

Gleetchlab **X**

Users' Manual

V5.2

Giorgio Sancristoforo

Welcome and thank you for choosing Gleetchlab X.

Gleetchlab X is a major upgrade and it is based on the new Max8 features bringing full MIDI support, new effects and generators.

As usual please, try this the software before buying.

Gleetchlab is not a traditional DAW, and by all means it's experimental.

TAKE YOUR TIME!

Even if Gleetchlab hasn't a timeline, it's a full electroacoustic workstation DAW.

With it you will create, process, record and reprocess samples, synths, and external sounds infinitely as an ever-flowing live process. It's not a plugin!

And there is no "END" anywhere in the software as there is no sequencer.

Time just flows and it's relative. You can sync sounds, but most likely you will find yourself inspired by asynchronous ever-changing organic sounds that will surprise you.

I would like first to thank musicians and programmers which I sincerely admire, who have contributed with pieces of codes and theory which make this version so special: M° Michele Tadini who has designed the base patch of the T-Grain module, Dr.Cristiano Bocci from the Siena University, for the joint development of the Tropical Additive Synthesis engine featured in the Tropicana module, and Volker Bohm who has kindly offered the vb.stretch~ code. I would like also to thank the ICST for the ambipanning objects.

I would like also to express my gratitude to the beta testers who have done a great job and made very appreciated suggestions.

They are:

Alessandro Cazzaniga

Andrea Cerrato

Luca Cozzi

Carlo Fochetti

Luca Pagan

Marie Rose

Some resonators IN TAMS are the work of my students and I would like to thank them.

They are: Marco Neridetti, Luca Pagan, Marcello Sodano and Giacomo Somaruga.

Last but not least I would like to dedicate the CD skipping module to Markus Popp.

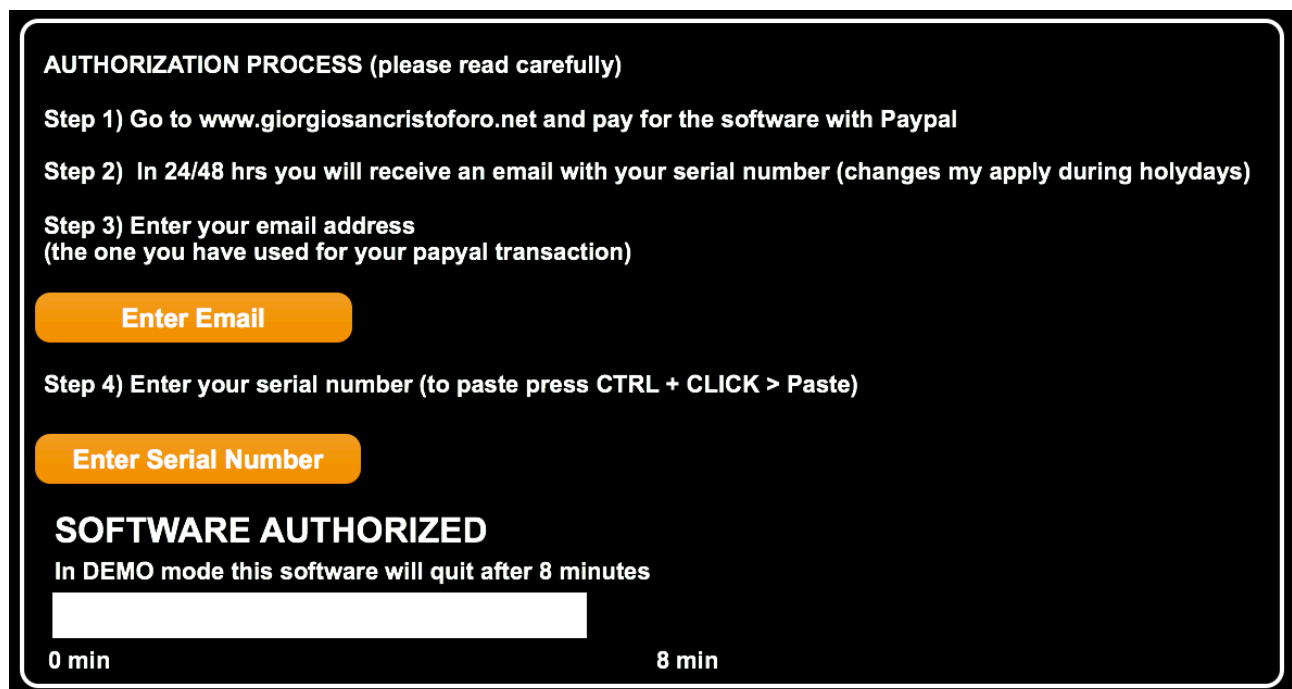
Demo unlocking

By default Gleetchlab will be in demo mode allowing a full trial of the software for 8 minutes. To unlock your demo please purchase the software on my website using paypal. I will send you a serial number in 24/48 hours (changes my apply during holydays).

To unlock click “Unlock Demo” button in top right of the main window, enter FIRST your paypal email, THEN your serial number, as is, with spaces.



When the demo is unlocked you will see SOFTWARE AUTHORIZED



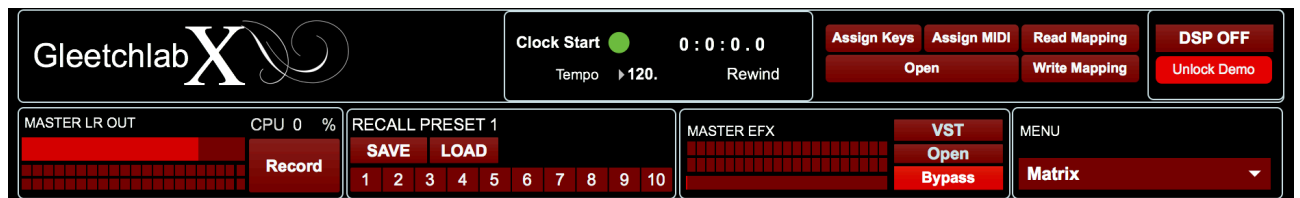
Settings

As usual Gleetchlab is composed by a main window and a number of sub windows which can be selected by the menu.

MIDI and Key Mapping function
To exit press ESC on your keyboard

In order to TURN ON SOUND press DSP button, it will change to green and the DSP process will start.

Internal Clock



Master L-R Out and
recording function

Presets
(USE SHIFT + 0~9 on the
keyboard to save preset,
use keyboard 0~9 to recall a
preset)

Aux Bus Efx on Master L-R

Main Menu

The first thing you want to do is to set your audio interface, sampling frequency etc... In the Menu choose “DSP Settings”. This will open the following window.

Select first the driver and your audio interface ins and outs.

CPU 16 % ●

Driver **Core Audio** ▼

Input Device **Built-in Microphone** ▼

Output Device **Built-in Output** ▼

Performance and Scheduler

Sampling Rate **44100** ▼

I/O Vector Size **512** ▼

Signal Vector Size **512** ▼

Scheduler in Overdrive ☒ Audio Interrupt ☐

CPU % Limit **0**

Input		Output	
Ch 1	1 Input 1 ▼	Ch 1	1 Output 1 ▼
Ch 2	2 Input 2 ▼	Ch 2	2 Output 2 ▼

Audio Driver Setup **Open I/O Mappings**

Set the sampling frequency

Vector Sizes set the size of the data vectors that come or go from the audio interface (I/O) and the size of the data blocks that are processed by the software (Signal). Low latency needs low vectors, but higher vectors are less CPU intensive. Set the best compromise for your system

Scheduler in Overdrive must be always selected it gives priority to timing.
Audio interrupt must be off.

I/O mappings lets you route your audio interface in Gleetchlab. Gleetchlab uses up to 8 audio INs and 8 audio OUTs. Outs 9-10 are used for headphones.

MASTER LR OUT
CPU 11 %
RECALL PRESET 1

SAVE
LOAD

1 2 3 4 5 6 7 8 9 10

MASTER EFX

VST
Open
Bypass

MENU
Matrix

Start
Size

0.00 ' 256000.00 ' 512000.00 ' 768000.

S L M

Zoom ▶ 1. Speed ▶ 1. Pitch ▶ 1. Int clock ▼

PLAY File out RND stop TS aiff ▼

STEREO 16n ▼ ▶ 10 record basic ▼ int24 ▼

10 ▼ ▶ 100 ms ▶ 100 play basic ▼ write

Start
Size

0.00 ' 64000.00 ' 128000.00

S L M

Zoom ▶ 1. Speed ▶ 1. Pitch ▶ 1. Int clock ▼

PLAY File out RND stop TS aiff ▼

STEREO 16n ▼ ▶ 10 record basic ▼ int24 ▼

10 ▼ ▶ 100 ms ▶ 100 play basic ▼ write

Start
Size

0.00 ' 256000.00 ' 512000.00 ' 768000.00

S L M

Zoom ▶ 1. Speed ▶ 1. Pitch ▶ 1. Int clock ▼

PLAY File out RND stop TS aiff ▼

STEREO 16n ▼ ▶ 10 record basic ▼ int24 ▼

10 ▼ ▶ 100 ms ▶ 100 play basic ▼ write

Start
Size

0.00 ' 128000.00 ' 256000.00

S L M

Zoom ▶ 1. Speed ▶ 1. Pitch ▶ 1. Int clock ▼

PLAY File out RND stop TS aiff ▼

STEREO 16n ▼ ▶ 10 record basic ▼ int24 ▼

10 ▼ ▶ 100 ms ▶ 100 play basic ▼ write

Start
Size

0.00 ' 128000.00 ' 256000.00

S L M

Zoom ▶ 1. Speed ▶ 1. Pitch ▶ 1. Int clock ▼

PLAY File out RND stop TS aiff ▼

STEREO 16n ▼ ▶ 10 record basic ▼ int24 ▼

10 ▼ ▶ 100 ms ▶ 100 play basic ▼ write

Start
Size

0.00 ' 256000.00 ' 512000.00 ' 768000.00

S L M

Zoom ▶ 1. Speed ▶ 1. Pitch ▶ 1. Int clock ▼

PLAY File out RND stop TS aiff ▼

STEREO 16n ▼ ▶ 10 record basic ▼ int24 ▼

10 ▼ ▶ 100 ms ▶ 100 play basic ▼ write

The Main Window and the Matrix

The main window has two parts.

The upper part has a clock*, the Master LR OUT track, Presets, MIDI MAPPING DSP button and Menu. The lower part has six identical loop players/recorders

Every looper, as well as every process in Gleetchlab, is routed with the Matrix.

The Matrix is a handy patch bay in the style of EMS Synthesizers, that makes of Gleetchlab a full modular software. Instead of using messy patch cables the Matrix lets you connect everything without sacrificing clarity. You will see at a glance any connection. Since the matrix is saved with presets you will be able to create different connections for each preset and switch between them in realtime during a performance or recording.

A connection is made by clicking the x/y coordinate.

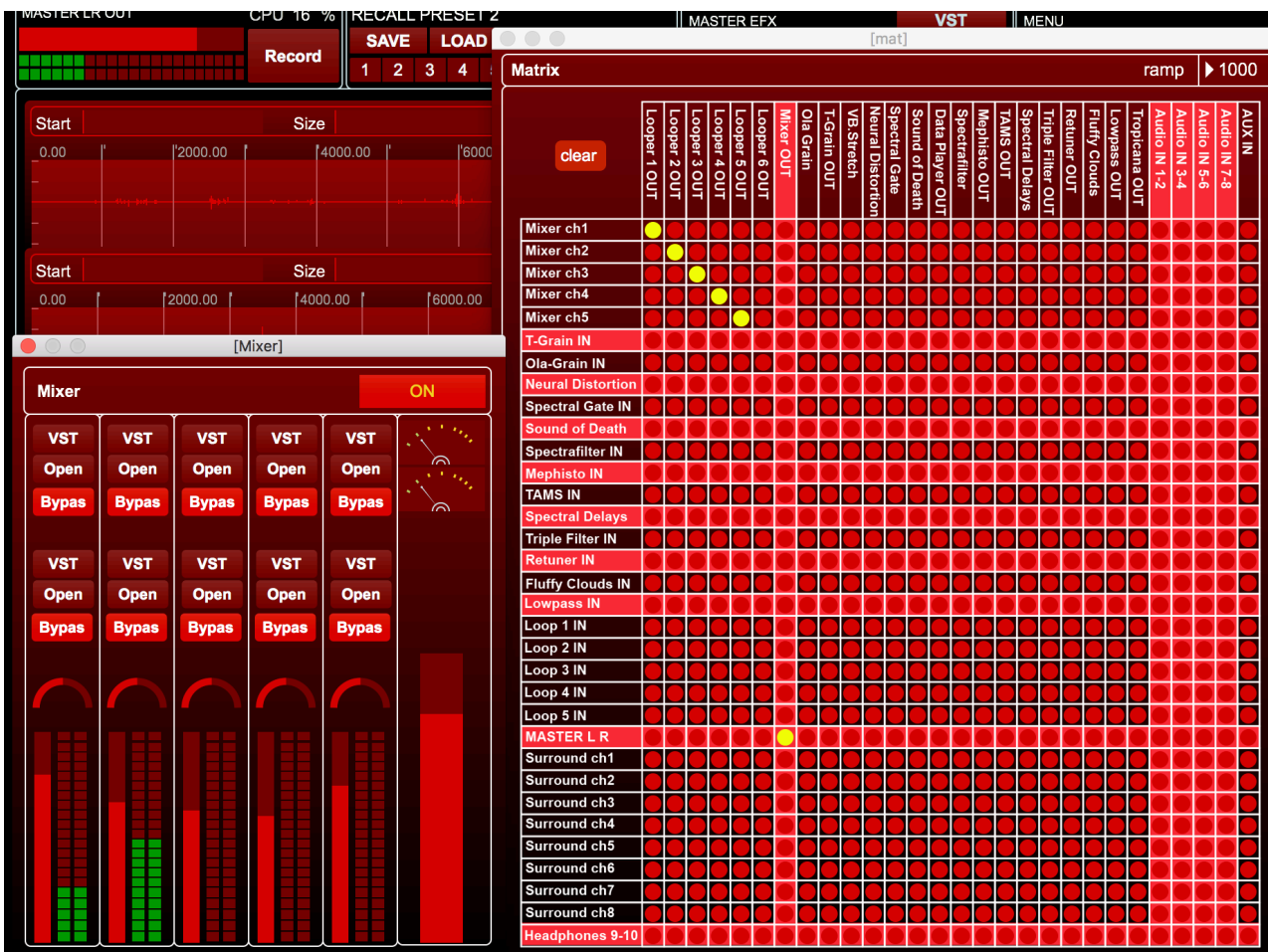
Outputs are on top, inputs are on the left.

The Clear button clears the matrix from any connection.

Ramp sets the ramp time (fade in and out in milliseconds) of each connection.

Very long ramp times can be used (e.g. 2 minutes = 240.000). Default ramp time is 1 second = 1000 ms.

In the following example I have connected five loopers to the mixer (looper 1 to channel 1, looper 2 to channel 2 and so on) THEN the mixer LR OUT is routed to Gleetchlab MASTER LR OUT (Stereo).



Gleetchlab has 2 kind of master outs

Stereo: MASTER LR OUT (Stereo)

Surround: CH 1,2,3,4,5,6,7,8 IN to 2,4 or 8 ch surround OUTS

Surround controls can be found in the Surround Mix window in the main menu.

MIDI Mapping and Key

Gleetchlab X takes full advantage of the new Max8 midi mapping functions.

To map your controller press Assign MIDI or Key in the main window.

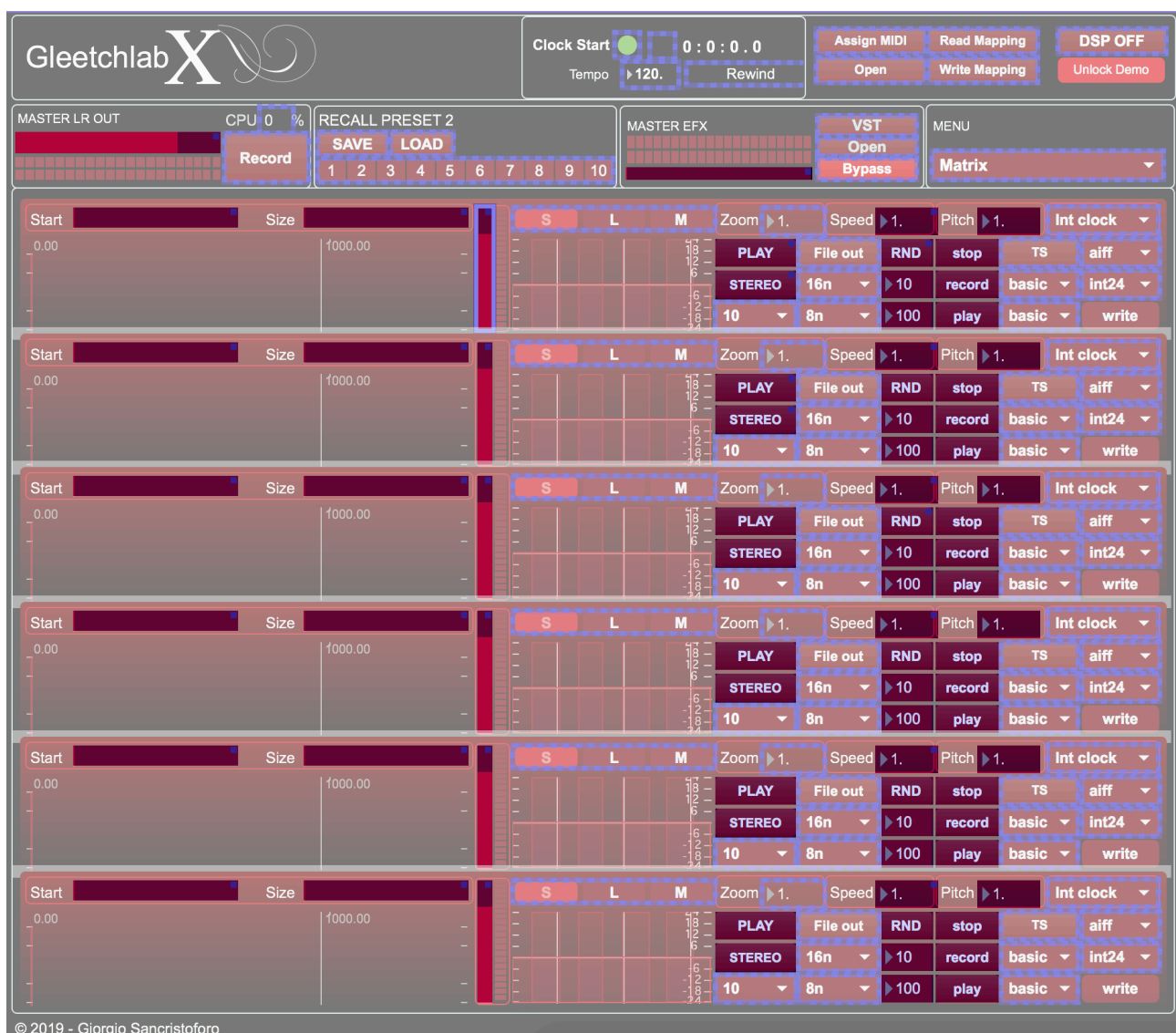


The windows will show you what controls can be mapped.

Click on one control and use your controller, it will be automatically mapped.

To exit from MIDI assignment press ESC on your keyboard.

Assign Keys refers to keyboard



If you need to scale the value of a mapped number box you can press the button “Open” to see and edit the mapped controls. You can adjust the scaling of the numbers under Mix/Max columns. This is useful for Loopers’ speed value mapping.

MIDI								Keyboard		
On	Source	Parameter	Min.	Max.	Exponent	Steps	Relative Mode	Trigger Mode	Pickup Mode	
<input checked="" type="checkbox"/>	CC#77/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#78/1	multislider	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#79/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#80/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#81/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#82/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#84/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#83/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#49/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#50/1	multislider[2]	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#51/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#52/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#53/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#54/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#13/1	number[18]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#14/1	number	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#15/1	number[5]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#16/1	number[24]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#17/1	number[28]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#18/1	number[10]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	NOTE#41/1	textbutton	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	NOTE#42/1	textbutton[5]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	NOTE#43/1	textbutton[6]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	NOTE#44/1	textbutton[7]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	NOTE#57/1	textbutton[8]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	NOTE#58/1	textbutton[9]	0.000	1.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#29/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#30/1	multislider[3]	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#31/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#32/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	
<input checked="" type="checkbox"/>	CC#33/1	multislider[...	0.000	127.000	1.000	0	↕ Off	↕ Toggle	↕ Off	

Use write mapping to save the map file on your computer.

Use read mapping to recall the map file.

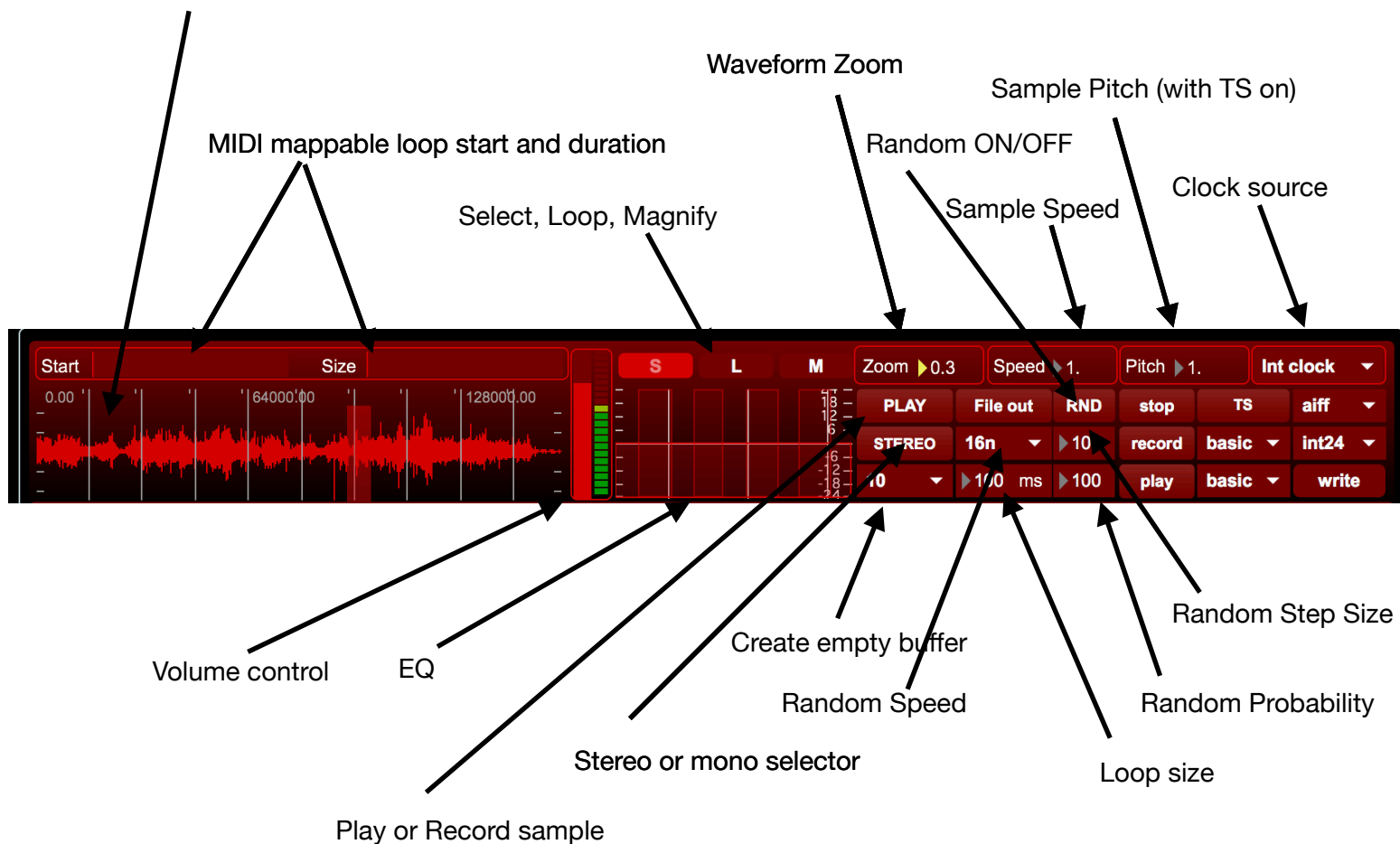


1) The Loopers

In Gleeclthlab X we have 6 identical loopers.

The looper is a special kind of sampler. It uses a buffer in the RAM to store a sound and it plays it always in loop. The form and speed of the loop may be fixed or random. These are the panel's controls:

To load a sound, drag and drop any kind of sound file in the space reserved for the waveform



The speed (and pitch) of the sample is defined by a floating point number.

1. = (1. x sample frequency speed). Negative numbers play the sound in reverse.

(see midi mappings for range settings)

The pitch value is selectable once Time Stretching (TS) is activated.

Time stretching (TS button) separates speed from pitch and has different quality and algorithms.

There are three main commands on the waveform/loop display: S L M buttons.

S = Select and drag a part of the waveform to make set the loop time.

L = Loop. Click and drag to size and move the loop.

M = Magnify the display to work in smaller pieces of sound, you can magnify a loop

like a microscope.

(NOTE: Using Magnify and RND, the random numbers generated will be within the display size, in other words the random loop will follow the magnifier and the position of the wave on the display.

The Looper has two main MODES: PLAY and RECORD.

By default the looper will play automatically and in STEREO. (this may be changed with the STEREO/MONO selector under the PLAY button).

When you want to record live a Looper, just patch the source to the Looper IN in the matrix and press RECORD. A looper can be initialised with different lengths creating an empty buffer.

Every Looper has a 4 bands parametric channel with 2 Shelving and 2 peak EQs.

The **STOP**, **RECORD** and **PLAY** buttons under the Pitch Control, save and reproduce automations of the loop size and position (using mouse or MIDI).

RND is connected to the CLOCK in the Main Window or the external clock and sets the random In/Out points of the loop.

You can set the time (expressed in musical values) and three values:

Step Size % , Loop Size (in note values) of the loop and Probability. Step Size refers to the [drunk] Step Size of the random function while the size in note values sets the length of the loop and is a function of the internal clock time. Probability is a number between 0 and 100 and sets the probability of change of loop points at every clock trig.

Every looper can export the sample with the controls at the right.

You can select bit depth and filetype before exporting.

2) The Mixer

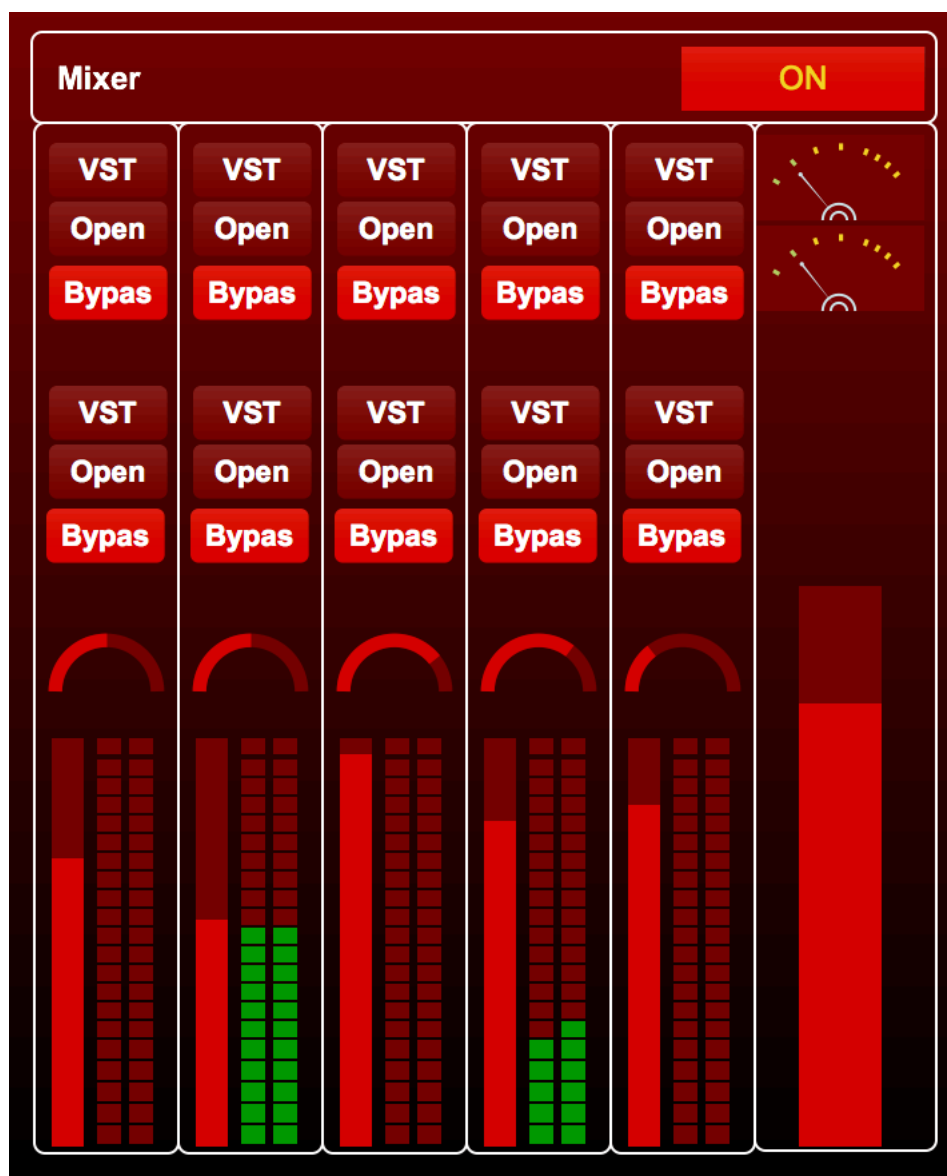
The 90% of Gleetchlab windows must be activated in order to work.

Once the patch is done in the Matrix, turn on the MIXER

The Mixer is a simple 5 Inputs Mixer with Pan and 2 VST slots for effects.

To load a plugin (AU o VST) press VST, then “Open” to see the plugin interface.

Remember to turn off the bypass button.



3) T-Grain Module

The T-Grain is a little patch which stays at the core of Michele Tadini's T-Grain [from T-Tools patches]. Once the sound is patched in the Matrix to the T-Grain IN, press ON and turn on RECORD. The buffer will start to fill. Select the number of grains that you want, the size (speed), transposition and random position of each grain.

Press Env Init to write the envelope and adjust it as you wish in the function window.

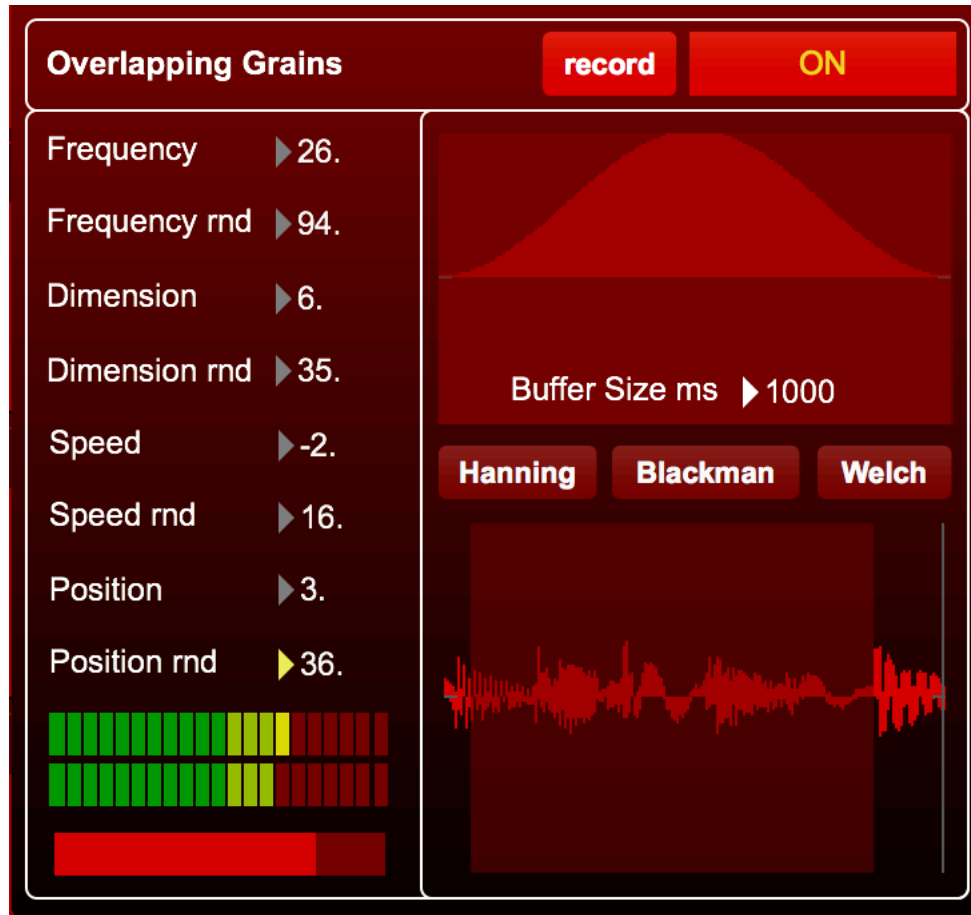
The Pan of each grain can be random select and automated with AUTOPAN.

In order to make Autopan works, the CLOCK on the main window must be active. By adjusting the parameters it is possible to create percussive or overlapping elements with granular synthesis.



4) Ola Grain

Overlapping grains is another granular module. It has a different taste and feel from T-Grain, but it has a number of common features.

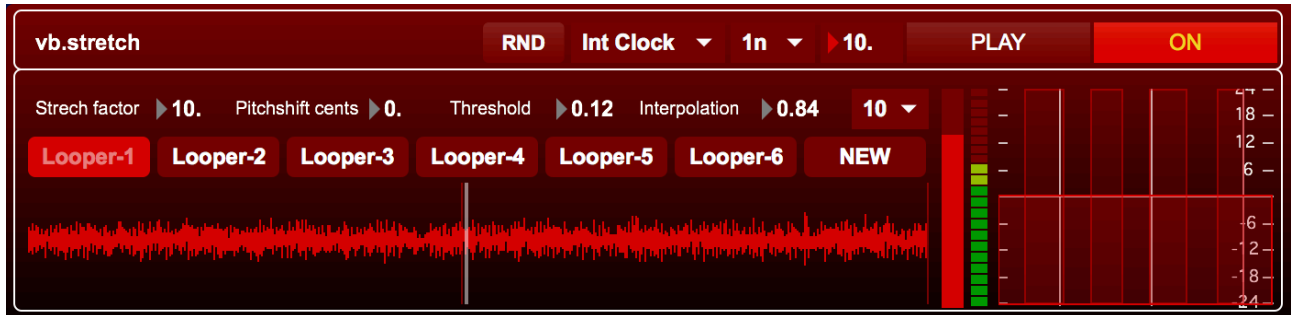


When turned ON and after record is pressed, the sound will be sampled from the OLA GRAIN INPUT, processed and sent to out. Frequency, Dimension, Speed and Position higher and lower limits of the grain are available to create different granular effects.

5) Vb.Stretch

Vb.Stretch takes a buffer (one of the six loopers or a new one from scratch) and slow it down its speed to stellar values.

This turns literally every kind of sound into a luxury drone.



The Stretch Factor sets the slow down factor, Pitchshift is possible up or down of 1200 cents. Threshold (positive only) sets the high frequencies gate level, while Interpolation (from 0 to 1) sets a fade time between changes.

Try 0.90 and move the cursor in different parts of the file.

RND move randomly the cursor. Just like in the loopers you can select the relative clock (note values) time and the step size (0-100).

It is possible also to totally freeze the sound by pressing the button PLAY/FREEZE.

The size in seconds of the 7th buffer [NEW] can be selected with the number above the NEW buffer button.

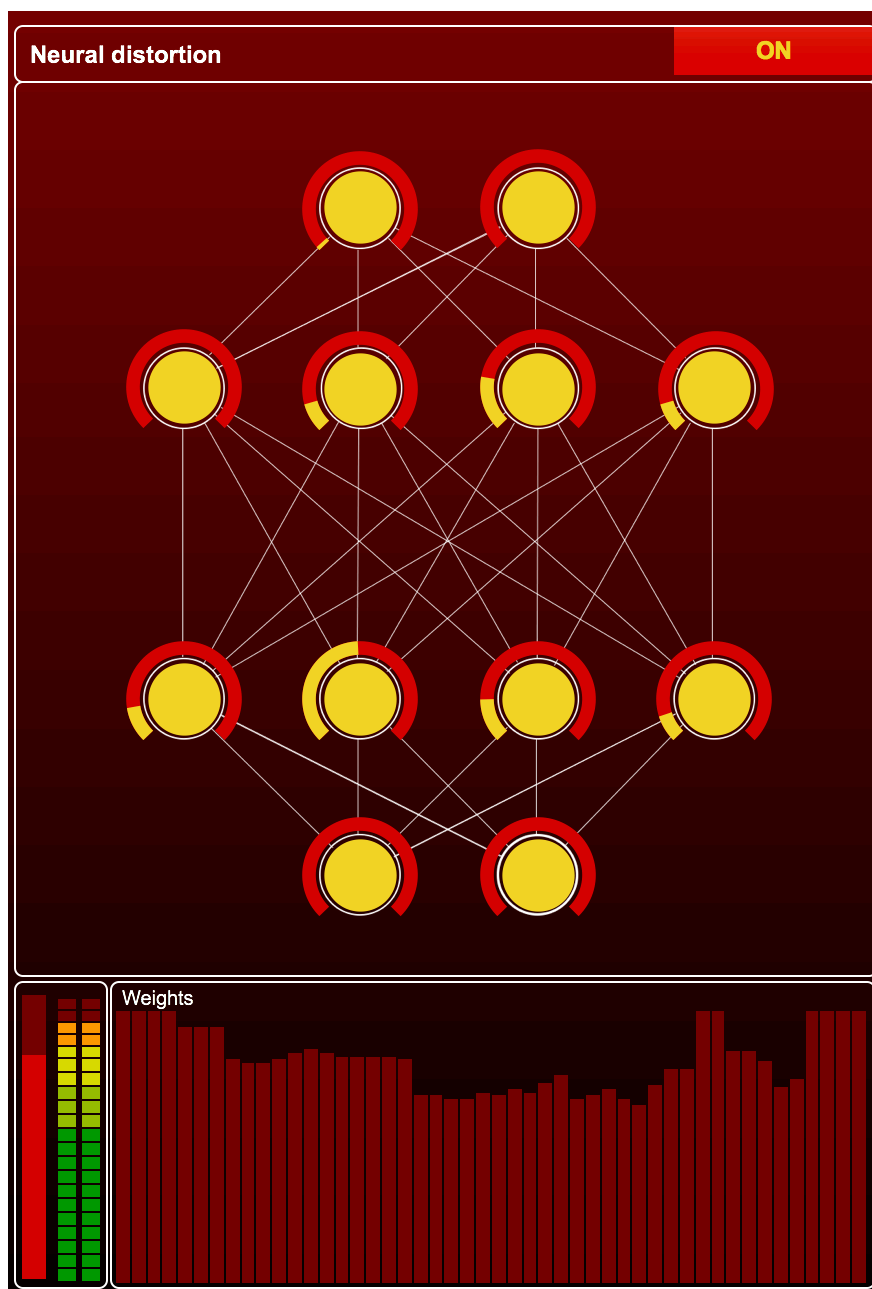
A full parametric EQ is handy to cut of resonances and unwanted freqs.

Again thanks to Volker Bohm for the code!

6) Nerual Distortion

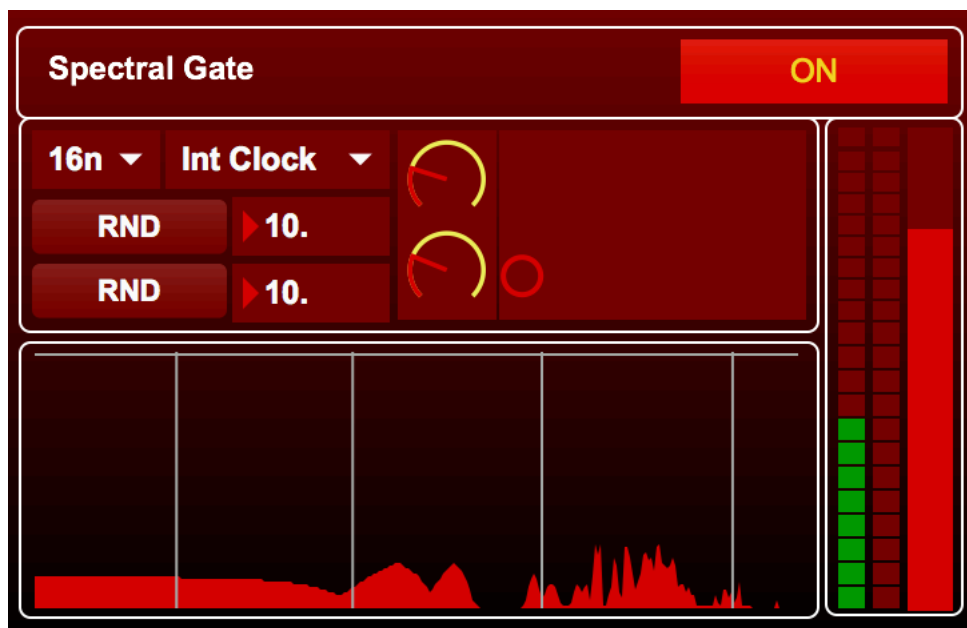
The Neural Distortion is a peculiar sound processor inspired by neural networks. It is indeed a small neural net where instead of “data” we process sounds

Each neuron sum the value of the signals he receives (connections are weighted with the small bars at the bottom). The activation function is made with an arctangent curve and has a threshold level (positive only). When the summed and transformed signal has a value higher than the threshold, the neuron “fires” the sound out to the outer neurons. The result is a pretty complex and alive network for extreme sound destruction.



7) Spectral Gate

The Spectral Gate is a funny little FFT processor which makes pass only frequency above and below a certain threshold. The processor is designed to be low fi and to sound like bad data compression. The Upper and Lower thresholds are set up on an X/Y matrix with a joystick. RND X and Y positions can be set using the internal clock or external clock. As usual RND uses drunk function and you can set the step-size.



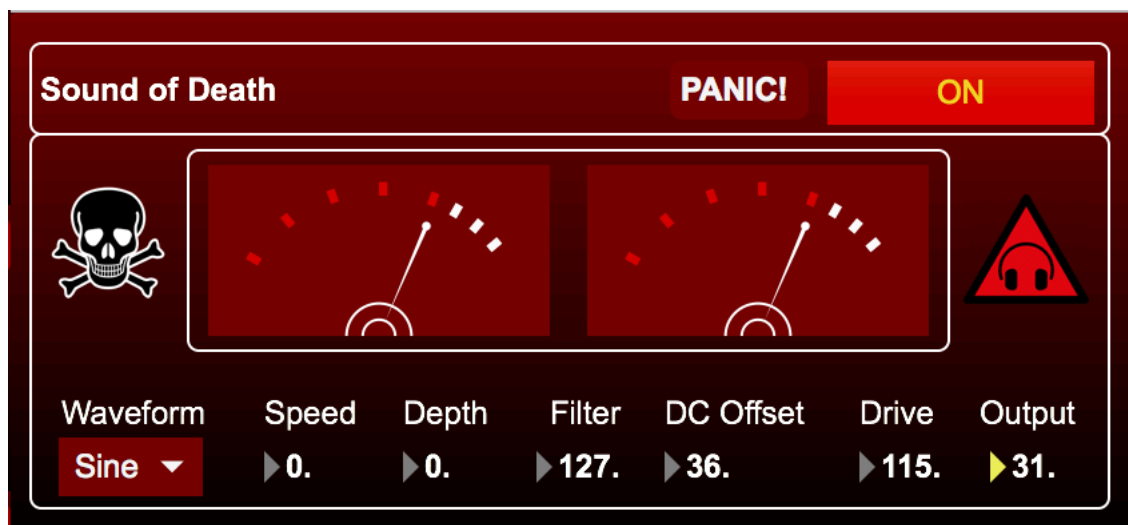
8) Sound of Death (S.o.D.)

If you know what a Gristleizer is than you understand what is SOD.

It a loose clone of the celebrated effect used by the British Band Throbbing Gristle. Is is basically a filter and an amplifier with distortion, bias and a simple LFO modulation for the cut-off frequency.

Controls are self explanatory. PANIC button is there if filter explodes...

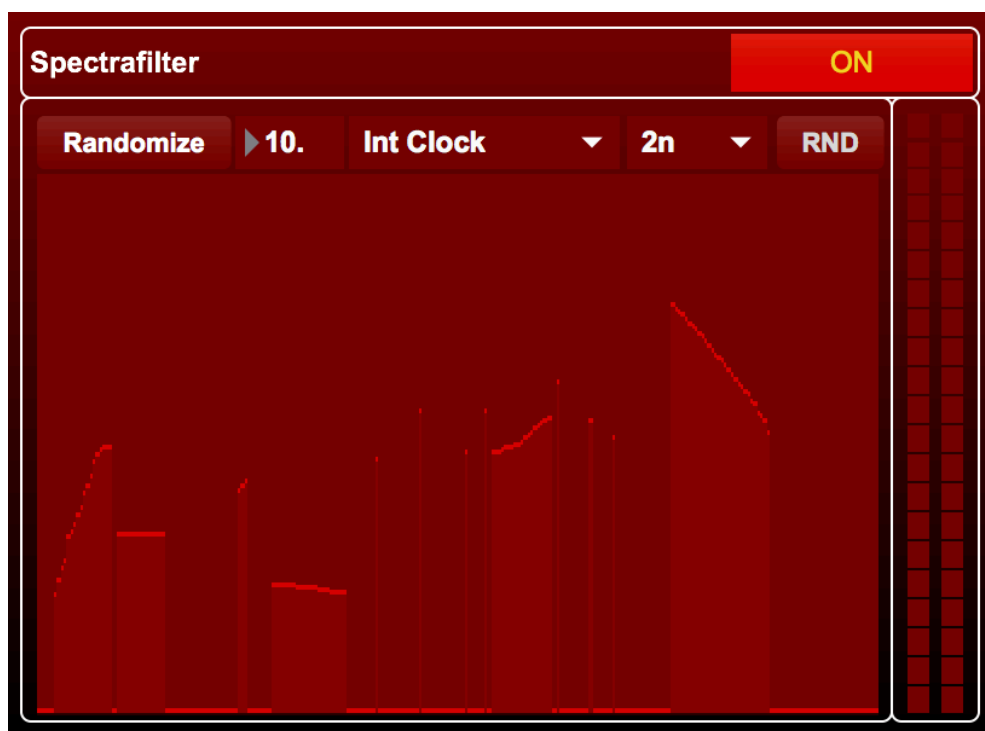
You've been warned, it's very aggressive.



9) Spectrafiletr

The Spectrafilter is a simple fft filterbank which uses 256 bands.

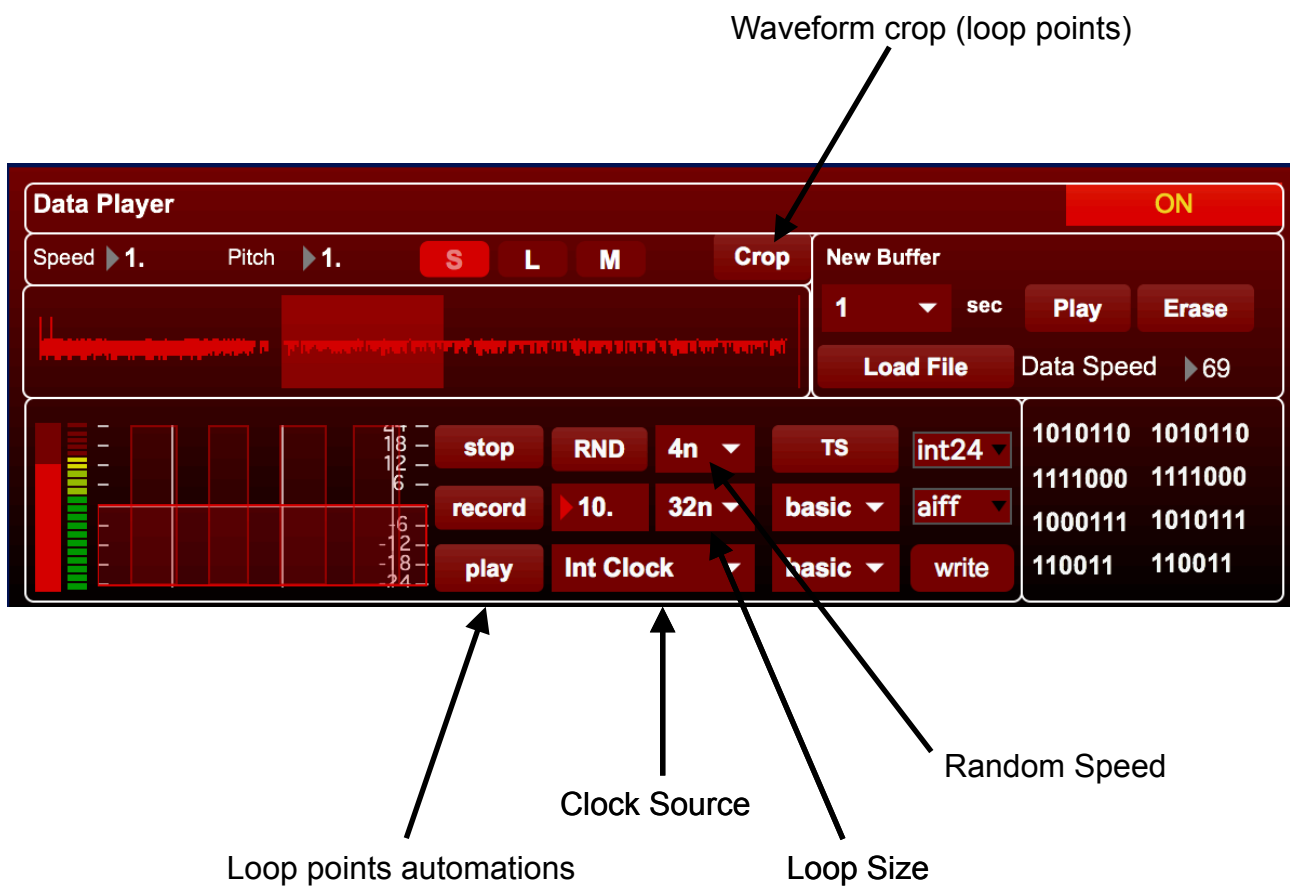
The filterbank can be randomised at will.



10) Data Player

Load any kind of binary file and use their sound: from jpgs to tiff to pdf or docs.

Use Load File to open a file and then press Capture button to transfer the data into a sound buffer. Data speed controls the writing speed of the data. Once the file has filled the buffer you can play it as any other Looper, save the file or start processing it into the other modules.

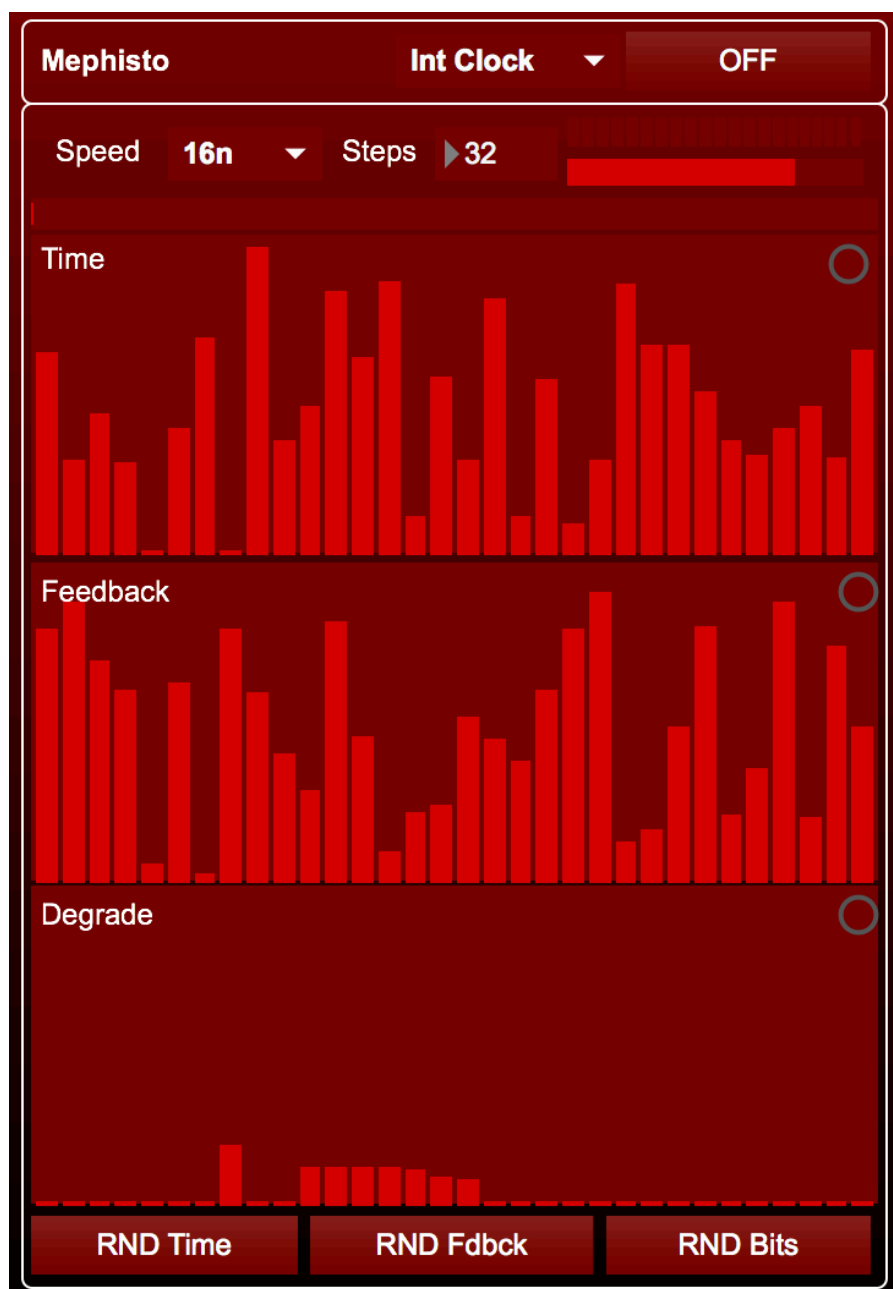


10) Mephisto

Mephisto is a sequenced DELAY / DEGRADER.

It can use up to 32 steps and read three different control values that set a delay time, feedback and bit depth.

Auto random is possible using the RND buttons at the bottom.



11) TAMS Tri Axis Modal Synthesizer

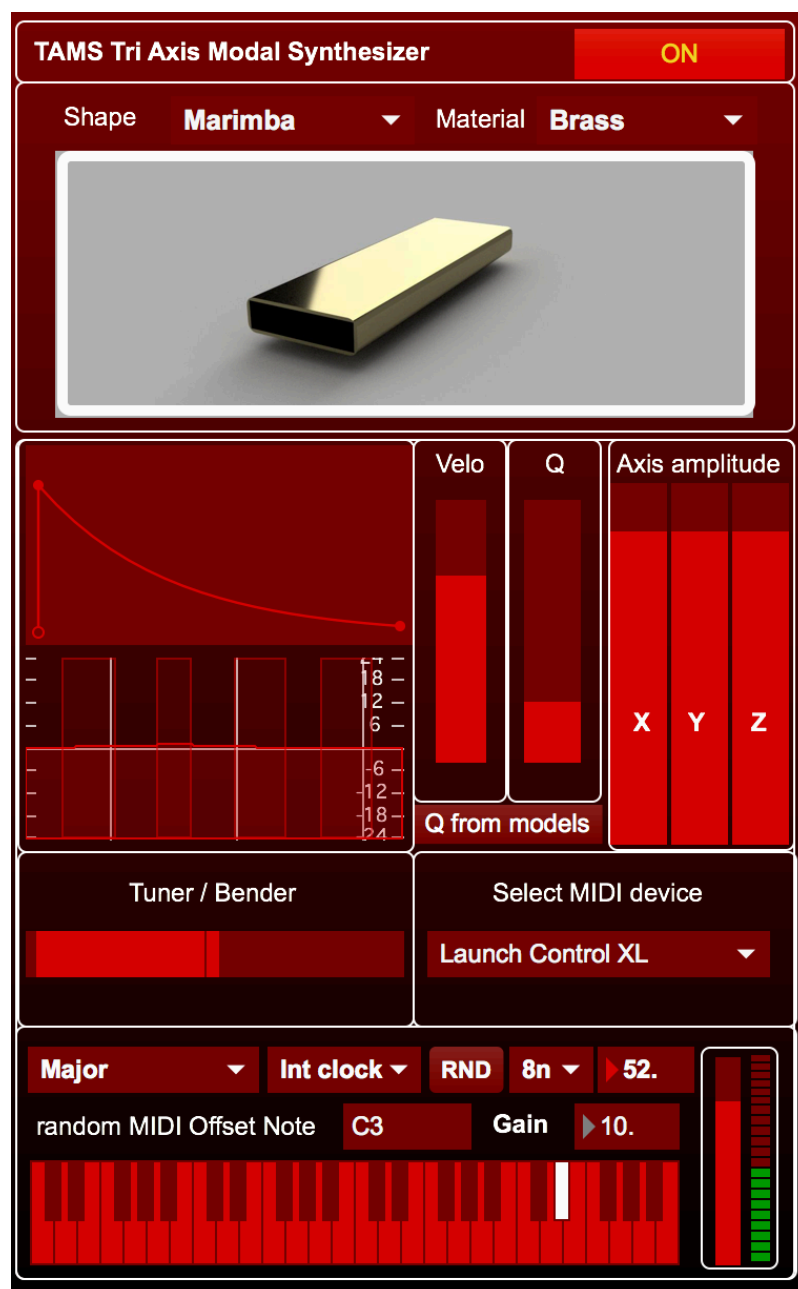
The TAMS is a modal synthesis method which I have developed in the last few years.

It is composed by 12 modal resonators with 105 filters each, fully polyphonic and playable with a MIDI keyboard.

The models were created by me and my students using a CAD with modal analysis.

The great advantages of this workflow are the following:

- 1) high precision hyper realistic sounds
- 2) possibility of sound design starting from 3D models
- 3) physical simulation of impossible instruments made of rare and exotic materials such as sapphire, beryl, uranium, plutonium and more...



The TAMS synthesizer included in GleetchlabX has more than 300 models and it is the most sophisticated and complete modal synthesizer on the market.

To play it, first route some audio (better with fast and clicking transients) to the TAMS. The sound will work as the exciter, so for example you could play a platinum marimba excited by the sound of water drops...
Once you have chosen a shape and a material, you can play the resonators on the keyboard Adjust Gain and Q (bandwidth) and axes levels to shape the sound.

When using presets the Q can be that of the preloaded models or user selected. Use the toggle "Q from mode / Q by user" to define the behaviour of the Qs.

The TAMS is fully polyphonic and can be played with a MIDI Keyboard, or with a random function and some scales.

PANIC! PRESS IF SOUND GOES WILD!

Big resonators can be unstable and explode (big feedbacks!)

Be careful with TAMS, it can be a wild beast!

Try it feeding it with the sound of a contact microphone but stay far from speakers!

Use wisely the EQ to help you with potential feedbacks.

12) Spectral Delay

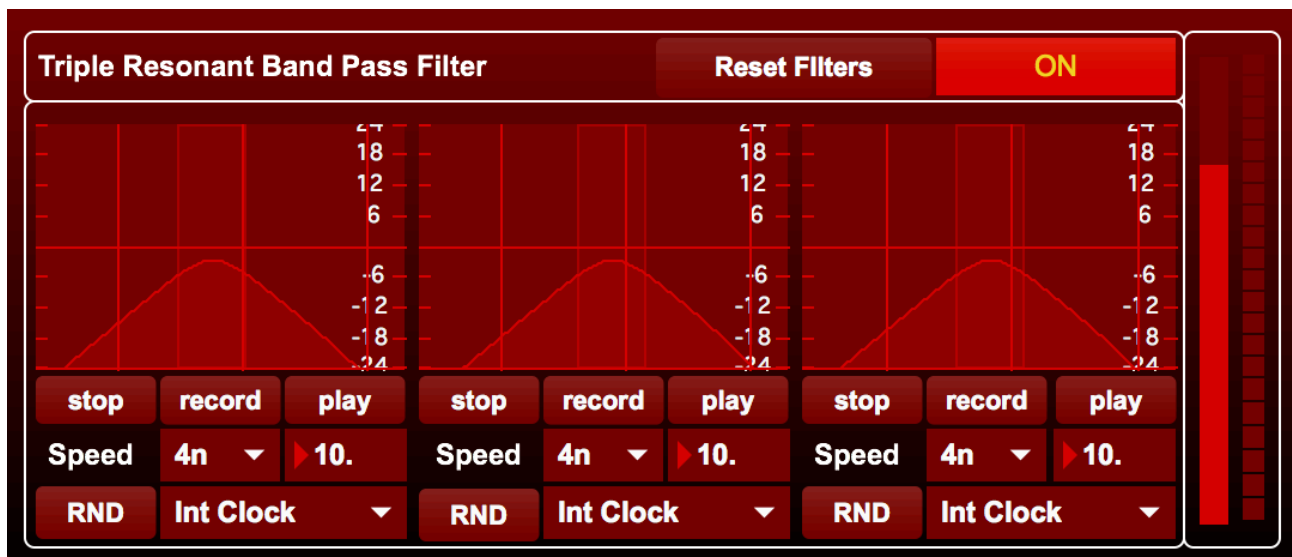
The spectral delay is a simple 3 band stereo delay with Frequency, Bandwidth (Q), Time and Feedback. All the parameters can be randomised at will.



13) Triple Resonant Band-Pass Filters

Three resonant BP Filters can create interesting effects, from phasing to formants. All the filters can record a manual automation or use the RND function synced to the Internal Clock or External Clock.

As usual the RND function has a selectable step-size.

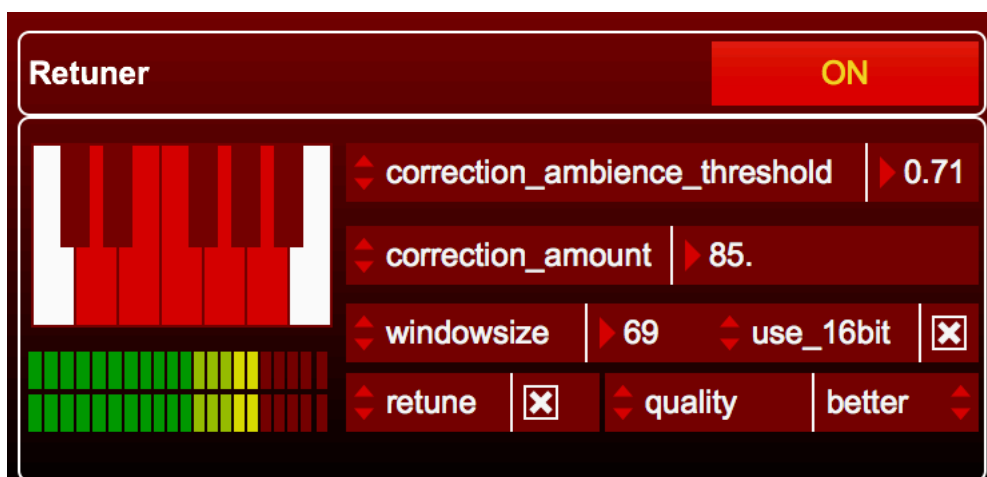


14) Retuner

This isn't for smoothly tune your out-of-tune tracks, this retuner is not for correction but to make noisy sounds abusing a retuning algorithm.

Select on the keyboard the allowed notes and adjust threshold and correction.

Quality of retuning is selectable.

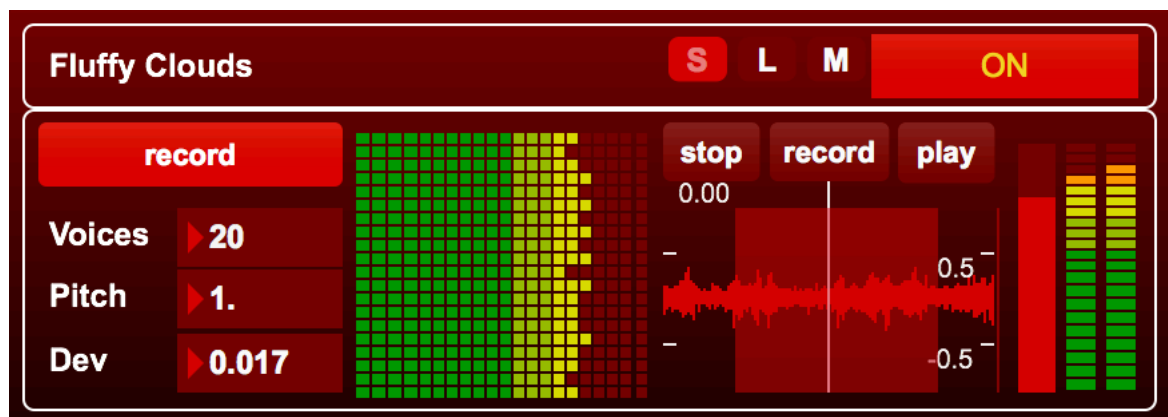


15) Fluffy Clouds

Fluffy Clouds records the sound at the input of the module and plays it back with multiple looping samplers (up to 20) with random pitch deviation.

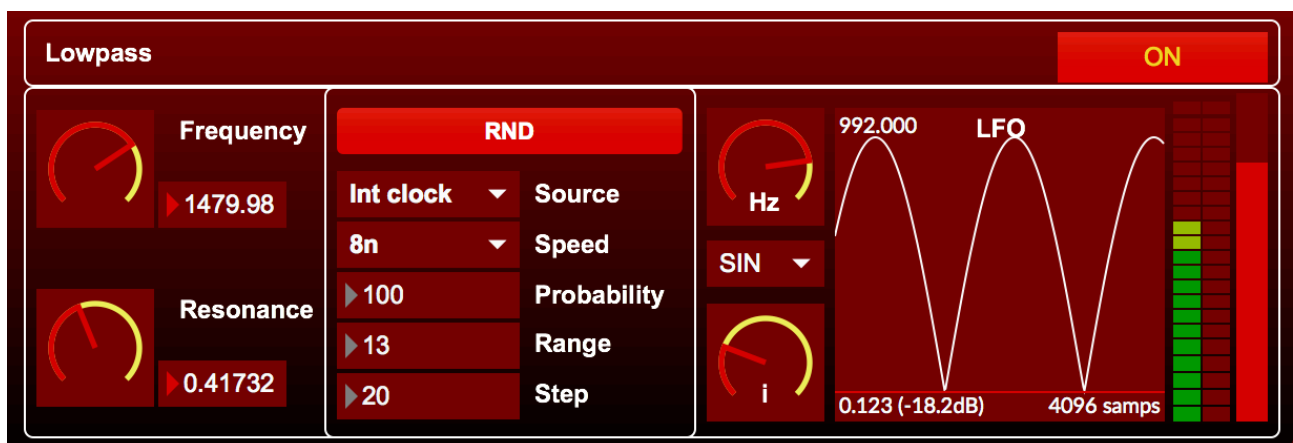
The effects range from flanger to pure sonic mayhem.

You can record and playback automations on the looping points.



16) Lowpass

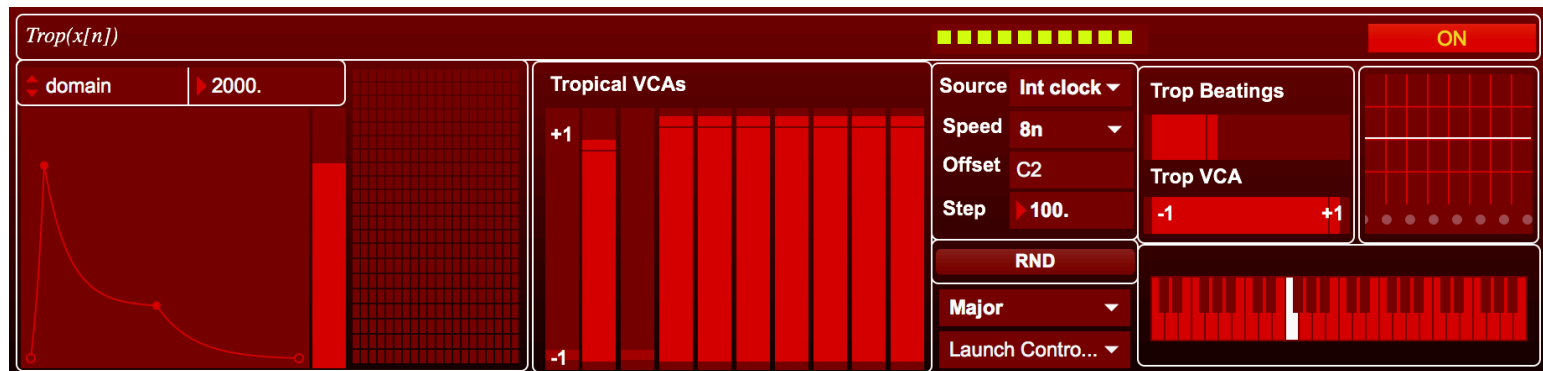
Lowpass is a handy 24dB/Oct Low Pass filter with random modulation or LFO



17) Tropicana

Tropicana is the first synthesiser that uses the Tropical Additive Synthesis¹

It's fully polyphonic and MIDI controllable.



Unlike classical additive synthesis, in tropical additive synthesis we have the VCAs of each harmonic ranging from -1 to 1 and they're not multiplying but summing.

Tropical Additive Synthesis is made using Tropical Algebra

Multiplication is turned into sum, sum is turned into minimum...

Classic Fourier Serie:

$$x[n] = a_1 \cos(\omega_1 n + \phi_1) + a_2 \cos(\omega_2 n + \phi_2) + \dots + a_p \cos(\omega_p n + \phi_p).$$

Tropicalized Fourier Serie:

$$\begin{aligned} trop(x[n]) &= a_1 \odot \cos(\omega_1 n + \phi_1) \oplus a_2 \odot \cos(\omega_2 n + \phi_2) \oplus \dots \oplus a_p \odot \cos(\omega_p n + \phi_p) \\ &= \min\{a_1 + \cos(\omega_1 n + \phi_1), a_2 + \cos(\omega_2 n + \phi_2), \dots, a_p + \cos(\omega_p n + \phi_p)\} \end{aligned}$$

¹ Tropical Additive Synthesis 2017 Cristiano Bocci & Giorgio Sancristoforo

18) Routing the sound to record IN the Loopers.

A simple example to show the sound from T-Grain, OLA Grain, Vb.Stretch, Neural Distortion routed to the Looper INs 1, 2, 3 and 4.

Matrix

ramp ▶ 1000

clear

AUX IN																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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TO RECORD THE SOUND IN THE LOOPER
REMEMBER TO PUT THE LOOPER IN RECORD MODE!

19) Surround Mix

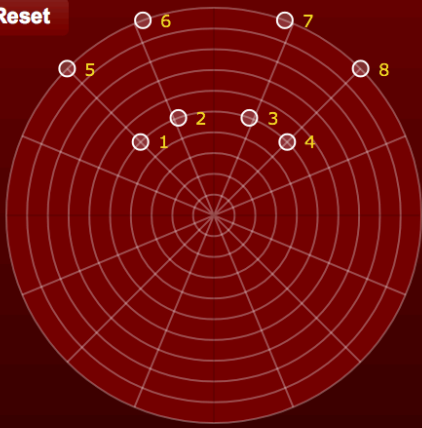
This module let's you position and move 8 sound sources (mono LR summed) into a stereo, quadraphonic or octophonic space. Sound sources can have RND automation or orbit around the centre or you can record and playback an automation.

Azimuth and Distance can be set manually.

Surround panning

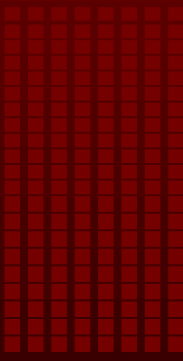
SOURCES

Reset

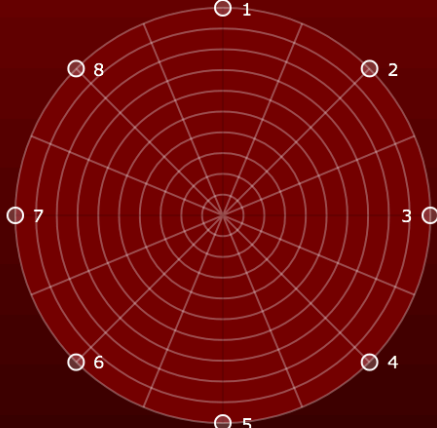


OCTO ▾

Output

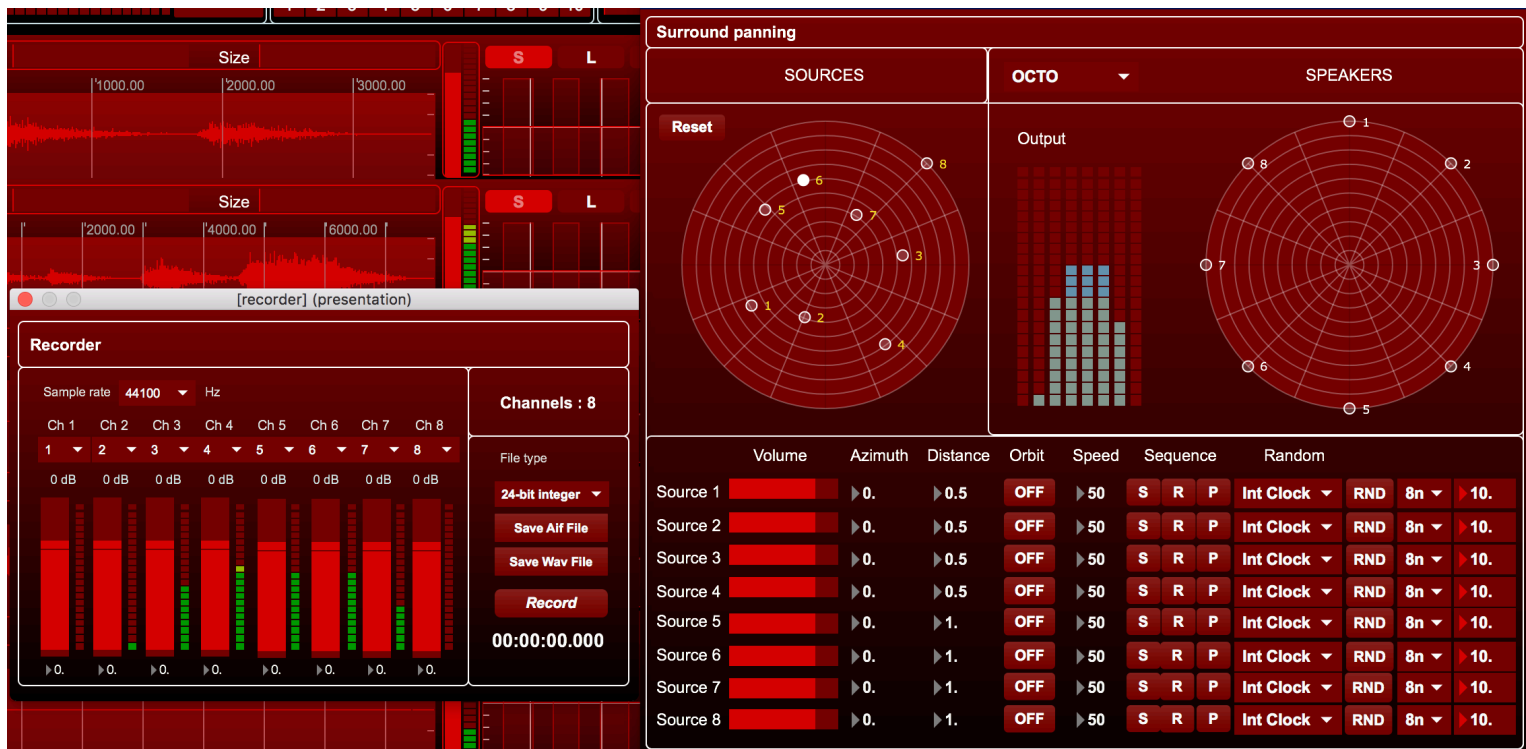


SPEAKERS



	Volume	Azimuth	Distance	Orbit	Speed	Sequence	Random
Source 1	<div><div></div></div>	►0.	►0.5	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.
Source 2	<div><div></div></div>	►0.	►0.5	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.
Source 3	<div><div></div></div>	►0.	►0.5	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.
Source 4	<div><div></div></div>	►0.	►0.5	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.
Source 5	<div><div></div></div>	►0.	►1.	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.
Source 6	<div><div></div></div>	►0.	►1.	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.
Source 7	<div><div></div></div>	►0.	►1.	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.
Source 8	<div><div></div></div>	►0.	►1.	OFF	►50	S R P	Int Clock ▾ RND 8n ▾ ►10.

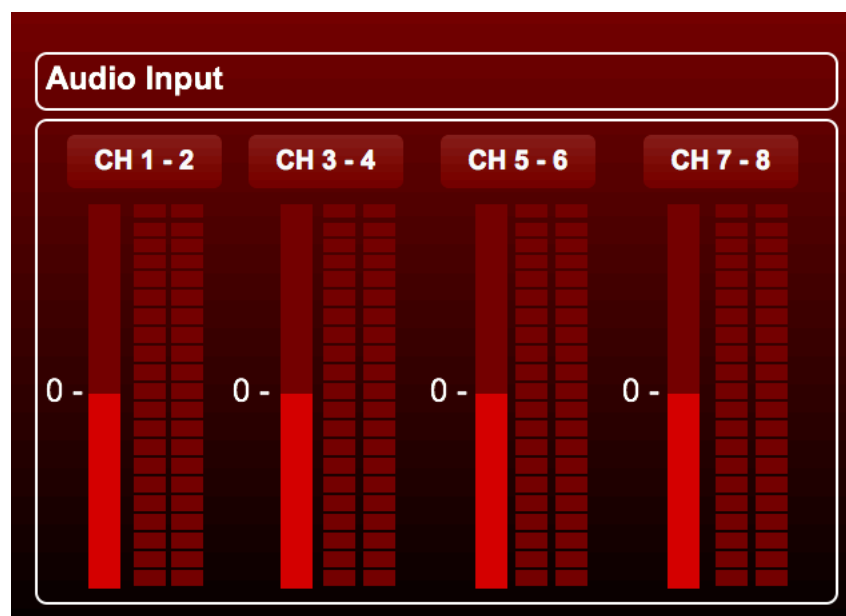
When sounds are forwarded to the Surround Mix you can record the separate channels in the Recorder module. You will need a multi channel audio interface connected.



20) Audio In

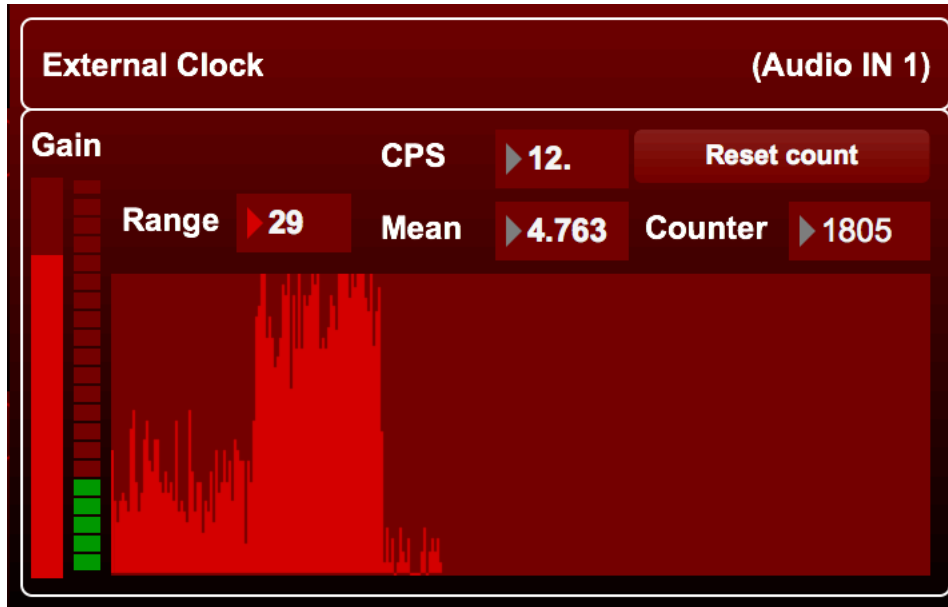
Gleetchlab can process external sounds.

Use the Audio In page from the menu and the matrix to route live sounds to the processors or loopers. You can use 4 stereo couples 1-2, 3-4, 5-6, 7-8 or 1,3,5,7 channels when the sources are MONO. Audio IN 1 is reserved for External Clock in case you need it.



21) Ext Clock

By using input 1 of your audio interface (remember you can remap I/Os in the DSP settings) you can use an analog impulse trig as external clock to sync your modular or... use a geiger counter as a source of uncertainty.



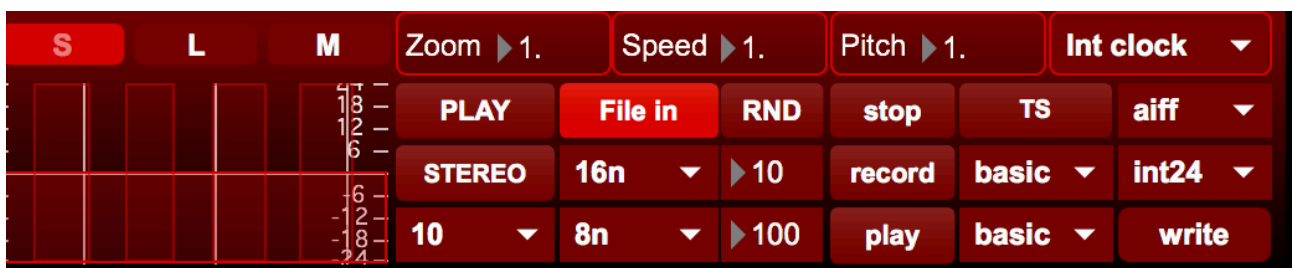
22) Presets

Gleetchlab has 10 performance presets. Every bank of preset can be saved and recalled with a simple Json file with SAVE and LOAD button.

To store a preset press Shift + keyboard 1 or 2, 3, 4, 5, 6, 7, 8, 9, 0

To recall a preset press keyboard 1 or 2 3 4 5 6 7 8 9 0

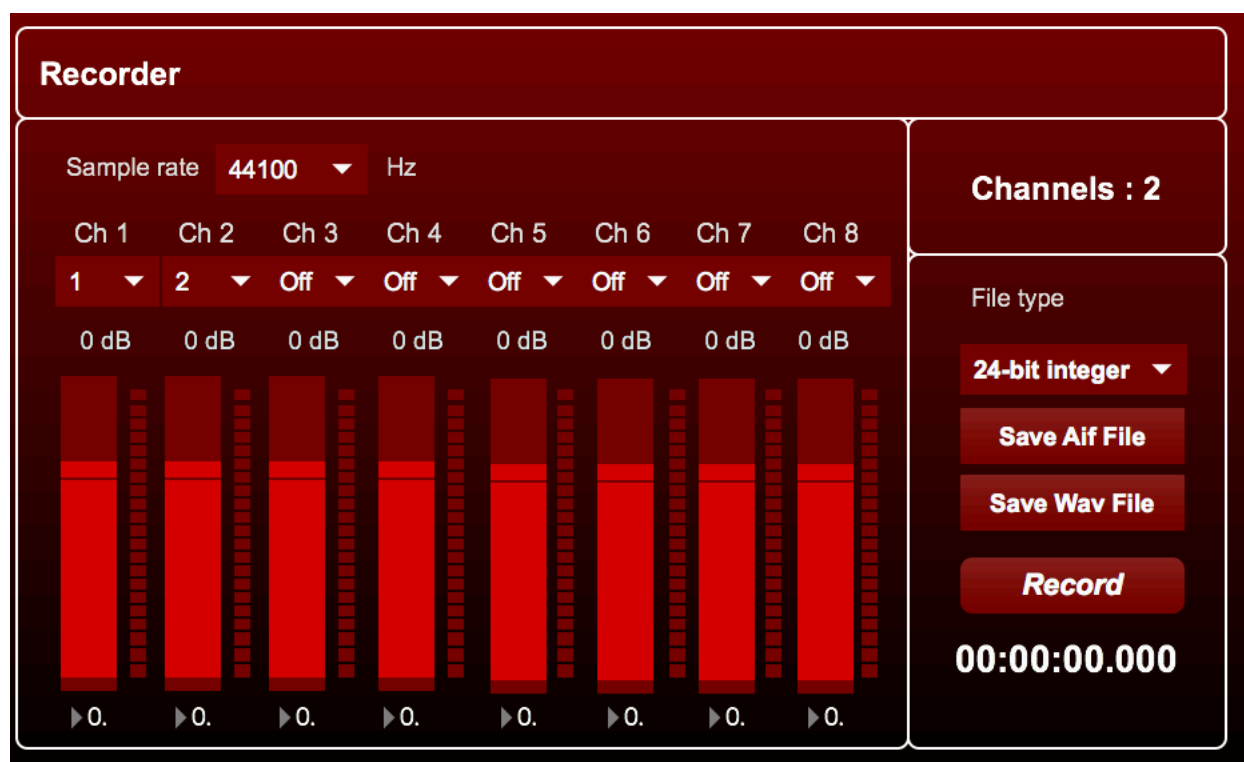
If you want to recall files in one or more loopers, together with all the rest, select FILE IN option in the Looper control panel



23) Recording Sound

Any sound going to MASTER LR OUT or to SURROUND MIX can be recorded in a stereo or multi channel aif or wave file.

- 1) Adjust volumes
- 2) Select the sampling frequency and bit depth.
- 3) Press Open and write a new AIF or WAV file
- 4) Press RECORD
- 5) To STOP press RECORD AGAIN.



NEW in V5.2

23) Double CD Skipper

This module is a dedication to Markus Popp to whom I owe an great debt.

Years ago, for Gleetchlab 2 I've recorded my Sony Discman glitches and skips and now these files are back in a new double CD skipping module.

The skipping is controlled and synchronized to one of the six loopers to faithfully reproduce the effect of a real CD skip glitch.

Select one of the loopers and set the range of speed and pitch of the glitches.

The second CD is randomly controlled to enhance the unpredictable effect.

Double CD Skipper

ON

Loop source

Looper-1

Looper-2

Looper-3

Looper-4

Looper-5

Looper-6

Level

☐ CD 1 min speed ▶ 0.604

CD 1 max speed ▶ 1.

Pitch ▶ 0.84

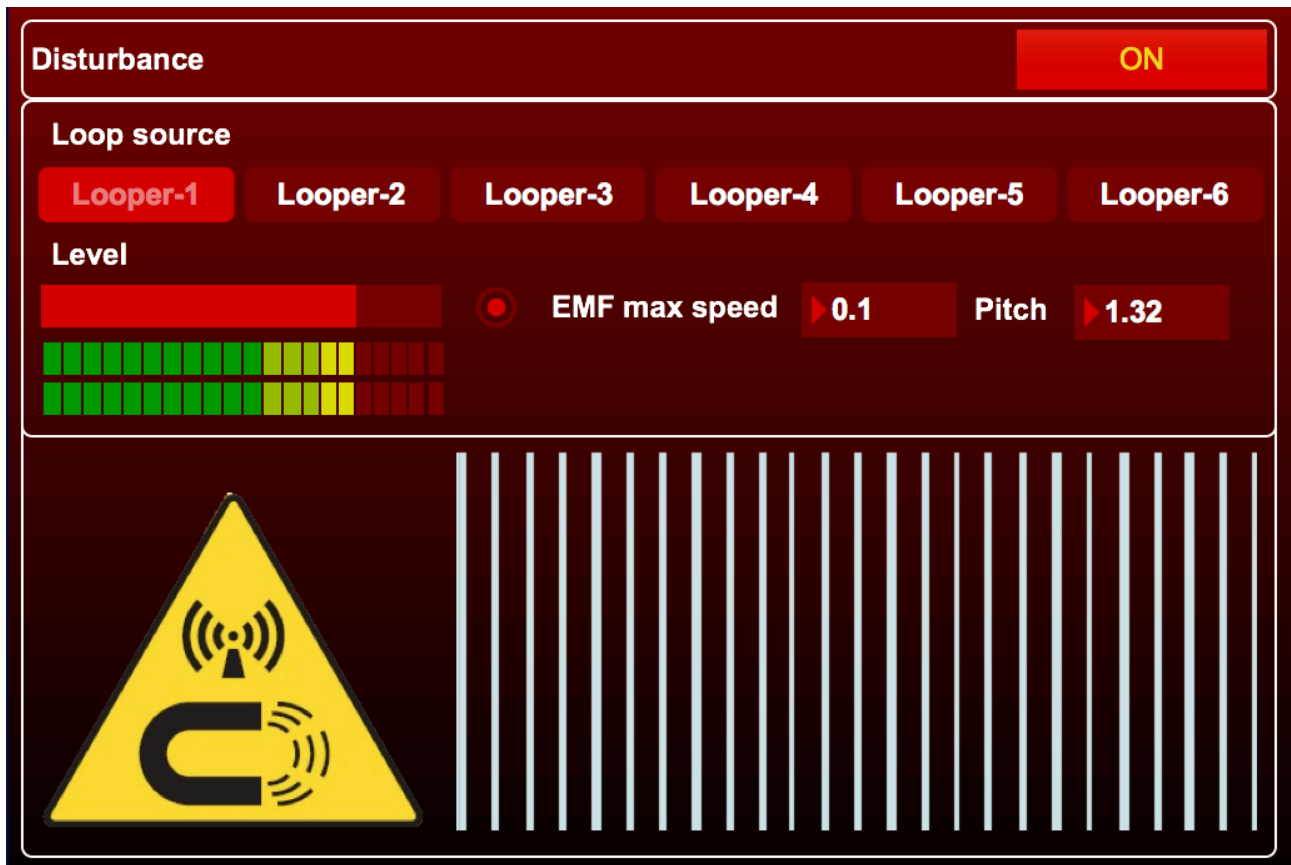
☐ CD 2 min speed ▶ 0.1

CD 2 max speed ▶ 0.72

Pitch ▶ 0.77

24) EMF Disturbance

This module is similar to the CD Skipping module, only that the samples are recorded with coil microphones from various electromagnetic fields generators, such as computers, printers, and many other electric machines.



24) Aesthetics of Digital audio

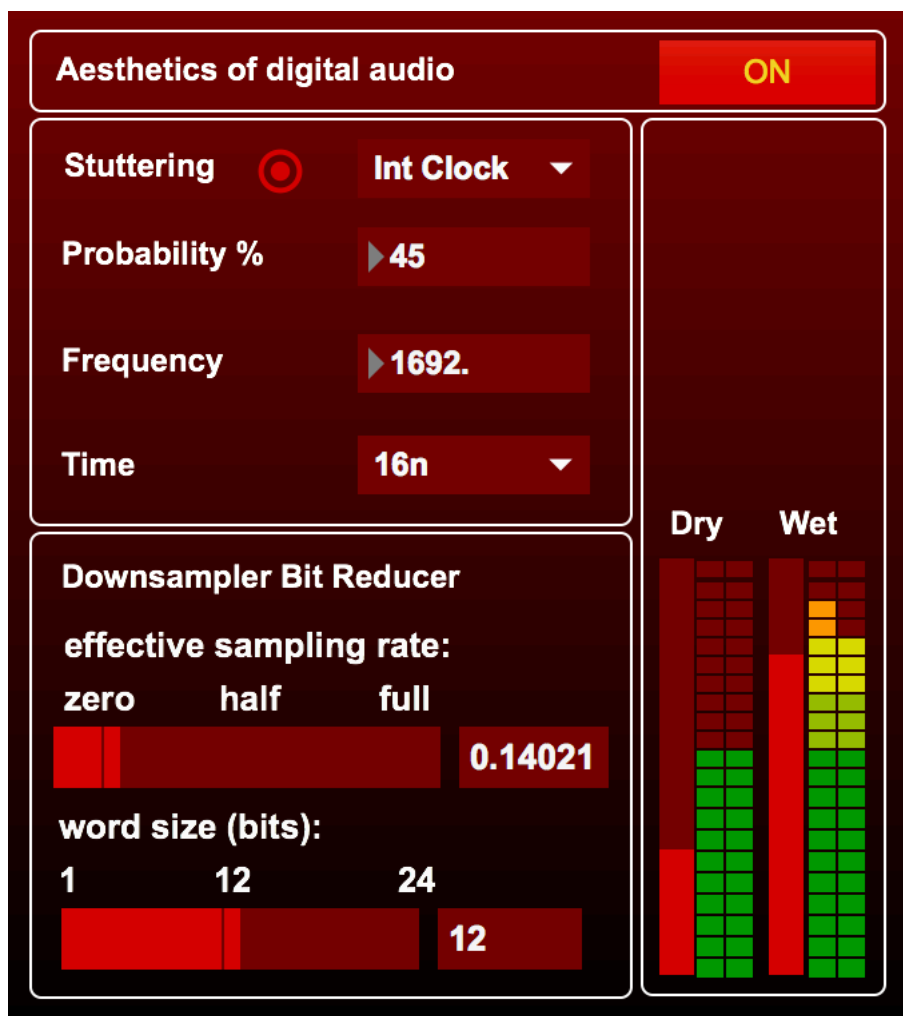
To celebrate digital noise aesthetics I've added in V5.2 a double utility module.

The top is a stuttering device and the lower is a Downsampler and Bit-Reducer.

The module is self explanatory, stuttering is controlled by the internal or external clock with a probability rate, frequency and time.

The Downsample module controls a sampling rate and word size.

You can use the Downsample or the Stuttering or both. (with probability 0% the stuttering will not work).



Thank you so much for buying this software and for your support.