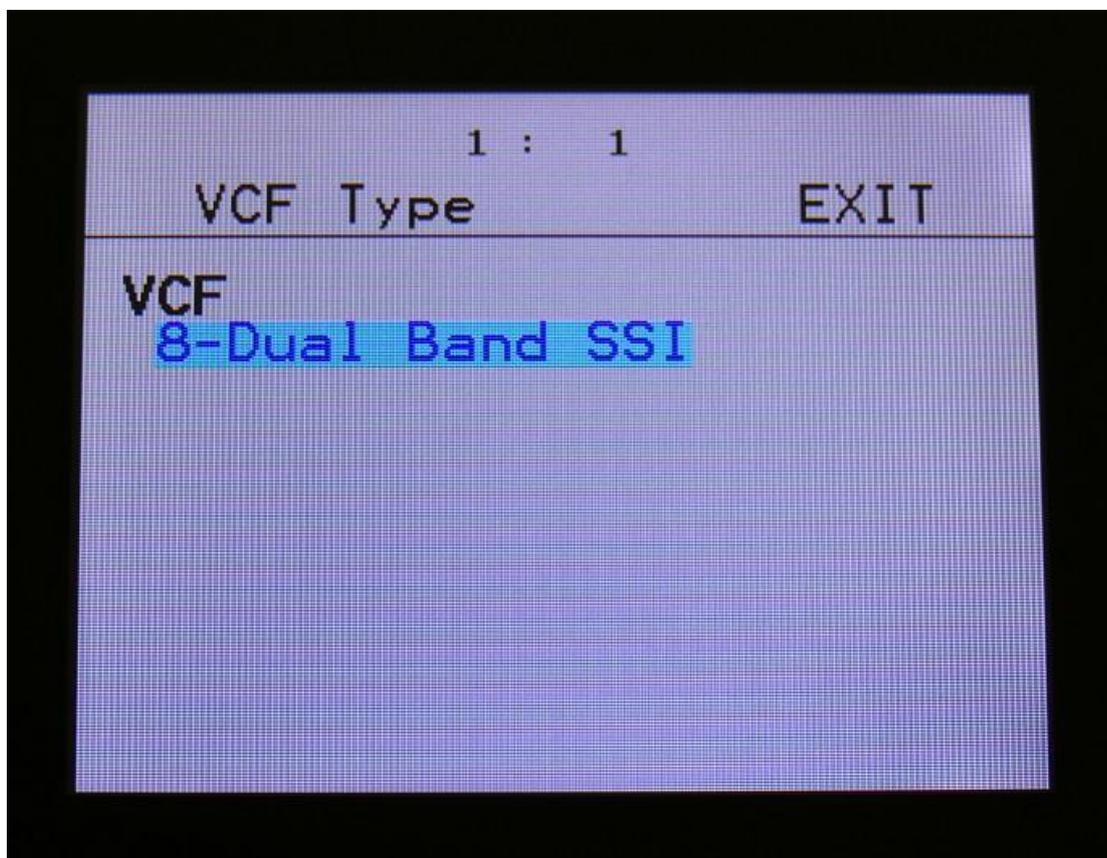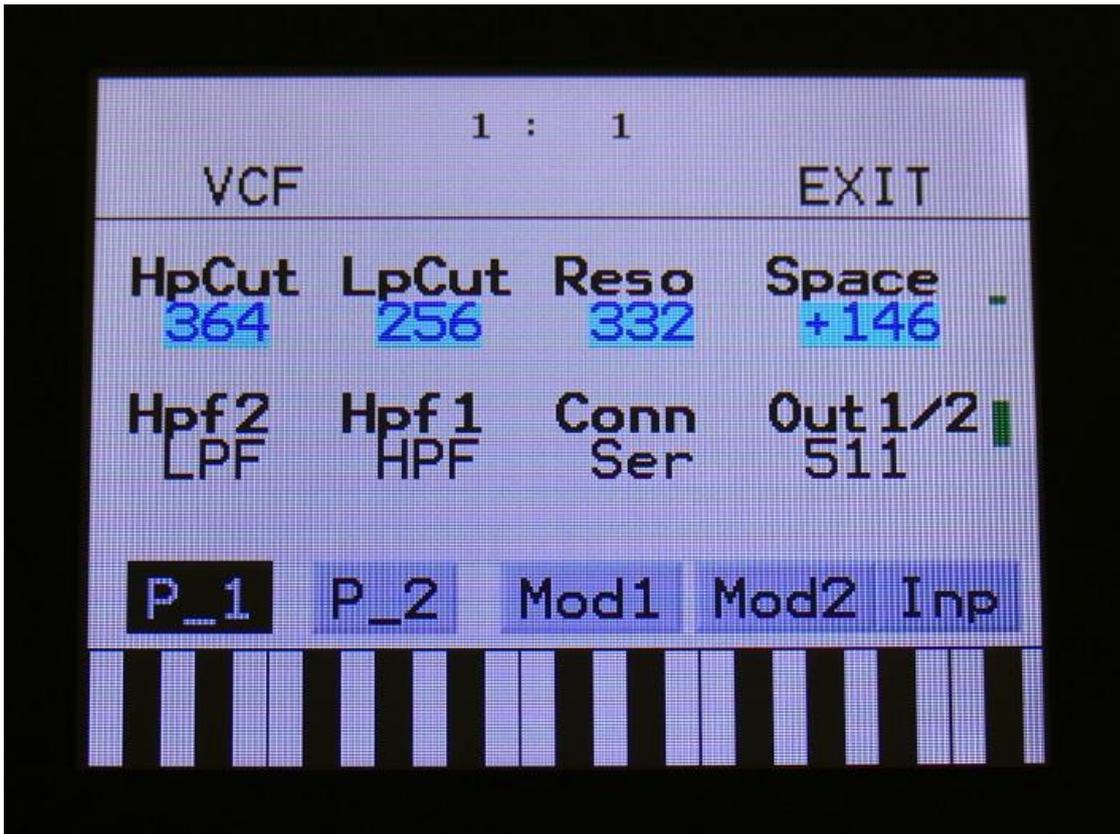
Parameters:

HpCut: HPF/LPF 1 and 2 filter cutoff frequency. Space between the 2 filters can be adjusted with Space.

LpCut: LPF 1 and 2 filter cutoff frequency. Space between the 2 filters can be adjusted with Space.

Reso: Filter resonance of all 4 filters.

Space: Space between the cutoff frequencies of the two filter chains.

HPF2: HPF2 filter mode HPF or LPF.

HPF1: HPF1 filter mode HPF or LPF.

Conn: Connection of the 2 filter chains. Ser (serial) or Par (parallel).

Out1/2: Mix between filter output 1 (HPF/LPF + LPF chain 1) and filter output 2 (HPF/LPF + LPF chain 2).

VCF Mod

EXIT

HCut1	HCut2	Lcut1	Lcut2
Seq1	Env1	Osc1	Osc1
Amt	Amt	Amt	Amt
210	168	0	0

P_1   P_2   **Mod1**   Mod2   Inp

G-Ray

EXIT

G-Ray	Mode	Feed	Input
0	Norm	0	Out1
LpCut	Space	Out2	Boost
Add	Feed	Nrm	+ 0

P_1   **P_2**   Mod1   Mod2   Inp

Import Multiple Samplings From Directory As one sampling with Chop points function

This new function will make it easier than ever, to get more than 256 samplings into your Xmini! Without splicing samples on a computer!

On your computer:
Make a directory (or folder) on an Xmini compatible USB drive. Name the directory with the name, that you want the sampling to have. Copy any single samplings you would like this sampling to contain, into the directory. Max 64 samplings.

Create multiple such directories, if desired.

Unmount the USB drive from your computer, and insert it in the Xmini USB port.

Enter the USB menu, select the directory you just created, and push "Import".

This screen will now show:
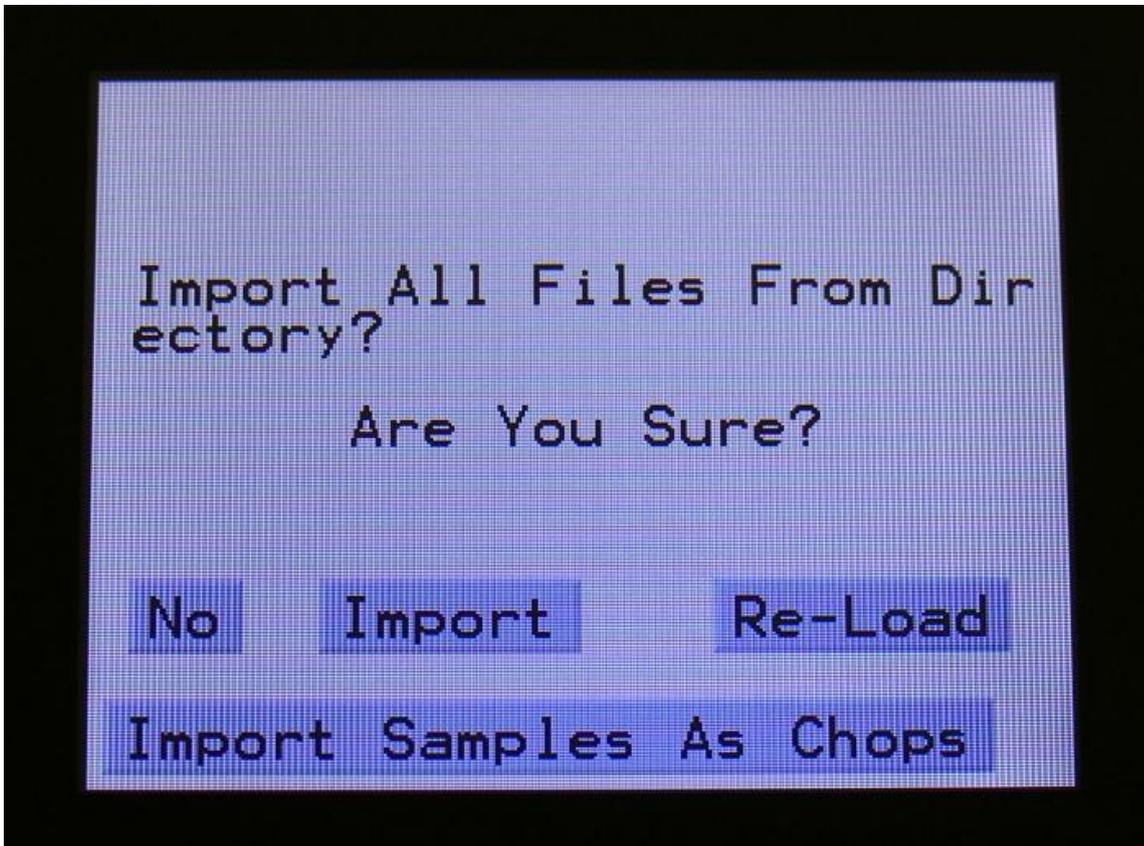
Touch "Import Samples As Chops".

Xmini will now create one sampling from all of the samplings in the selected directory, and insert a chop point at the start point of each sampling.

After the import is done, go to the sample edit page, select the sampling you just imported (named from the directory name), and enter the Chop edit page. You will now be able to hear each of the samplings, by selecting chops.

On the synth sampler pages, the procedure is the same. Select the sampling, and select the chop point. Modulate the chop point selection, to create great variation.

I have found this function especially useful, when working with acoustic drum samplings. There are many acoustic drum sample packs on the net, that has different variations of the same drum sound. Put all the variations of a sound in one directory, import as chops, and modulate the chop selection with velocity, random or any other modulation source, to make some great dynamic acoustic drum beats.

Sample slot select via keyboard splits

Each synth sampler has 4 sample slots, that can each play back their own sampling, and that has their own settings for Tune, Start, Length and Chop point.

To select which slot should play back, is possible by manual selection, by making a trigger select a specific slot, and by any modulation source.

Now it is also possible, using keyboard splits!

Set up some triggers, to trig each of their synth sampler, for instance trigger 1 to sampler 1, trigger 2 to sampler 2 and so on…

In the Synth>Zones setup, set up a key range of at least 4 keys for each trigger. IMPORTANT: The trigger MIDI transpose parameter MUST be set to +0. If not, the key range of the trigger will be transposed, and it can be a bit hard to figure out which keys selects what sample slots.

On the synth sampler pages, select different samplings for each of the 4 slots, of each of the 4 samplers.

On the Sample Select page of each sampler, turn Edit Knob 2 fully up, to select "Split" as the Slot Select source:
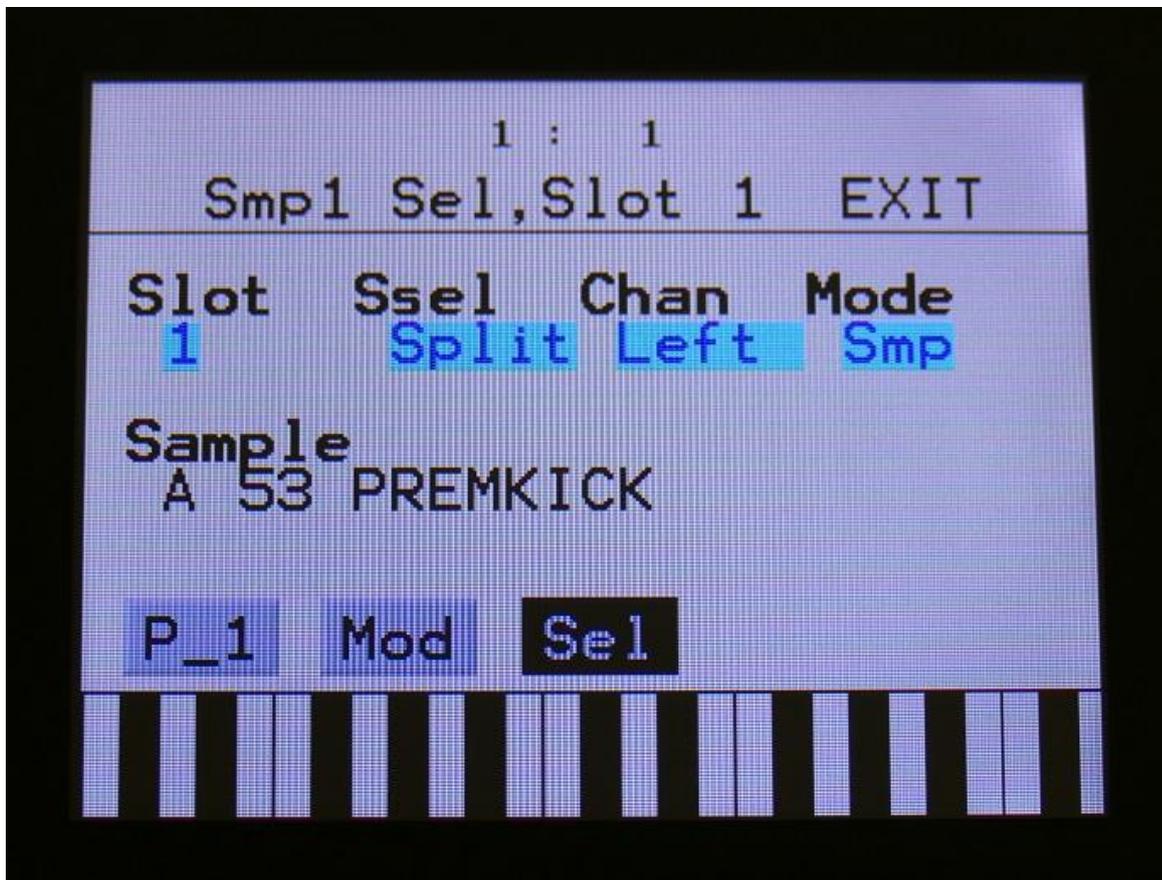
By playing a connected MIDI keyboard, you will now be able to make Xmini play back the different samplings selected in the slots, by hitting different keys.

The logic of the key splits:
-If the trigger you are using has a keyrange that is dividable by 4, each sample slot will have an equal number of keys. I.e. if the keyrange is one octave (12 keys), each slot will have 3 keys.
-If the trigger you are using has a key range, that is NOT dividable by 4, most keys will be assigned to slot 4. I.e. if the key range is 7 keys, slot 1, 2 and 3 will have each 1 key, and slot 4 will have 3 keys.

If you need to adjust the tuning of the samplings, please use the "Tune" and "Fine" parameters on the synth sampler pages. DO NOT use the trigger MIDI transpose setting, since this will just transpose the key range, and not the samplings.

Sample playback and chop engine has been optimized

Sometimes, especially when working with shorter samplings, the sample playback and the chop system became unstable. This could sometimes lead to interesting results, but most of the time it was just plain annoying.

Therefore the sample playback and chop system has now been completely redesigned for maximum performance and precision.

Because of this, you might have to redo your chop points.

Filter Boost parameter

A Filter Boost parameter has now been added to the analog filter pages. The range of this is -128 to +383, with +0 being the neutral and initialized setting.

The new analog filter boards, SP Filter, Tubaz and SSI Filter, has a rather big variation in the output level, according to the setting of the Reso parameter. With the Boost parameter, it is possible to compensate for this. It is, of course, also possible to use this, just for adding a slight overdrive to the filter sound.
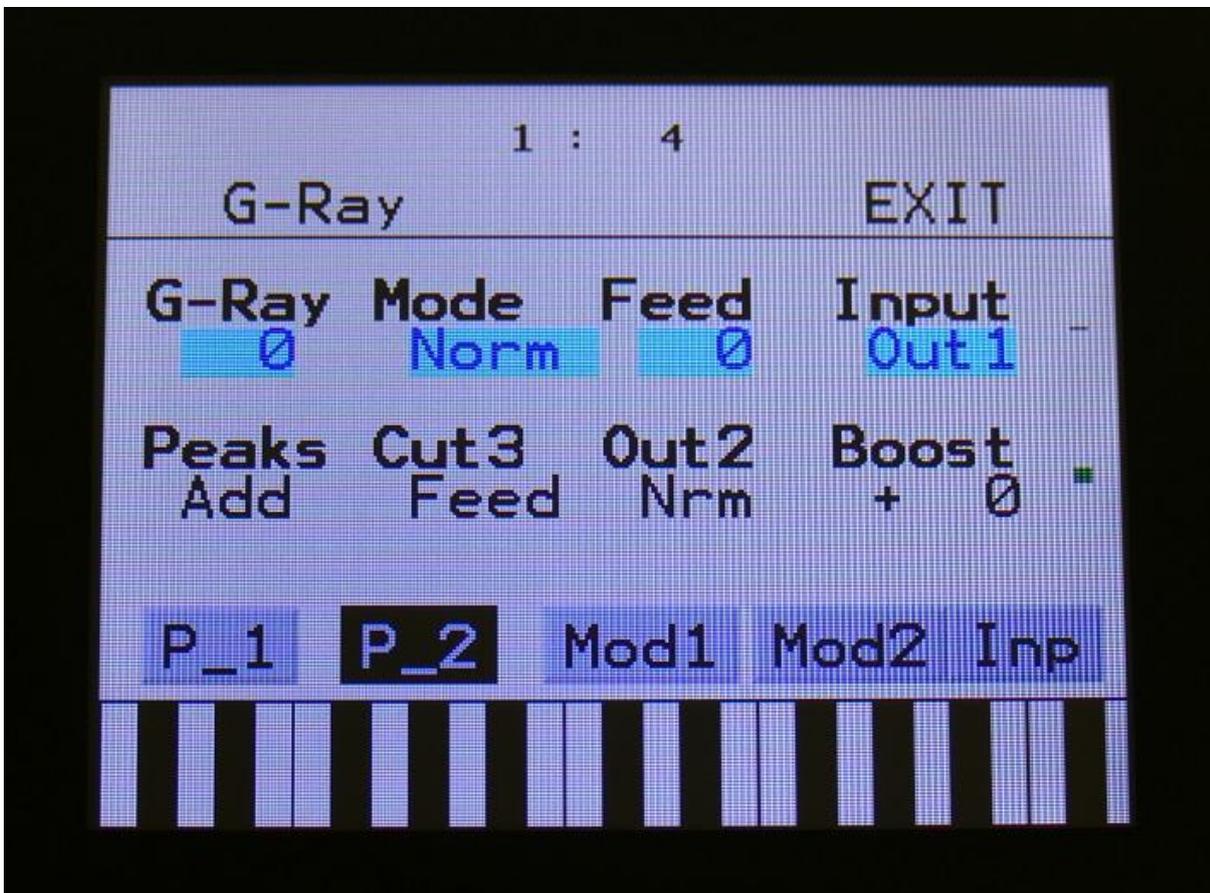
Controller tracks outputs MIDI CC 1 to 127

For some odd reason, I got the maximum CC number that a controller track could transmit, set to 63, when designing Xmini. This has now been changed, so each of the 16 controller tracks can be set to output MIDI CC 1 to 127.
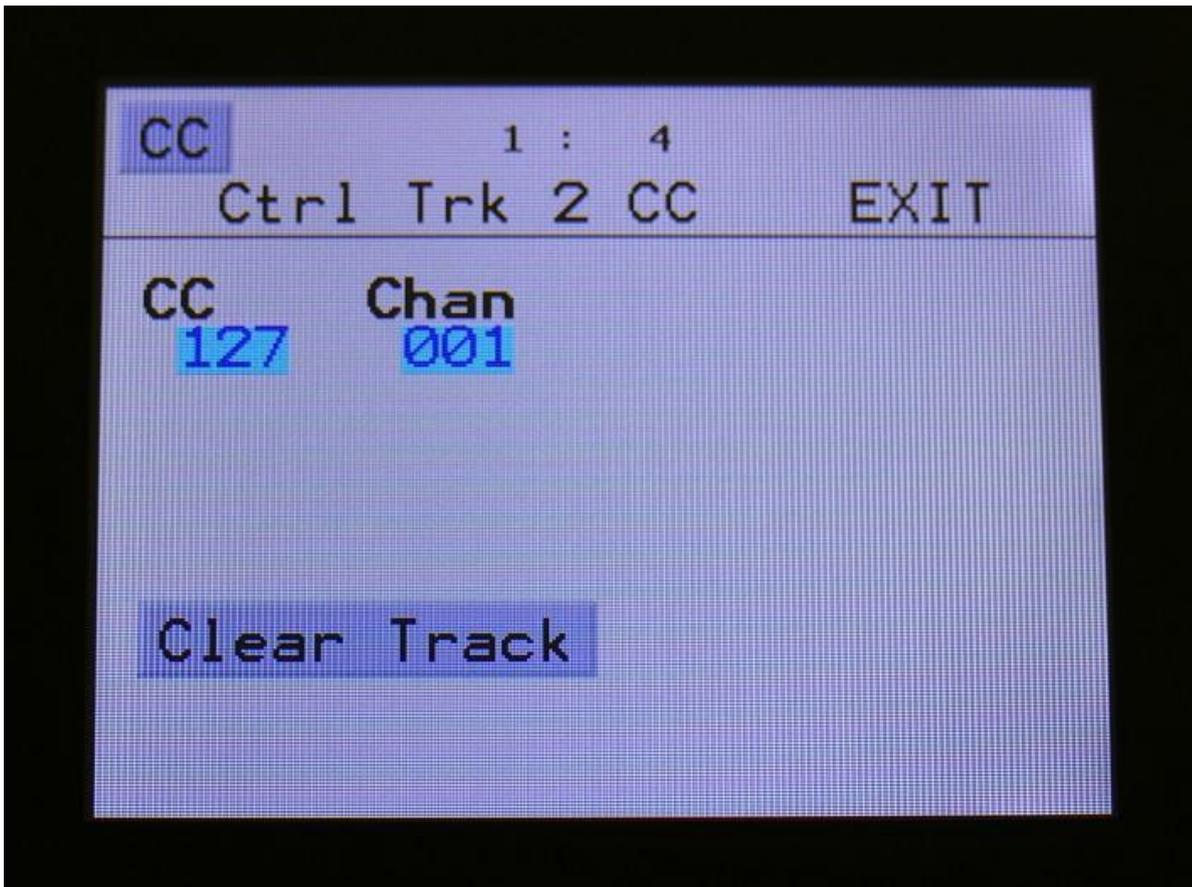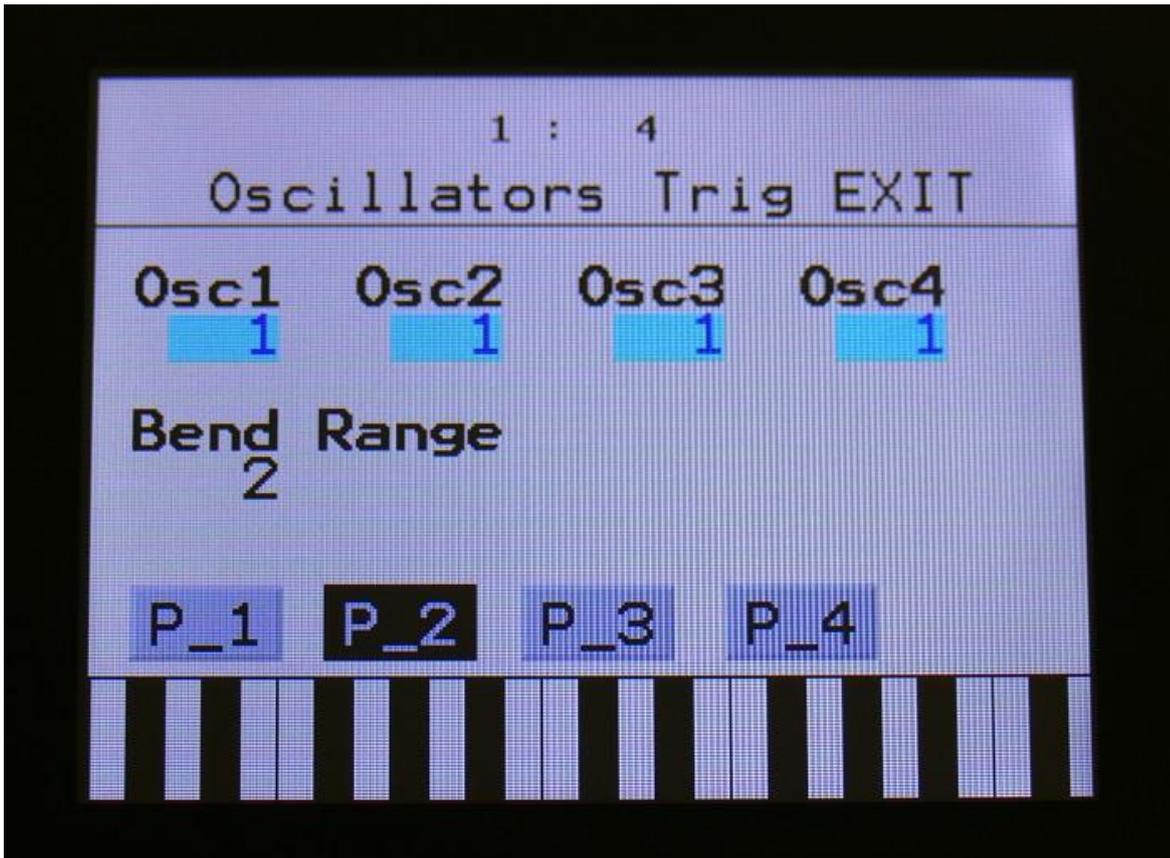
Draw Sequencer Note and Controller tracks

It is now possible to "draw" note sequences and step values on the Gate and Delay pages, and on all the Controller track pages, without lifting your finger from the screen.
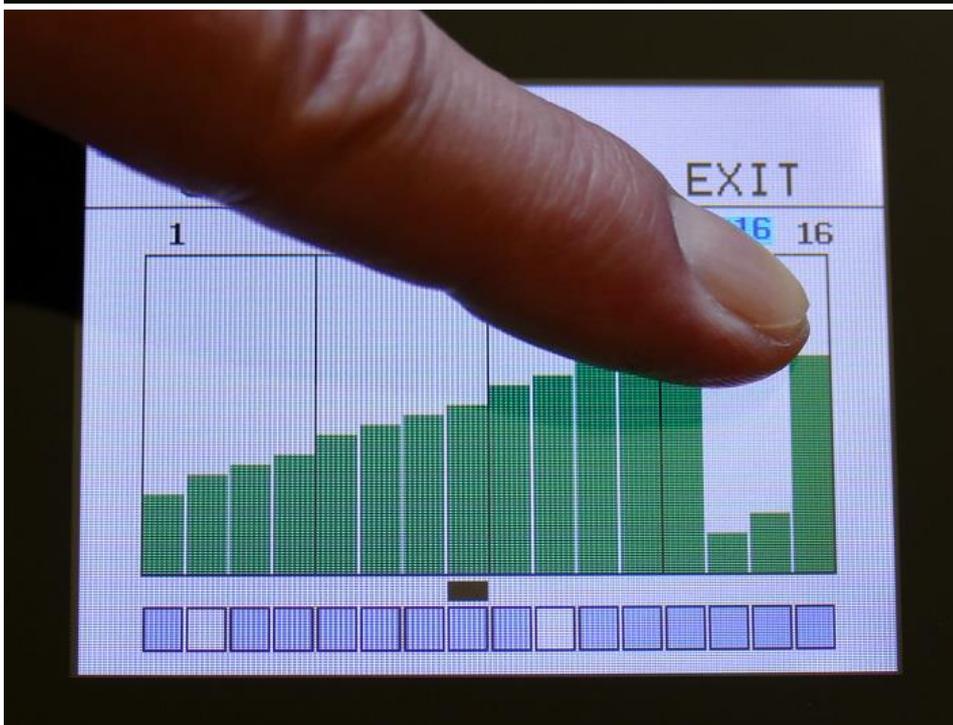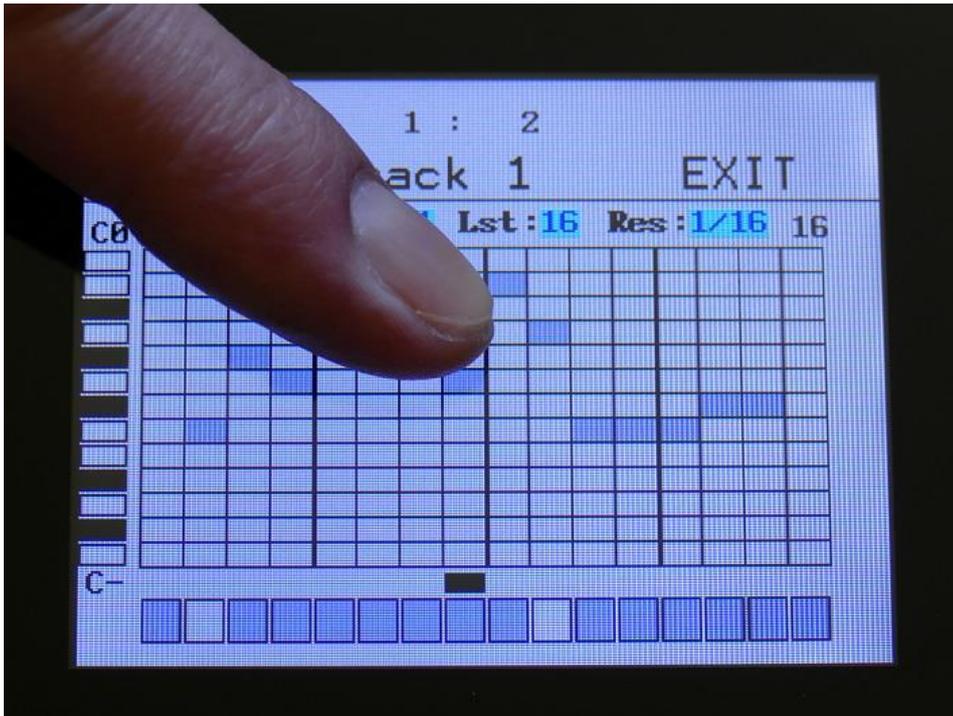
Pitch Bend Range

It is now possible to set the Pitch Bend range (Oooops, forgot that in the first firmware version!).

Go to Synth>TRIG>P2:

Bug fixes:

Morph knob switch between Synth and Sequencer morph now works.

MIDI control of Quick Edit parameters now works.

With sample memory full, erasing or exporting the last sampling in a bank, would under certain conditions, make Anamono X freeze. This has now been fixed.

Sample loop does now work with sample chops.

Sometimes when exporting multiple samplings, the USB drive would issue a "Bad Command", and the system would halt. Anamono X can now handle this, and will continue the export after such a fault.

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