

# **A JSFX resource** (2nd edition, fall 2023)

compiled by [Keith Haydon](#)

None of the comments or opinions expressed in this compendium, are mine.

They've been "cut-and-pasted" from other sources.

Mostly, from the [Reaper](#) forums.

As a long-time Reaper user, I've found the Reaper community to be an invaluable source of aid and insight. But the folks who are the real "superheros" , are the people who are creating and sharing these JSFX and scripts that make our recording and mixing such an adventure. They deserve a -lot- of credit so if you get the chance, buy them a cup of coffee. They deserve at least that.

I'm very thankful to all those who'd taken the time to reply to my request for tips and suggestions.

You shared some great stuff, and I really appreciate your willingness to share with all of us!

Anyway...this is just my contribution to the Reaper community.

To paraphrase a favorite teacher, "I hope you'll learn something, and I hope you can use it".

Peace, Keith

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If you're new to this, you'll want to install [ReaPack](#). Here's a [video to help](#) you with that. Keep your [ReaPack repositories](#) updated, because new ones are added from time to time. The Reaper "[Stash](#)" is a good place to find JSFX, of course. There are other repositories (not in ReaPack's list) that are mentioned in posts on the Reaper website, and I have tried to locate as many as I could, and sharing them with you, at the [end of this guide](#). If you know of more, please [let me know](#). Thanks!

Here's how to [install JS plugins](#).

This isn't the only JSFX guide. "DarkStar" (from Reaper forums) made this [useful JSFX guide](#). And there's a list of [native JSFX](#)...and then, WIKI has their [JSFX documentation](#). They were probably a source for some of this pdf, 'cause I grabbed info from everywhere..

Note: Occasionally, there's more information or instructions in the actual code of the plugin. It's usually found near the very beginning of the code.

Just hit the "Edit" button and choose "Open in external editor" to see the code.

With a little knowledge, you can [customize existing JSFX](#) to suit your specific needs.

Or, start [making your own](#).

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## **CATEGORIES:**

Reverbs, Delay/Echo, Chorus/Flangers, EQ/Coloring, Bass/Lo-end, Transients, Gate/Expander, Compressors, Limiters, Lo-Fi/Crushers/Distortion, Other FX, Filters, Guitar Amps/Cabs, Audio Analysis, Utilities, Stereo/Panning, Mastering, Synths-Sound Generators, Arps/Seqencers, MIDI FX, MIDI Utilities, and MIDI Editing

(Supplemental [Scale](#), [Sequence](#) and [KeyMap](#) data)

# **Contents:**

## **Reverbs:**

Abyss Reverb  
Atlantis (w/presets)  
Lava Verb (w/presets)  
Lexikan 1 & 2 (w/presets)  
Satan Verb (w/presets)  
Verb Ducker

## **Delays/Echoes:**

Cosmo Depot  
Delay Machine 2  
Delay w/Reverseness  
Echo Cycles (w/presets)  
Filthy Delay  
Floaty  
Kawa XY Delay  
Khaki Delay S2 (w/presets)  
Leet Delay 2  
Matrix Delay  
ReflectoSaurus (w/presets)  
Simple Delay  
Tukanplex Tape Echo  
Wayback

## **Chorus/Flangers:**

Chorus w/GUI  
Flange Baby  
JS Flanger  
Kawa XY Chorus  
Kawa XY Flanger  
Ozzifier pitch-delay-doubler  
Spring-Box Delay (w/presets)  
ZE Big Chorus  
ZE Scanner Chorus

## **EQ/Coloring:**

EQ-A4k  
EQ-P3B  
EQT-2Kan  
EQall-Beta 2  
Green Dynamic EQ  
Overtone EQ  
Parametric Exciter 2  
Presence EQ  
RBJ1073

RBJ4  
ReaAnalog  
ReEq  
Soft Clipper  
Tape recorder S2  
Warble - Pitch Shift

## **Bass/Low End:**

BandbAss  
Bass ManagerBooster  
Bass Professor I & II  
Bass Squeezer  
Bass Station  
Exciter w/fat bottom  
Huge booty  
Thunderkick

## **Transients:**

Envelope Shaper  
Transience  
Transient Controller 2  
Transpire  
Violet Envelope Shaper S2

## **Gates:**

Basic Trance Gate  
ExpGate 2  
FriGate  
Gate/Expander  
Purple Gate Expander S2  
SEGX2 Gate – Expander  
Stereo Chop Chop

## **Compressors:**

1175 Compressor (Stillwell)  
Auto Expander  
Blue Compressor S2  
Bus Comp 2 S2  
Bus Comp  
Compressor 3  
Dirt Squeeze Compressor  
Dis-Treasure  
Fairly Childish  
General Dynamics:  
Hybrid Bus Compressor HBC-2

LA-2KAN S2  
Major Tom & Master Tom  
Mawi Compressor  
MotherComp  
Multiband Ravager  
MultiComp  
Never Odd or Even  
Not OTT  
NC76 Limiting Amplifier  
RMS Compressor  
S.LA.X  
Tight Compressor  
Track Comp  
VariBus Comp S2  
VOLA 2  
Upward Expander

## **Limiters:**

Event horizon  
Limiter 2  
Limiter 3  
NP1136 Peak Limiter  
Peak Limit 2  
Sky 2.0  
Smooth Limiter  
Turquoise Limiter S2  
Vocoder

## **Lo-Fi /Distortion:**

Filther (w/presets)  
Kawa XY Bit-crusher  
Lo-Fi  
Mod-izer  
Nostalgizer  
Paranoia mangler (w/presets)  
Phase Mangler  
RC Inflator (Oxford Edition)  
RC Inflator 2 (Ideal Edition)  
Sandwich Amp  
Signal Crusher  
Squashman  
Waveshaping Distortion  
Wild Wave

## **Other FX:**

4-tap Phaser  
4-pole Band Splitter

AC Trem (w/presets)  
Auto Gain Stager  
Bad Connection  
BAMP  
Black DeNoiser S2  
Blacklight Modulation S2  
Chaos Phaser  
DeNoiser  
Downward Expander  
Dusk Verb  
DynaStrip  
Hackey Trackey Sample Playback Mod  
Hocket Machine  
Leslie  
Lime DeEsser S2  
LFO Generator  
Partials (w/presets)  
Phaser  
Pitch Sifter 2  
Ring Modulator  
Ripple Phaser (w/presets)  
Saturation  
Steps Modulator  
Subtractive Stereoizer  
SynchTremolo  
Tanh Saturation  
Telephone  
Texture Mode  
Vocal Strip  
Wahriffic  
Warble

## **Filters:**

3 Band PeakFilter  
Apple 12-pole filter  
Butterworth Filter  
Chebyshev Filter1  
EQ1979  
FM Filter 2  
Lattice Filter  
Moog Filter  
RBJ Stereo Image Filter  
SC Filter  
Shelving Filter  
State Variable Morphing filter  
Vowel Filter

## **Miscellaneous:**

Avocado Ducking Glitch Generator  
Car Game  
RCMSHIP Perfect Pitch  
SEQS  
Spectral Hold  
Sum Bus  
Sum Channel / Sum Thing SI  
Tone Gate

## **Guitar Amps, Cabinets:**

AmpEra  
Amp Modeler  
Amp Sim  
Cabinet Sim  
Chug Thug  
Convolution Amp/Cab Modeler  
Dual Amp Modeler  
Guitar Station S2  
PreAmp (w/presets)  
Tone Stacks  
Tube Amp

## **Stereo/Panning/Surround:**

Hybrid Bus Compressor 5  
JS Stereo Enhancer  
Mid-Side Encoder / Decoder  
Modulation 2  
Panalysis  
Phase Rotator  
Proximity  
Pseudo-stereo fx  
RBJ Stereo Image Filter  
SAW 2 / Seriously Amazing Widener 2  
Stereo Bub II & III  
Stereo2Surround Rotator  
Stereo Manipulator  
StereOpposition  
Stereo Width  
Surround Pan  
Transform-Rotate-Tilt-Tumble  
Volume/Pan Smoother v5

## **Mastering:**

BBE Sonic Maximizer  
Loudener  
Master Limiter  
QuadraCom

## **Synths/Sound generators:**

2op PM Synth  
Complex X filter Synth  
Dum Drums  
Farey Tetra Spiral  
Hammer And Chord (w/presets)  
Humonica (w/presets)  
JS Drumpad  
Logistic Noise Generator  
Lorenz Attractor  
Nymphes Control Freak  
PadSynth (w/presets)  
RC NoiseBuzz  
ReaBee  
ReaRack2 Modular Synth  
Shepherd Paradoxical Synth  
Simple Drum Synth  
Soft Bell (w/presets)  
SpectroPaint-Synthesis (w/presets)  
Swellotron  
tookan POLY-G  
Yutani Mono Bass synth (w/presets)  
ZeDigiThArmOrgan  
Ze Musette Organ

## **Audio Analysis:**

Audio Statistics  
Blipper  
Goniometer  
Goniometer (by Tukan)  
Green Circles Meter S2  
Peak Needle S2  
Phase Scope  
ReSpectrum  
Side Spectrum Meter  
SineSweeper  
Skopec II  
SNR Meter (w/presets)  
MultiSpectral Analyzer

## **Utilities:**

4-pole bandsplitter  
Amaranth (w/presets)  
Automatic Gain  
AutoMute  
Band Joiner

Bleed Kill-pressor  
Bric-a-Brac  
De-Esser  
De-Esser (by Tukan)  
DrumReplacer  
Learning Baby  
Learning Sampler  
Let It Key  
Live ScrubberDuckie  
Loudness Meter  
Macro Controller  
Monitor Routing Utility  
Multiband Processor  
Non-Linear Processor  
Preamp w/shelving filters  
Pre-arranged Loop (for audio)  
Random Modal Sequencer  
Reference Noise  
Routing tool  
Router  
Second-Order Phase Shifter Allpass  
SNR Meter (w/presets)  
Spectrum Matcher  
Sphinx S2  
Stereo Alignment Delay  
Strobe Tuner  
Tone Sweep  
Tool S2  
Triggered Random Modal Riffer  
TriLeveler 2  
Waveshaper Multi

## **Arps/Sequencers:**

arp!0 - groovy MIDI arp  
El Chordero  
Euclidian Sequencer  
Gaussian Humanizer  
MIDI Arp  
MIDI Arpeggiator (w/presets)  
Nova Two - Generative Sequencer  
Sendo  
Sequencer MegaBaby  
Stochasticizer  
Super Arp!  
VeloCycle

## **MIDI FX:**

CCRider

Channel to Keyswitch  
Choking Hazard  
Cross-Polyphonic FM  
Droplets (w/presets)  
Fade In / Fade Out  
Karplus-Strong Delay  
KeyMap II  
KeySnap  
Latch  
Looper  
Mibrato  
MIDI Constant Note Length  
MIDI Gate  
MIDI Harmony (w/presets)  
MIDI Pattern/Scale Variation Generator  
MIDI Pitch Follower  
MIDI Polyphonic Splitter  
MIDI Re-mapping  
MIDI Strummer  
MIDI Velocity Variation Generator  
MIDI Vocoder  
Mipressor  
Probalocity  
Tool II  
Vibrato (w/presets)  
Wobulator

## **MIDI Utilities:**

16 pad MIDI Notes  
AB Level Matching  
Audio to MIDI  
Audio to MIDI Drum Trigger  
Fretboard Mapper  
MB ReAutomate  
MIDI CC LFO  
MIDI CC Mapper X  
MIDI Chord Splitter  
MIDI Chordizer  
MIDI Clock Generator  
MIDI Event Filter  
MIDI Note Preview  
MIDI Performer2  
MIDI Pitch Bend and Modulation Wheel  
MIDI Polyphonic Splitter  
MIDI Rhythm Trainer  
MIDI route via GMEM  
MIDI Timing and Velocity Humanizer  
MIDI Velocity viewer  
Pitchwheel Control Center

Pre-arranged MIDI Looper  
Rearticulate  
Super 8 MIDI-synch'd looper  
SwixMitch GUI  
VI Sculpt  
Vmorph

MIDI Transfer  
MIDI Transposer and Compressor

## **MIDI Editing:**

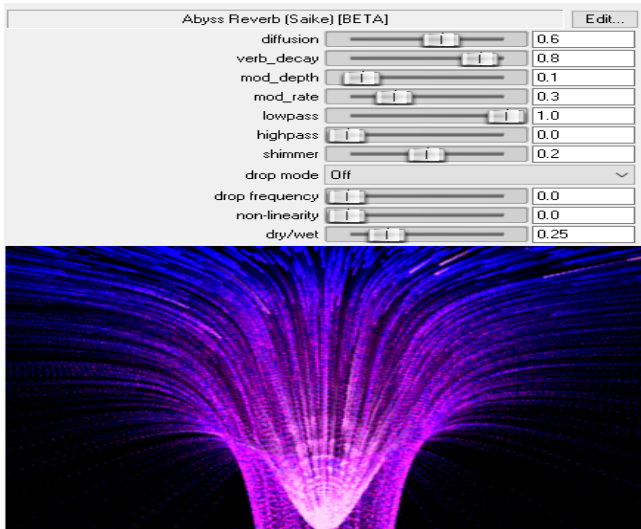
Play Speed Switcher  
MIDI CC-to-CC Remapper  
MIDI CC to Pitch Bend  
MIDI Message Converters  
MIDI Nudge  
MIDI Routing Matrix  
MIDI Tool v2

### **Additional texts:**

[Scale text](#), [Sequence text](#) and [Keymap text](#)

# REVERB:

## Abyss Reverb:



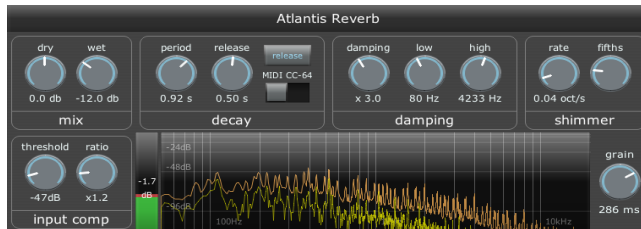
A popular "shimmery" reverb.

(Note: This plugin may not like 8x oversampling, as it causes endless noise buildup)

<https://www.youtube.com/watch?v=nd1sMWZKGIY>

<https://www.youtube.com/watch?v=ny65fdUEX5s>

## Atlantis Reverb (w/presets):



For long ambient sounds; shimmering textures.

"Grain" size controls the freq./time resolution.

Longer grains give smooth and pure tones;

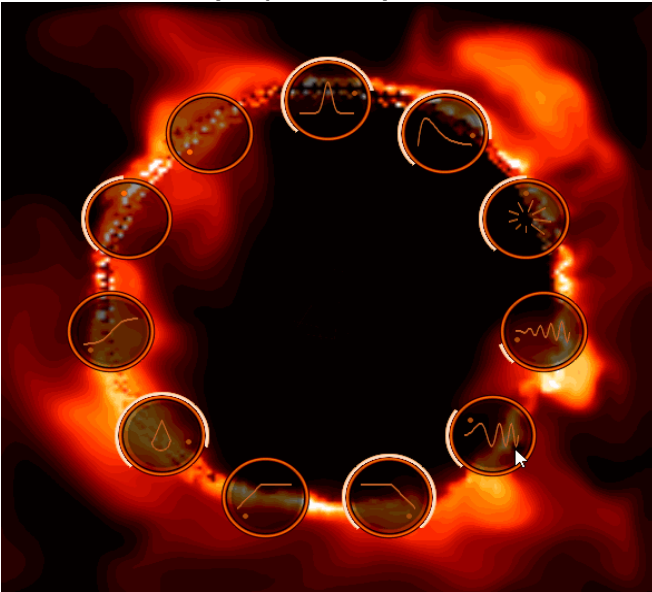
shorter ones give a thicker, wavering tones.

The "shimmer" control slowly morphs the reverb up by octaves over time, adding a bright and

ethereal sound to the reverb. "Fifths" dials in octave-and-a-fifth shifts; "Release" controls decay section to move the current echoes over to a second, faster-decaying reverb line. If quieter bits sound great, but louder sections sound harsh, the "input comp" section can help you tame the peaks.

[https://www.youtube.com/watch?v=Os7b\\_yzYZlw](https://www.youtube.com/watch?v=Os7b_yzYZlw)

## Lava Verb: (w/presets)



Shimmer reverb w/ 5 algorithms that have their own sound.

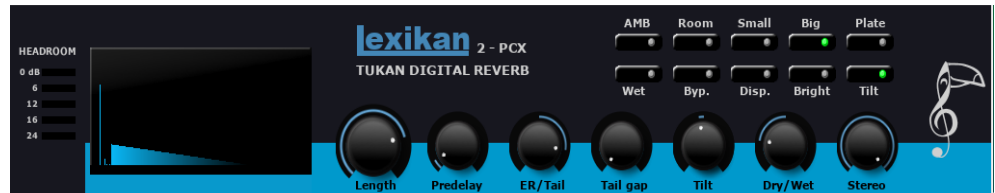
Works in time domain and spectral domains.

### Features:

- Shimmer (through pitch shifting).
- Saturation.-Ice effects.
- Preset EQ curves.
- UI with fluid dynamics.

<https://www.youtube.com/watch?v=56yRgGmM-Qs>

## Lexikan + Lexikan 2 (w/presets):



From ambiance to big plates, everything is possible. Give your tracks some room and space in the mix. "Using the Lexikans in a clever way, the mix will become lively and 3D-ish", says Tukan Studios (can be CPU hungry)

Manual: <https://www.youtube.com/watch?v=Ik-Hbw38k8c>

## Satan Verb (w/presets):



Mostly for diffused and gated style reverberation. Can either be used without an envelope, to generate large ambient spaces, or modulated by

an envelope based on the input sound, to give a sound more body while not adding too much noise to the dead time.

### Features

- FFT based reverberation algorithm.
- Optional downward spectral smearing for creepy effects.
- Optional spectrally shifted copy can be mixed in.
- Steep IIR LPF/HPF filters for the verb.
- Optional delay compensation.
- Envelopes based on the input envelope.
- Input non-linearity (dist), spectrum non-linearity (ceiling).

Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down the page)

## Verb Ducker:

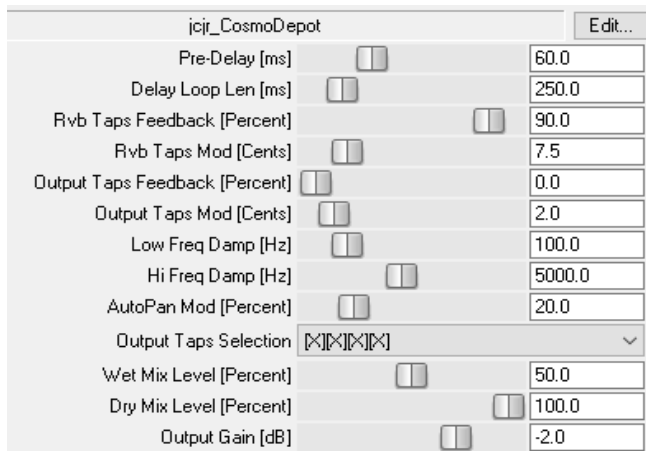


"To prevent your mix "swimming in reverb tails"

This plugin is designed to reduce the volume of the reverb or a delay while the direct signal is happening.", says Tukan Studios.

# DELAYS/ECHOS:

## Cosmo Depot:



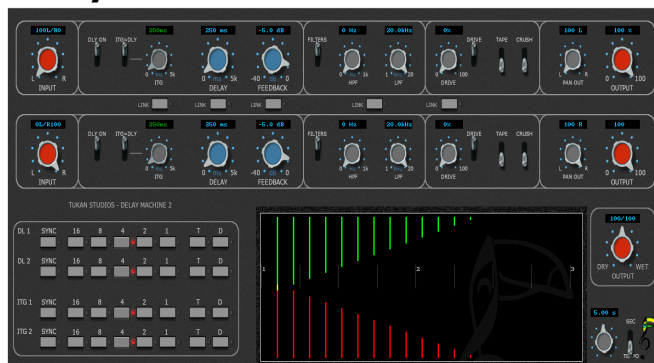
A multi-tap delay  
(Image shows a drop-down menu)

Discussion:

<https://forums.cockos.com/showthread.php?t=226209>

Download, [click here](#):

## Delay Machine 2:



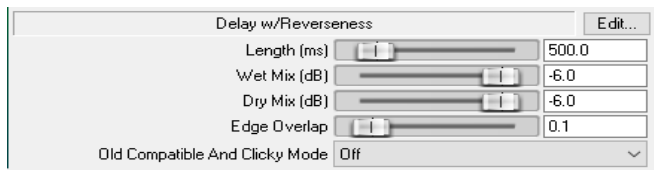
Interesting delay patterns with total control of the timing/tonality of left and right channels. Capable of side-chain input, the delays can be processed by any other plugins while the clean signal stays clean.

[User contributed presets](#):

<https://www.youtube.com/watch?v=ZM6sARDHhEE>

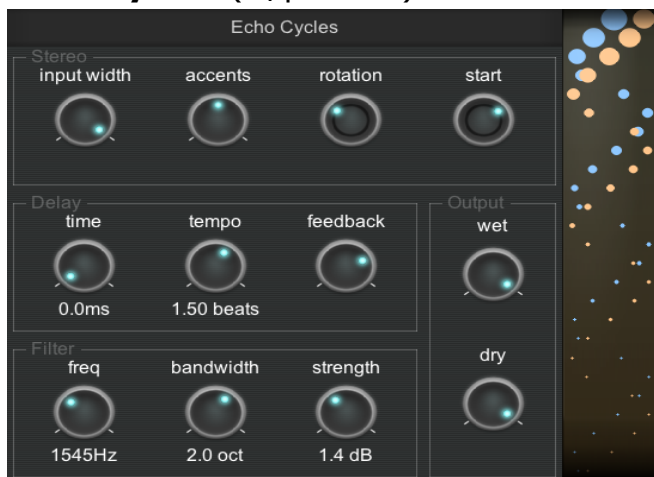
<https://www.youtube.com/watch?v=JupFHTdueJA>

## Delay w/Reverseness:



<https://www.youtube.com/watch?v=M3ZiHAPRu7U>

## Echo Cycles (w/presets):

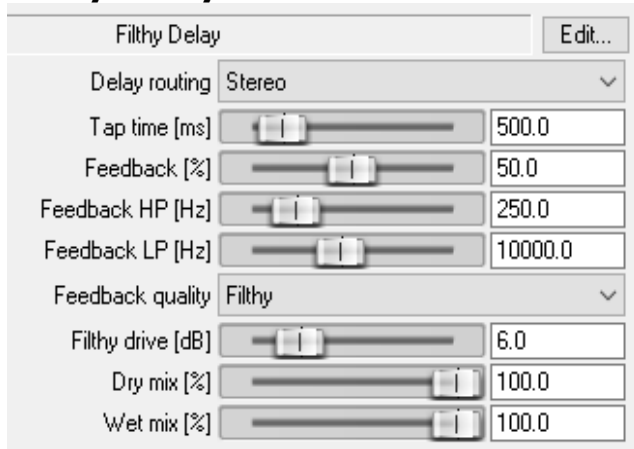


A feedback delay effect where the echoes move through the stereo space.

The stereo position of the echoes are independent, and good for building up textures.

<https://www.youtube.com/watch?v=BZ-1z7IKYTt>

## Filthy Delay:



Three signal routing modes:

Stereo: delay tap happens where the signal happened

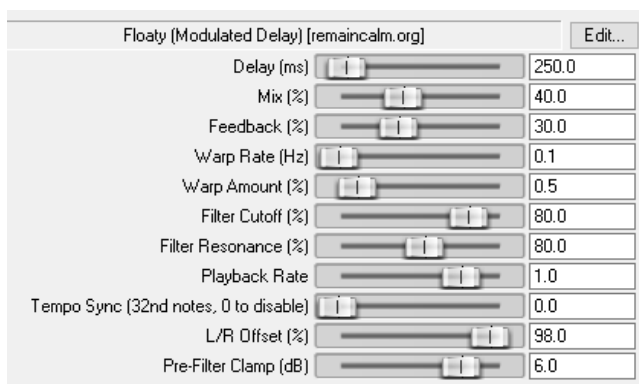
Inverted: delay happens on the opposite side of the signal

Ping-pong: delay reflects back / forth between both sides

(\*More instructions in the actual code\*)

Link to [Filthy Delay updates](#)

## Floaty:



Modulated delay; lots of extra craziness.

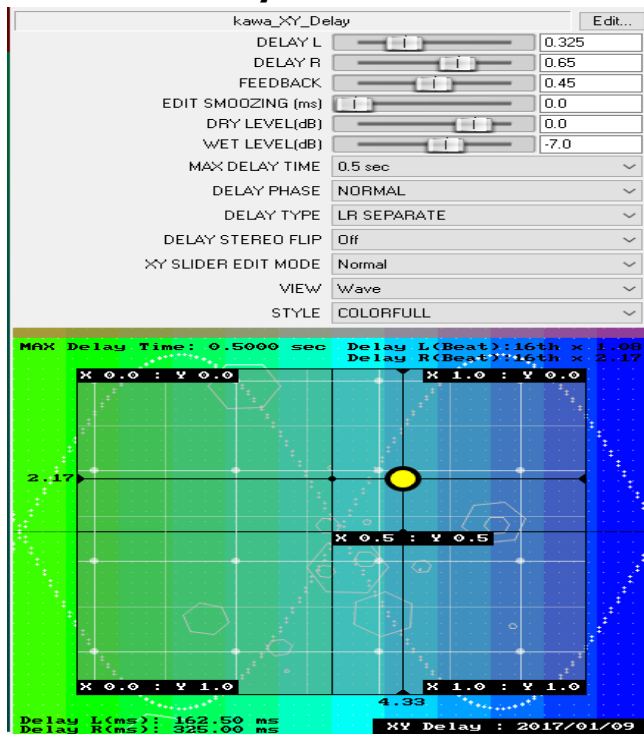
It's creator says, "It's a tape-style modulated delay -the play head can "float" around the tape in interesting ways."

"The only stock delay with modulation (ReaDelay doesn't have it)"; "I use it sparingly (with gentle settings) to help create a subtle "dreamy" effect."

"It does a great 100ms "Lennon" style short vocal

delay with a bit of tweaking. You can also knock the play-rate up to 2x and with the right mix, delay time and filter settings it can do some stellar sparkly stuff to synths."

## Kawa XY Delay:



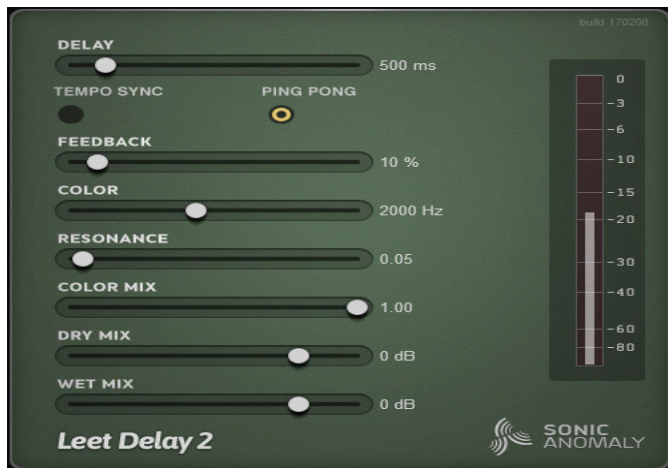
<https://www.youtube.com/watch?v=3InE8QRSzk0>

## Khaki Delay S2 (w/presets):



<https://www.youtube.com/watch?v=evyrftAZ4NM>

## Leet Delay 2:



A delay with character  
Can sync with host tempo.

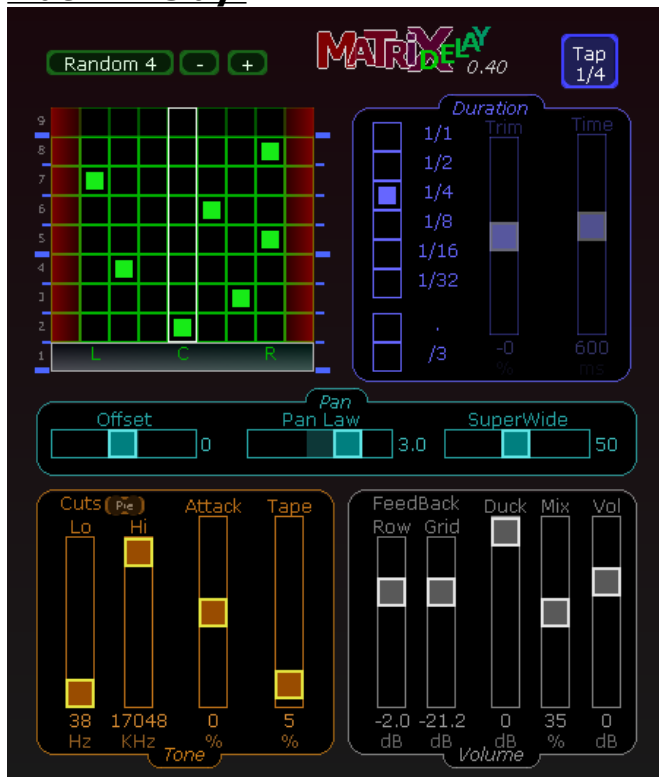
Delay time 0-4000ms  
Ping Pong mode.

Color slider adjusts the filter frequency of feed-backed signal.

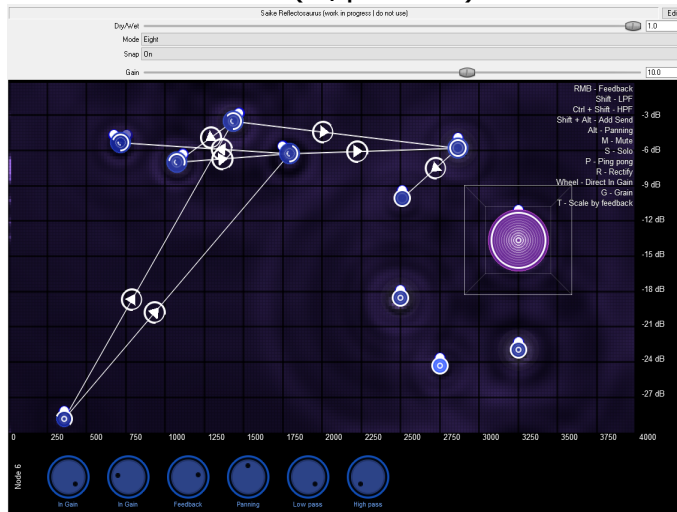
Resonance control can go to extreme values.

Can create self-oscillating infinite loop.

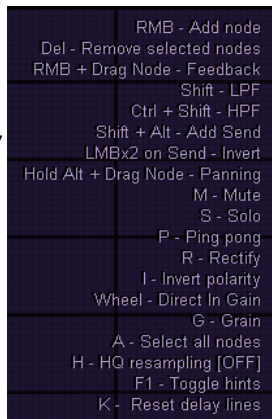
## Matrix Delay:



## ReflectoSaurus (w/presets):



(Close up)



Each node = a delay.  
X axis = delay time  
Y axis = volume  
Radius = how much feedback the delay has.

The arc indicates frequency range of the sound allowed to pass each feedback round.

The little knob indicates the nodes panning.

Nodes can be routed to each-other to create complex effects.

Presets: <https://forum.cockos.com/showpost.php?p=2520483&postcount=938>

Click [here for the manual](#):

Examples: <https://www.youtube.com/watch?v=47L9bysgiIA>

<https://www.youtube.com/watch?v=pUu3h21yARY>

<https://www.youtube.com/watch?v=SCukvDPYk8>

## Simple Delay:



To increase/decrease knob values by 5, hold down the CTRL key while dragging the mouse.

Use the text box to input a value for whichever knob or slider you last clicked on with the mouse.

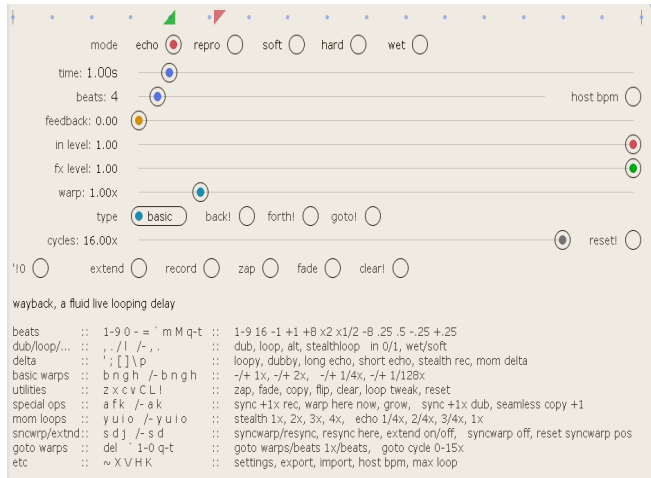
<http://forum.cockos.com/showthread.php?t=34394>

## Tukanoplex Tape Echo S2:



<https://www.youtube.com/watch?v=bi87YEPdaTs>

## Wayback:



An audio delay for live looping, with warp (shifts the delay in time)

Wayback blends a basic delay with the essential abilities of a looper, while staying as close as possible to the delay paradigm.

Warp, copy & extend operations use a big circular buffer to revert to prior audio & manipulate multiple loops.

Contextual help is shown below controls

Wayback supports external fx on feedback.

Live looping controls are cross-faded to avoid clicks and even transitions.

“A delay-based tool that is fantastic for interactive live looping.”

Docs are here: <http://bangzero.org/wayback/guide>

Forum topic : <https://forum.cockos.com/showthread.php?t=233734>

# CHORUS/FLANGERS:

## Chorus w/GUI:

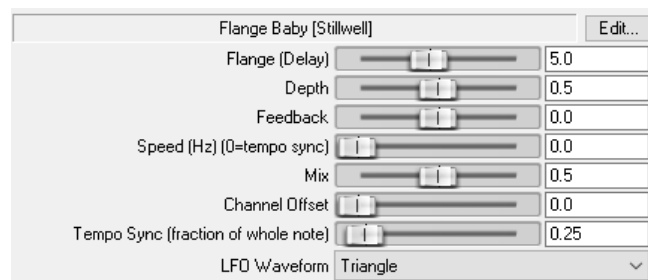


To increase/decrease knob values by 0.1 if the default value, hold down the CTRL key while dragging the mouse.

Use the text box to input a value for whichever knob or slider you last clicked w/mouse.

<http://forum.cockos.com/showthread.php?t=19647>

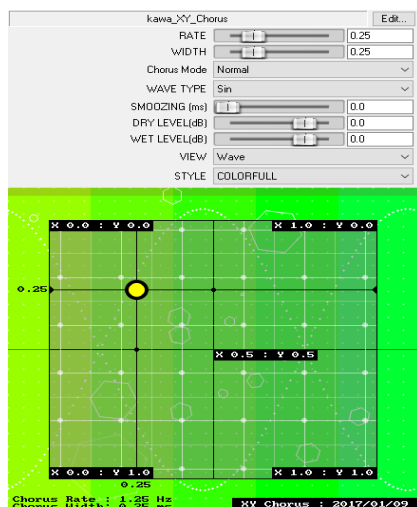
## Flange Baby:



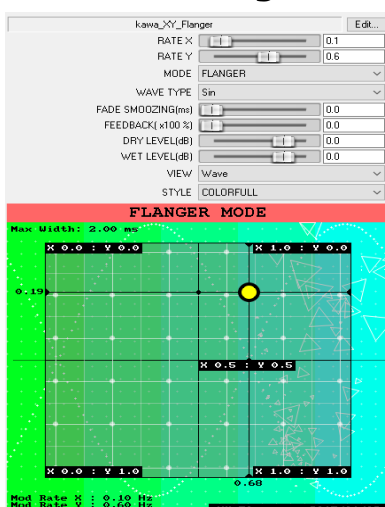
## JS Flanger:



## Kawa XY Chorus:

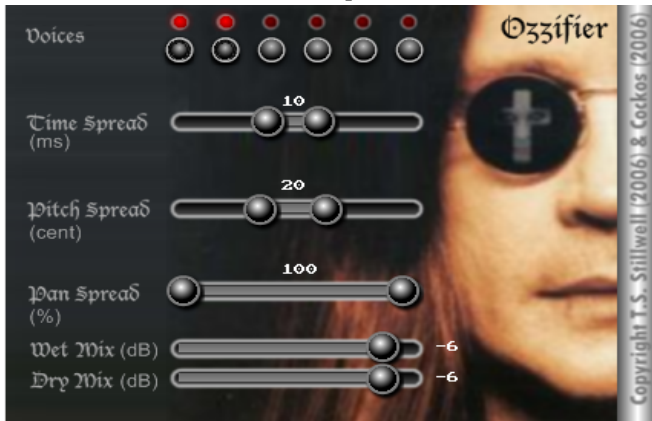


## Kawa XY Flanger:



<https://www.youtube.com/watch?v=3InE8QRSzk0>

## Ozzifier Pitch/delay/doubler:



Multi-voice chorus/delay.

A classic fattening pitch left/right effect

Click voice buttons to turn on/off;

Click/drag slider to set

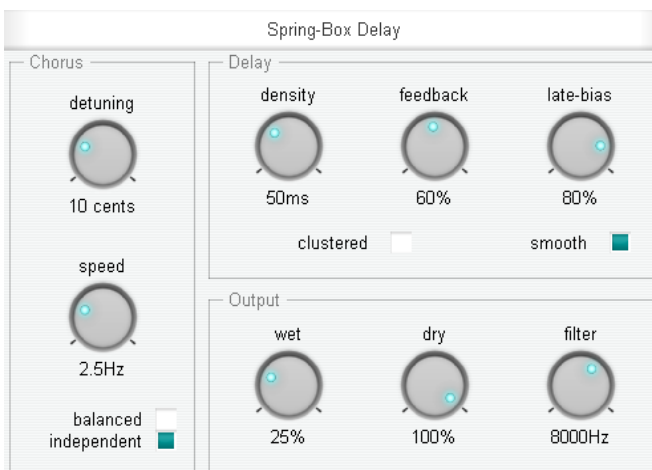
Right-click controls to reset to default values.

<http://forum.cockos.com/showthread.php?t=17605>

<https://www.youtube.com/watch?v=HV3sK0ted6I>

[https://www.youtube.com/watch?v=Nnk\\_5AjxRg](https://www.youtube.com/watch?v=Nnk_5AjxRg)

## Spring-Box Delay (w/presets):



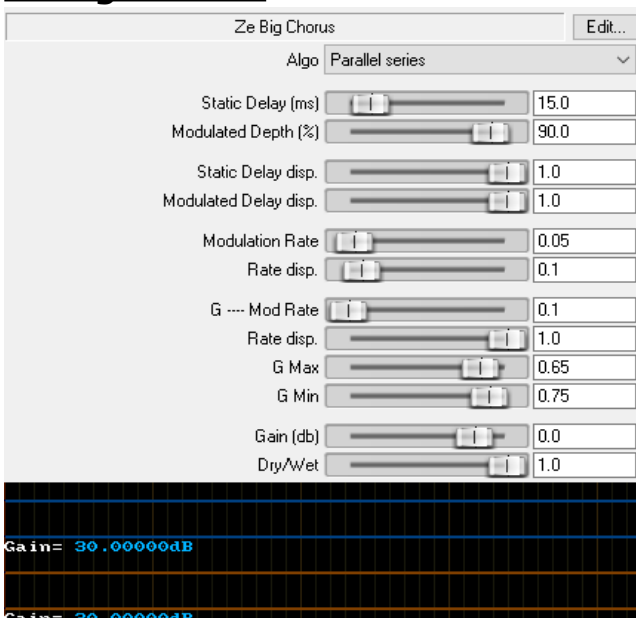
A chorus/echo effect based on a matrix of 4 delay lines feeding back into each other.

The delay lines vary in length according to the chorus parameters, so you can create a range of sounds from choruses and ambiences to space-like reverb effects.

Early echoes can be suppressed to get a smoother sound (the "late bias" control), by using two parallel delay structures with different feedback ratios, and subtracting the results.

<https://www.youtube.com/watch?v=UqryhWXHbha>

## ZE Big Chorus:



Many options; can hog CPU.

- 12 algorithms with series/parallel/nested all-pass delay lines
  - seven all-pass delay lines x 2 (stereo)
  - full stereo (independent signal paths)
  - separate parameters for static delays (ie "reverb")
  - modulated delays (ie "chorus")

See the JSFX code for additional info and instructions

**ZE Scanner Chorus:**

Ze Scanner Chorus		Edit...
LFO A Rate	<input type="range"/>	7.0
LFO B Rate	<input type="range"/>	3.25
LFO A B Mix	<input type="range"/>	0.2
Modulation depth	<input type="range"/>	8.0
F1	<input type="range"/>	2500.0
F0	<input type="range"/>	1000.0
R	<input type="range"/>	0.7
LFO F Rate	<input type="range"/>	0.125
Feedback	<input type="range"/>	0.0
Fb Type	Short ▾	
Feedback LP	<input type="range"/>	1.0
Type	Chorus ▾	
Self PM (dist)	<input type="range"/>	0.0

Code, updates and discussion can be found, here:  
<https://forums.cockos.com/showthread.php?t=177387>

# EQ/COLORING:

## **EQ-A4k:**



Parametric EQ. Fully automatable low CPU, 0 latency, noise or harmonic distortion. And it's scalable .

Info and repository, here:

<https://forum.cockos.com/showthread.php?t=281848&highlight=jsfx>

Note: EQ-P3B (below) can also be found here.

## **EQ-P3B:**



A Pultec-style EQ ("modeled on a legendary passive equalizer developed in the 1950s.") (see link, above)

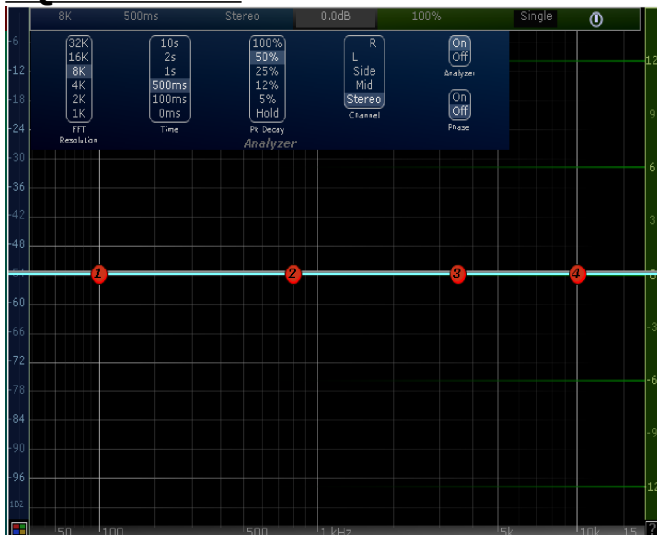
## **EQT-2KAN S2:**



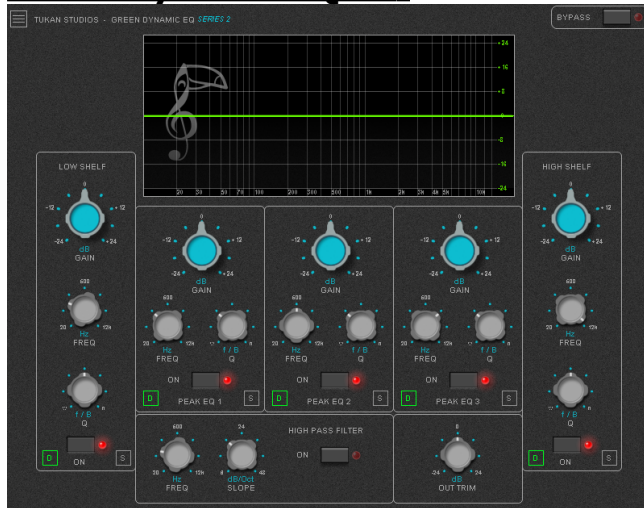
A Pultec-type EQ (Knobs say "cps", rather than "Hz")

<https://www.youtube.com/watch?v=gnG1k6p60YE>

## **EQall-BETA2:**



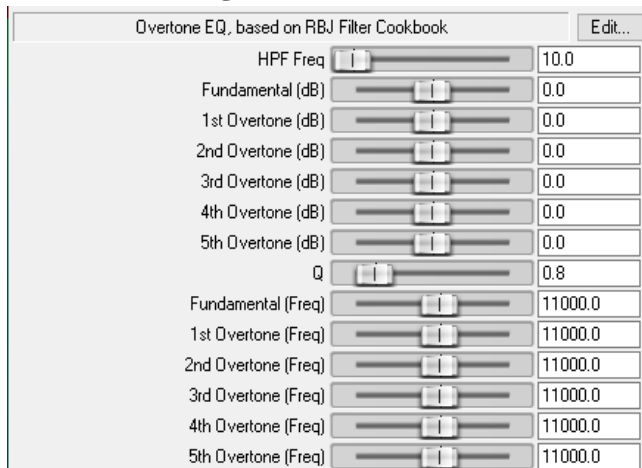
## Green Dynamic EQ S2:



<https://www.youtube.com/watch?v=ZpSmSJ5QbrQ>

"A dynamic equalizer with five bands that can be turned into dynamic; perfect for turning down frequencies happening every now and then."

## Overtone EQ



A dynamic EQ that takes a MIDI note input and calculates the note frequency and harmonic overtones, then adjusts each EQ bands frequency accordingly.

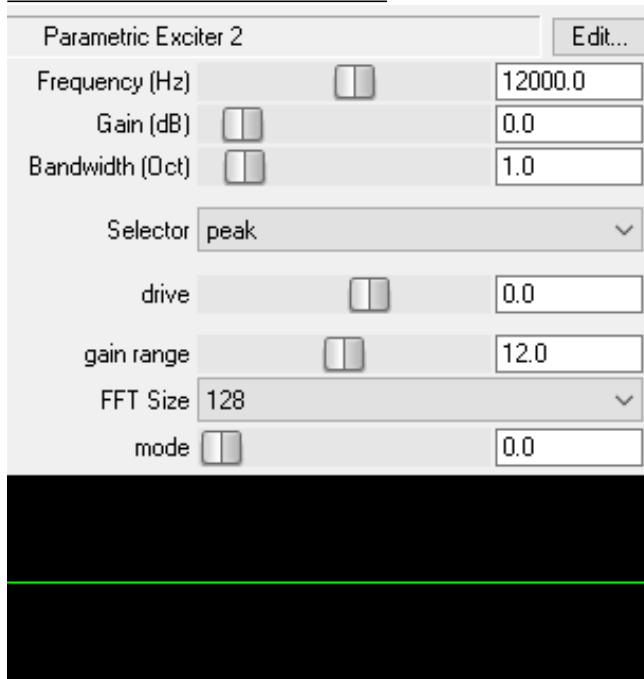
Best used as a sound shaping tool.

Works best on monophonic lines.

Get it here. Instructions, too

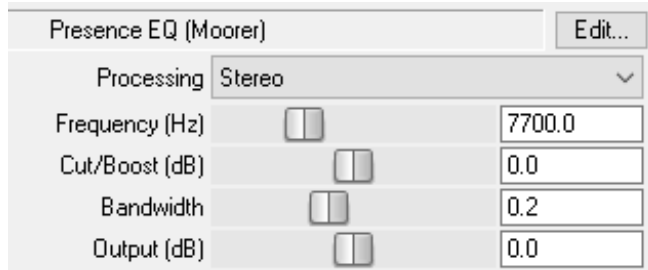
<http://forum.cockos.com/showthread.php?t=21561>

## Parametric Exciter 2:



"Selector" for: Peak, Hi-pass, lo-pass, all-pass, band-pass, notch, lo-shelf and high-shelf

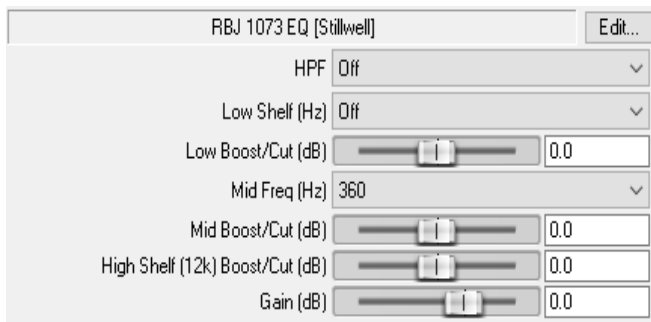
## Presence EQ:



Adds presence to the top end of sounds. Bandwidth of the boost is somehow smart and frequency dependent.

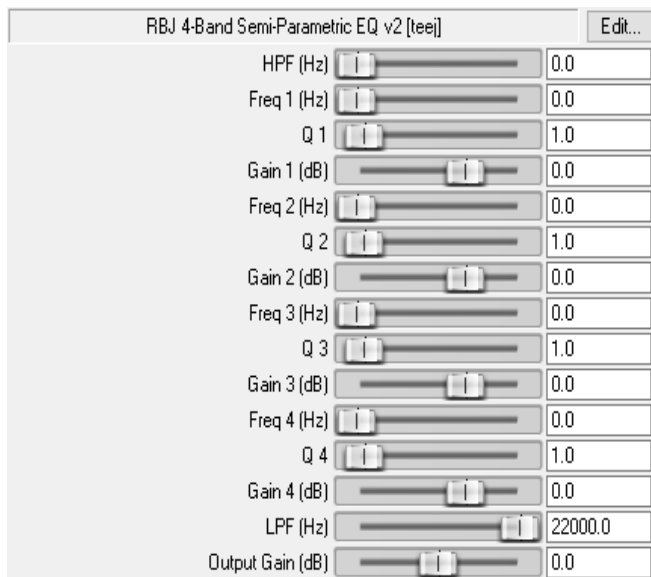
- frequency range - 3100hz-1850hz
- cut/boost - -15/+15db
  - BW - bandwidth of the boost
- output gain control -24/+24db

## RBJ1073:



The high shelf of this EQ is a frequent go-to for the real 1073. It has a fixed frequency of 12k, but the wide Q of the slope affects the signal lower down the spectrum. If high-shelf sounds brittle, but has a smooth top, try a few db cut at 3.2k. Similar complimentary boosts/cuts can be made with the mid-range filters.

## RBJ4:



A semi-parametric EQ that has selectable frequencies via drop down boxes.

Q is 0.8 for all bands.

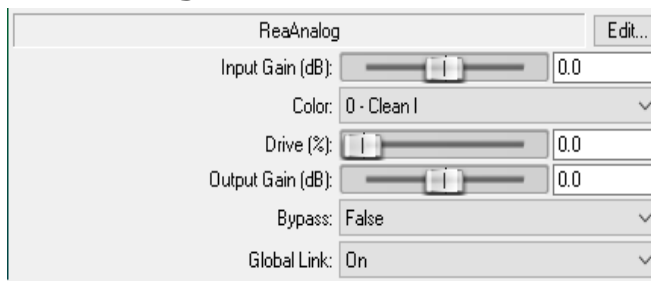
Band 1 - choose between 40, 80, 160, 315 and 500hz

Band 2 - Choose 125, 250, 500, 1k or 2k

Band 3 - 315, 630, 1.2, 2.5 and 5khz

Band 4 - 1.6, 3.2, 6.4, 9 and 12khz

## ReaAnalog:

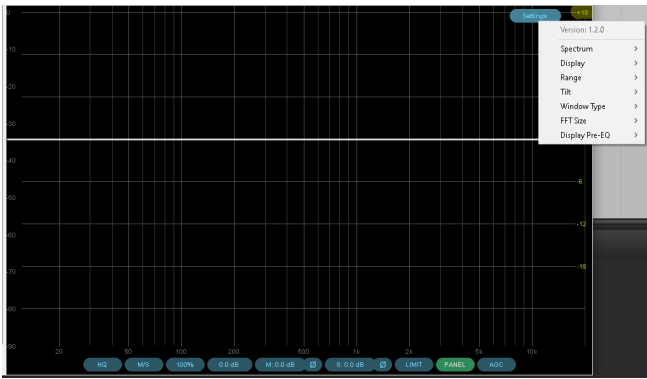


Analog-style, frequency specific saturation/coloration. 17 presets. Output volume is automatically compensated. The "global link" control is for controlling multiple instances of the plugin simultaneously. "Most beautiful and elegant sounding signal coloring, even linkable across all tracks. Discussion:

<https://forum.cockos.com/showthread.php?t=232358>

Get it, here: <https://stash.reaper.fm/v/43046/ReaAnalog>.

## ReEQ:



A really well-regarded EQ. Clean, unobtrusive, extremely steep filter possible.

Much more info, here:

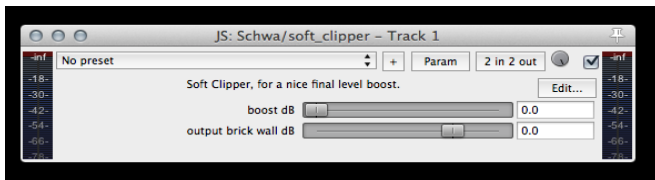
<https://forum.cockos.com/showthread.php?t=213501&highlight=reeq>

<https://www.youtube.com/watch?v=9YW-ZNqH5xw>

<https://www.youtube.com/watch?v=ddKCSUjSMLk>

<https://www.youtube.com/watch?v=V8sOxLnsPLg>

## Soft Clipper:



Takes the loudest peaks and rounds them off. Often more effective way of increasing loudness than a brick-wall limiter, it doesn't pump!

Pushing it hard can cause distortion but when clipping off a couple dB either on a master or

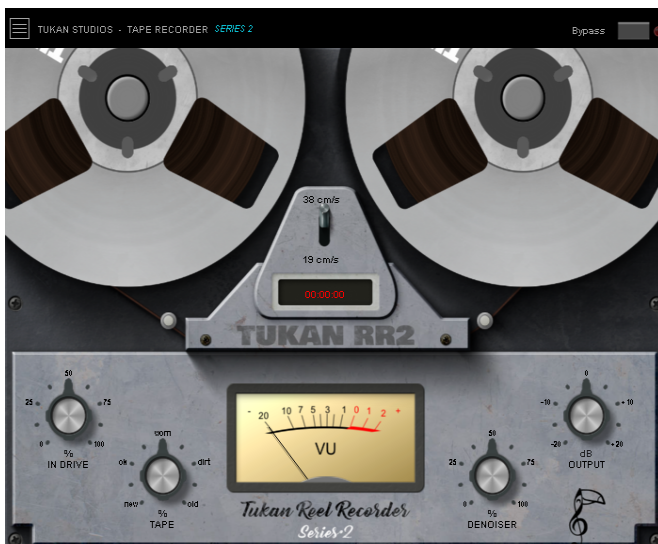
individual tracks it can be very transparent.

Only 2 controls:

- 1) Boost increases the input up to 9dB
  - 2) Output brick-wall is the max output level, which can be set from -3 and +1 dBFS
- "Use on master bus either before/in place of a brick-wall limiter. Useful on kick and snare tracks where I need them to be loud but not actually take up headroom."

ReaperBlog video: [https://reaper.blog/2012/09/js-effect-spotlight-soft\\_clipper/](https://reaper.blog/2012/09/js-effect-spotlight-soft_clipper/)

## Tape Recorder S2:



"Tape emulation with two speeds, saturation, and wow and flutter. Perfect for rounding out an instrument."

## Warble - Pitch Shift:



Manually correct, using the mouse to "nudge" the pitch up or down.

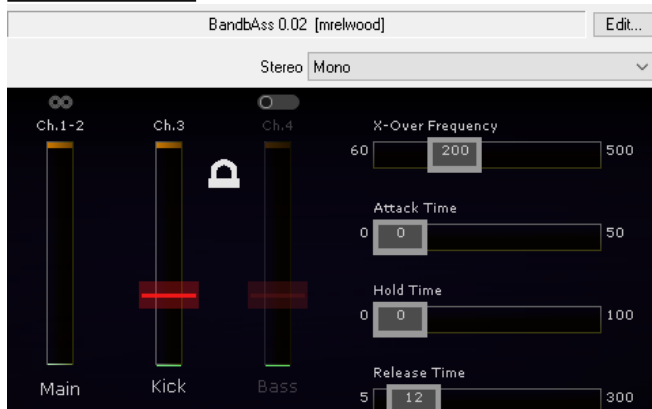
Note:

It has a few features missing at the moment. Most notably, there isn't a way to "snap to nearest note".

<https://forum.cockos.com/showthread.php?t=186988&highlight=warble>

# BASS / LOW-END:

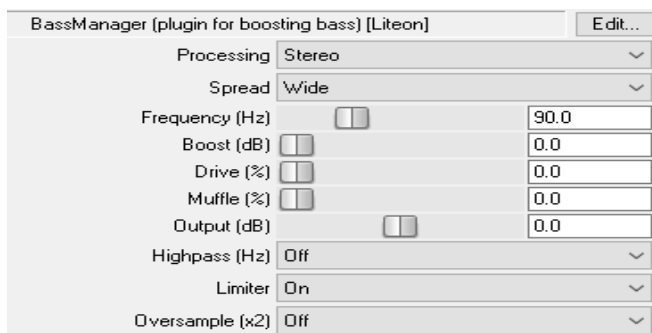
## **BandbAss:**



"A side-chain, low-end compressor (a preview version). "A great tool for reducing low frequency build-up in a stereo mix."

Insert a bass guitar track, and insert kick drum in the side-chain. The compressor will compress the lowest frequencies of the bass guitar through a shelving low-pass filter when the kick hits. The frequencies above the crossover frequency remain untouched. Without side-chain input it functions as a stand-alone LP shelving compressor." (from the code)

## **Bass Manager/Booster:**



A 2-pole low-shelf filter for boosting frequencies. Also has a saturator for high-end muffle and a limiter.

- spread - controls the width of the low-shelf
- frequency - 30-250hz
- boost - amt. of boost for the low end - 0/24db
- drive - adds saturation
- muffle - "muffles" sharp high-end frequencies.
- output - controls the output gain -24/+24db

- hi-pass - hi-pass filter for the low end at given frequency.
- limiter (on/off) - to limit the output from the plugin
- oversampling (on/off)

## **Bass Professor I & II:**



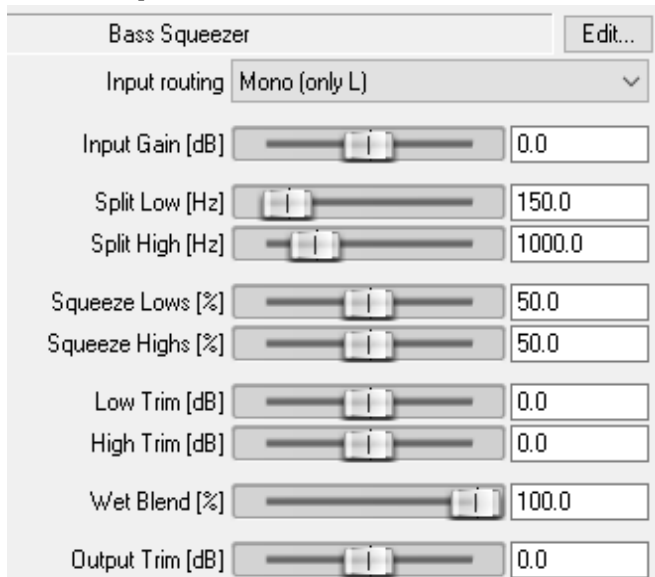
Sound-shaping suite for a bass guitar.

Bass Professor Mark II is not a replacement for the Bass Professor I, but for when neutral/less colored bass sound is preferred.

"Fantastic sub-enhancer in parallel or as a dirt machine"

Manual <https://reaperblog.net/2016/09/free-plugin-stige-bass-professor-mkii-vstjsfx/>

## Bass Squeezer:



Split-band compression and filtered distortion for instant "bathtub" bass.

Instantly pushes the lows, cuts annoying low-mids, and distorts the high end to let it cut through the rest of your mix.

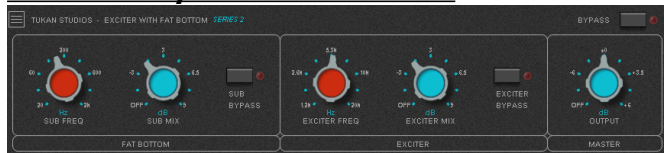
\*More information available in the JSFX code\*

## Bass Station:



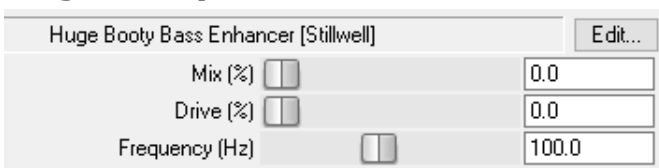
<https://www.youtube.com/watch?v=XD3WmMiMyjk>

## Exciter w/fat bottom S2:



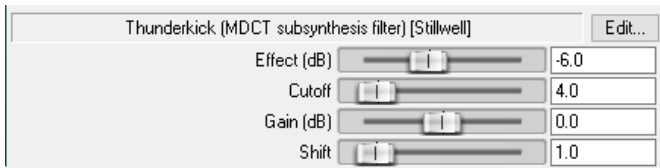
Based on the idea of the Type-C Aural Exciter. An exciter for the highs and adds sub-harmonics for the lows.

## Huge Booty Bass Enhancer;



Adds upper harmonics to LF content

## Thunderkick:



LF enhancer. Adds in sub-harmonics to enhance lowest octaves for non-pitched instruments. Mostly useful on kick drum. Think of it as a MIDI compressor...scales output volume range and adds/removes gain.

Tutorial: <https://www.youtube.com/watch?v=ZynVR9bMSZc>

# TRANSIENT:

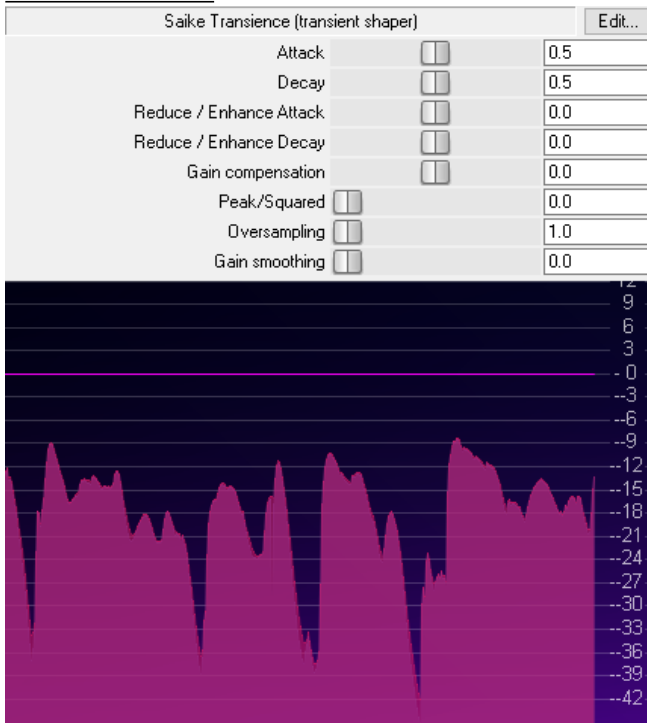
## Envelope Shaper:



This plugin is a basic but effective envelope shaper.

Transients and releases can very easily be adjusted.

## Transience:



It works by using two envelopes: one is an envelope follower (short attack, longer decay; roughly follows the peaks of the sound), the other is a user specified envelope (with attack/decay).

Shape the sound according to the difference between the two, making attacks or decays longer or shorter.

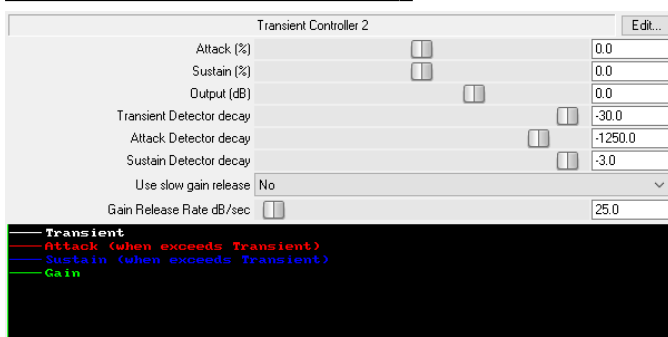
The plugin operates in logarithmic space.

Note: Transience relies on [Tight Compressor](#) being installed. If not, it will complain about missing my up-sampling library.

Instructions:

<https://github.com/JoepVanlier/JSFX> (scroll down the page)

## Transient Controller 2:



A modification of the standard Reaper's Transient Controller that adds graphic visualization and un-hides internal parameters for adjustment.

<https://www.youtube.com/watch?v=dITevIBUfCU>

## **Transpire:**



Works well w/drums and percussion.

Not linear, so small transients are being affected relatively stronger than large transients.

This is good for bringing up smaller details while not overloading on large hits.

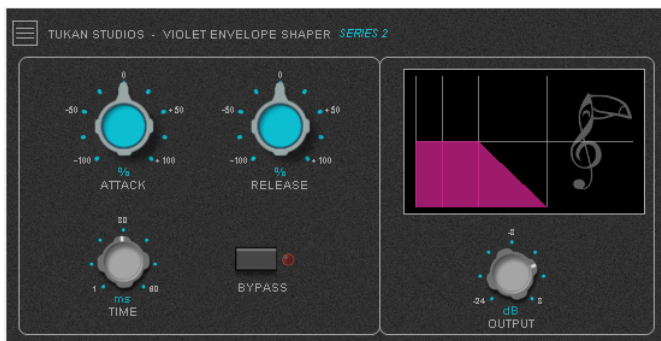
Sensitivity controls the amount of details it can process.

Small sensitivity will suit better for non-percussive material.

Output is hard clipped at -0.1dB.

Clipping can be turned on/off by clicking the clip indicator.

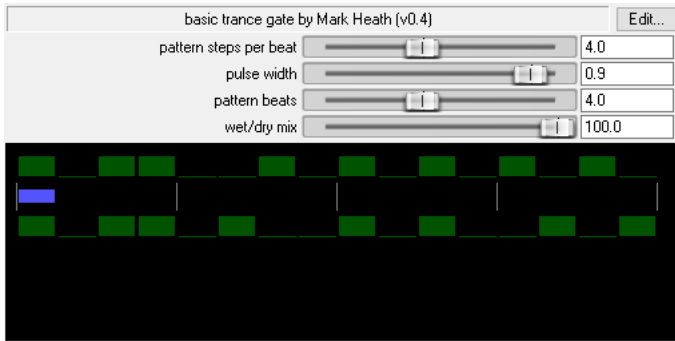
## **Violet Envelope Shaper S2:**



<https://www.youtube.com/watch?v=DwEloWYGvh8>

# GATES:

## Basic Trance Gate:

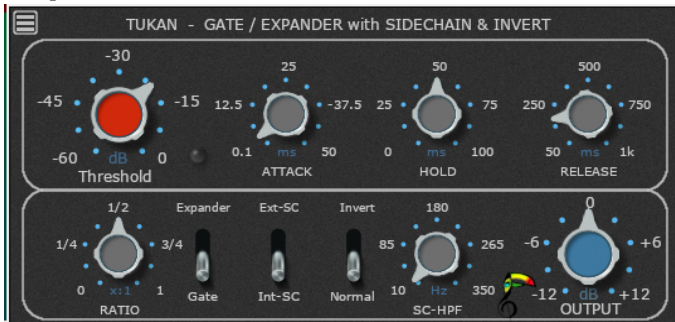


Separately control the pattern for left and right, adjust the pulse width, and create different feels by adjusting the pattern steps per beat.

A rudimentary graphical display shows what the sliders are doing.

<http://forum.cockos.com/showthread.php?t=29349>

## ExpGate 2:



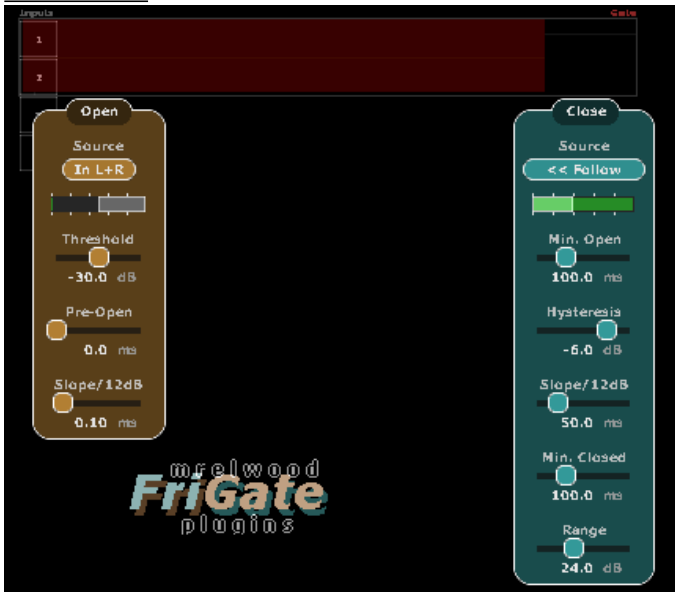
Gating guitars or drums is very effective and easy with this plugin.

Also features an "anti-gate", so if the signal gets too loud it will be muted.

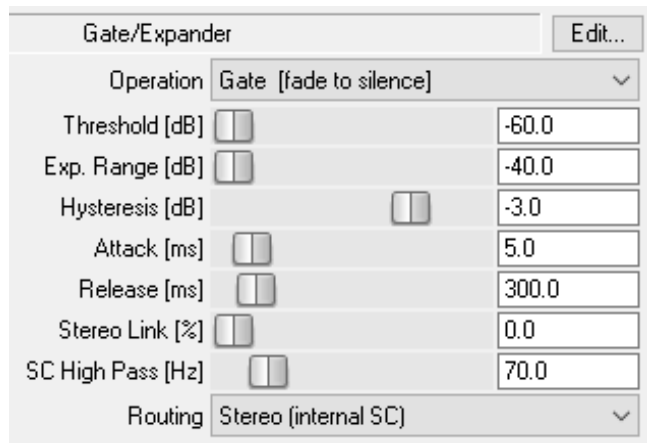
Great for cleaning up drums via side-chain or to get that pumping effect in EDM music.

"does what it should do...easy to dial in."

## FriGate:



## Gate/Expander:

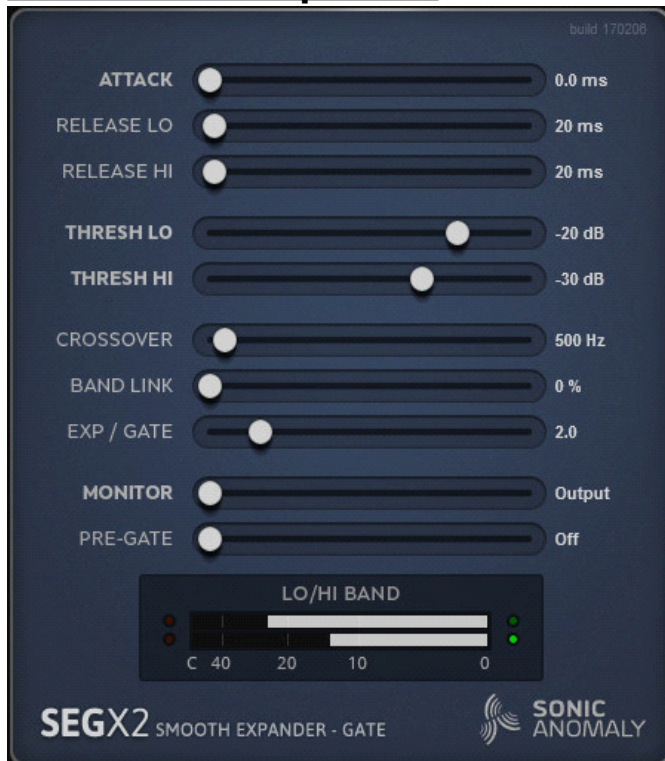


\*More information available in the JSFX code\*

## Purple Gate/Expander S2:



## SEGX2 Gate - Expander:



Smooth dual band expander/gate w/look-ahead

- Signal above the threshold passes thru unaltered.
- Independent release times for low and high frequency band.
- The band link control glues the low and high band behavior together.
- At 100%, the operation is similar to a regular wide band expander gate.
- The monitor slider allows monitoring of the detector side chain, which can be used for checking the gated out signal.
- The pre-gate option allows the gate open in advance, adding latency. When active, fast transients can pass thru unaltered, thus offering higher quality output.

## Stereo Chop Chop:



A pattern gate with separate controls for left and right channels.

"It's pretty powerful and a great way to liven up pad sounds and more."

Forum Post:

<http://forum.cockos.com/showthread.php?t=172929>

<https://reaperblog.net/2016/02/stereo-chop-chop-jsfx-plugin-demo/>

<https://www.youtube.com/watch?v=LHbSUXsJ82M>

Some presets: <http://stash.reaper.fm/v/26708/Chop%20Chop%20Preset%20Pack%201.RPL>

# COMPRESSION/EXPANSION:

## **1175 Compressor (Stillwell):**



A VERY FAST ATTACK compressor reminiscent of the UREI 1176 compressor.

The attack slider goes from 20 microseconds (0.02 milliseconds) for transient killing, and extends as slow as 2000 microseconds (2ms).

“Great for vocal, snare, and kick compression as well as buss compression. Wonderful results when you set attack times from 1ms - 10ms and short release times of 50-100ms, then mixing in the results to around 5-10%.”

Note: For longer, typical attack times, edit the code as follows:

*slider4:20<20,2000,10>Attack time (usec.)* to

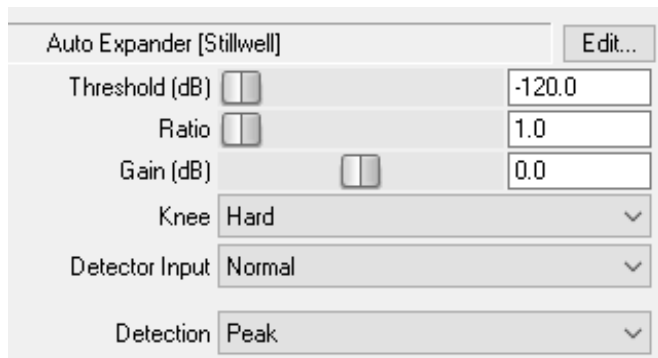
*slider4:20<20,10000,10>Attack time (usec.)*

(This allows to set attack times up to 10ms (1 ms = 1000usec).)

<https://www.reaper.fm/videos.php#eJM9qZbI0k4>

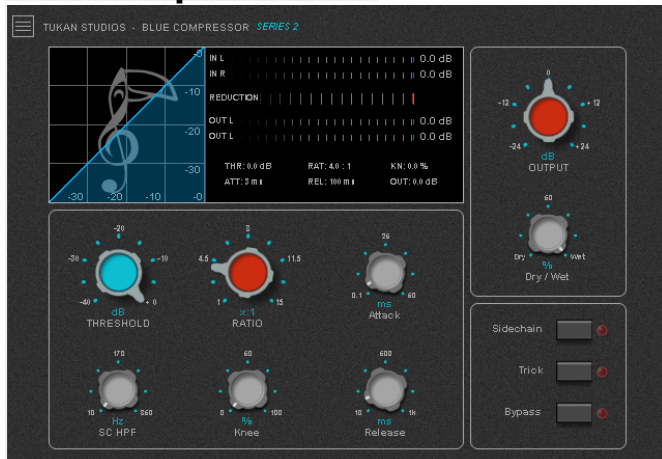
<https://www.youtube.com/watch?v=USN0Y2VReSo>

## **Auto Expander:**



Downward expander with program-dependent attack/release.

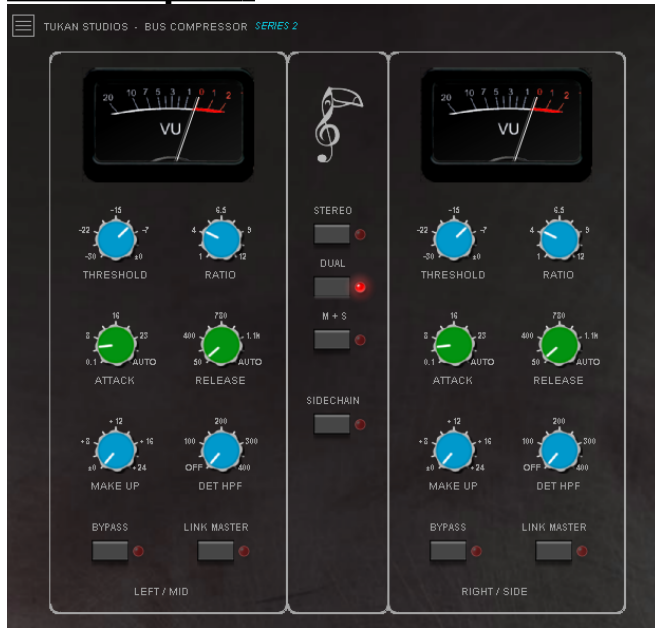
## **Blue Compressor S2:**



Mentioned in this video:

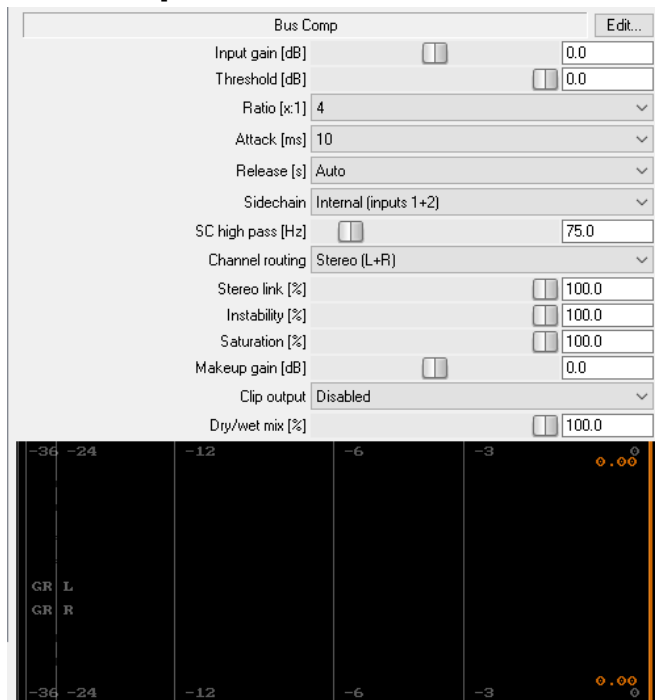
[https://www.youtube.com/watch?v=lsB\\_Jf50R0Q](https://www.youtube.com/watch?v=lsB_Jf50R0Q)

## Bus Comp S2:



<https://www.youtube.com/watch?v=gnG1k6p60YE>

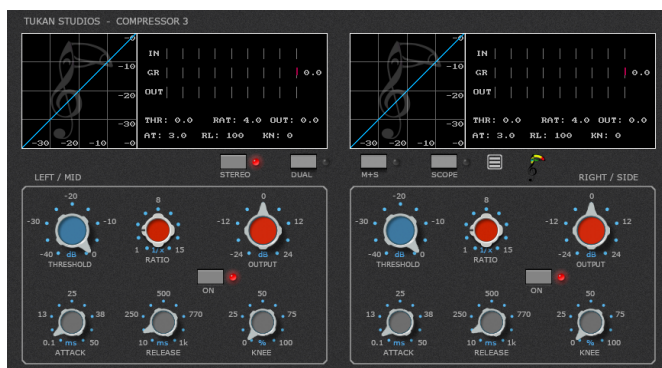
## Bus comp:



Can be side-chained.

\*More information available in the JSFX code\*

## Compressor 3:

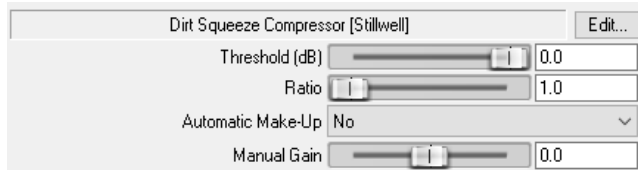


ReaperBlog video:

<https://www.youtube.com/watch?v=jZVZ1FAtot4>

<https://reaper.blog/2022/09/tukan-comp-3/>

## Dirt Squeeze Compressor:



A compressor that adds grit and distortion.

"Example using rhythm guitar: first normalize the track. Then insert dirtsqueeze and dial in:

Threshold -12

Ratio - 4:1

Automakeup - no

Manual make-up - 0

"Almost like magic, the guitar has a new life to it - a life with much more distortion! With this compressor, it's sweet spot seems to be just below the signal peaks."

## Dis-Treasure:

"A very convincing and phat "Distressor" emulation".

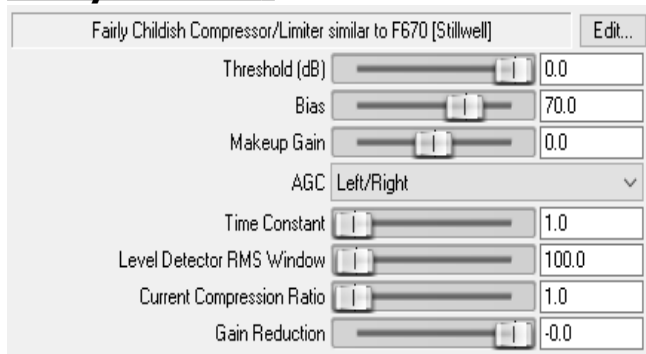


Get it here: <https://www.youtube.com/watch?v=4BxrZgeLH54>

<https://www.youtube.com/watch?v=2Ffn8DkxJCw>

<https://www.youtube.com/watch?v=-Kn0nhiGPe8>

## Fairly Childish:



Modeled after the famous "Fairchild"

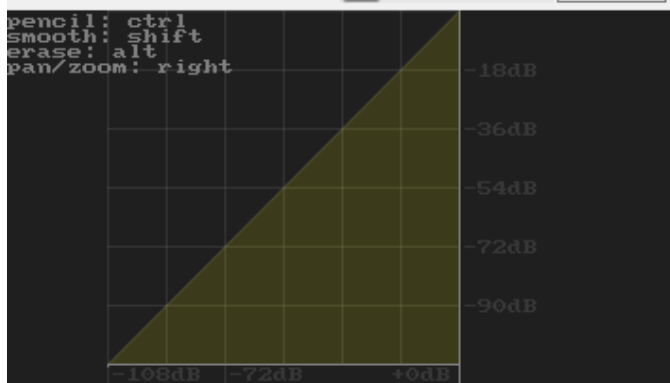
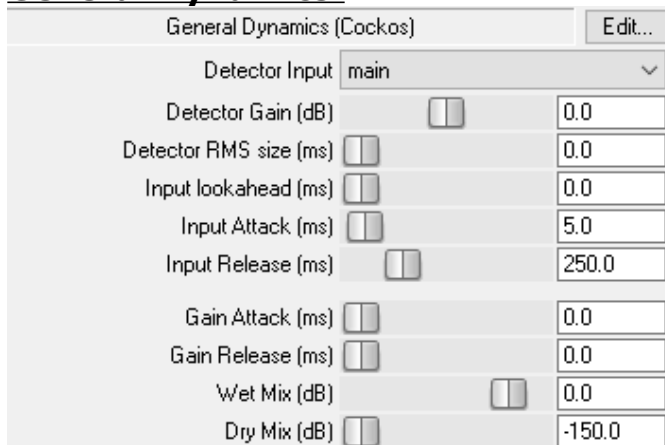
Discussion:

<https://forum.cockos.com/showthread.php?t=5636>

The documentation is rather

extensive: [https://wiki.cockos.com/wiki/index.php/Jesusonic\\_Effects\\_Documentation#FairlyChildish](https://wiki.cockos.com/wiki/index.php/Jesusonic_Effects_Documentation#FairlyChildish)

## General Dynamics:

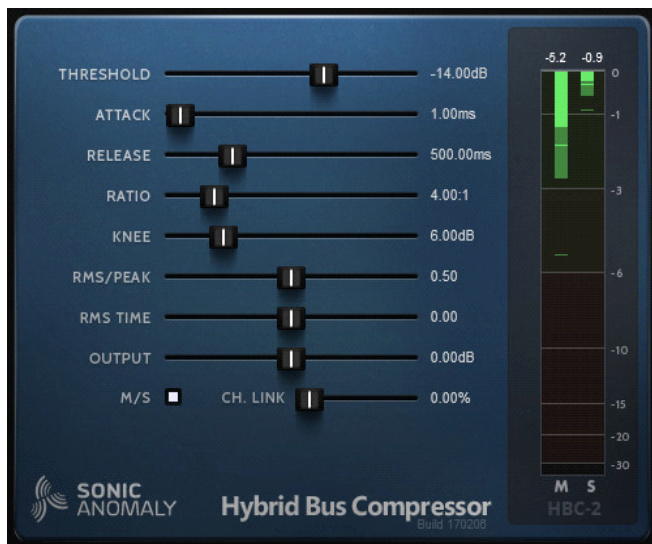


A powerful compressor/expander.

<https://www.youtube.com/watch?v=1AeINJNDDUs>

"I also came back to General Dynamics after [Kenny's \(Gioia\) video](#) and I think it has a sweet clean attitude with some pearly highs/upper mids -if you don't mind the unscientific wording."

## Hybrid Bus Compressor HBC-2:



Adjustable mix between peak & RMS detectors. The RMS window size is controlled by the release time, but can be overridden by the "RMS Time" slider.

Smart release time control. Helps keep compression seamless w/long release times. M-S mode compresses mid-side information instead of left-right.

Channel link adjusts amount of compression interaction between L-R or M-S

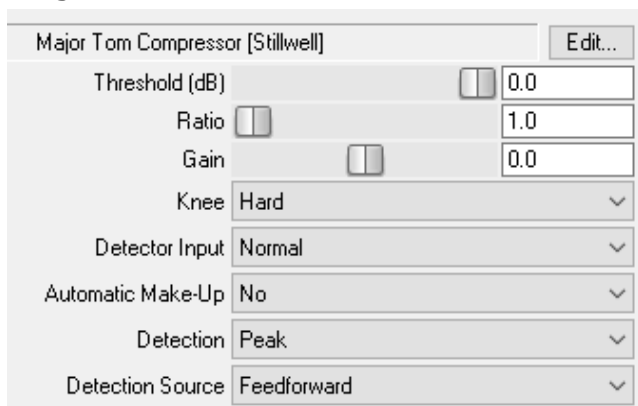
## LA-2KAN S2 – Opto-Compressor:



Emulates the famous LA-2A optical compressor with tube amp.

Derived from measurements of the real thing with many spare parts to get a good average

## Major Tom and Master Tom:

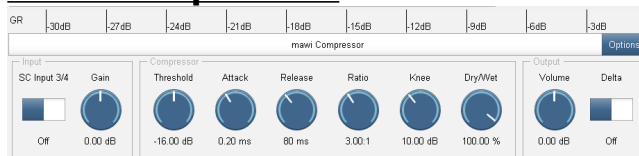


Controls exactly identical, but each has different algorithms, for a slightly different sound.

Excellent compressor, and works well in a variety of ways.

"ala dbx160 VU (old model) or kinda like an LA2A when in Feedback mode"

## Mawi Compressor:



## Mother Comp:



“Includes code from Stillwell”

## Multiband Ravager:



Extreme upwards compression

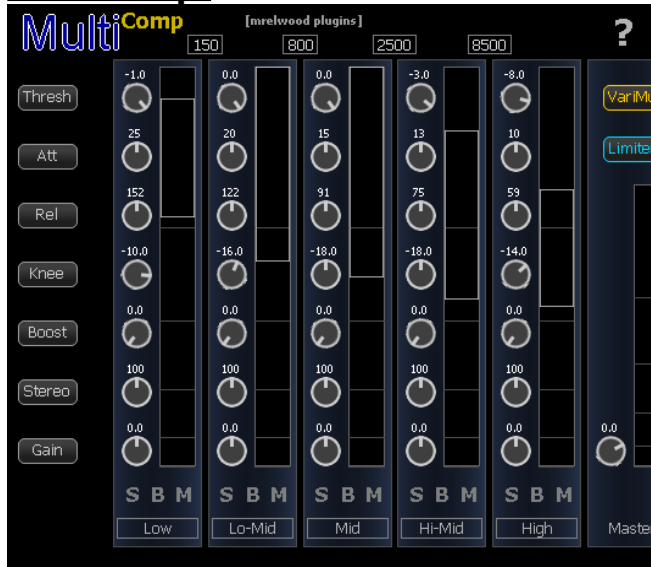
### Features:

- Add/remove bands w/right mouse button.
- Limiting in the forms of hard clipping / soft clipping.

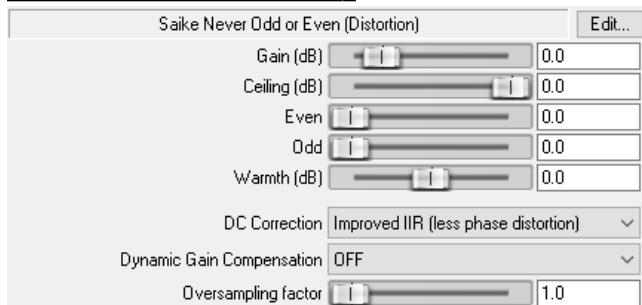
### Instructions:

<https://github.com/JoepVanlier/JSFX>

## MultiComp:



## Never Odd or Even:

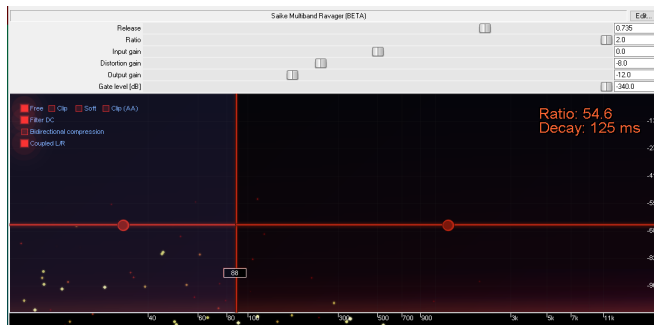


Distortion by adding odd or even harmonics. Soften and thicken the signal, or slightly crunch it, very convincingly.

Up to 4x over-sampled internally

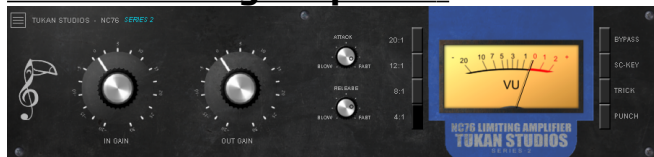
Discussion: <https://forum.cockos.com/showthread.php?t=220277&page=9>

## Not OTT:



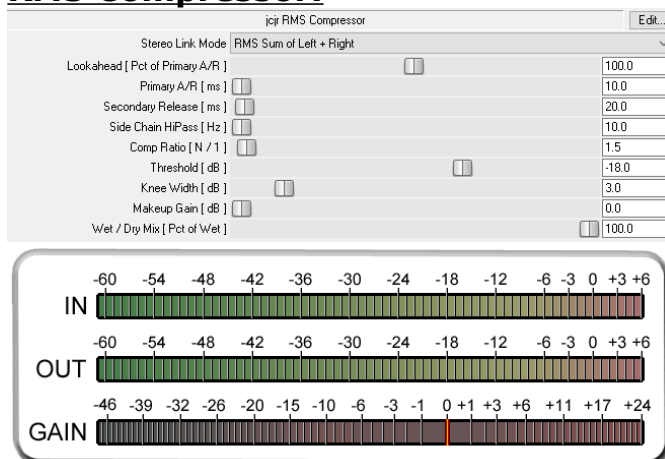
"A great linear phase multi-band upwards/downwards compressor (re-work of Multi-band Ravager)"

## NC76 Limiting Amplifier:



The "fastest" compressor; (FET style) Allows a special "punch" option i.e. for drums. <https://www.youtube.com/watch?v=E4hiGzpZVhs>

## RMS Compressor:



"...for low-ratio, transparent, mild compression of mixes, to be inserted upstream of a peak limiter for "mastering".

### Features:

- Low-Ripple Envelope Smoothing
- Adjustable Stereo Link Mode
- Adjustable Lookahead, and Knee Width
- Adjustable Sidechain HighPass
- Adjustable Wet/Dry mix (parallel compression)

<https://stash.reaper.fm/v/28197/jcirRMSComp.zip>

## S.L.A.X:



Inspired by the LA-2A.  
“Wonderful creamy opto-compressor...”; “An aggressive and dark character, which suits well for vocals, drums, bass and acoustic guitars”.

### The Controls

Gain: The output level.

Peak: The amount of compression.

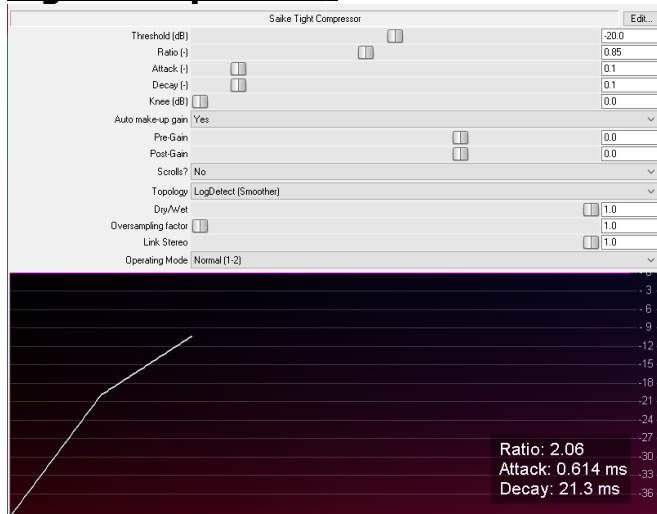
Emphasis: The amt. of high frequency influence in the side-chain Smooths out sibilants.

Comp/Lim: Alters the speed, ratio and knee of compression.

Overflow: The output limiter indicator turns on so no signal can get past -0.1dbfs.

Inside option screen (+) there are three audio coloring settings: flat, fat1 and fat2.

## Tight Compressor:



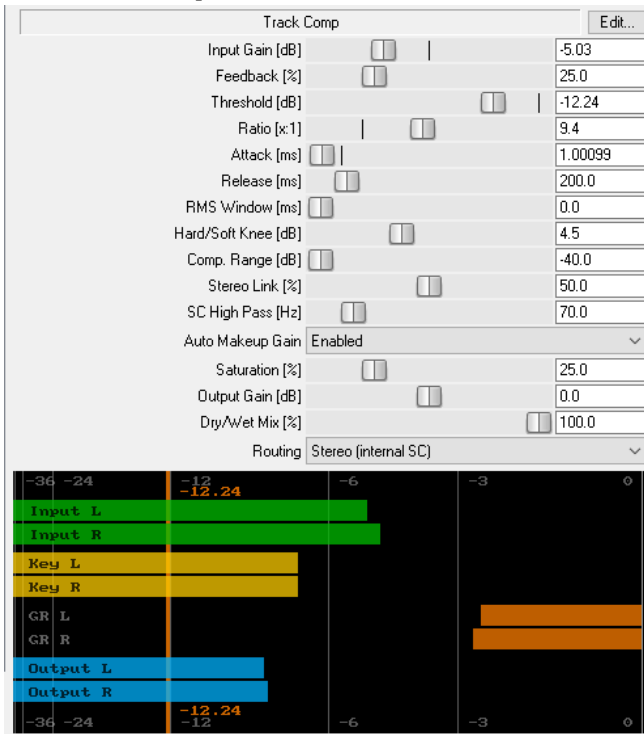
A peak compressor with a -very- tight compression and aggressive attack.

The compression is continuously visualized to help you dial in the appropriate settings.

Instructions:

<https://github.com/JoepVanlier/JSFX>

## Track Comp:



There's a -lot- of information about this plugin, in the code.

## VariBus Comp 2 S2:

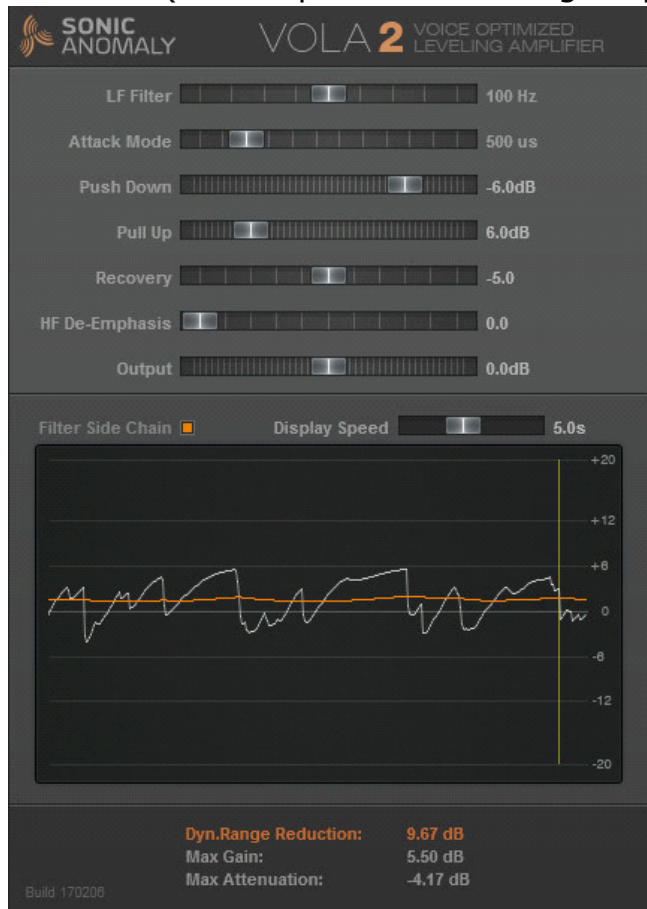


<https://www.youtube.com/watch?v=b7xBWMqtNSY>

[https://www.youtube.com/watch?v=C2ezLd\\_nnhU](https://www.youtube.com/watch?v=C2ezLd_nnhU)

(see the last 3<sup>rd</sup> of the video)

## **VOLA 2:** (Voice Optimized Leveling Amplifier)



VOLA was made for broadcast voice dynamics processing but works with all kinds of material.

Upwards & downwards compression, each separately adjustable.

Very soft knee compression gradually turning to limiting at "Push Down" point.

Visual metering for changes in dynamics.

### The Controls

LF Filter: Low freq. filtering presets w/various cut-off frequencies/Q-values.

Attack Mode: Several attack presets from zero to 1 sec.

Push Down: Amount of downward compression.

Pull Up: Amount of upwards compression.

Recovery: Changes recovery speed. -10 is the slowest and 0 the fastest.

HF De-Emphasis: How much high freq. can affect the dynamics compression.

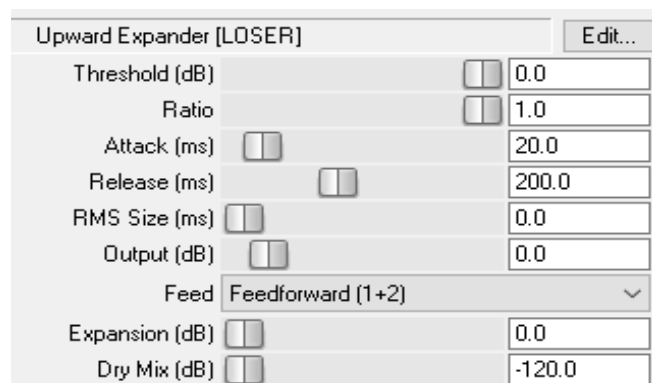
(Useful with vocals for keeping sibilants at bay.)

Flt Side Chain: Puts the LF filter into compressor

side chain, instead of the main input. The LF Filter must be active for this to take effect.

Display Speed: The speed of the gain reduction display. Adjustable between 1 - 10 seconds.

## **Upward Expander:**

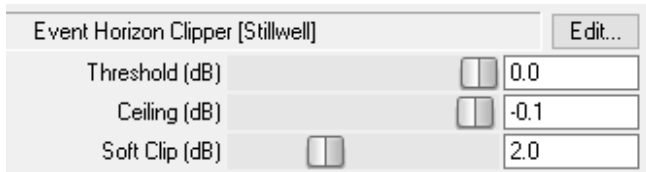


Often used to emphasize the louder parts of the audio signal.

They make the loud, louder, and leave anything below the "threshold", unchanged.

## LIMITERS:

### Event Horizon Clipper:

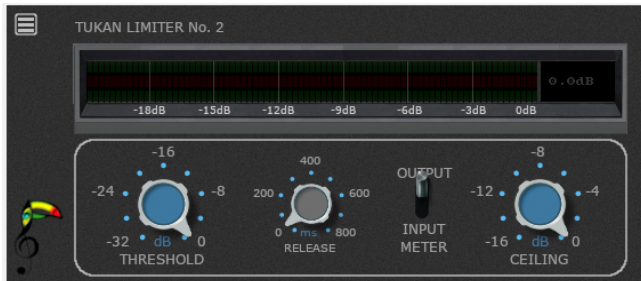


Non look-ahead limiter that simply rounds off and truncates peaks. Works well on any master bus and does a great job as a quick master limiter to keep your main bus from overheating.

<https://www.youtube.com/watch?v=Qn-k57aiBC8>

Demo review: <https://www.youtube.com/watch?v=1c2t53U3IYQ>

### Limiter 2:



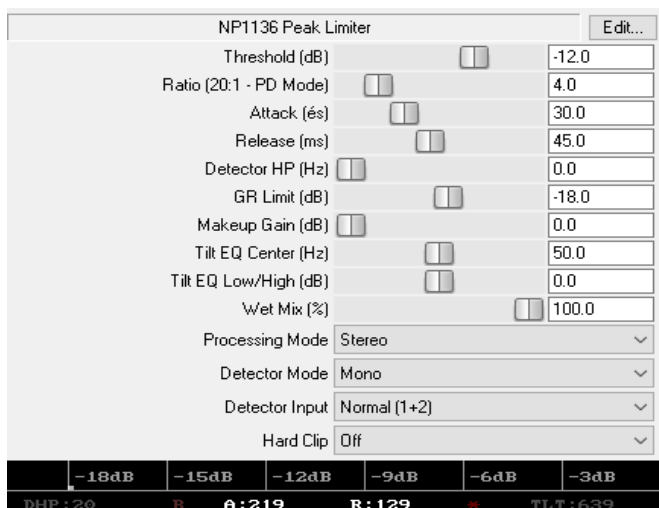
An easy to use limiter for final loudness of a mix or to cut peaks from single tracks.

Designed to reduce the peaks and get the loudness to your target level without destroying the overall sound and dynamics.

### Limiter 3:



### NP1136 Peak Limiter:



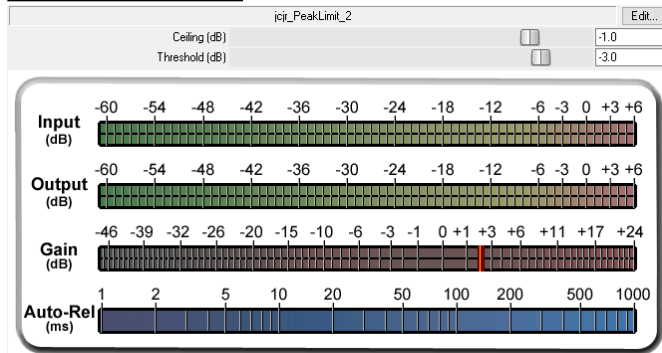
Program dependent peak limiter.

- fast attack and release, side-chain, detector high-pass, gr limiter, program dependent mode, \tone control, parallel compression.

"Can get into 1176 territory, but with more control"

[http://sites.google.com/site/neolit123/Home/np1136\\_manual.pdf](http://sites.google.com/site/neolit123/Home/np1136_manual.pdf)

## Peak Limit 2:



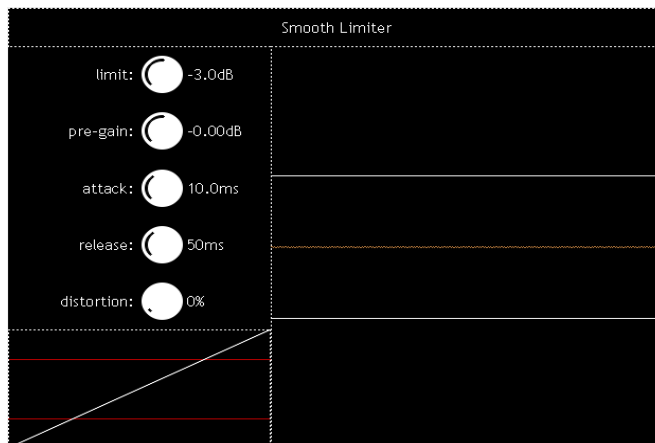
A jsfx lookahead peak limiter.  
Includes html manual in the zip file.

<https://stash.reaper.fm/v/34169/jcjrPeakLimit2.zip>

## Sky2.0 (is the limit)



## Smooth Limiter:

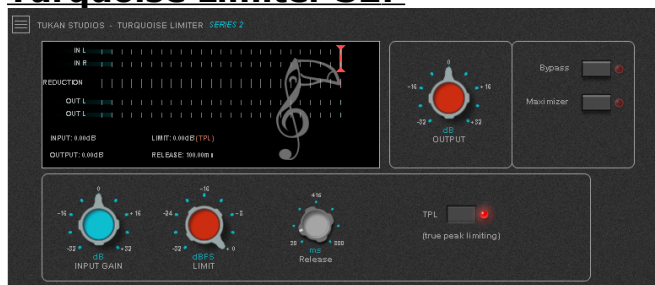


A limiter that aims to have the correction curve as smooth as possible.

For more (technical) info, go to:

<https://geraintluff.github.io/jsfx/#Smooth%20Limiter>

## Turquoise Limiter S2:



This plugin is mentioned here:

[https://www.youtube.com/watch?v=IsB\\_Jf50R0Q](https://www.youtube.com/watch?v=IsB_Jf50R0Q)

## **Vocoder:**



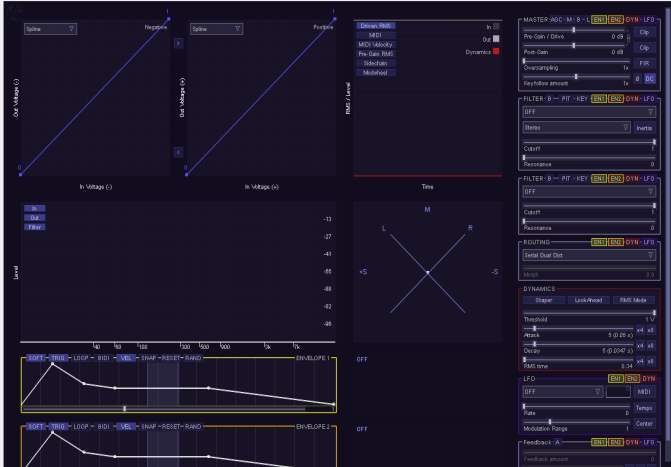
FFT-based vocoder takes 4 channels (stereo main and aux), and alters the spectrum of the main input to match the aux input.

Longer windows will better for low sounds in the main input, but will be less reactive.

The "smoothing" dial averages the energy (from both inputs) over a short period, which can reduce growly artifacts.

# LO-FI, CRUSHERS and DISTORTION:

## **Filter (w/presets):**



Distortion effect with dynamic filtering and wave-shaping. Use it as effect returns to give synth tracks more character. Meant for bassy synth work (to add growl), but works on drums, guitars and pads.

A highly non-linear plugin, even with the wave-shaping disabled, so playing with the input gain is crucial to get the most out of it.

### Features:

- Spline wave-shaping curve based on placing nodes. Can draw asymmetric curves as well.

- Two non-linear filter modules which can be automated by dynamics from the input signal or a side chain, LFO or envelopes.
- Waveshaping amount can be modulated by input dynamics, LFOs or envelopes.
- Modulators can optionally be triggered by MIDI notes.
- Large number of filter types (linear filters, analog models, FM, AM filters, reverbs, distortions). Feedback section.
- Automatic Gain Control to protect your ears.

Manual here: <https://joepvanlier.github.io/FiltherManual/>

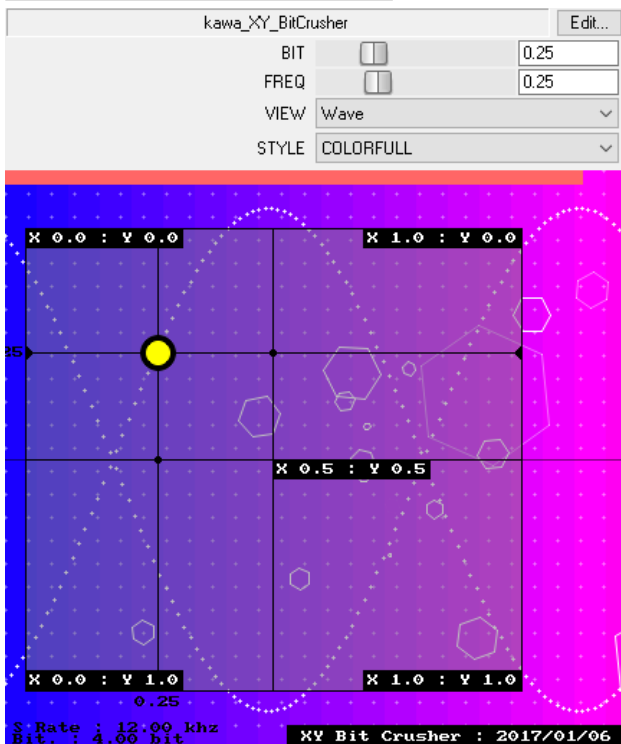
Tutorial: <https://www.youtube.com/watch?v=jtc8kp57xpI>

<https://www.youtube.com/watch?v=YlgsVy-C2yI>

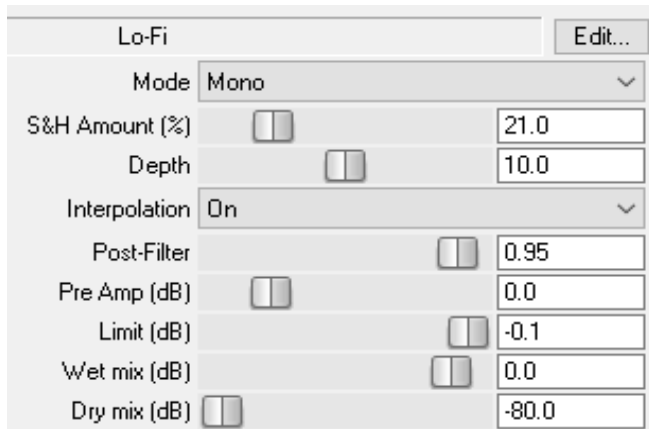
Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down)

<https://www.youtube.com/watch?v=Jc1nfpdzw9Y>

## **Kawa XY Bit-Crusher:**



## Lo-Fi:



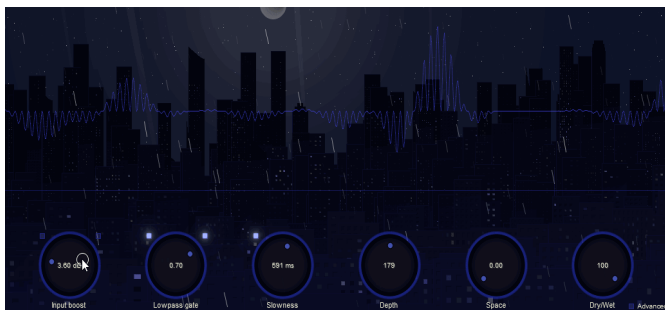
A mono/stereo bit-crusher, sample rate reducer with post filter.

- bit-crusher/sample rate reducer
- 2 point linear interpolation
- 12db/octave, low-pass filter

## Mod-izer:



## Nostalgizer:



Make audio sound old with the nostalgizer. A combination of a low-pass-gate and detuning.

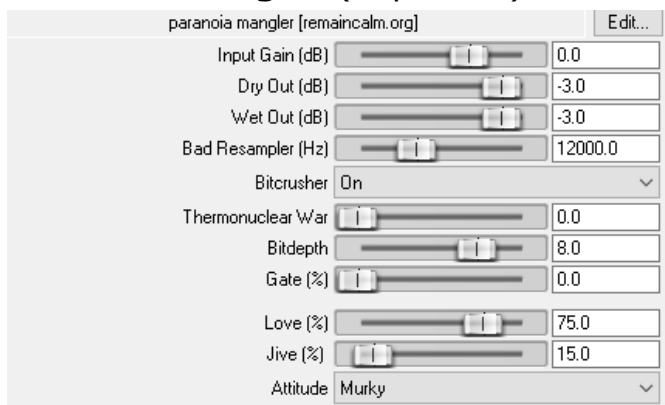
### Features

- Pitch instability.
- Low pass gate modeled after famous unit.
- Adaptive saturation.
- Modeled noise through a compander.

Demo: <https://www.youtube.com/watch?v=Y8ibWk8Tpm0>

Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down)

## Paranoia mangler (w/presets):



"A destructive mangler designed to injure your sound in terrible ways."

### Controls include:

- \* Resampler: aliasing resampler. lower is worse.
- \* Bit-crusher: off disables; on is "normal" mode. on+noisier is a buggy implementation that sounds cool on bass drums.
- \* Thermonuclear war: bit manipulation pattern. 0 is disabled, anything higher than that and you're on your own. highly material dependent.

Optimized for 8-10 bit depth, below 8 and it could get even gnarlier.

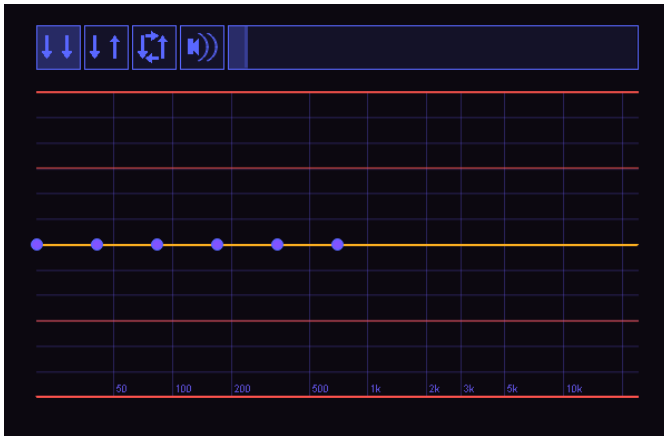
bit depth: bit reduction, 10-3 bit. lower is worse.

\* gate: simple one-knob gate. anything below 50% will leak some un-gated signal through. use above 50% when bit-crusher is set to 'noisy' to stop it completely.

\* attitude/love/jive: post-processing filter (off/LP/BP/HP)

This plugin is very material dependent - a lot of stuff is unusable through it, but some stuff just works really well. Works best on dynamic stuff like single drum tracks.

### Phase Mangler:



"Frequency dependent audio manipulation.

"Draw" a phase distortion using a spline, which can be modulated by scaling the amount of phase distortion.

#### Modes of operation:

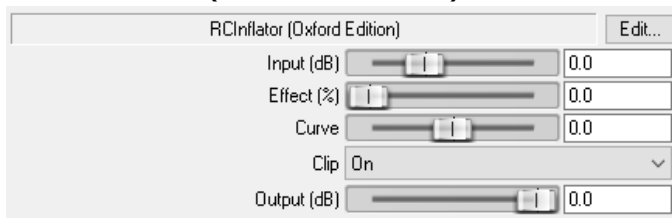
Linked - Left and right are distorted the same.

Opposite - Left and right are phase shifted in an opposite manner. Good for making whooshy, laser-like sounds, but can lead to loss of mono-compatibility.

Mono-Opposite - This mode works like opposite,

but computes the changes applied to the left and right channel and adds an opposite change to the other channel. This serves more as a widener.

### RCInflator (Oxford Edition):



A popular Sonnox Oxford Inflator clone; a wave-shaper/saturation plugin.

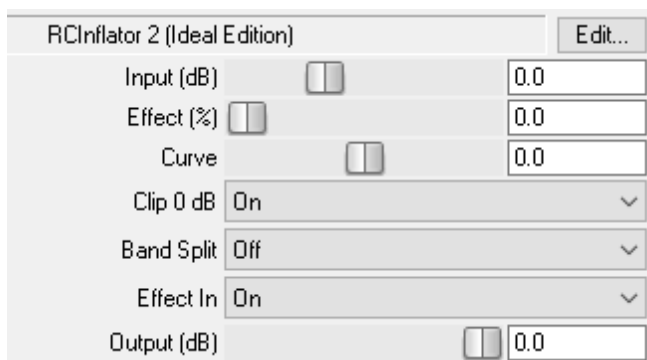
"It nulls really really low to the tune of -144dB against the Sonnox Oxford Inflator at every setting." "Very effective!"

Installation: <https://www.youtube.com/watch?v=V-KirFidlp4>

Thread: <https://forum.cockos.com/showthread.php?t=256286>

Oxford Inflator: [https://www.youtube.com/watch?v=Nf\\_vxidbFqk](https://www.youtube.com/watch?v=Nf_vxidbFqk)

### RCInflator 2 (Ideal Edition):



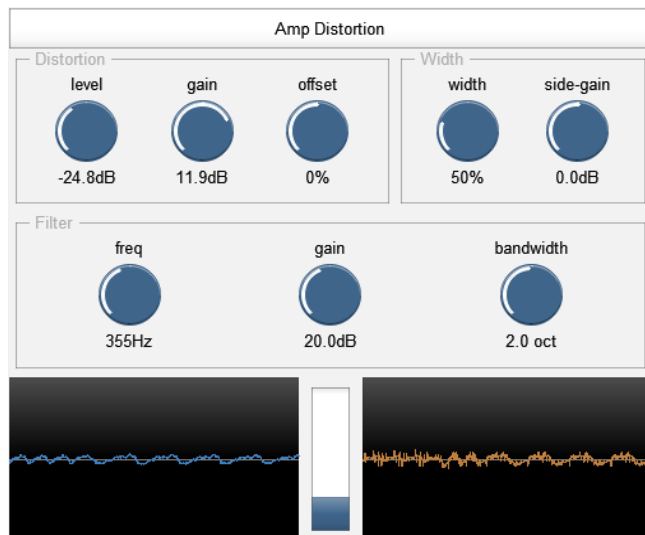
This edition omits the odd quirks found in the original Sonnox plug-in.

Inspired by Sonnox Oxford Inflator and RCInflator (Oxford Edition) by RCJach with additions by sai'ke and BethHarmon.

#### Discussion:

<https://forum.cockos.com/showthread.php?t=256286>.

## **Sandwich Amp (w/presets):**



A distortion effect (guitar/bass) with a set of paired filters on either side, to provide a range of timbres.

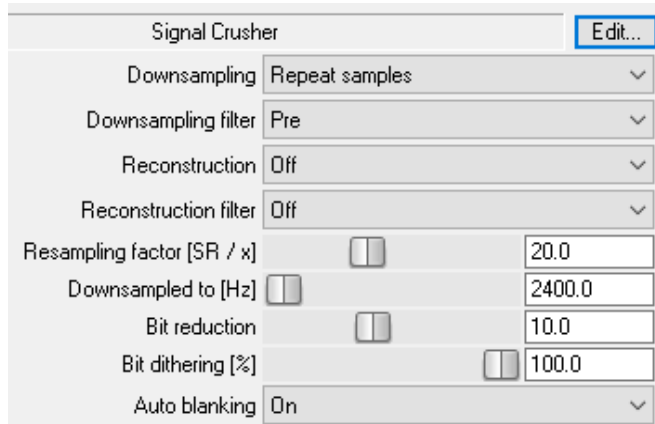
The underlying distortion function is  $\tanh()$  (a type of fairly "soft" distortion, as opposed to a hard clip), but it can be driven quite hard, and an offset can be added to get asymmetrical response.

The "width" parameter widens the sound before distortion and narrows it afterwards, so that the distortion sounds stable and central while preserving the stereo feel of the sound.

Similarly, the "filter" section applies a filter before the distortion, and then applies the inverse filter afterwards, which can provide distinctive distortion timbres.

It is also possible to supply a secondary input to the effect (channels 3 and 4) - this audio is added in before the distortion, but then subtracted again afterwards.

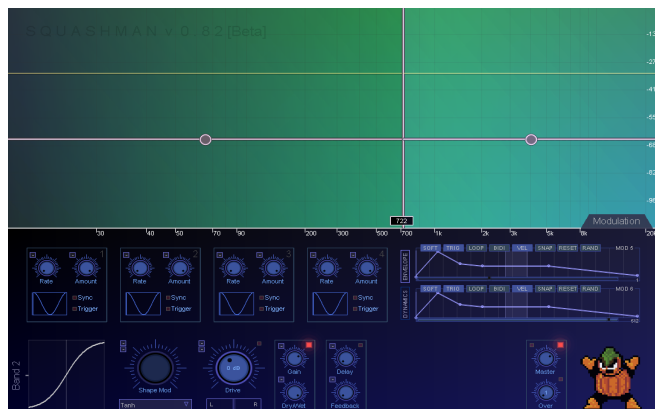
## **Signal Crusher:**



A combination of everything "retro" to degrade a signal.

\*Details can be found in the code\*

## **Squashman:**



A multi-band saturation/distortion plugin w/parameter modulation.

-25 modulatable wave-shapers and 4 fixed ones.

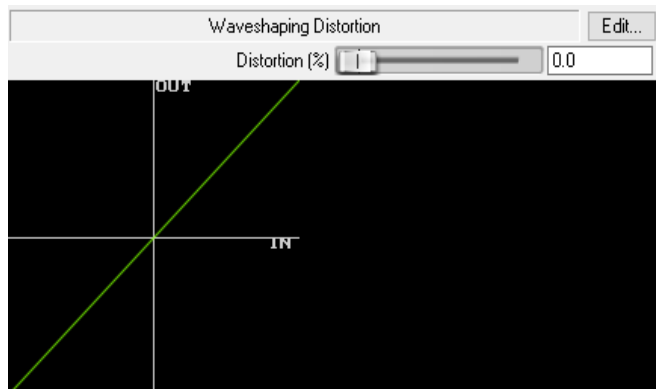
### Features:

- Optional high-quality oversampling
- Up to 4 bands can be used to manipulate sound
- 24 db/oct Linkwitz Riley crossover filters.

Instructions:

<https://github.com/JoepVanlier/JSFX>

## Waveshaping Distortion:



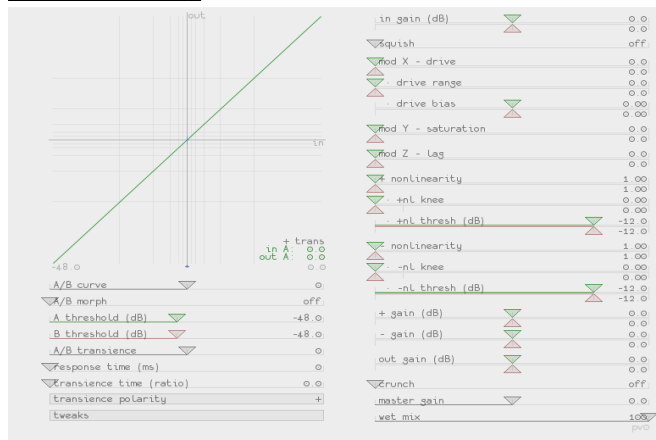
A more 'extreme' distortion plugin.

You can use the built in splitter / mixer to apply distortion only to a certain frequency range

•  
"I'll use the simpler wave-shaping distortion and apply a moderate amount of distortion to the 2K and up range. You'll have to lower the volume of this range, but this does wonders for giving some life to a dull vocal track."

<https://reaperblog.net/2016/07/js-effect-spotlight-waveshaping-distortion-and-graphical-waveshaper/>

## WildWave:



An extreme wave-shaper.

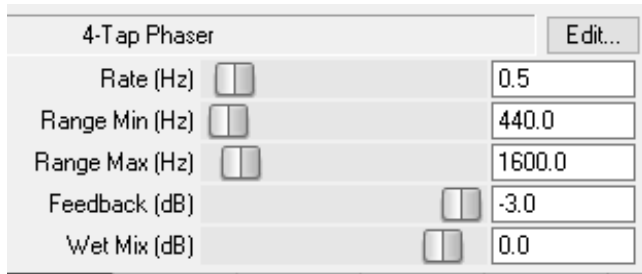
"great for destroying sound"

\*Much information can be found in the JSFX code\*

Forum: <http://forum.cockos.com/showthread.php?t=121890>

## OTHER FX:

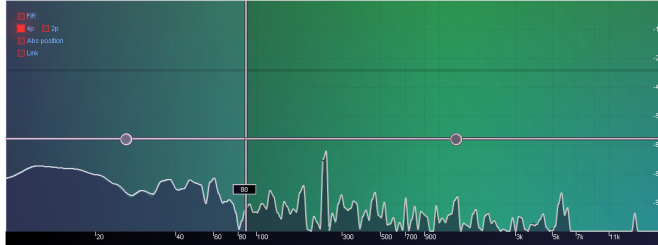
### 4-tap Phaser:



Kenny Gioia tutorial:

[https://www.reaper.fm/videos.php#ot\\_NS56wIps](https://www.reaper.fm/videos.php#ot_NS56wIps)

### 4-pole Band Splitter:



A 4-pole (24 dB/oct) splitter that preserves phase relations between bands.

"A very comprehensive and elegant way to split the signal into up to 4 bands, with the ability to level the individual bands. The optional FIR setting is the icing on the cake"

Steeper crossover filters than Reaper's default band-splitter.

IIRs cost less CPU and introduce no pre-ringing or latency while the linear phase FIRs prevent phase distortion, but introduce latency compensation.

[https://www.youtube.com/watch?v=JU\\_7gIr5RTI](https://www.youtube.com/watch?v=JU_7gIr5RTI)

<https://reaperblog.net/2016/04/js-band-splitter-fx/>

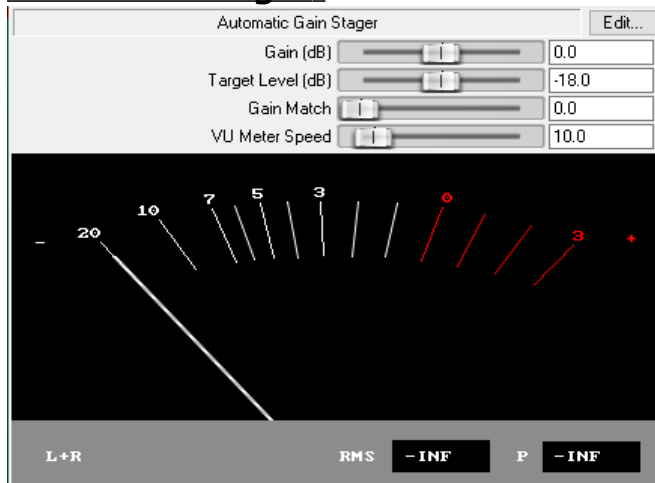
Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down the page)

### AC Trem (w/presets):



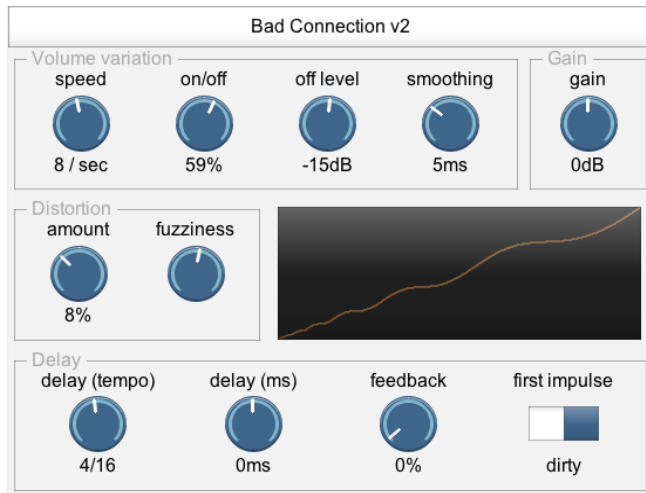
A tremolo and reverb plugin designed for guitar takes that are not made in a one-take. The benefit is, that you have constant tremolo and reverb although you pick the track from several takes

### Auto Gain Stager:



"Quickly set all tracks to healthy levels. Especially useful with some Acustica/Nebula units or analog outboard"

## Bad Connection:

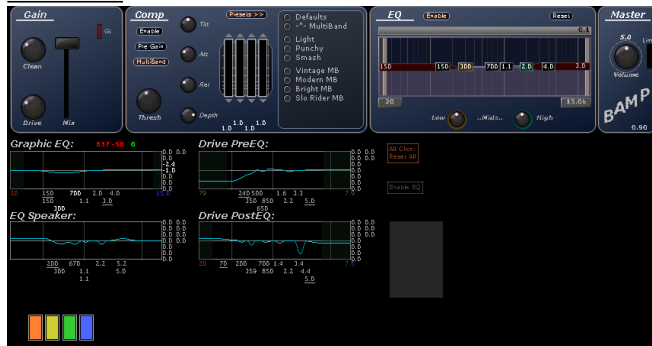


Has three features:

- 1) Randomly change the audio between two volume levels.
- 2) Apply volume-independent distortion.
- 3) Tempo-dependent feedback delay line, and feedback line includes the distortion and volume variation to create clean or destruction/glitchy textures.

<https://www.youtube.com/watch?v=pmjLZKVoBLo>

## BAMP:

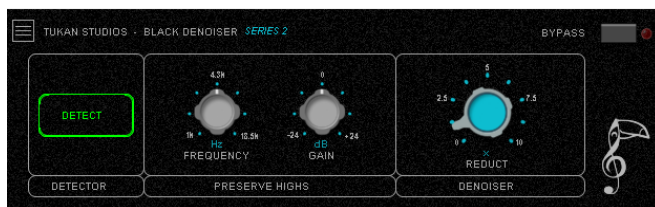


(un-expanded view)



A 'Gain>Compressor>EQ>Master volume' strip.

## Black Denoiser S2:



(See code for more info)

## Blacklight Modulation S2:

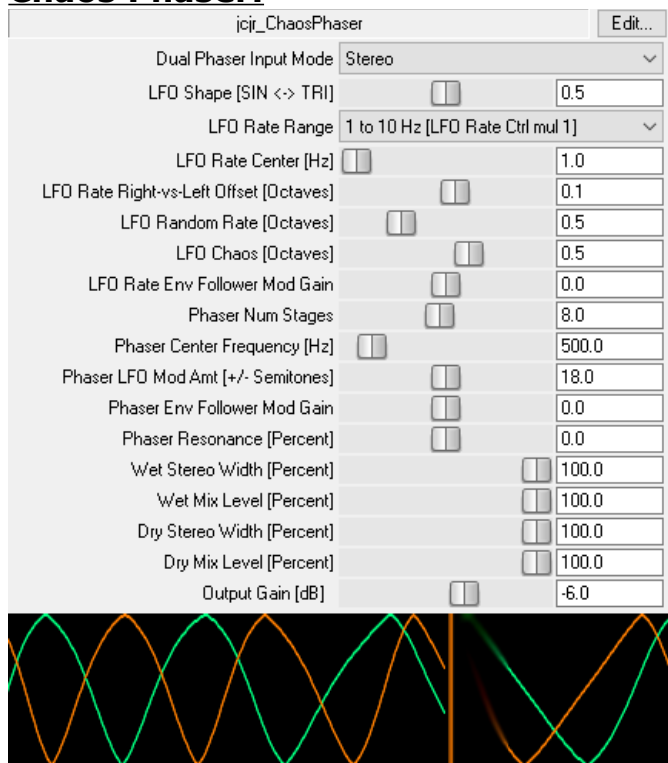


Modulation plugin with different shapes and six effects (tremolo, pan, filter, phaser, flanger, and chorus) with individual controls; perfect for modulating audio in many interesting ways.

This plugin is mentioned here:

[https://www.youtube.com/watch?v=D-fA6B\\_5HRA](https://www.youtube.com/watch?v=D-fA6B_5HRA)

## Chaos Phaser:



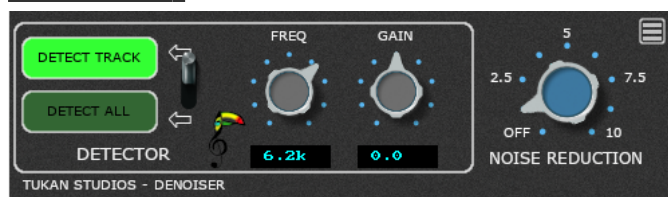
Dual phaser with random or chaotic LFO rate  
"...this one is particularly cool!"

<https://forums.cockos.com/showthread.php?t=225549>

Download the code:

<https://gist.github.com/X-Raym/4558be0b4225f66f537b12fde0ce2f80>

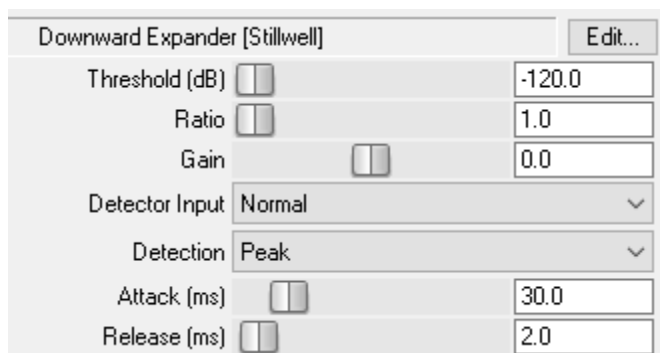
## DeNoiser:



See the plugin's code about what happens at each stage.  
Instructions are not apparent.

Tutorial: <https://reaperblog.net/2022/06/tukan-denoiser/>  
<https://www.youtube.com/watch?v=4ugC3CJ2yvQ>

## Downward Expander:

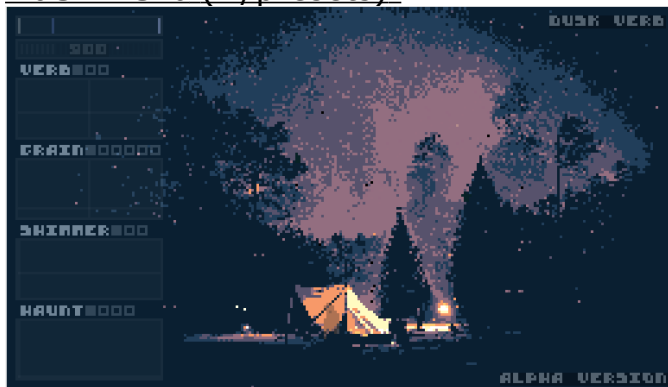


Brings low level passages down further.

Most downward expanders are used to reduce noise, hiss, etc.

<http://forum.cockos.com/showthread.php?t=31724>

### Dusk Verb (w/presets):



A multi-effect plugin intended to enhance atmospheric arpeggios

Features:

- 3 Reverberation algorithms.
- Granular resampler.
- Frequency shifter / pitch-shifter.
- Several audio shimmer modes.
- X/Y controls for automation.
- Classic adventure game look.

Demo here: [https://www.youtube.com/watch?v=\\_BIBdbNWx34](https://www.youtube.com/watch?v=_BIBdbNWx34)

### Dyna Strip:



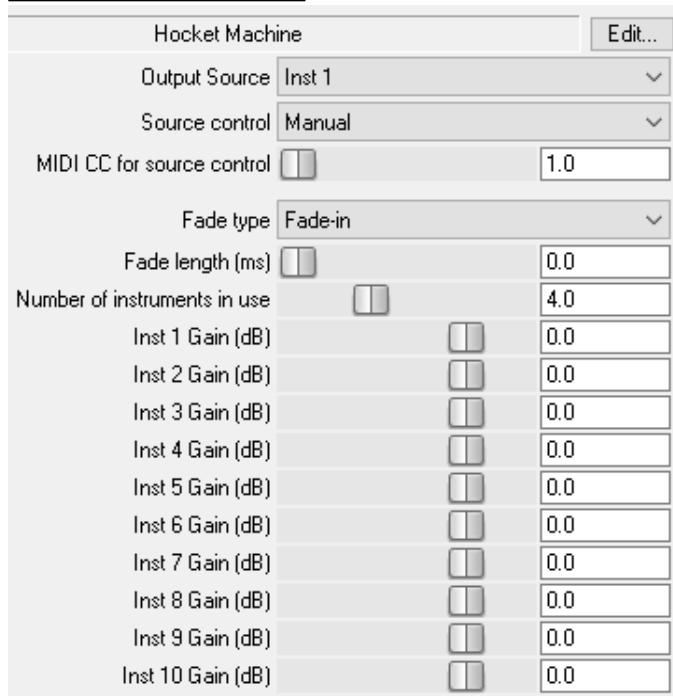
### Hackey Trackkey Sample Playback Module:



This small JSFX acts as a sampler that interoperates with Hackey Trackkey to support tracker-like sample playback.

**\*\*Read the info in the header if the JSFFX plugin. There's much information, there.**

## Hocket Machine:



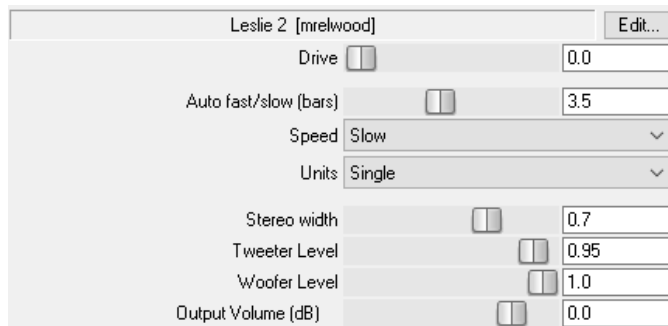
"Great for sound design";

"Can also used as the Glitch Manifesting device"

Get it, here:

<https://forum.cockos.com/showthread.php?t=230322>

## Leslie 2:



An unmistakable effect.

Often used for organs, pads/sustained sounds.



Kenny Gioia shows us how to make a "Leslie", using JSFX plugins:

<https://www.youtube.com/watch?v=vUaScoPXW28>

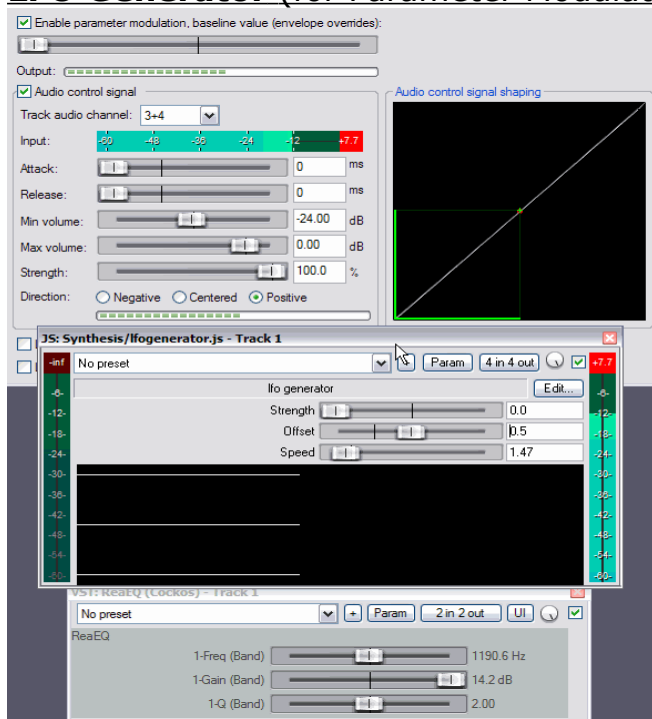
## Lime DeEsser S2:



Included in the plugins mentioned:

[https://www.youtube.com/watch?v=lsB\\_Jf50R0Q](https://www.youtube.com/watch?v=lsB_Jf50R0Q)

## LFO Generator (for Parameter Modulation)

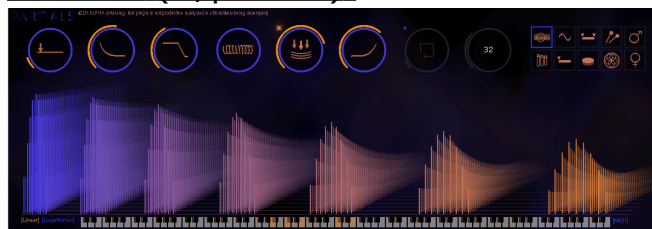


Place this plugin early in the effects chain, route it around so any effects on the track can use it for modulating a parameter.

You can then automate the LFO speed, height and offset.

<http://forum.cockos.com/showthread.php?t=85296>

## Partials (w/presets):



A modal resonator effect which simulates different materials.

This effect takes both audio and MIDI input. Based on the model selected the incoming audio will excite a number of resonators that produce particular sounds.

Up to 4 note polyphony is supported.

<https://forum.cockos.com/showthread.php?t=220277&page=27&highlight=partials>

Details here:

<https://forum.cockos.com/showthread.php?t=220277&highlight=abyss&page=26>

## Phaser:

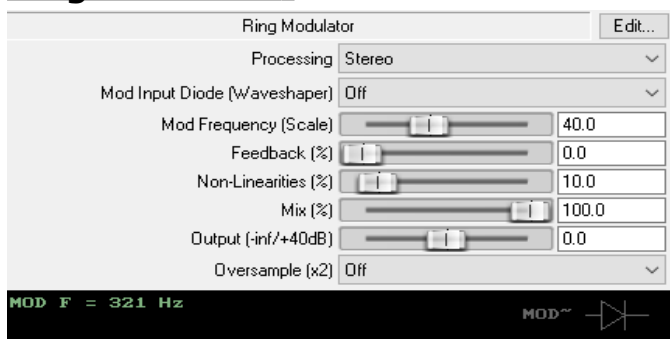


To increase/decrease knob values by 5, hold down CTRL key while dragging the mouse.  
Use text box to input a value for whichever knob or slider you last clicked w/ mouse.

## Pitch Shifter 2:



## Ring Modulator:



Uses a sine wave as the modulation signal, which can be 'wave-shaped'.  
Has feedback and non-linearities.

- stereo/mono processing
- mod-signal diode - on/off
- feedback lets the signal be processed multiple times by the RM
- non-linearities 0-100% which adds small

variations to mod-freq/feedback amt.

- mix - 0-100% - mixes the original signal with the processed signal.

## Ripple Phaser (w/presets):



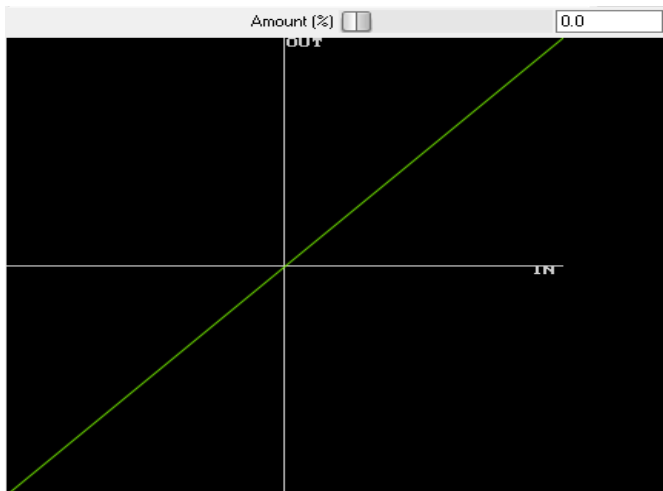
Phaser-like effect which continually rises or falls.

The filters fade out (go to 0dB) at some definable limit, so you can modulate some areas of the spectrum while leaving others in tact.

A variable number of filters (up to 20), stereo phase-offset and a tempo-synced LFO.

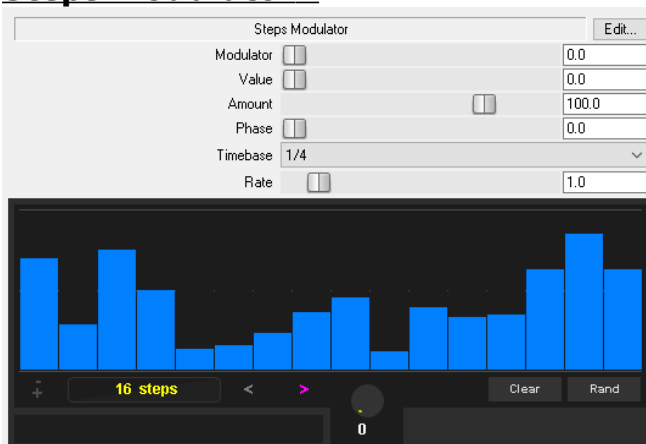
[https://www.youtube.com/watch?v=Nnk\\_5AjxRg](https://www.youtube.com/watch?v=Nnk_5AjxRg)

## **Saturation**



<https://www.youtube.com/watch?v=JJwZrfT2CfM>

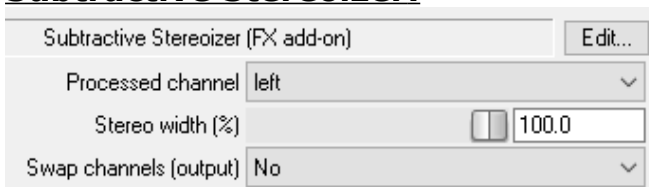
## **Steps Modulator:**



Download from:

<https://forum.cockos.com/showthread.php?t=277484&highlight=modulator>

## **Subtractive Stereoizer:**

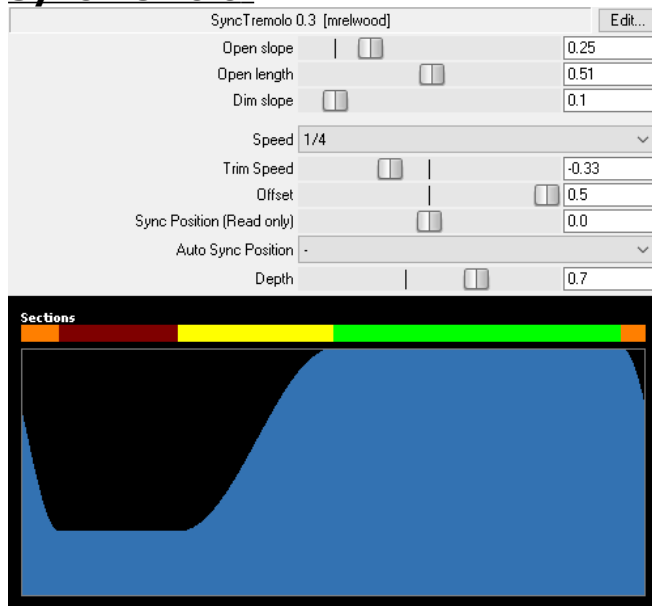


Put this -after- another effect and make sure that other effect is set to only input from and process one channel.

In combination with other fx, it stereofies a mono signal to be 100% mono-compatible.

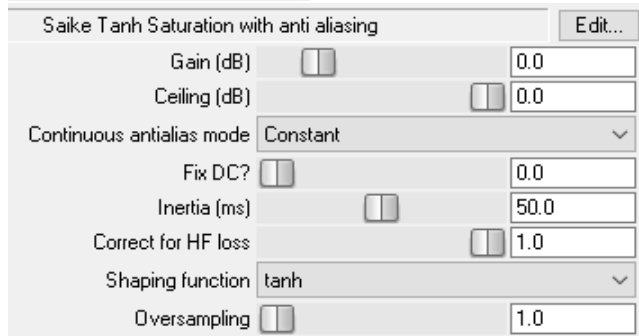
<http://forum.cockos.com/showthread.php?t=25486>

## SyncTremolo:

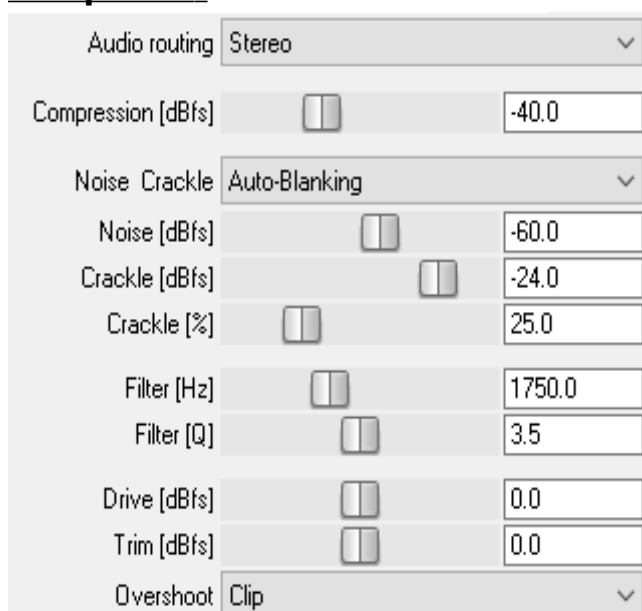


Synchs to transients

## Tanh Saturation:



## Telephone:

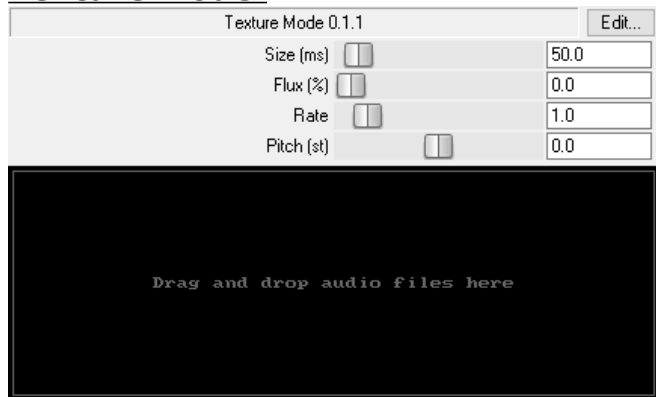


Sounds like a phone receiver.

Degrades a regular input signal by compression and multiple stages of hard band filtering, as well as adding crackles, background noise and distortion.

“The obvious application would be on vocals, but it can also wreak havoc on other sources, like drums, maybe to completely obliterate a set of room mics?”

## Texture Mode:



Re-creation of Ableton Live's Texture.  
Use audio outside of the DAW.  
Here's how it works in Ableton:  
<https://www.youtube.com/watch?v=vyyTbdCz5nM>

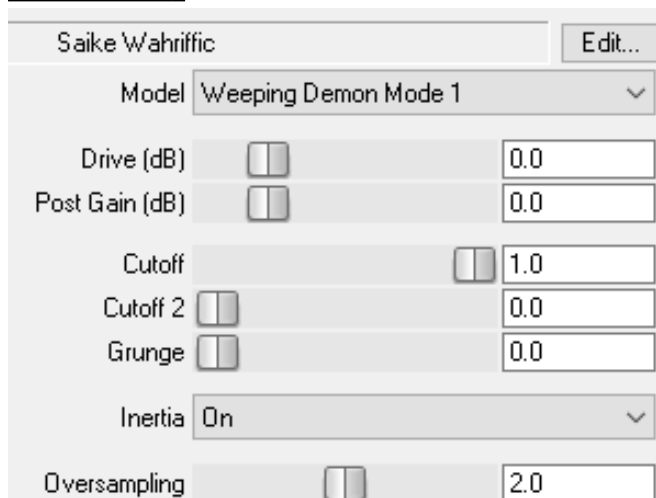
Get the code, here:  
<https://forum.cockos.com/showpost.php?p=2627099&postcount=21>

## Vocal Strip



A vocal FX chain.

## Wahriffic:



3 "models", including "Cry Baby" (which is a bit CPU intensive)

## Warble:



Pitch-editing plugin that analyses incoming audio, stores and displays it on a zoom-able graph (middle mouse and scroll wheel).

There are three tools: nudge, erase and smooth.

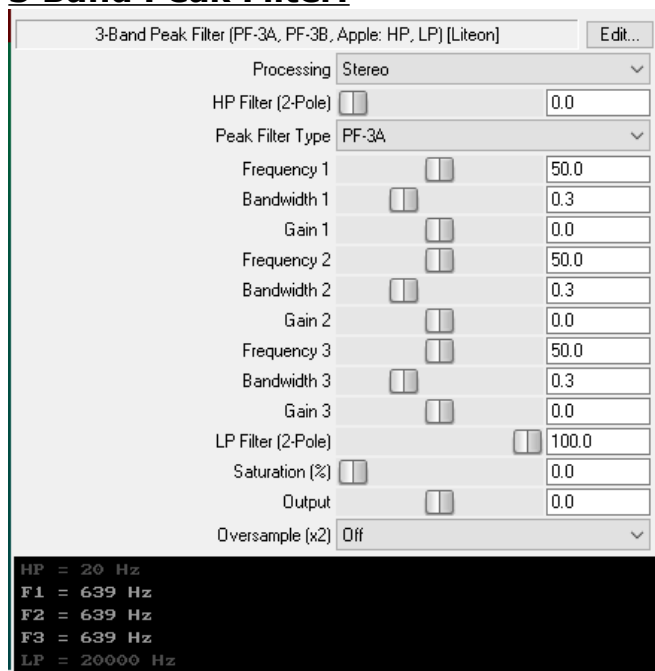
Tweak these w/the mouse (left/right buttons do stuff) to control amt. of shift.

The current change amount is displayed in red.

The formant-correction on the shifting algorithm isn't perfect, so major corrections (e.g. 5 semitones or more) won't sound natural.

# **FILTERS:**

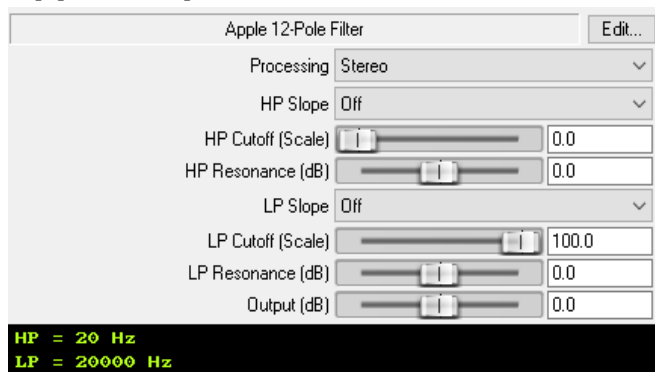
## **3 Band Peak Filter:**



Filter bank containing two bi-quad peak filters. Each filter provides three fully parametric bands. Saturation control is also available.

- 2 filter types: PF-3A, PF-3B. The two filters have similar behavior in the mid range, but quite different at the low and high end.
- stereo/mono processing
- 12db low-pass, high-pass
- output gain control -24/+24db
- saturation amount - 0-100% - adds harmonics and noise floor to the signal.
  - oversampling (on/off)

## **Apple 12-pole Filter:**

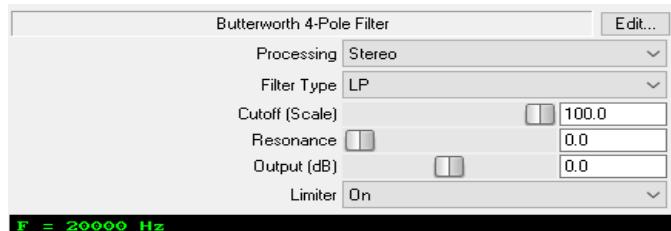


A very “synthy” filter; originally from apple.com.

Mods allow up to 12-pole cascade (HP, LP).

- stereo/mono processing
- slope - off/12db-72db per octave
- frequency range - 20-20000hz
- res - resonance amount -16/+16db
- output gain control -24/+24db

## **Butterworth Filter:**

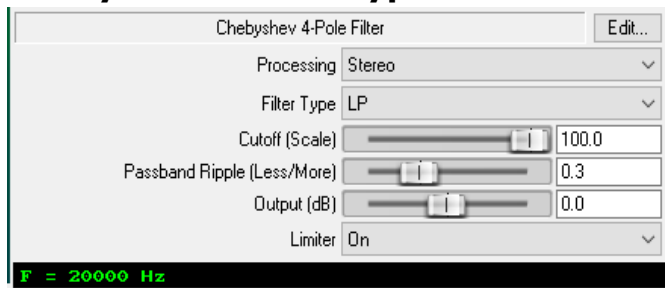


Classic sounding 24db filter model

- stereo/mono processing
- filter mode - LP/HP
- cutoff frequency - 20-20000hz
- resonance amount - 0-0.9
- limiter(on/off) - to limit output
  - output gain control -24/+24db

!Warning ! May be unstable when cutoff frequency is automated very fast in the low end. A limiter will automatically kick-in so speakers aren't blown out. :)

## Chebyshev Filter - Type1:

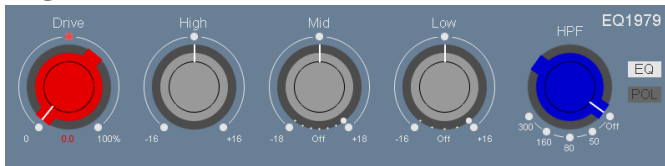


Classic sounding 24db filter model!

With a very specific resonance.

- stereo/mono processing
- filter mode - LP/HP/BP
- passband ripple amount - 0-0.9 (produces two noticeable peaks on the spectrum)
- limiter(on/off) - to limit the output.
  - output gain control -24/+24db

## EQ1979:



Vintage Neve 1073 gain and filter stage emulation

"Frequency accurate modeling of a Neve 1073 filter stage combined with an input gain-compensated saturation."

Designed by cascading ~30 peq/butterworth filters to reproduce frequency response, bumps and drops of the original console strip.

Input saturation based on "arctan" modeling, which is gain-compensated. Includes additional independent gain trimming.

### Controls :

- Left mouse button to change knob value, right mouse button resets control.
- Frequency bands for Mid and Low and gain trimming is done using mouse wheel.

## FM Filter 2:



### Features:

-15 filters, from well behaved linear models, to gnarly analog modeled nastiness.

-Audio and MIDI controllable filters and MIDI controllable gate.

-Three LFOs.

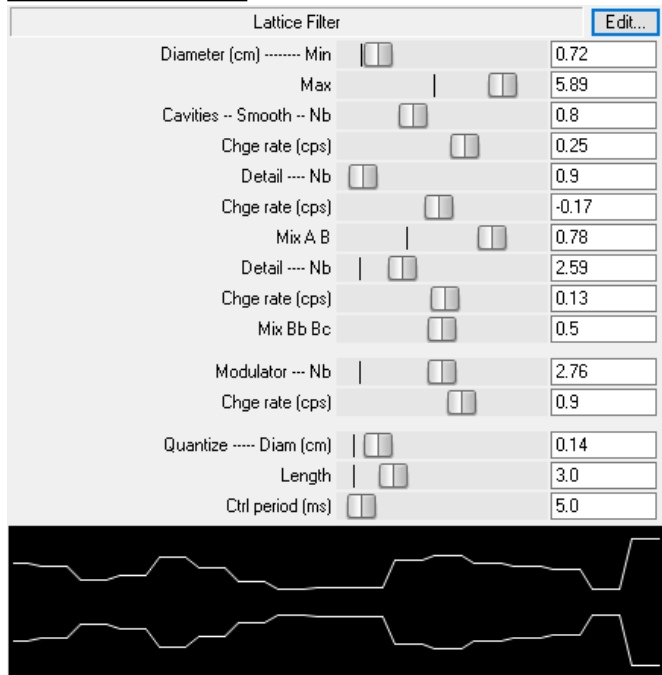
-Modwheel and MIDI velocity support.

-Stereo widening effect.

-Distortion module.

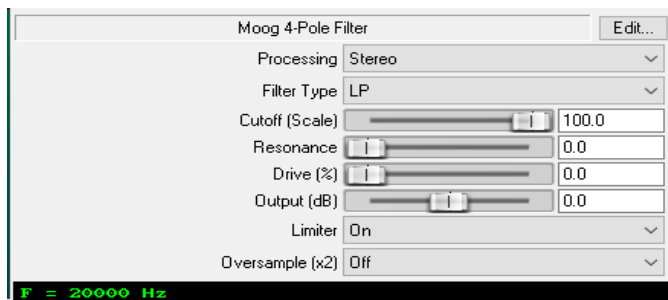
Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down)

## Lattice Filter:



An interesting graphical representation, at the bottom of the GUI.

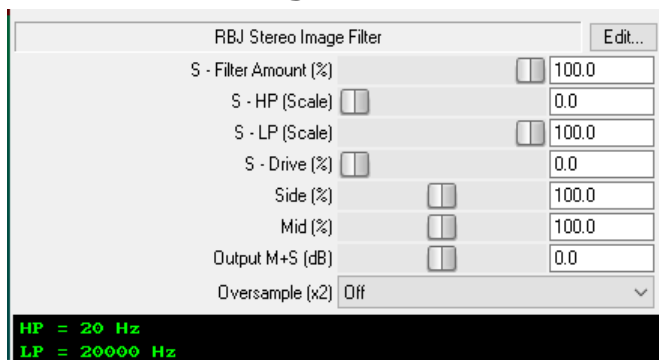
## Moog Filter:



Classic sounding 24db filter plugin modeled after the infamous Moog Filter.

- stereo/mono processing
- filter mode - LP/HP/BP
- resonance amount - 0-0.85
- drive - adds saturation to the signal
- output gain control -24/+24db
- oversampling (on/off)

## RBJ Stereo Image Filter:



A filter controlling only the stereo image of a sound. Useful for precise sound modeling. Based on RBJ filters cookbook.

Includes saturation.

- filter amount - controls mix between original signal and filtered one.

- HP - 12db hi-pass for the stereo image at given frequency.

- LP - 12db low-pass for the stereo image at given frequency.

- drive - saturation for the stereo image.
- side - stereo image width.
- mid - mid amount.
- output gain control (m+s) -24/+24db
- oversampling (on/off)

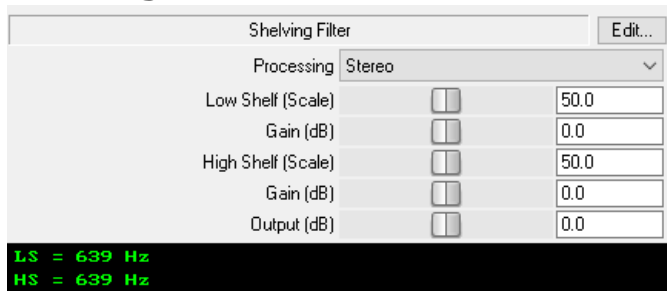
## SC Filter (side-chain filter):



An easy to use EQ. featuring High-pass, Low-pass, shelving, and full parametric filters..

“The idea is that the signal goes trough the plugin unfiltered, while the filtered signal is used to change the behavior of a gate or compressor via side-chain” says Tukan Studios.

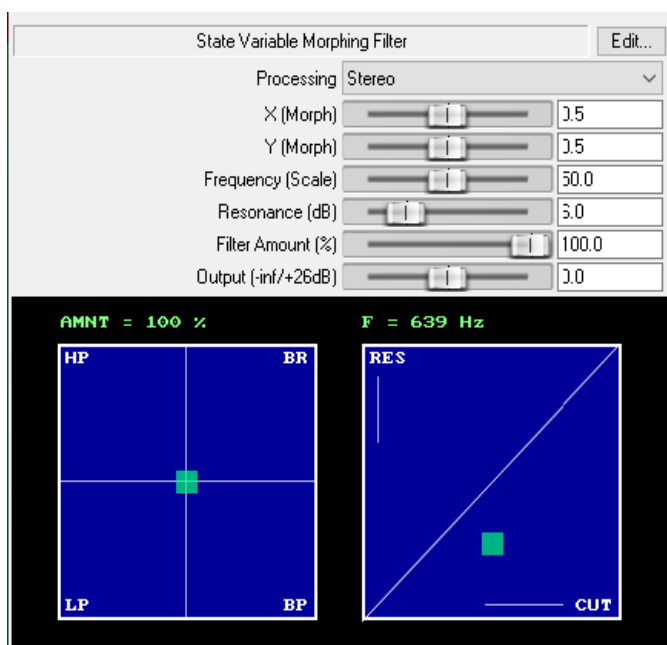
## Shelving Filter:



Has low-shelf and high-shelf bi-quad filters based on James A. Moorer's formulas.

- stereo/mono processing
- frequency ranges – 20-20khz
- gain -12/+12db

## State Variable Morphing filter:



Filter which uses x,y pads to morph between different states - LP, HP, BP, BR.

### Features:

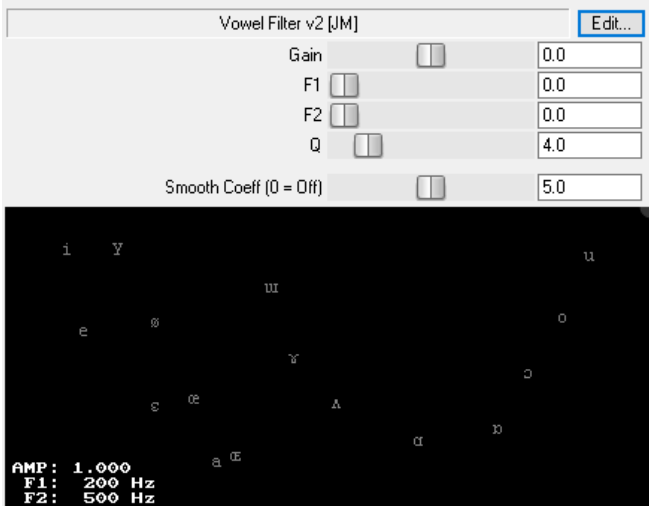
- stereo/mono processing
- lp, hp, bp, br modes
- frequency range - 20-20000hz
- res - resonance amount
- filter amount - mixes original signal w/the filtered one.

“use the FX window Delta for finding and eliminating annoying resonances. Often much better than your average EQ”

“On the left x,y pad you can morph your signal between four poles: Lowpass, Highpass, Bandreject and Bandpass filters.

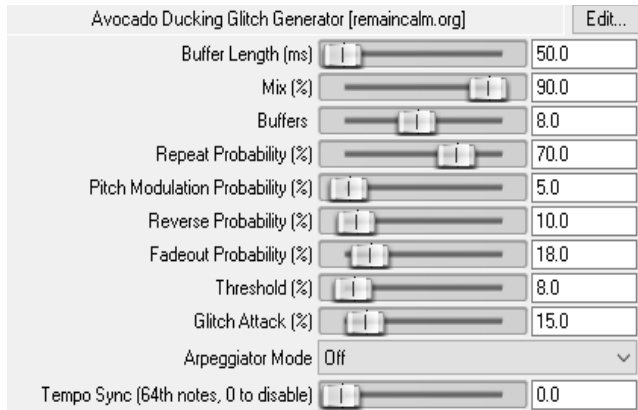
The right pad you set the amount of resonance and the cutoff frequency. Interesting of course if you automate the morphing.

Vowel Filter:



# MISCELLANEOUS:

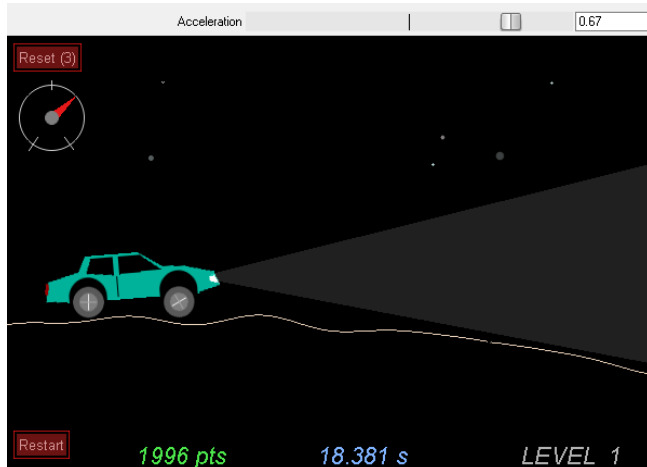
## Avocado Ducking Glitch Generator:



A powerful glitch engine, with a ducker built in so it won't stomp all over your tracks.

"Can be really good for filling out "ambient" loops."

## Car Game:



Yes...a cool arcade game.

## RCMShip Perfect Pitch:

C 0:0	C# 0:0	D 0:0	D# 0:0
E 0:0	F 0:0	F# 0:0	G 0:0
G# 0:0	A 0:0	Bb 0:0	B 0:0
Setup	Ratio	Replay	START

(Mship stands for "musicianship")

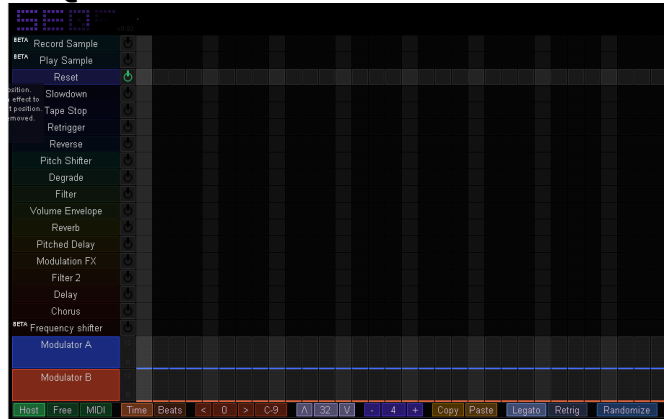
How to Play

1. Click **\*\*START\*\***, the synth will play a tone.
2. Guess the name of the tone by clicking on one of the note names.
3. Upon answering, you will be shown the correct answer, and your own answer if it differs.
4. Click **\*\*Next\*\*** to continue to next round.

"Adaptive: Upon answering, the chance of appearance for the current note will be changed based on whether you've answered correctly and the win stream of the note.

Selective: Click on "Setup" to redirect to note setup page, where you can either manually select which note(s) to include in the game, or randomly generate a set number of notes based on currently selected ones

## SEQS: Saike Tools



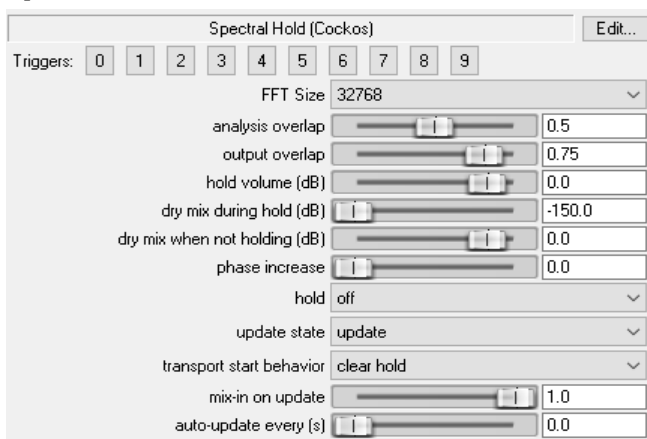
A small GUI-based effect sequencer for stutters, slowdowns and various audio effects. Check the code for a lot more info.

<https://www.youtube.com/watch?v=0cF9u7FiwuM>

<https://www.youtube.com/watch?v=VHcXz9xgGqo>

Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down)

## Spectral Hold:



"Wonderful effect for 'emotional piano...I use as a 'send', often w/a hpf, before it.

Using Spectral Hold to create an "atmosphere"

<https://www.youtube.com/watch?v=XdJ1-Wpta4o>

## SUM BUS S2:



## Sum Channel S2/



"Think your recording or mix sounds too digital? Give yourself the option of having the saturation and feeling of big analog mixers. Three mixers can be chosen in these plugins. Sum Channel features EQs, compressors, gates and even more options in a free arrangement of signal flow. SumThing and Sum Channel can switch the model of the desk for all your channels from one master unit. No other plugin can do that", says Tukan Studios.

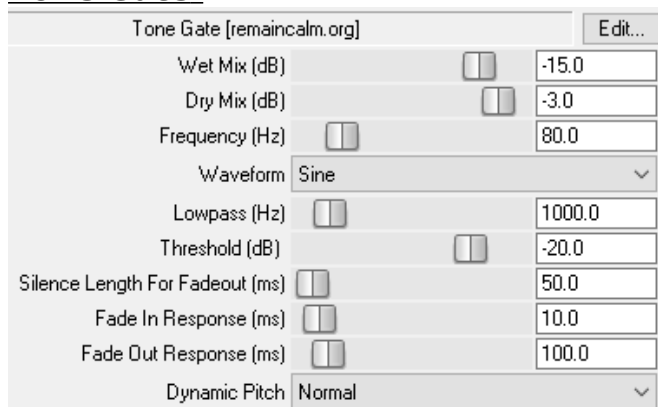
<https://www.youtube.com/watch?v=YPfic7PSPoE>

<https://www.youtube.com/watch?v=edf0l8cW9e8>

## Sum Thing SI:



## Tone Gate:



Triggered tone generator

### Features:

- \* generates sine, noise or square wave based on triggered by track input
- \* gate has attack/release
- \* noise and square wave can be low-pass filtered
- \* dynamic pitch

<http://forum.cockos.com/showthread.php?t=20484>

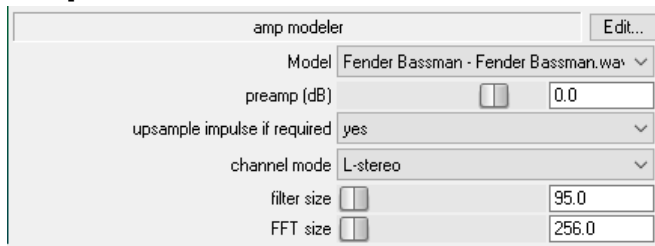
# GUITAR AMP-CABS:

## AmpEra:



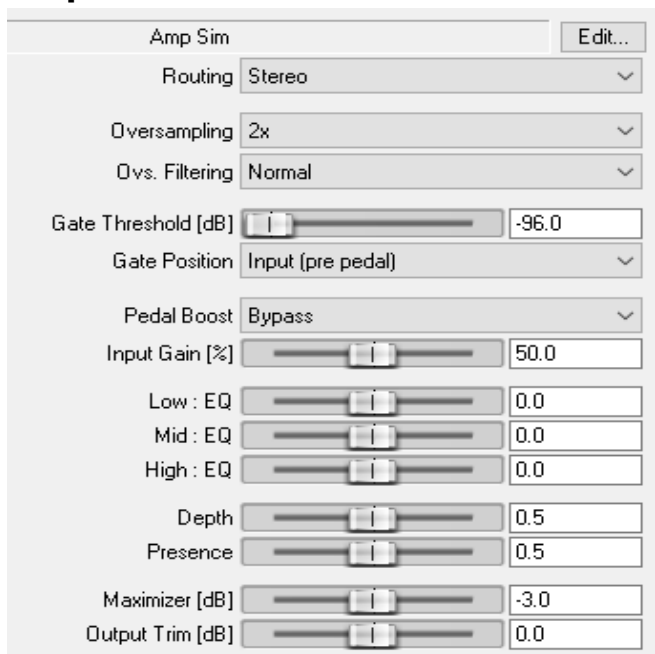
AmpEra has built-in “link” to YouTube tutorial. The “Era” sliders don't model specific amps, but models general sound qualities.

## Amp Modeler:



12 different models to choose from.

## Amp Sim:



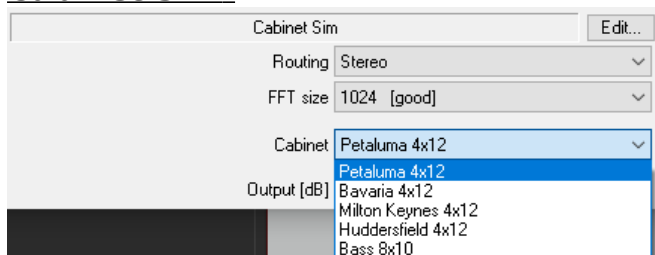
Does not come with a built-in cabinet, so you'll want to insert an IR loader (like Cabinet Sim JSFX) after it.

Higher oversampling factors and heavier filters will be more demanding on your CPU, but may help to clean up the top end of the signal and avoid nasty aliasing artifacts.

NOTE: to save CPU, only the filtering and distortion stages are over-sampled.

\*\*See the JSFX code for more instructions.

## Cabinet Sim:



5 simulated cabinets

**Chug Thug (for palm-muted guitar):**

Chug Thug Edit...

Routing Dual Mono (L/R) ▾

Input [dB] 0.0

Crossover [Hz] 250.0

Amount [%] 50.0

Balance [Low/High] 0.5

Output [dB] 0.0

Full explanation can be found in the notes.  
Hit "Edit", and read them in the editor of your choice.

**Convolution Amp/Cab Modeler:**

Convolution Amp/Cab Modeler Edit...

Model Dumble Overdrive Special - Tweed Delc ▾

Preamp (dB) 0.0

Upsample Impulse If Required Yes (correct gain) ▾

Channel Mode L-Stereo ▾

Filter Size 79.0

FFT Size 256.0

**Convolution Dual Amp Modeler:**

Convolution Dual Amp Modeler (mono->stereo) Edit...

Model (Left) Fender Bassman - Fender Bassman.wav ▾

Model (Right) Fender Bassman - Fender Bassman.wav ▾

Preamp (dB) 0.0

Upsample Impulse If Required Yes (correct gain) ▾

Filter Size 0.0

FFT Size 32.0

**Dual Amp Modeler:**

dual amp modeler (mono->stereo) Edit...

Model (Left) Dumble Overdrive Special - Tweed Delc ▾

Model (Right) Dumble Overdrive Special - Tweed Delc ▾

preamp (dB) 0.0

upsample impulse if required yes ▾

filter size 79.0

FFT size 256.0

Mono to Stereo

## Guitar Station S2 (w/presets):



<https://www.youtube.com/watch?v=BU9jqjr6xVc>

<https://www.youtube.com/watch?v=OocI-UFIf04>

## PreAmp (w/presets):

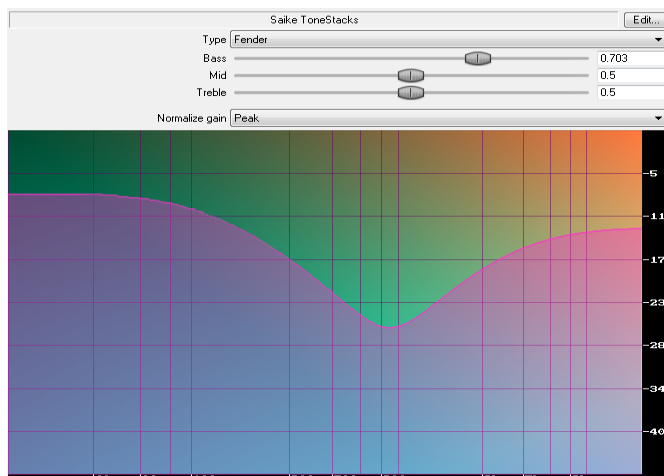


This plugin simulates the richness of a nice not too clean preamp.

A low and a high-shelf; capable of distortion.

You can choose from light saturation to distortion.

## Tone Stacks:



Simulates the tone-stack circuitry of various guitar amps.

Note that some are marked as unstable, these are marked as such since their bi-linearly transformed versions are not stable when it comes to real-time parameter modulation.

Instructions:

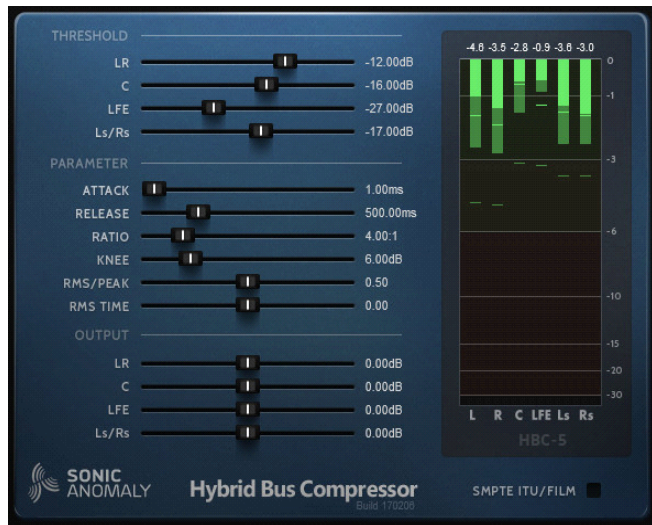
<https://github.com/JoepVanlier/JSFX> (scroll down)

**Tube Amp:**

Tube amp		Edit...
Drive (dB)	<input type="text" value="0.0"/>	
Cutoff (Hz)	<input type="text" value="20000.0"/>	
Mode	Stereo	
Oversample	2x	

# STEREO/PANNING/SURROUND, 5.1:

## Hybrid Bus Compressor 5, for 5.1):



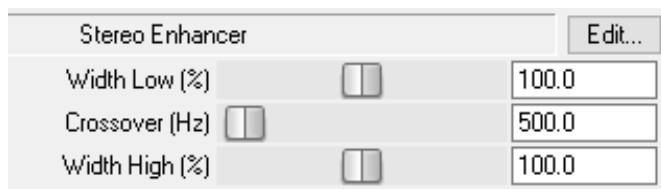
Adjustable mixture between peak & RMS detectors.

The RMS window size is controlled by the release time, but can be overridden by the "RMS Time" slider.

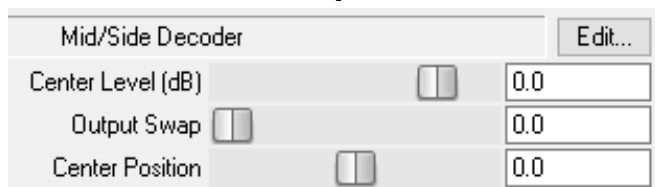
Smart release time control. Helps keep compression seamless w/long release times.

HBC-5: SMPTE ITU/FILM switch for alternative channel order.

## JS Stereo Enhancer:



## Mid-Side Decoder / Encoder:



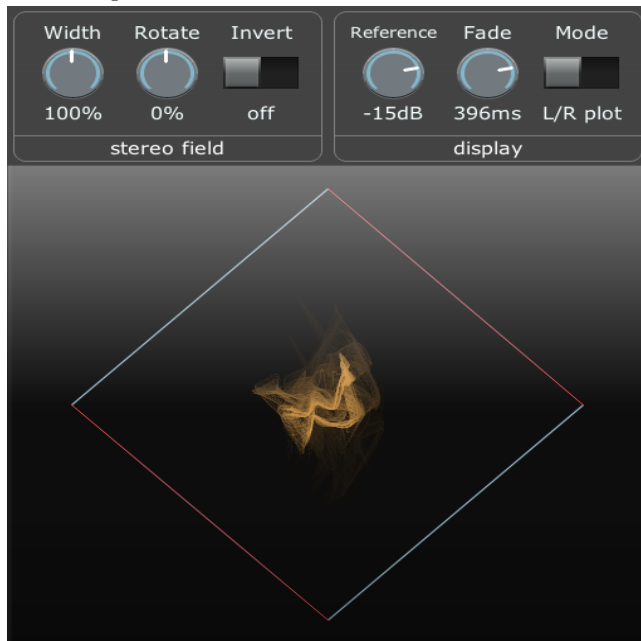
(There are no controls for the encoder)

## Modulation 2:



<https://www.youtube.com/watch?v=F7Be-TputDI>

## **Panalysis:**



For panning sends (not the track), in a multi-channel chain.

This draws the incoming audio on a 2D plot, so you can visualize the stereo field.

Alter the width/pan using the controls.

Center-panned (mono) sounds will draw vertically

Left-panned sounds will draw angled left, right-panned will draw to the right.

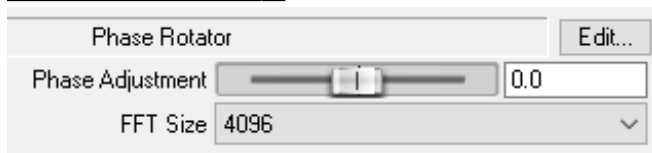
If L+R channels are independent, graph will have no defined clear direction (may appear round)

It's possible to rotate the field such that hard-left or hard-right inputs will output "inside out" (opposite phase in both output channels).

In this case, the Width dial will turn red - double-

click the dial to reset it to the maximum "safe" width

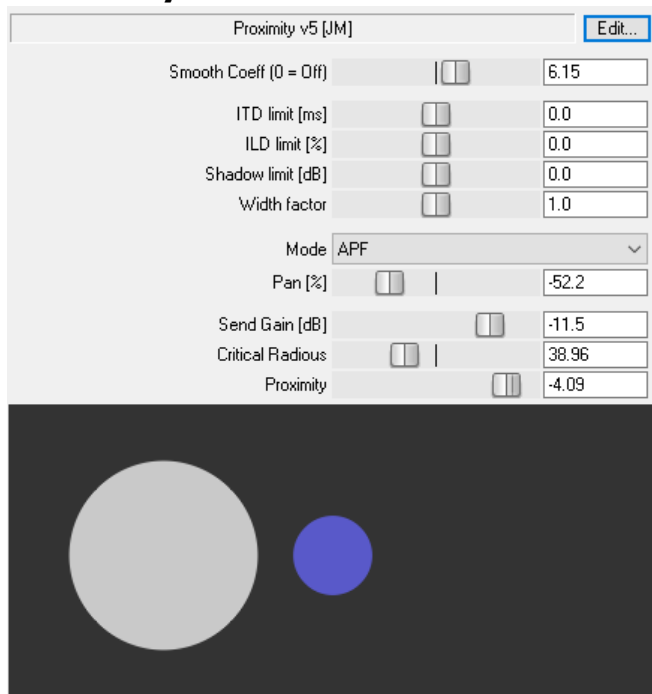
## **Phase Rotator:**



"For tuning multi-mic'd tracks by ear."

One, single slider

## **Proximity:**



A tool for positioning sound object in stereo field.

### **Features:**

- MCP dockable GUI
- two modes of ITD (delay and pseudo-delay)
- distance-dependent reverb send gain
- parameter smoothing

## Pseudo-stereo fx:



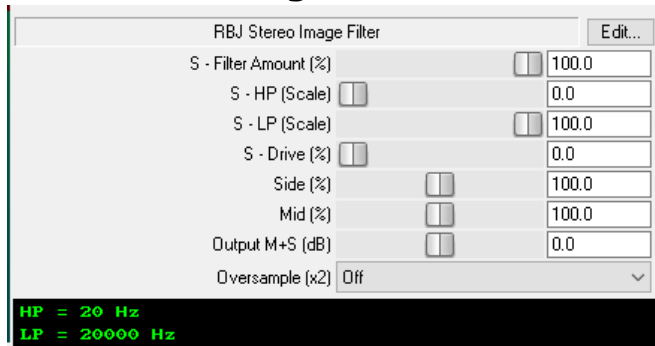
For mono-to-stereo conversions; light on CPU. Uses one feedback delay on R ('Haas fx' mode) or 2 separate feedback delays for L & R ('Comb' mode).

- fx amount (%) - haas / comb

- delay (ms) - feedback delay in milliseconds

Youtube: <https://www.youtube.com/watch?v=GoO2ykpX1PQ>

## RBJ Stereo Image Filter:



## SAW2 | Seriously Amazing Widener 2:



## Stereo Bub II:



A mono-compatible stereo widener.

The crossover basically cuts the bass to avoid widening the bass too much.

2 modes of operation:

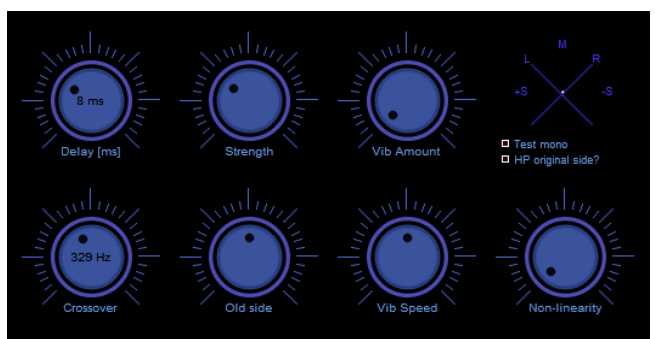
1) Either add stereo sound from nothing, using the Strength slider. This adds a comb filtered version of the average signal with opposite polarity to the different channels.

2) Manipulate the existing side channel that's in the input.

The gain of the original side channel is scaled by the old "Old side" knob.

"HP original side" button engages the high-pass (mono-izing the low frequencies).

## Stereo Bub III :



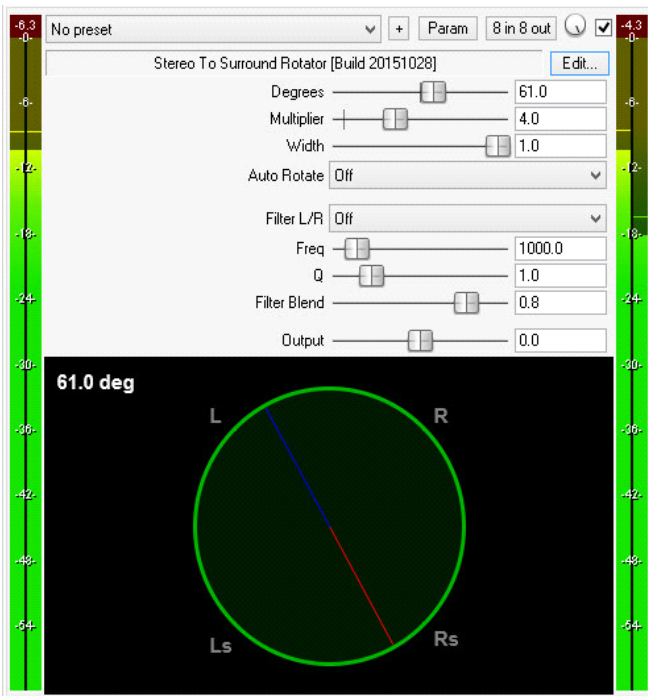
A stereo widener

Like "II" except it adds vibrato on left and right and a squash option to box in the side channel.

This squash option can be useful at times to mask the phasing effects you can sometimes hear on drums.

Instructions: <https://github.com/JoepVanlier/JSFX>

## Stereo2Surround Rotator:



Used to rotate stereo signal in surround space (Lf,Rf,Ls,Rs).

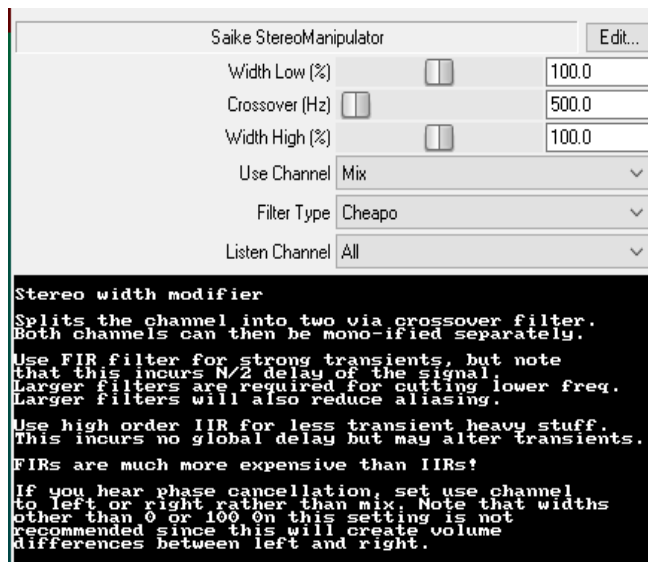
Can be also used with 2-channel tracks to achieve "Leslie" type fx.

Manual and automatic rotation modes.

Also syncs with tempo.

Additional crossover filter to split L & R into high and low frequency bands.

## StereoManipulator:



A stereo width manipulator with many filters. Splits the channel into two via crossover filter.

Both channels can then be mono-ified separately.

Use FIR filter for strong transients, but note that this incurs N/2 delay of the signal.

Larger filters are required for cutting lower freq. Larger filters will also reduce aliasing.

Use high order IIR for less transient heavy stuff.

If you hear phase cancellation, set use channel to left or right rather than mix. Note that widths other than 0 or 100% in this setting is not recommended since this will create volume

differences between left and right.

Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down).

## StereOpposition:



A lot of details, at the mrelwood website.  
A set of stereo tools that can twist, turn, stretch and do many other things as well to the stereo image of a track. The visual animation is updated in real time, so you'll always see what is happening.

Includes: Pan Left / Right; Blend pan (Stereo pan)  
Make wider (while retaining the midpoint);  
Regular Mid/Side balance; Make narrower; Make only one side wider; Slide the centre point Left / Right; Rotate the whole stereo image 360° around your head!

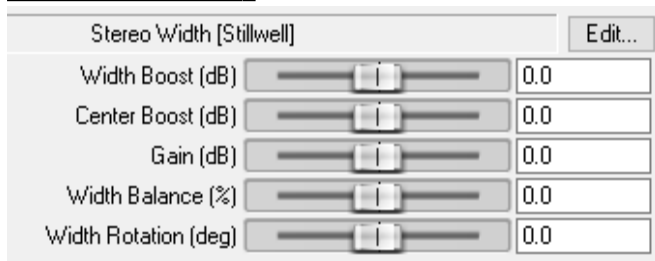
Includes a peak compressor for the output

Real-time visual animation

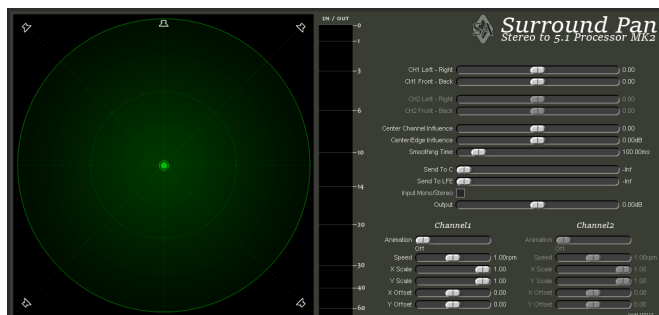
Integrated Help / User manual

<https://mrelwood5.wixsite.com/plugins/stereopposition>

## Stereo Width:

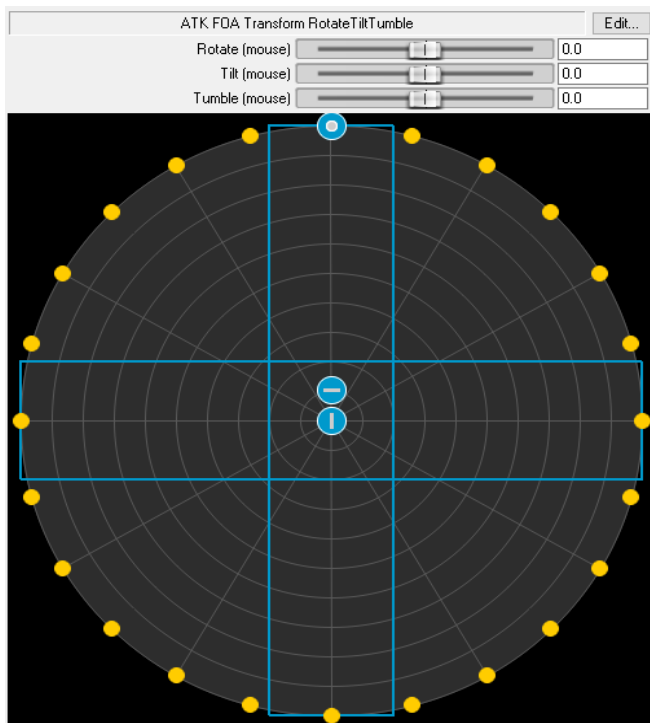


## Surround Pan:



Stereo to 5.1

## Transform-Rotate-Tilt-Tumble:



Ambisonic JSFX are for mixing in "surround" and "5.1".

Because it outputs to 4-5 speakers, it requires creating the proper file that will work in Reaper.

Creating an Ambisonic Audio File using Reaper and the ATK for Reaper

<https://www.youtube.com/watch?v=ClgVMjczFc>

Download here: <https://www.ambisonictoolkit.net/download/reaper/>

## Volume/Pan Smoother v5:



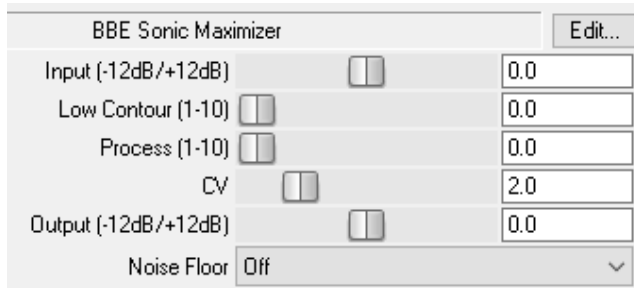
Gives movement to mono tracks

Kenny Gioia's demo:

<https://www.youtube.com/watch?v=WiaSy-NWMe8>

# MASTERING:

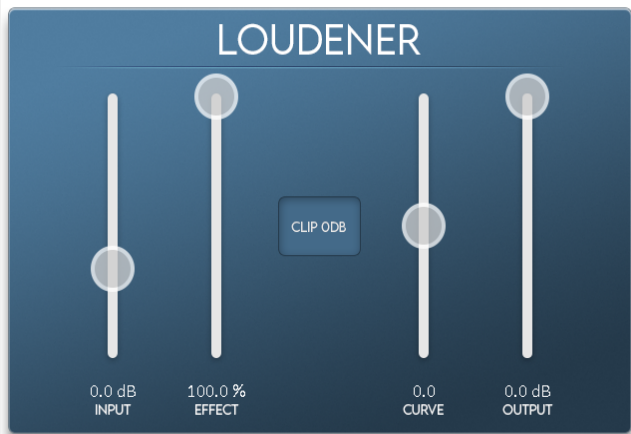
## BBE Sonic Maximizer:



Get the code, here:

<https://forum.cockos.com/showthread.php?t=91439>

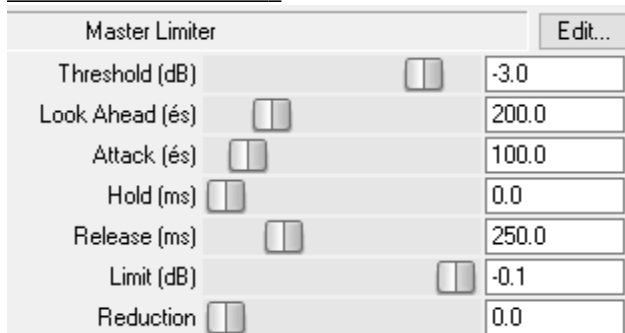
## Loudener:



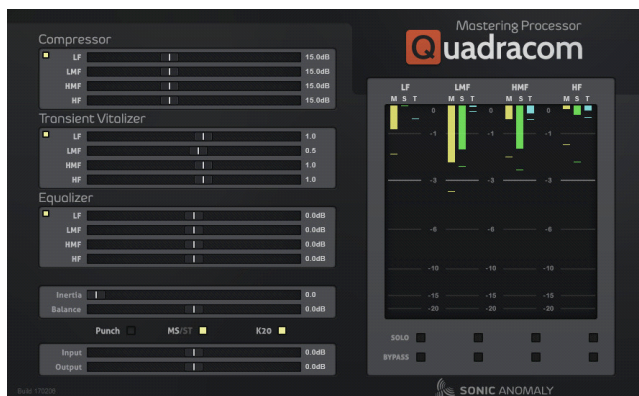
Get the code, here:

<https://github.com/ReaTeam/JSFX/blob/master/index.xml>

## Master Limiter:



## QuadraCom:



A 4-band dynamics processor for mix bus and mastering.

Mono or stereo mode, bundled with a Compressor, Transient Vitalizer, and also an Equalizer for general-purpose Music Production.

### Features

4 bands with fixed frequencies.

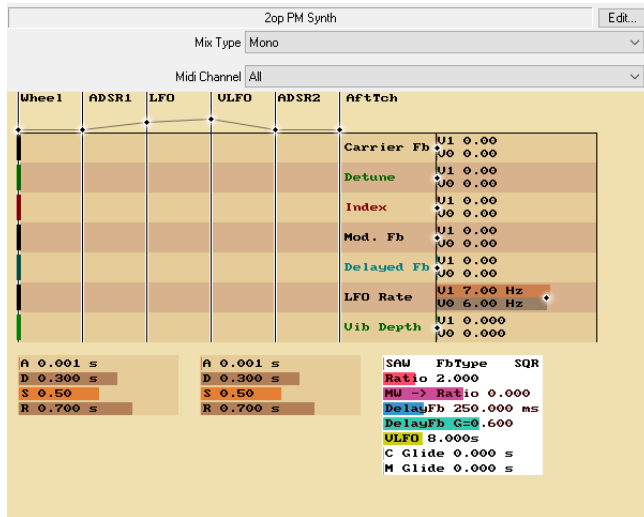
M/S or Stereo mode.

Compressor, transient visualizer, and EQ.

Operation manual included.

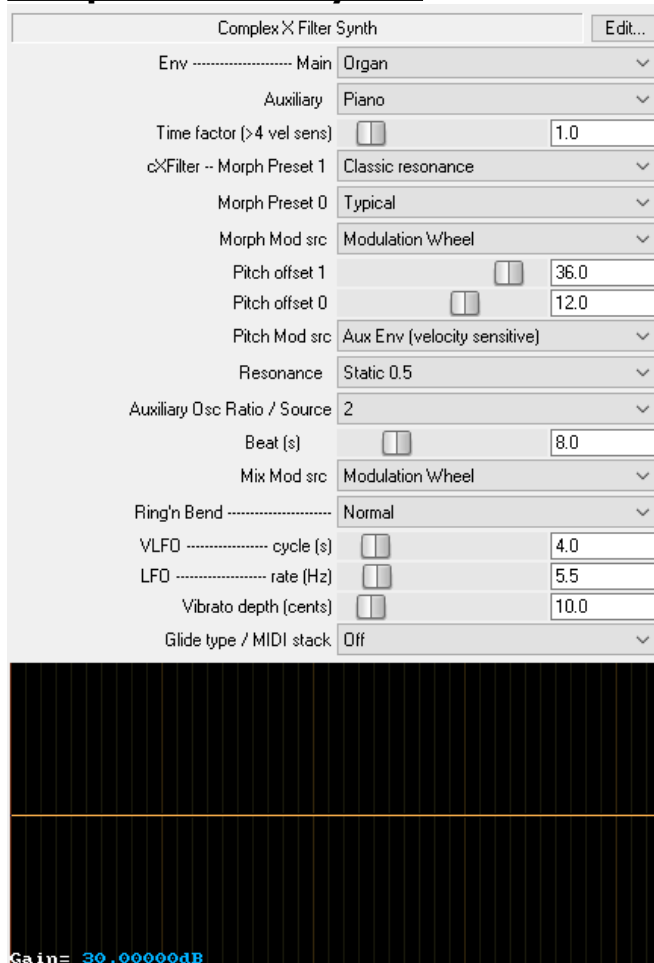
# SYNTHS/SOUND GENERATORS:

## 2op PM Synth:



"...with crazy feedback"  
("x3 with detune for fatness" says the author)

## Complex X filter Synth:



## Dum Drums:



### Features:

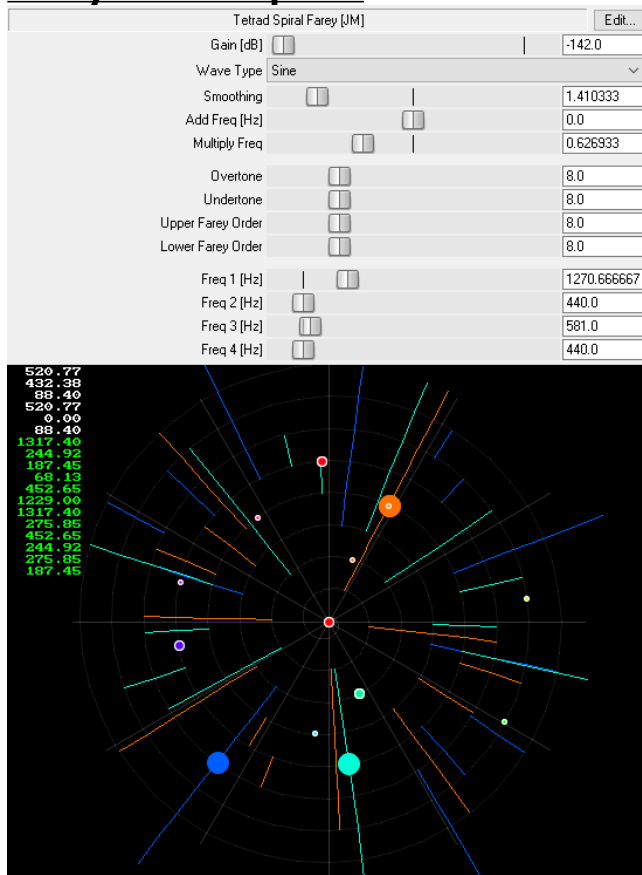
- Remappable MIDI notes.
- 12 drum sounds with variants.
- Allows linking note velocity to drum kit parameter.

[https://www.youtube.com/watch?v=qclHQcb1\\_GE&t=1s](https://www.youtube.com/watch?v=qclHQcb1_GE&t=1s)

ReaperBlog video:

<https://www.youtube.com/watch?v=jZVZ1FAtot4>

## Farey Tetrad Spiral:



Four-oscillator generator with spiral visualization.

### Features:

- visualization of combination tones ( $F1-F2$ ,  $2*F1-F2$ ,  $F1-2*F2$ )
- colors indicating chroma of musical note
- display of overtones, undertones, upper and lower Farey sequences
- frequency readout for every tone and combination tone
- parameter smoothing
- multiple waveforms

## Hammer and Chord (w/presets):



A polyphonic string resonator. Can provide its own impulse (to act as a synth) or resonate the incoming audio.

2 resonators for each note (left & right) which can be detuned. If your input audio is tonal (e.g. speech), the "de-tonal" setting puts a ring-modulator before each resonator to make it atonal. <https://www.youtube.com/watch?v=0MmKuW2nEkk>

## Humonica Synth & Harmonizer: (w/presets)



Between a vocoder and a synth with sharp filter-sweeps.

Can use input audio for its timbre to act as a vocoder ("audio" mode), or use a spectrum which you can draw precisely with the mouse, allowing extremely sharp cutoffs.

Can shift the timbre up/down based on pitch, velocity or per-note envelope ("sweep").

In "audio" mode, you can control how much audio is used to calculate the timbre (window)

and how often (overlap).

The "Volume" section acts like a basic compressor -turn both dials to 0 to disable.

The "fixed" mode lets you draw the spectrum for a single pulse of the oscillator using the mouse.

Shift-click lets you draw straight lines.

A walk-through: <https://www.youtube.com/watch?v=eTiwH886nAc>

<https://www.youtube.com/shorts/lGhvQfjwi2g>

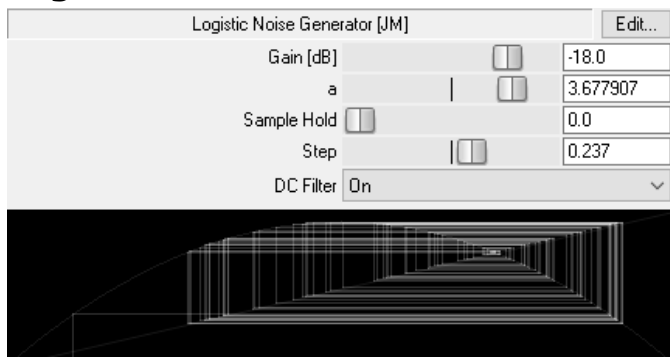
## JS Drumpad:



Forum:

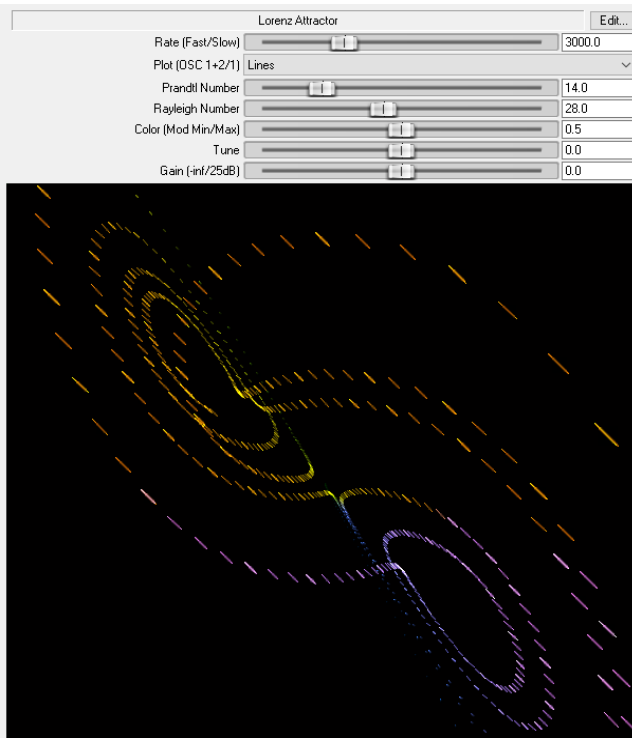
<https://forum.cockos.com/showthread.php?t=285071&highlight=JSFX>

## Logistic Noise Generator:



Noise generator based on the logistic map equation.

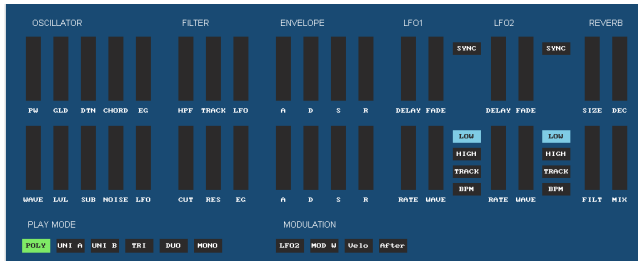
## Lorenz Attractor:



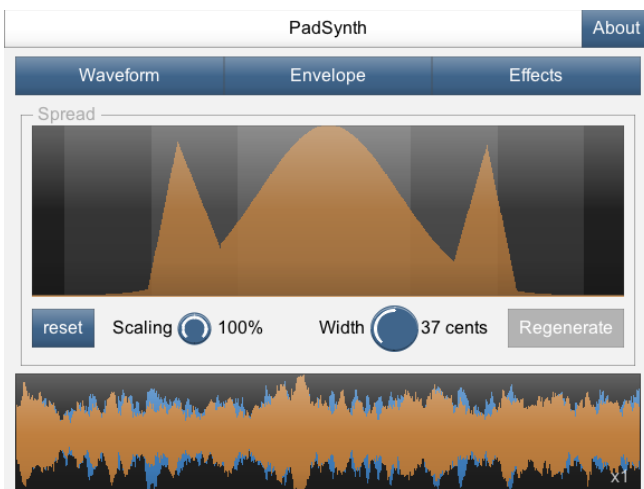
Synthesizer w/2 two oscillators: one sine wave, one square wave and various parameters that control both the sound and the plotted graphics. Can be used to produce ambient sounds.

- Rate - controls the rate at which the plotter/modulation is working.
- plot osc 1+2/1 - when 'lines' is selected plotter outputs lines and the sound is a mix between osc 1 and 2 (sine+square). Otherwise when 'dots' is selected the output is a sine-wave only.
- prandtl number - 1st parameter controlling the attractor.
- reileght number - 2nd parameter.
- color - changes the palette of the plotter. When set to the far left, modulation amount of osc1 is minimum, otherwise its set to max
- tune - tunage of osc1 and osc2.
  - output gain control -inf/+25dB

## Nymphes Control Freak:



## PadSynth (w/presets):



Has a bank of effects and assignable modulators that are calculated per-note. The per-note effects can re-ordered/renamed: the modulators can modulate any later effect in the chain.

### Features:

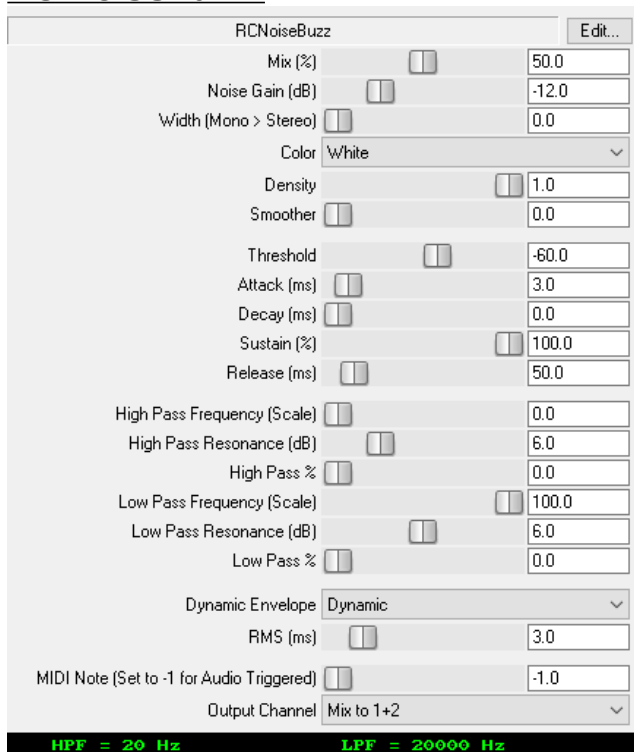
Waveform design with variable harmonic width  
Filter (2nd-order low-pass) with envelope  
LFO (can modulate)

<http://forum.cockos.com/showthread.php?t=1726321>

<https://www.youtube.com/watch?v=hgSqq-SgSjs>

<https://www.youtube.com/watch?v=BF3SXuKBoIM>

## RC NoiseBuzz:



Audio triggered dynamic noise generator with ADSR and filter.

(See instructions in the JSFX code)

## ReaBee:



The sound of...bees.

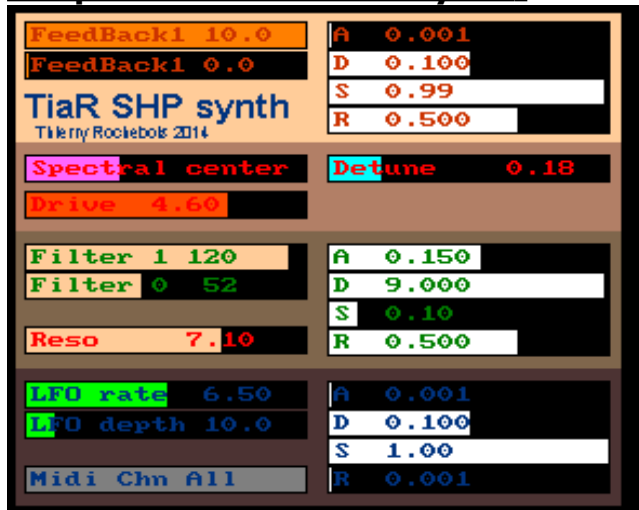
A few or a whole swarm.

## ReaRack2 Modular Synth:

A collection of 19 JSFX modules for use in modular synthesis. Including: 4 types of Oscillator, LFO, Envelope generator, 2 Filters, Amplifier, CC mixer, Trigger, Poly splitter, Key follower, Note filter, Audio to MIDI converter, Note Scope and MIDI Non-linearizer.

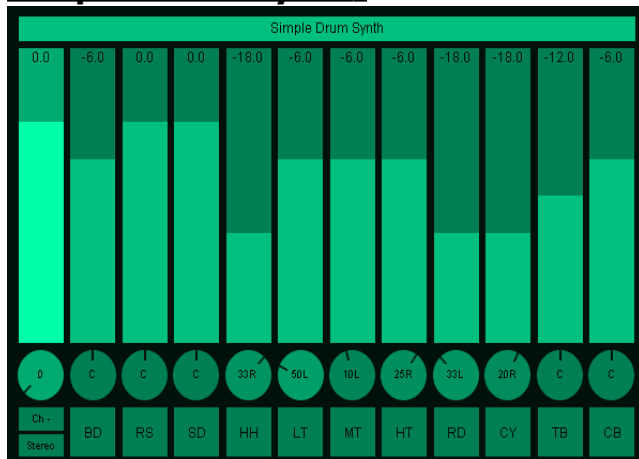
Download: <https://stash.reaper.fm/v/28403/ReaRack-ModularSynth.zip>

## Shepherd Paradoxical Synth:



Continually rising pitch

## Simple Drum Synth:



Electronic drum supports General MIDI (GM):

// Note | Sound | Outputs

// 31 | Sticks | 21/22

// 35 | Bass Drum 2 | 1/2

// 36 | Bass Drum 1 | 1/2 add so forth.

(See code for complete list)

The 12 outputs can be mixed down to 2 channels in mono/stereo mode, or to 22 channels (11 channel pairs) in multichannel mode.

## Soft Bell (w/presets):

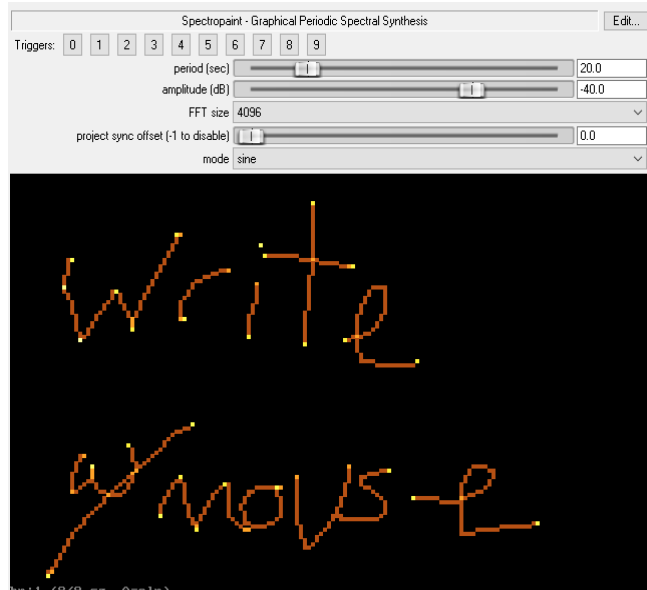


Produces chime-like tones with individually specified harmonics.

Can also be used with audio -it can produce interesting harmonic sounds from musical input, particularly if you turn the "tonality" dial down.

<https://www.youtube.com/watch?v=JLLizwZHIEA>

## **SpectroPaint Synthesis (w/presets):**



Get presets here:

<https://reaperblog.net/2016/06/spectropaint-synthesis-and-filter-jsfx-get-presets-here/>

Tutorial:

<https://www.youtube.com/watch?v=T3XHN0LpA7o>

## **Swellotron:**



Combines two sounds into ambient soundscapes. It computes the spectrum of both signals (using the STFT), multiplies the magnitudes in the spectral domain and puts the result of that in an

energy buffer. This energy buffer is drained proportionally to its contents.

The energy buffer is then used to re-synthesize the sound, but this time with a random phase.

### **Features:**

Shimmer: Copies energy to twice the frequency (leading to iterative octave doubling).

Aether: Same as shimmer but for fifths.

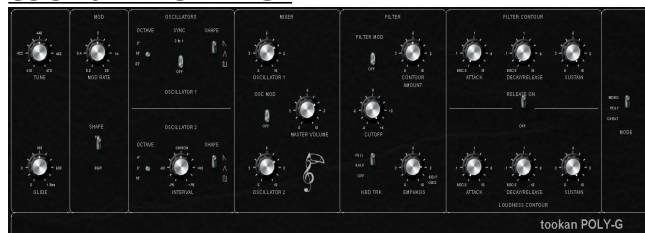
Scorch: Input saturation.

Ruin: Output saturation.

Diffusion: Spectral blur.

Ice: Chops small bandwidth bits from the energy at random, and copies them to a higher frequency (at 1x or 2x the frequency), thereby giving narrow-band high frequency sounds (sounding very cold). Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down)

## **tookan POLY-G:**



## Yutani Mono Bass synth (w/presets):



Monophonic, 4-voice bass synth w/analog-emulated filters and modulation options.

Features: Anti-aliased oscillators.

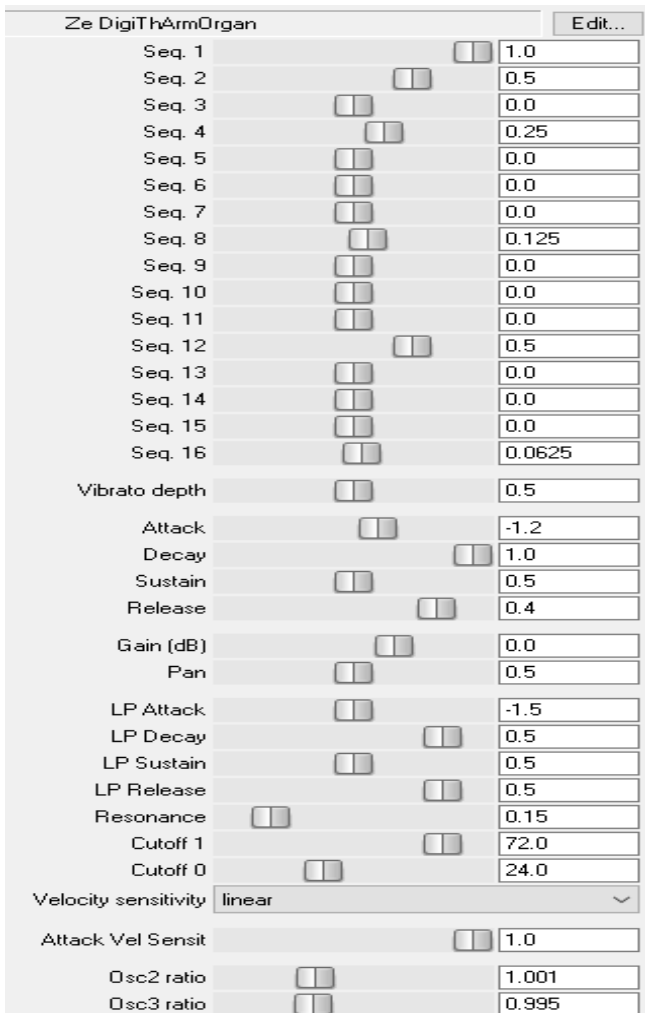
-14 Filters (9 are non-linear analog modeled ones, each with a unique tone).

-Audio-rate modulation options on the filter - Velocity, mod-wheel and LFO mod. options.

-Stereo widening effect; Noise, Distortion, Glide, Modwheel, MIDI velocity and pitch bend support.

Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down)

## Ze DigitThArmOrgan:



A fully polyphonic synthesizer based on Digital Harmonics i.e. Walsh functions.

Features:

A LP filter with resonance and dedicated ADSR envelope per voice

The outputs are added to the outputs of the previous plugin, so you can stack them.

3 detuned oscillator and a two pole low pass filter per voice (the detune ratios of the secondary oscs are adjustable).

It is anti-aliased by third order integration /differentiation scheme.

## **Ze Musette Organ:**

Ze Musette Organ		Edit...
Gain (dB)	<input type="text" value="0.0"/>	
Pan	<input type="text" value="0.5"/>	
Brilliance	<input type="text" value="0.5"/>	
Character	Deep Blue	
Attack	<input type="text" value="-3.0"/>	
Decay	<input type="text" value="-1.0"/>	
Sustain	<input type="text" value="0.5"/>	
Release	<input type="text" value="-1.0"/>	
Vibrato depth	<input type="text" value="0.5"/>	
Velocity sensitivity	hard	
Slider Midi Control	Off	
Attack Vel Sensit	<input type="text" value="0.0"/>	
KB High Transition	<input type="text" value="12.0"/>	
KB High Note	<input type="text" value="127.0"/>	
KB Low Note	<input type="text" value="0.0"/>	
KB Low Transition	<input type="text" value="12.0"/>	
Transpose	<input type="text" value="0.0"/>	

Similar to Italian organs of the 1970's. Almost "chip-tune".

### Features:

- \* Five tone "characters"
- \* Adjustable "brilliance"
- \* Vibrato controlled by Mod. Wheel, After-touch
- \* +/- a 1 octave pitch bend
- \* Anti-aliased sound generation
- \* Stackable: many "Ze Musette Organs" can be stacked, so outputs will be added together.
  - Different Gain and Pan settings can be used to widen the stereo field.

The keyboard range for every Musette Organ can be set with transition zones.

# AUDIO ANALYSIS:

## Audio Statistics:

Parameter	Value
RMS Window (ms) (user input)	300.0
RMS Meter Min (dB) (user input)	-30.0
RMS Window Current L (dB)	0.0
RMS Window Min L (dB)	0.0
RMS Window Max L (dB)	0.0
RMS Dynamic Range L (dB)	0.0
RMS Window Current R (dB)	0.0
RMS Window Min R (dB)	0.0
RMS Window Max R (dB)	0.0
RMS Dynamic Range R (dB)	0.0
Peak L (dB)	0.0
Peak R (dB)	0.0
RMS Total Loudness L (dB)	0.0
RMS Total Loudness R (dB)	0.0
DC Offset L	0.0
DC Offset R	0.0

Tutorial:

<https://www.youtube.com/watch?v=vXcmhG15qZI>

## Blipper:

Parameter	Value
Source	Internal
Tone	0.0
Octave	0.0
Repeat length (ms)	500.0
Blip length (%)	50.0
Fade length (%)	10.0
Blip Volume	-60.0
Dry Bypass Volume	-60.0

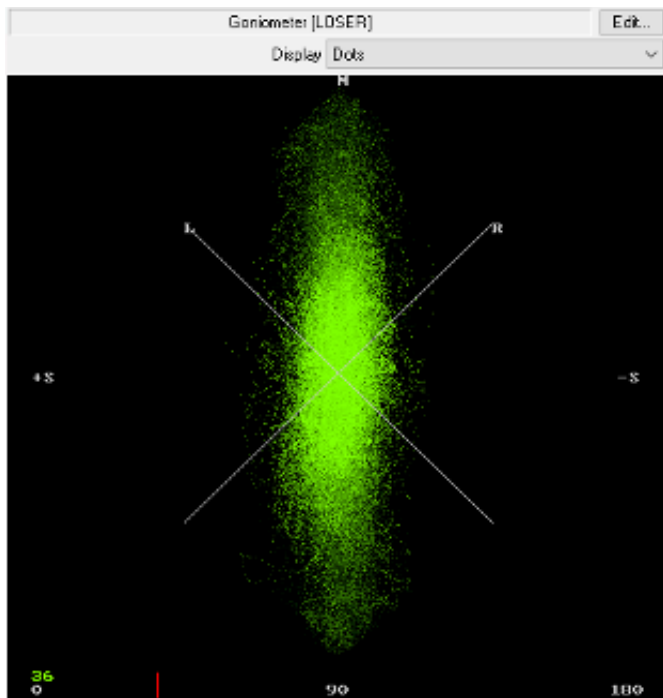
440.0 Hz = 110 spls = 2.27 ms

The plugin was created to test and measure compressor and reverb times and responses. "A tone-generator/ blip-generator, periodic pass-through plugin.

Blipper is created for testing purposes. You can generate tuned sine tones from a wide range of frequencies/keys, and adjust them to be periodically cut with or without a fade. Or instead of the tone you can pass through whatever is playing on the track already.

You can also set a full pass-through volume to skip the blipping altogether."

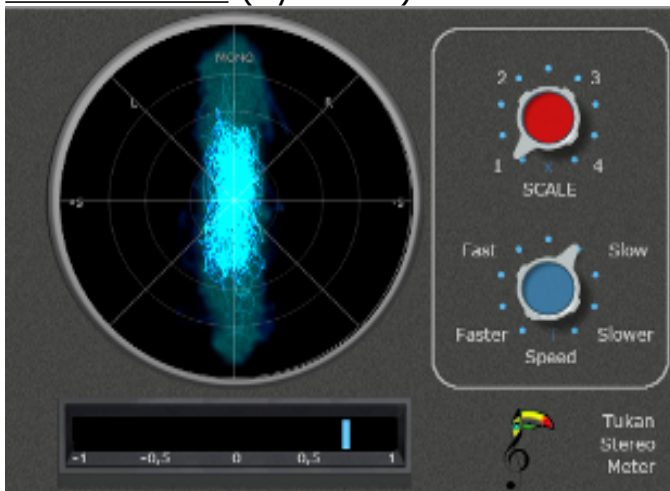
## Goniometer:



A video from "ReaperBlog":

<https://reaper.blog/2012/09/js-effect-spotlight-gfxgoniometer/>

## Goniometer: (by Tukan)



A tool to visualize the phase differences in the stereo signal.

For good visualization of low level signals, the meter can be boosted, while the audio stays as it is.

Also the speed of the optical response can be adjusted.

:  
<https://www.youtube.com/watch?v=RwS3GCQKyeQ>

<https://en.wikipedia.org/wiki/Goniometer>

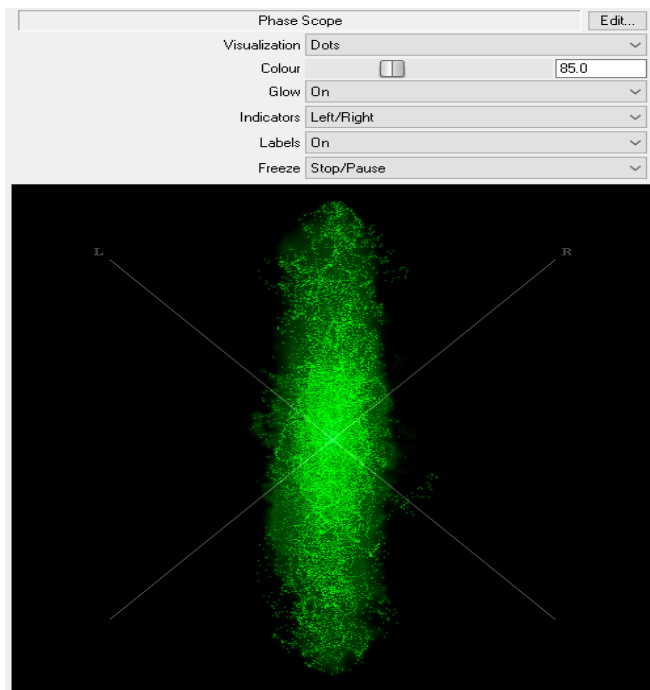
## Green Circles Meter S2:



## Peak Needle 2:



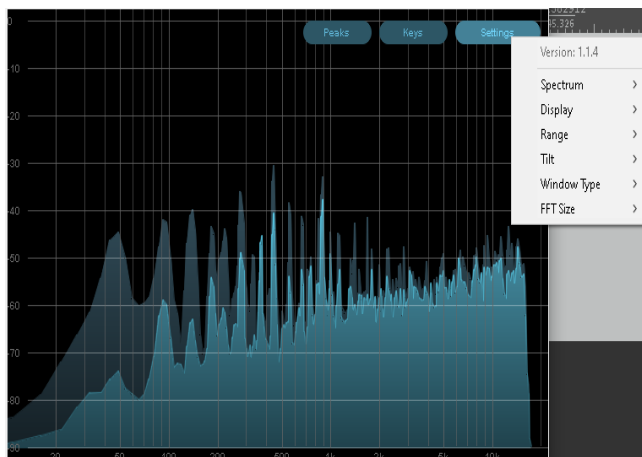
## Phase Scope:



Get it here:

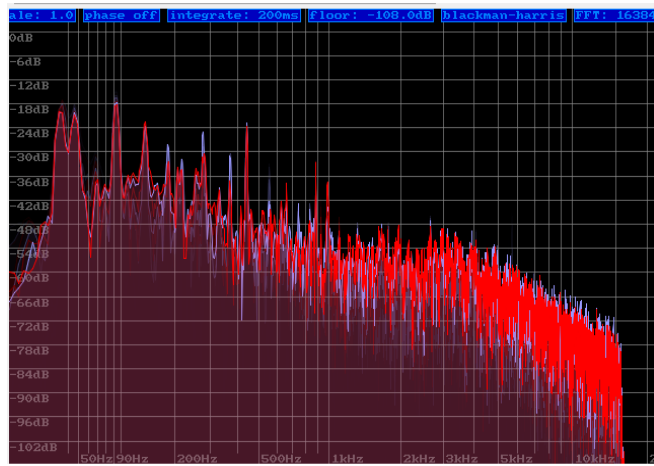
[https://github.com/chkhld/jsfx/blob/master/plugins/phase\\_scope.jsfx](https://github.com/chkhld/jsfx/blob/master/plugins/phase_scope.jsfx)

## ReSpectrum:



"A great analyzer w/useful settings"

## SideSpectrum Meter:

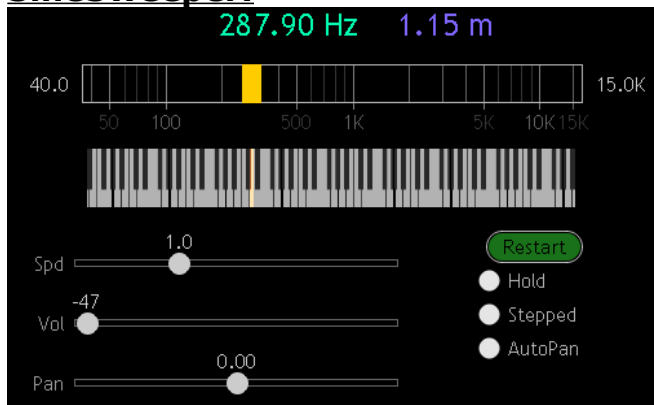


A stereo spectral analyzer to study how much the left and right channel differ.

Instructions:

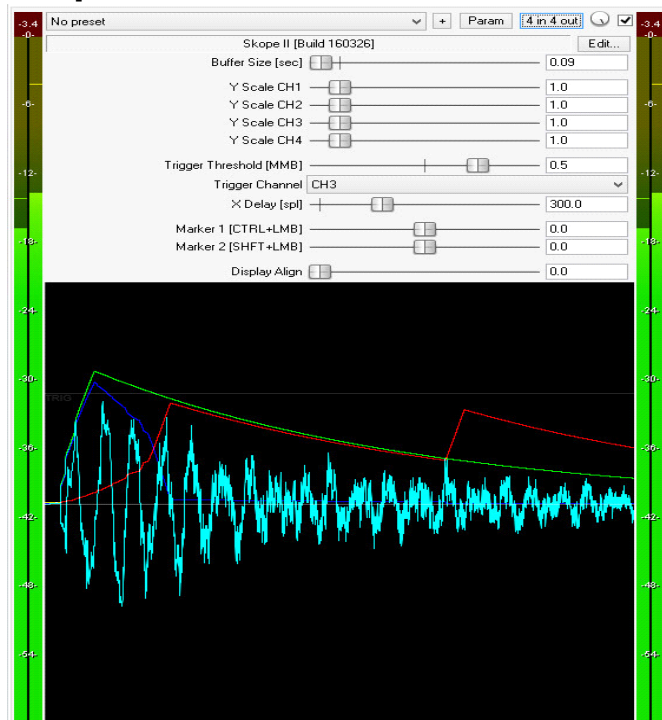
<https://github.com/JoepVanlier/JSFX> (scroll down the page)

## SineSweeper:



Tone moves upward; correlated w/keyboard.

## Skope II:



An oscilloscope.

4 Channels w/buffer size up to 10 seconds.

When buffer size is set to 0, the sync mode will activate.

The display will be synced with playback loop. Click Middle mouse button on display to quickly set the threshold.

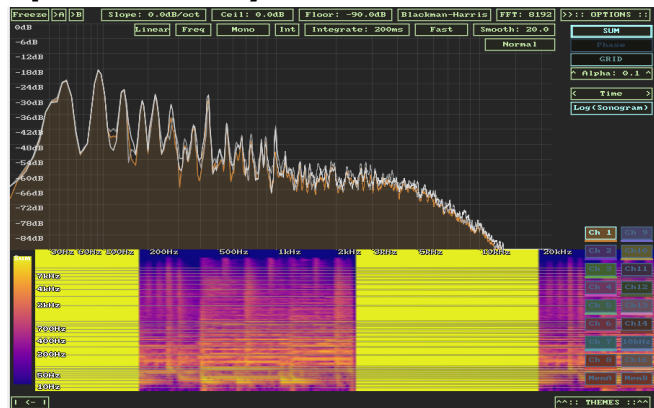
Two Y-axis markers. Click SHIFT+LMB or CTRL+LMB on display to quickly set. Markers can be set automatically to the highest peak value of display buffer using SHIFT+ALT+LMB and CTRL+ALT+LMB 'Display Align' will gradually set input channels into separate lanes.

With LMB pressed you can paint X-axis and information will be displayed. RMB will clear the display.

## SNR Meter: (w/presets)



## Spectral Analyzer:



Adds a spectral comparison tool to selected tracks when you run the lua script (included). Each track is presented with its name and color in Reaper, and the spectral analyzer shows them in the same window.

### To setup:

Embed the plugin in mixer panel, then embed the equalizer in track panel.

This way, when you select a track, you see both graphics, tweak your eq and see the result on

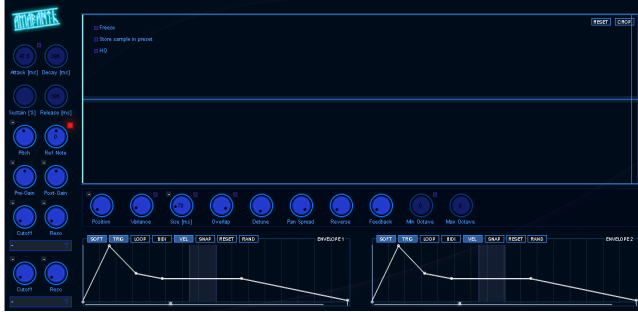
the spectral analyzer directly.

Get the code here:

<https://github.com/JoepVanlier/JSFX/blob/master/SpectrumAnalyzer/SaikeMultiSpectralAnalyzer.jsfx>

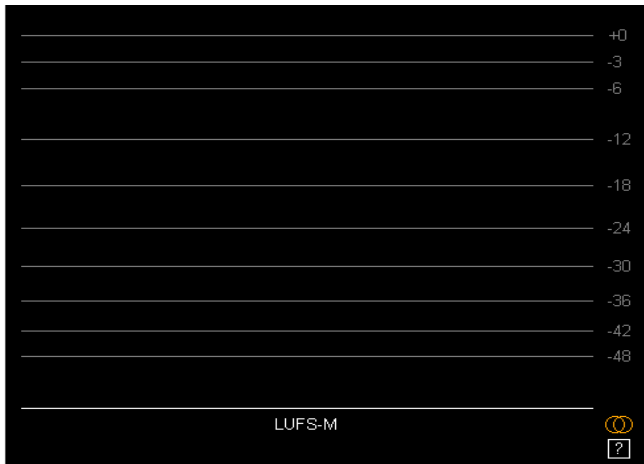
# UTILITIES:

## Amaranth (w/presets):

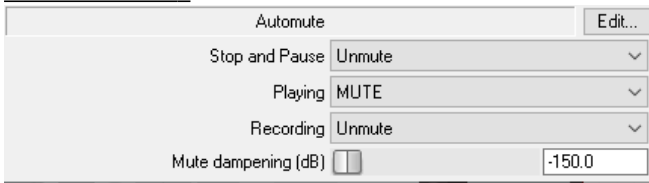


Instructions: <https://github.com/JoepVanlier/JSFX>  
(scroll down)

## Automatic Gain:



## AutoMute:



Text in code says: "Utility plugin. Like Muteomatic, just in-box and stereo. Damps the signal by amount. Triggered by play state."

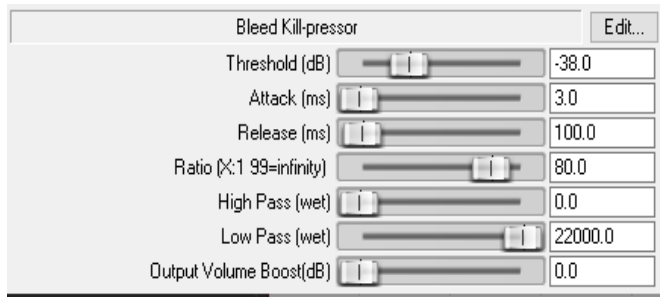
## Band Joiner:



Sum Mode can switch between "Average" and "Summing"

(Same GUI as the JSFX, "FXD (Mix)RackMixer ")

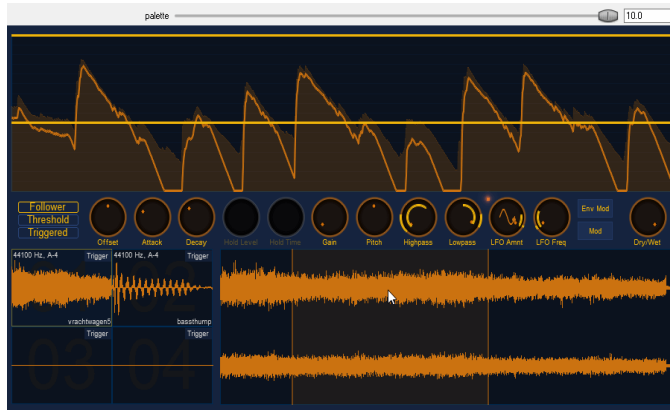
## Bleed Kill-pressor:



going into compressor. Previously the compressor output was filtered. Now only the frequencies you want to hear will hit the compressor and be output.

Simplifies the bleed killing technique of duplicating a track, inverting the polarity of the duplicate, and using a compressor on the inverted track to crush the signal, then blending both tracks which cancels out the quiet sounds, reducing bleed. This plugin does all this internally, eliminating the need to actually create a duplicate track. HP/LP Filters apply to signal

## Bric-a-Brac:



-A low-pass/high-pass filter per sample that can be modulated by the envelope and/or an LFO modulator.

-Variable pre-delay per sample.

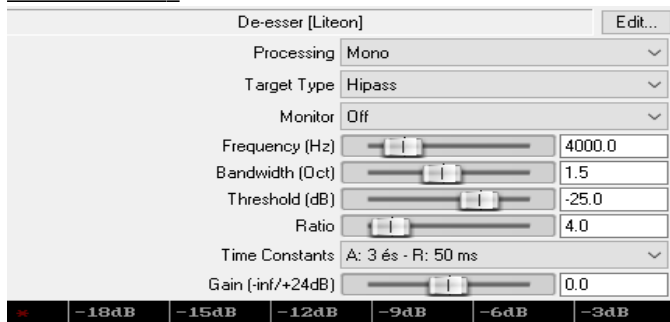
Instructions: <https://github.com/JoepVanlier/JSFX>

Adds textures to existing sounds. Can brighten up beats by loading a noise sample in a sample slot. Or add some organic textures by adding a creaking sound that plays before the attack of a synth.

### Features:

- 4 sample slots can be triggered/looped to add textures to existing sounds.
- Choose if sample will be: envelope follower, threshold or triggered envelopes.
- One LFO modulator per sample.

## De-esser:



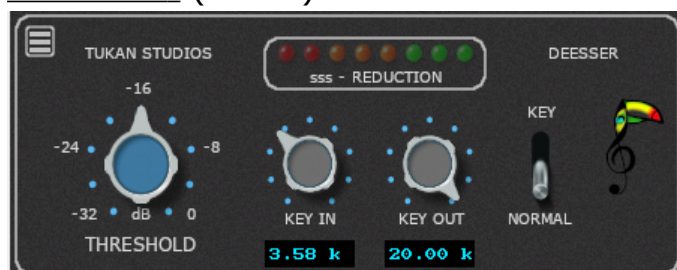
A split-band (or multi-band) de-esser. Linkwitz-Riley crossover.

Allows fast or slow time constants.

Monitor switch.

High-pass or band-pass target. gr-meter

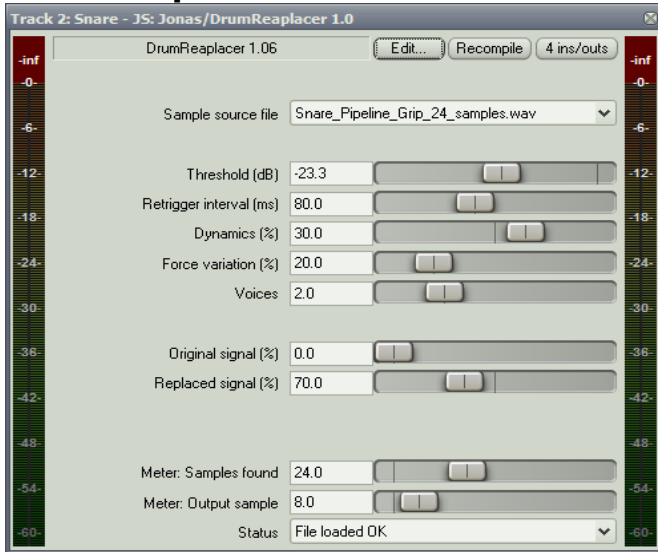
## De-Esser: (Tukan):



Uses "split-band" compression. stereo/mono processing compress a band or whole top end.

- monitor on/off - listen to compressed signal
- bandwidth in octaves - 0.1 - 3.1oct
- threshold - 0 to -80db
- 3 time constants.

## DrumReplacer:



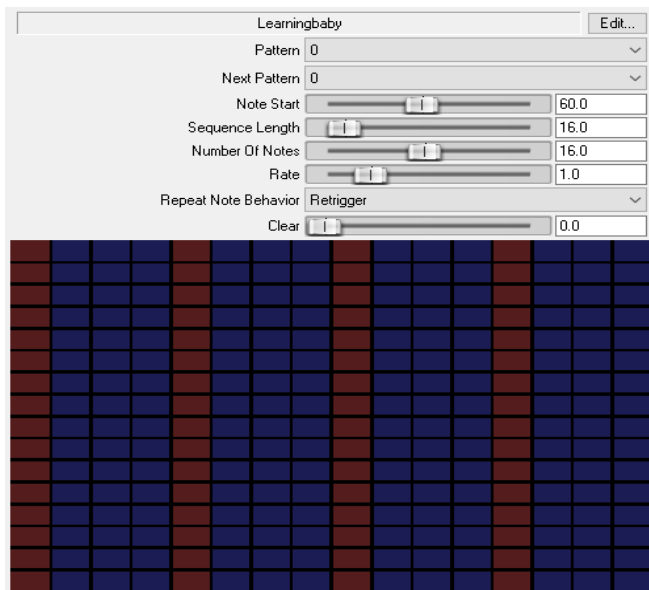
### Features:

- Velocity sensitive drum replacer
- Force variation-slider to avoid machine-gun effect
- built-in sampler supports any sample-rate
- Dynamics-slider to control how hard the drummer beats those things.

Put DrumReplacer on any track where you want to replace a drum, lower the threshold until you hear it in action.

<http://forum.cockos.com/showthread.php?t=20462>

## Learning Baby:



A Sequencer Baby v2 that "learns".

It will add incoming MIDI notes to the pattern.

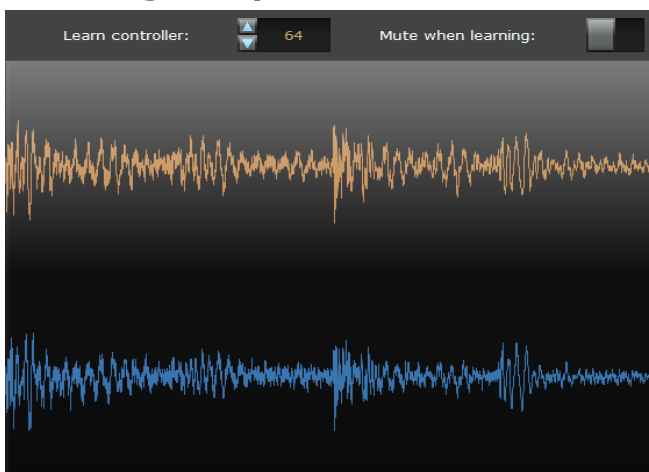
NOTE: If you use automation to change the selected pattern, you will get incorrect results. Change the "Next Pattern" during a loop for a correct transition.

Forum:

<http://forum.cockos.com/showthread.php?p=1845408>

Tutorial: <https://youtu.be/dMTiWafJFmg>

## Learning Sampler:



Records samples from incoming audio when in learning mode (selected by a controller switch), and plays them back when in playback mode.

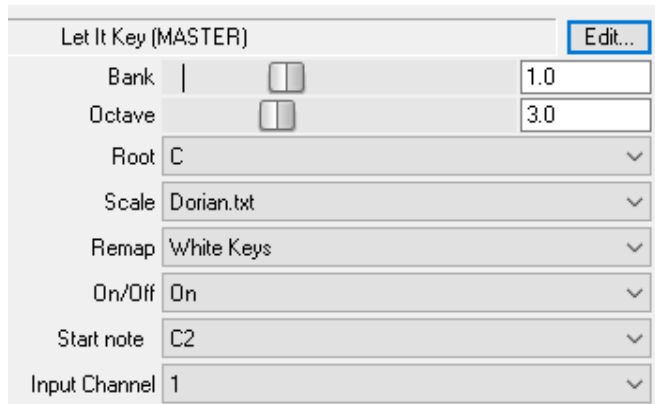
To record the samples, set the appropriate controller to a value of 64 or above. While this controller is down, when you play a MIDI note the sampler will remember the start/end positions in the buffer.

When you have recorded all the samples, reset

the controller to 0 to enter playback mode.

Samples are scaled according to velocity - if you record at velocity 100 and then play back at velocity 110, the output will be louder than the original input. It currently does handle sample-rate change.

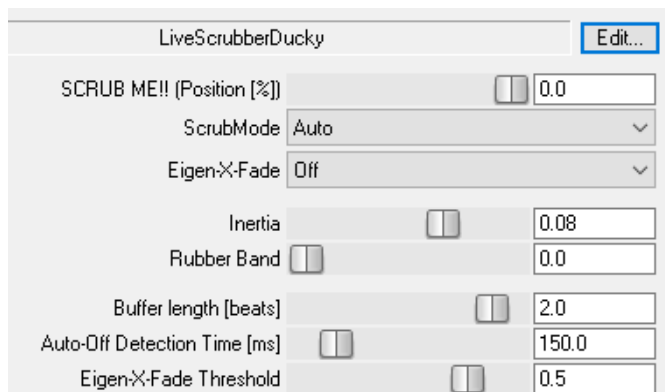
### **Let It Key:**



You can load this JSFX directly on your Master track, but it is easier to use the scripts.

Allows you to control input fx instances of Let It Key on other tracks in the project.

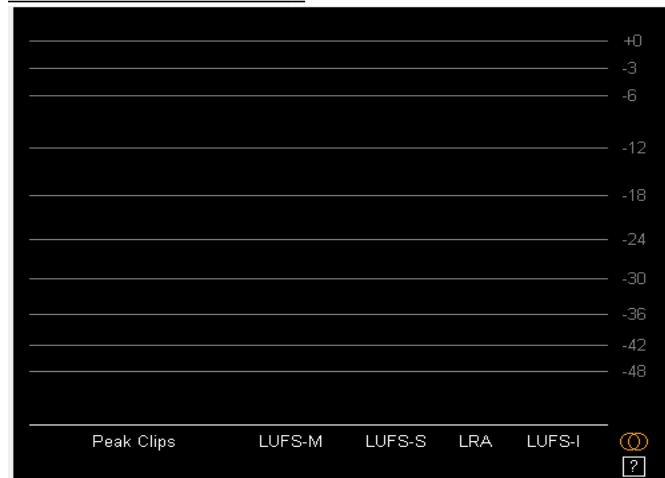
### **Live Scrubber Duckie:**



JSFX for real time scratching, scrubbing and tape stop effects.

Allows classic scratching (two turntable style -> use two tracks), Eigen-scratching (song scratches onto itself -> single track use) and rhythmic scratching (e.g. beat synchronized with LiveBeatRepeater, via parameter automation etc).

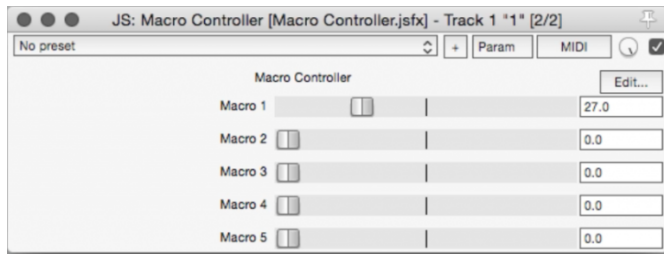
### **Loudness Meter:**



A Kenny Gioia video:

<https://www.reaper.fm/videos.php#BF3SXuKBolM>

## Macro Controller:



Links many track fx parameters for complex effects; simple to automate. It has 5 'dummy' parameters but the plugin does no processing. It simply gives you sliders for parameter linking. Once you configure the parameter links you can save as an FX chain.

"This would work great for creating intense EDM buildups in one knob."

<https://reaperblog.net/2018/03/macro-controls/>

## Monitor Routing Utility:

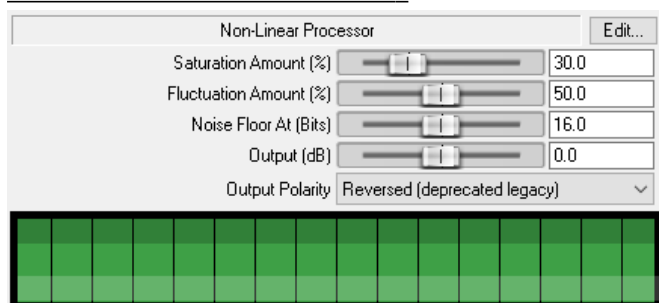


## Multi-band processor:



<https://www.youtube.com/watch?v=hj6tOSS5TIM>

## Non-Linear Processor:



Simple non-linear processor. Roughly mimics analog circuit behavior.

- saturation: wave-shaper adds odd harmonics.
- fluctuation: adds probability to all parameters.
- floor reduction - adds filtered white noise at a defined range, calculated from bit depth.

The effect also models a basic frequency response from an analog prototype. Two slopes at the bottom and low end are present and also a positive low-shelf, around 300hz. But the probability also affect the filter parameters.

The result from this could be characterized as "dynamic", as opposed to "static" where a transfer function is time invariant.

The amount of probability is material dependent and slightly increases for transients, found in the signal.

### Preamp (w/presets):



### Pre-Arranged Loop (for audio):



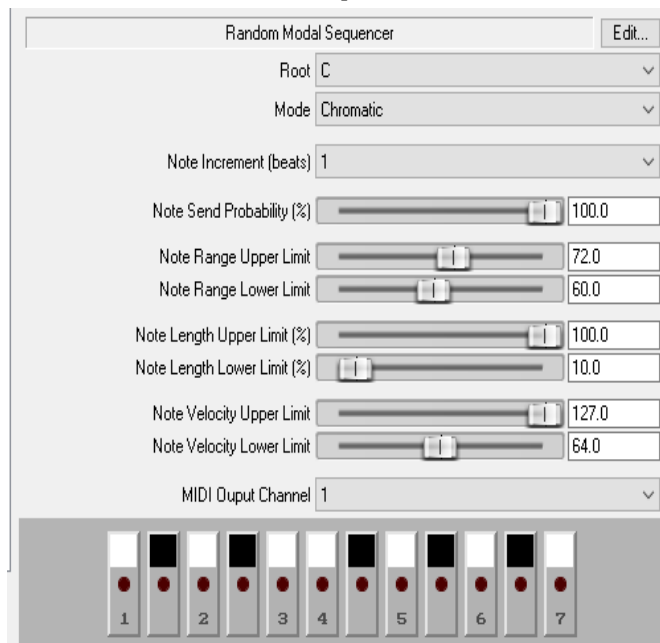
Loops audio based on a pre-arranged record and loop position. For example, you can have it automatically start recording at beat 4, and finish record at beat 8, and have that automatically loop throughout beats 8 - 20.

To get multiple loop regions on one record region, just add multiple instances of the plugin on the same record region.

### ## Options

- Record Start (Beats) - The position at which you'd like to start recording.
- Record End (Beats) -The position at which you'd like to end recording.
- Recording - "0" = not recording, "1" = recording.
- Playing - Indicator slider (0 = not looping, 1 = looping).
- Playback Start - The position (in beats) at which you'd like to begin loop playback.
- Playback End - The position (in beats) at which you'd like to end loop playback.
- Has Audio - Indicator for whether the plugin has audio data saved. 1 = has audio data.

## Random Modal Sequencer:



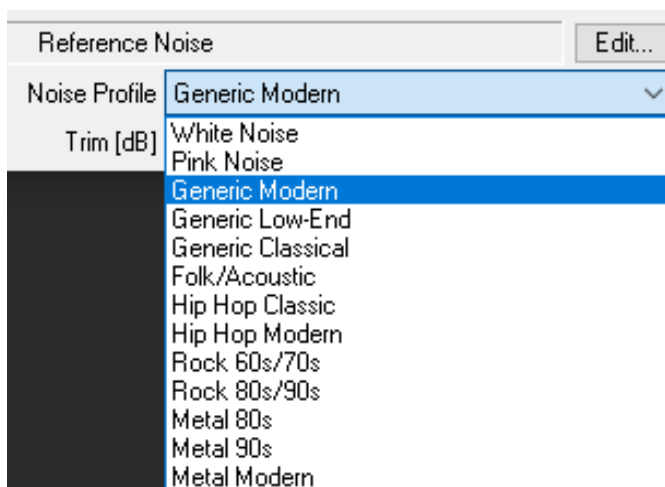
Random note generator with the option of filtering the output by mode, or a custom scale.

Note value, note length, note velocity and note send probability can all be randomized within a selectable range.

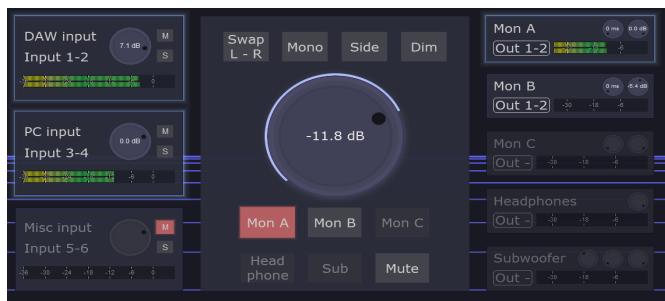
To use the custom scale option, select 'Custom Scale' from the 'Mode' slider, and click the key buttons in the graphics area to toggle the notes you want to use.

The transport must be running to get output.

## Reference Noise:



## Routing tool:



A small, convenience tool for quickly routing monitor configurations.

Meant to go on the master monitor FX or master bus.

Used for quickly toggling routing to different outputs.

Instructions: <https://github.com/JoepVanlier/JSFX> (scroll down the page)

## Router:



An inter-track, multichannel routing/mixing tool. A stereo track is 2 channels, but REAPER supports up to 64 channels/track. Router can route and blend the first 16 of them in many ways.

### Instructions (from the code):

Input Channels - Choose channels you want to process. Click the title for channels 9-16. Set the volume for processed channels with the slider next to the Input Channel selector.

Stereo/Mono - Switches between selecting mono or stereo channels.

Copy or Move - Chooses whether the original channels will be muted or not.

To Channels - Chooses which channels the selected channels will be moved/blended to.

Click the title for channels 9-16.

Merge or Replace - Chooses whether the chosen channels will be blended or if they'll replace the To Channels.

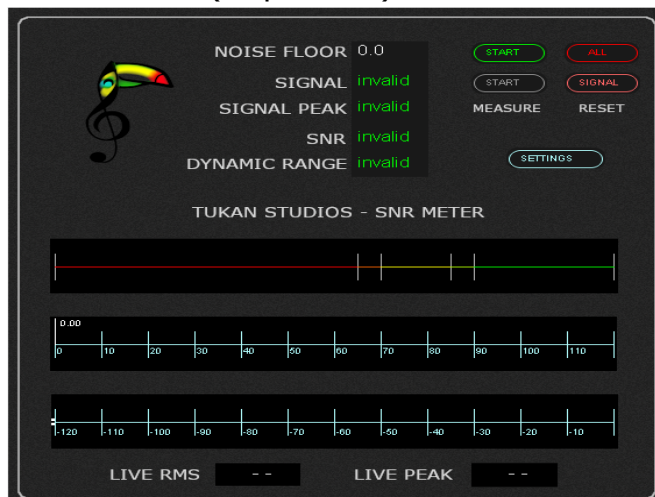
Original Volume - Sets the volume for the original To Channels (only in Blend mode).

## Second-Order Phase Shifter All-pass:



"Insane! Be it on multi-mic'd tracks or even for cleaning up or shifting a resonance in the recording, including feedback! Kick drum phatness galore. Note: I edited my JS so the lower limit is 20Hz, not 100"

## SNR Meter (w/presets):

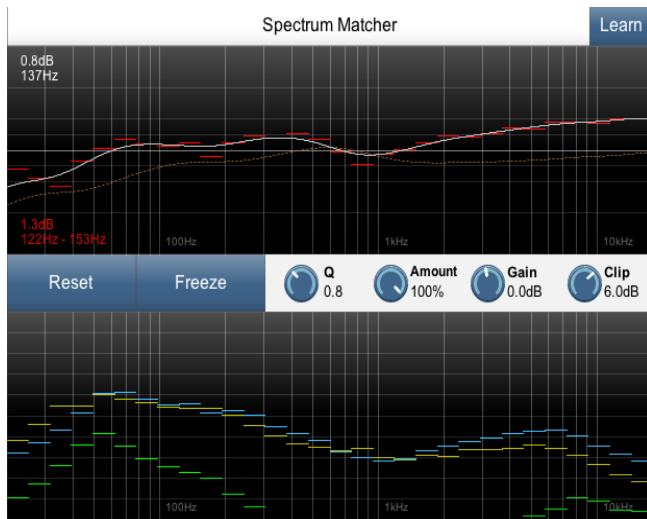


"Microphone bleed, cross-talk, background noise...ever wondered if your recording would finally work in the mix?

Check this before you go for recording with the signal-to-noise meter."

You can make your own presets for rating different signal types like voice recording, guitar amps or analog mixers.

## Spectrum Matcher:



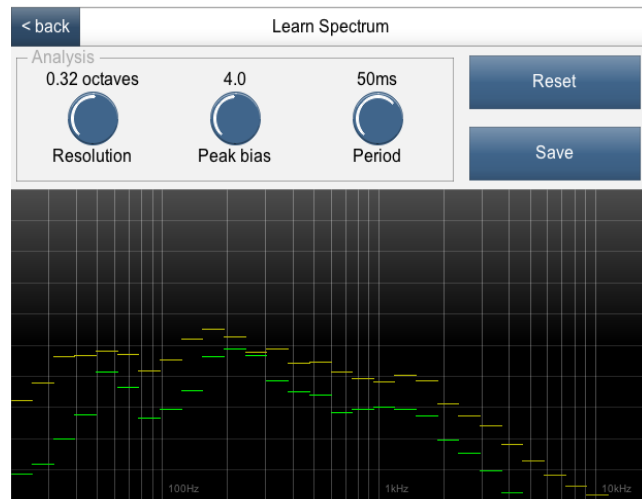
Compares the spectrum/timbre of an input against a model and optionally applying a correction filter.

The bottom-half of the screen shows the short-term spectrum (green), the long-term spectrum (yellow), and the long-term reference spectrum (blue).

The top half of the screen shows the current difference between the long-term spectrums (red).

If correction is enabled, it shows the correction curve (white) and phase (dotted brown).

If the correction is frozen, it shows the frozen correction values in blue.



To disable correction and re-start/clear the long-term spectrum measurements, hit "Reset".

To start correction, hit "Correct".

Once correction is enabled, "Freeze" will update the fixed correction values.

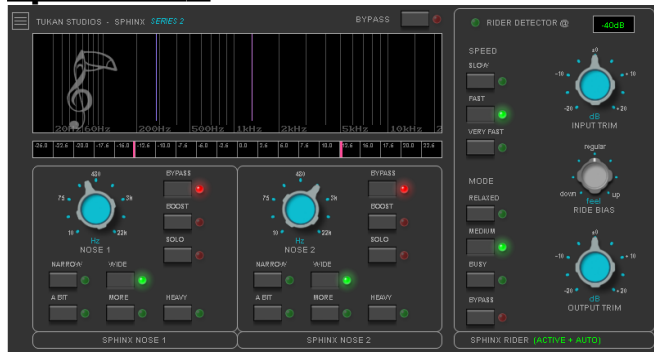
It can learn new models from the incoming audio, and save this as a preset for later use.

This effect is quite CPU-intensive.

<https://www.youtube.com/watch?v=XdJ1-Wpta4o>

<https://www.youtube.com/watch?v=QLh6b88OvFs>

## Sphinx S2:



"Meant to remove nasal frequencies from vocals; works really well on rhythm guitars."

<https://www.youtube.com/watch?v=gXhRzC55tfo>

## Stereo Alignment Delay:

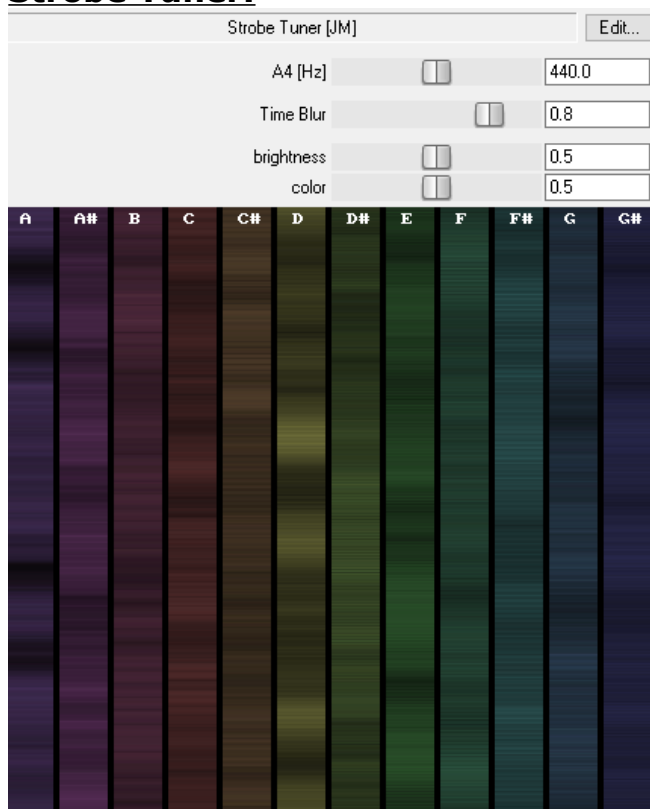


Makes small delays to individual channels. Delay amount can be displayed in ms or samples. The delay analyses detects when one channel is ahead/behind or out of phase with the other - this can be useful when trying to get phases to agree in a multi-mic setup.

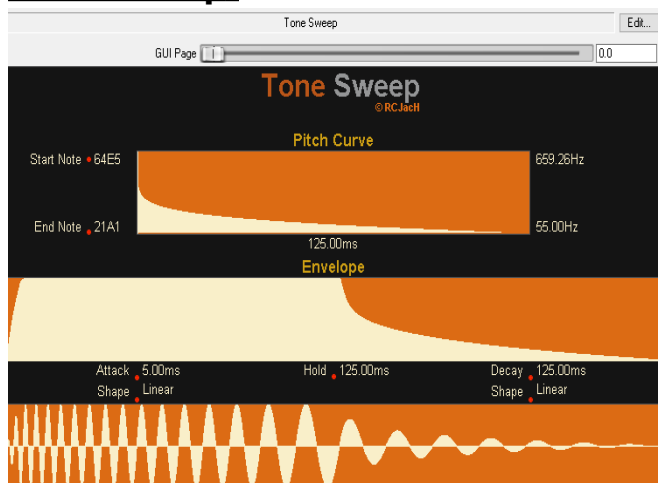
“Works better than many commercial plugins (only with 2 tracks though)”

“For tuning multi-mic'd tracks NOT by ear but automatically -or at least getting a reference how the result might sound "clean".

## Strobe Tuner:



## Tone Sweep:



This generates a sweeping tone base on settings Instructions:

1. Set start/ending note, fine tuning, if desired.
2. Set sweeping time and envelope time.
3. Adjust envelope curves
4. Select different wave shape if desired.

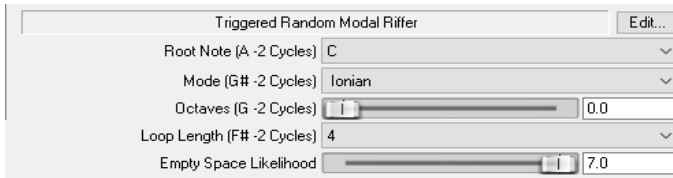
There are 4 “pages” that show various tweakable parameters such as: pitch, sweep, curve, waveform, modulation and slant

## Tool S2:



<https://www.youtube.com/watch?v=E3ALKxUqW4>

## Triggered Random Modal Riffer:

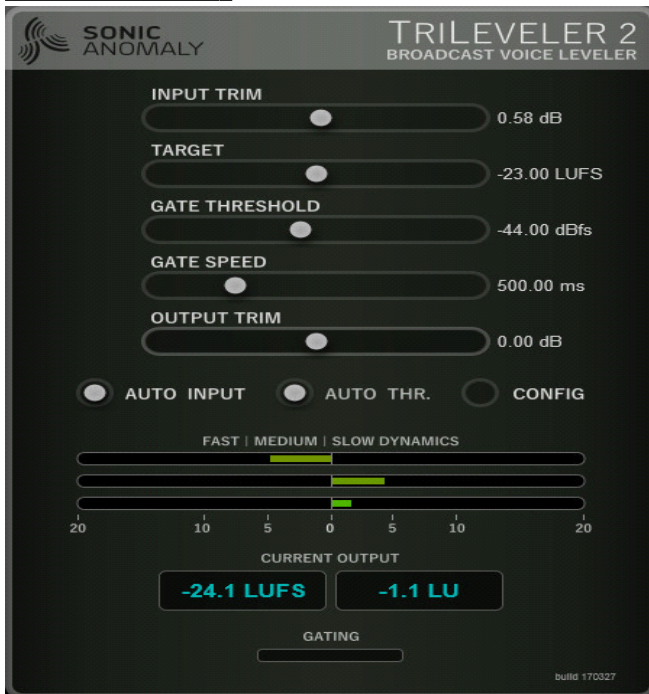


Populates and repeats riffs from modal scales when triggered by a MIDI message.

<https://www.youtube.com/watch?v=dQLtjXSkNnw>

<https://www.youtube.com/watch?v=VzvsDpI80vY>

## TriLeveler 2:



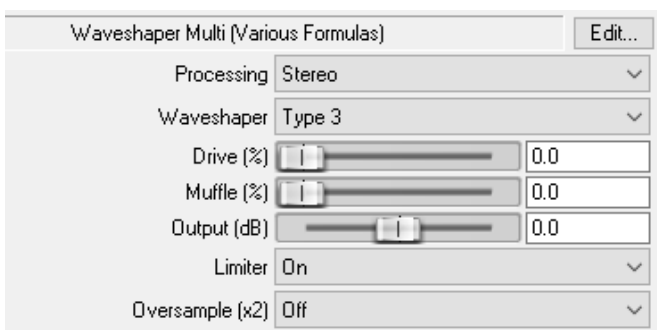
A voice broadcast leveler plugin.

For podcast & Youtube producers, radio/TV work or anything speech related.

"Set and forget" operation.

105 ms latency.

## Waveshaper Multi:



Has different wave-shaper formulas.

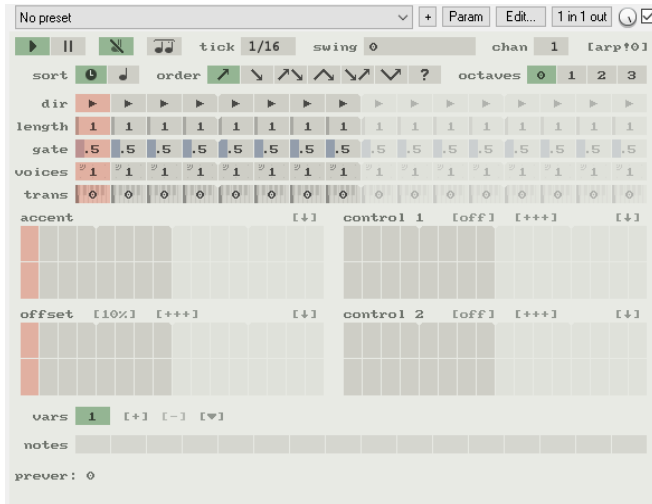
- mono/stereo processing
- drive - controls amount of saturation
- muffle - dulls sharp, high-end frequencies.
- oversampling (on/off)

"3 modes, wave-shaper/exciter. Works well for individual tracks and included muffle slider (high shelf attenuation). "Works perfect to

compensate build-up in highs and to tame overall increased brightness"

# MIDI: ARPS/Sequencers, Generators:

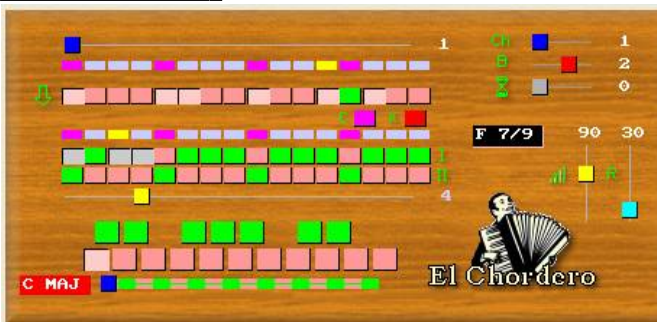
## arp!0 - groovy MIDI arp:



### Features:

- Independent length for each control sequence. parameter poly-rhythms!
  - All real-time controls visible at once.
  - Accent and offset sequences can create cool rhythmic grooves.
  - Step length and voices sequences for uneven, chordal arpeggios.
  - User definable sort transforms rearrange input notes in unique ways.
  - Syncs to the host when playing or recording.
- <http://forum.cockos.com/showthread.php?t=95841>

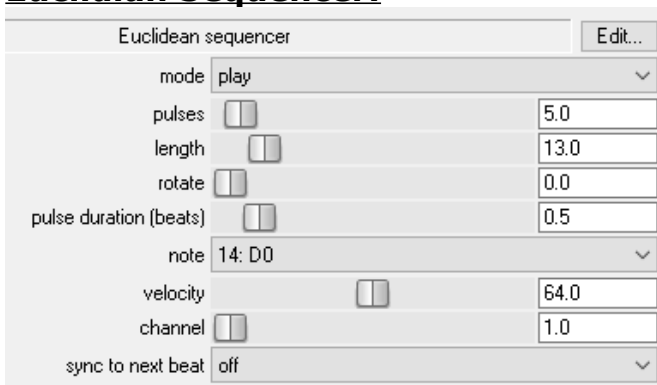
## El Chordero:



A chord sequencer / micro arranger

<http://forum.cockos.com/showthread.php?t=26619>

## Euclidian Sequencer:



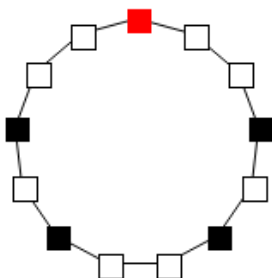
Get it, here:

<https://forum.cockos.com/showthread.php?t=94325>

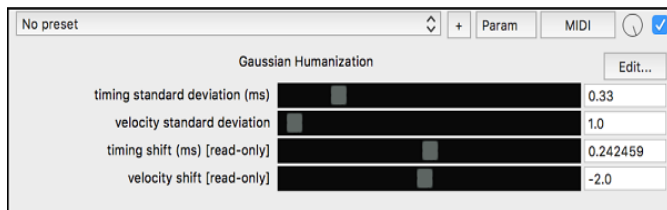
Demo: [http://youtu.be/i2pb\\_wzxTic](http://youtu.be/i2pb_wzxTic)

Euclid plugin: <http://sovietov.com/app/true-grue-js.zip>

Note: The FX in the video says "Euclid Rhythm", but it's the "Euclid Sequencer" that works.



## Gaussian Humanizer:



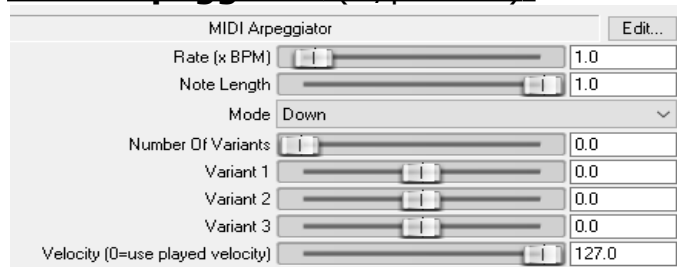
<https://forum.cockos.com/showthread.php?t=234279>

## MIDI Arp:



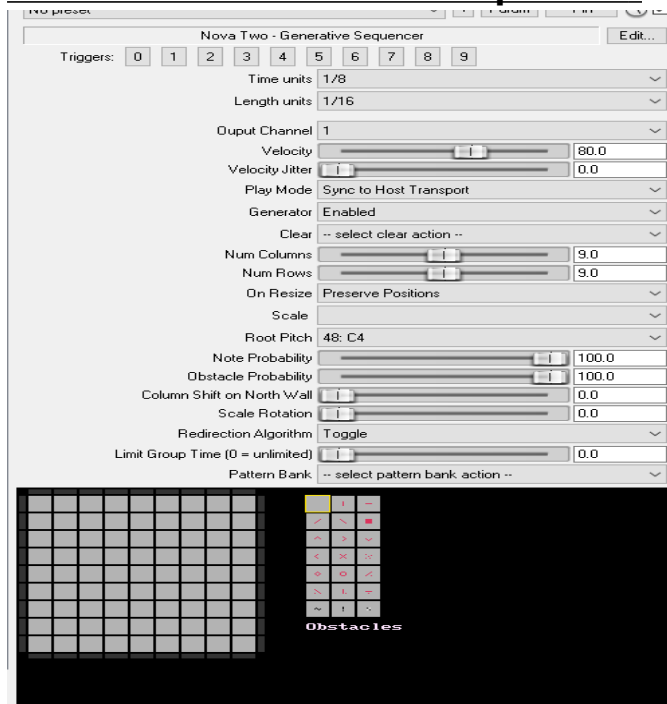
Arpeggiates midi chords and patterns. The JSFX will then play the notes according to that note pattern.

## MIDI Arpeggiator (w/presets):



<https://www.youtube.com/watch?v=OHULSqk-yk8>

## Nova Two - Generative Sequencer:



A generative sequencer.

### Overview:

A set of "rovers" move through a matrix of cells until hitting a wall, another rover, or obstacle. When a rover encounters a wall, it emits a midi note corresponding to the row and column, then reverses direction. When a rover encounters another rover, both rovers are rotated clockwise. When a rover encounters an obstacle, the effects of the obstacle are applied to the rover which could alter its position, its direction, both, or neither depending on the type of obstacle.

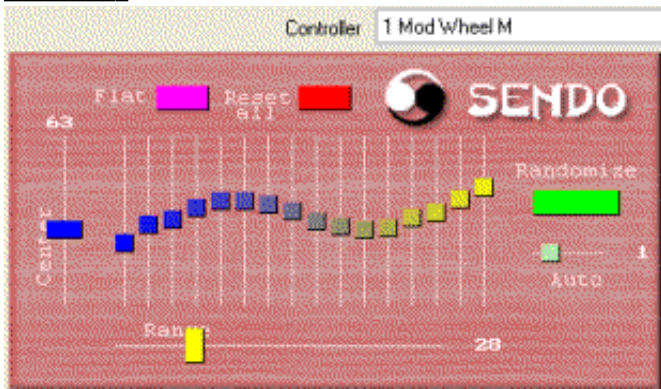
Get it here:

<http://forum.cockos.com/showthread.php?t=79873>

### Usage:

- left click in matrix to add new rover
- left click on rover to rotate its direction
- right click in matrix to add obstacle
- right click in matrix to cycle to next obstacle type
- shift-right-click in matrix to swap obstacle with selected obstacle

## Sendo:

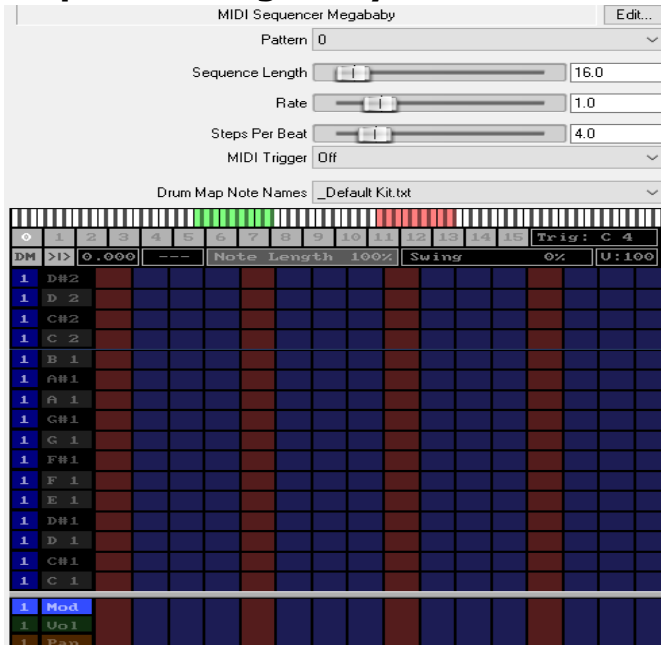


A MIDI CC timed sender

This sends Controller changes based on a timed sequence, with randomization.

<http://forum.cockos.com/showthread.php?t=25796>

## Sequencer MegaBaby:



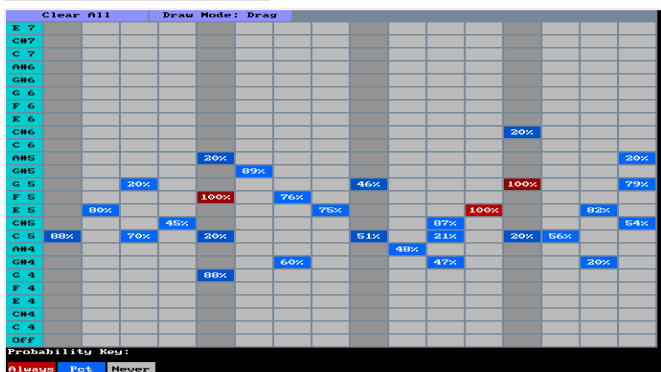
<https://reaperblog.net/2014/09/js-effect-spotlight-sequencer-megababy/>

Kenny Gioia video:

<https://www.youtube.com/watch?v=EFbXBCutQAw>

<https://www.youtube.com/watch?v=Wq2C-Qg9Hp4>

## Stochasticizer:



Sequencer that allows for creating sequences where notes are randomly chosen from a defined set.

Choose probabilities for specific notes to be played.

Works great as a straight sequencer.

Save patterns and automate their playback

Demo: <https://youtu.be/xWGBd6X>

<http://forum.cockos.com/showthread.php?t=181051>

<https://reaperblog.net/2019/01/stochasticizer/>

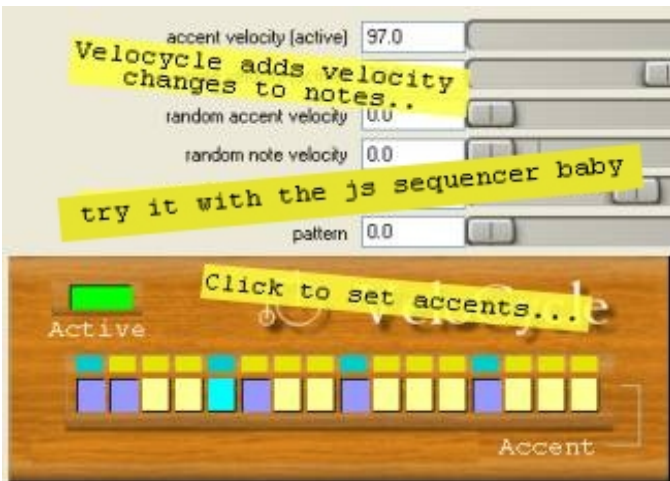
## Super Arpeggiator!:



Play modes, chords, up to 32 patterns, slice options and a help screen (click the "?")  
Click+drag up/down on numeric values to change them

-----  
Ctrl-Click changes drag to fine tune value  
Alt-Click changes drag to large value  
Right-Click resets to default value  
Left-Click paints variant  
Right-Click erases variant  
Alt-Click resets to default value  
Discussion: <http://forum.cockos.com/showthread.php?t=44692>

## VeloCycle:



2 levels of randomization  
Active or passive mode  
16 patterns

Get FX and GUI image, here:  
<http://forum.cockos.com/showthread.php?t=25391>

# MIDI FX:

## CCRider:

The screenshot shows the 'MIDI CC LFO Generator' plugin window. It has a title bar with a close button and an 'Edit...' button. The interface includes several controls: 'MIDI Channel' (dropdown set to 1), 'Controller' (dropdown set to 1 Mod Wheel M), 'Center' (checkbox), 'Range (+/-)' (checkbox), 'Off Value' (checkbox), 'LFO Shape' (dropdown set to Sine), 'LFO Frequency' (checkbox), 'LFO Units' (dropdown set to Hz), 'Updates Per Beat' (dropdown set to 64), and 'On/Off' (checkbox set to On). Each checkbox has a corresponding numerical input field, all showing 0.0 or 1.0.

Generates MIDI CC messages which can control parameters of effect that recognize CC's.

### Parameters:

- MIDI Channel: Channel to send controller data on.
- Controller: The number of the controller to be manipulated.
- Centre: The center value for the controller data.
- Range (+/-): Deviation above and below the center value.

- Off Value: Reset value sent when On/Off is switched to Off.
- LFO Shape - Sine only for now. Included for future updates.
- LFO Frequency - LFO rate. Effect depends on the selected Units.
- LFO Units - Unit for LFO rate calculation.
- Updates Per Beat - How many time per beat to send controller data.
- On/Off - On/Off switch. Not quite the same thing as bypass.

### Tips:

Use the On/Off switch rather than bypassing the effect. Turning it off sends the reset value specified by the 'Off Value' control. Turning it on resets the effect so you can sync the LFO to your song by automating the switch.

You can type values into the LFO Frequency control.

(Generated CC's won't work with Reaper's learn function but you can get around this by using a midi loop-back device such as MIDI Yoke to send the MIDI data out of REAPER and back in through the MIDI inputs so that the learn function will 'see' the CC data)

## Channel To Keyswitch:

The screenshot shows the 'Channel To Keyswitch' plugin window for 'Albion - String Ensemble'. It has a title bar with a close button and an 'Edit...' button. The interface lists seven channels, each with a 'Channel KS' (checkbox) and a 'Channel artic' (dropdown menu). The 'Channel KS' checkboxes are all set to 24.0, 25.0, 26.0, 27.0, 28.0, 29.0, and 30.0 respectively. The 'Channel artic' dropdowns are set to '42: Shorts', '69: Pizzicato', '1: Long', '7: Long Muted (con sordino)', '44: Shorts Hard (dig)', '3: Long Octave', and '4: Long Octave muted' respectively.

This is an example showing it use for Albion One articulation key-switching.

## ChokingHazard:

Each input note can choke (note-off) up to four other notes on separate channels			
Input Channel	1		
Edit trigger	0		
Choke 1	None		
Channel 1	As Input Channel		
Choke 2	None		
Channel 2	As Input Channel		
Choke 3	None		
Channel 3	As Input Channel		
Choke 4	None		
Channel 4	As Input Channel		
Follow trigger	Off		

Allows each incoming note to choke (by sending a note-off) up to four other notes on independent channels.

For example you could set it so that pressing C4 on channel 1 would cut E5 on channel 2, G#3 on channel 5, F6 on channel 10 and Bb2 on channel 16. Probably most useful for live control of multiple samplers.

### Parameters:

- Input Channel - MIDI Channel to monitor.
- Trigger - Selects which trigger mapping to edit.
- Choke n - Select which note will be cut when the trigger note is pressed.
- Channel n - Selects which MIDI channel to send the note-off message on.

### Tips:

The Trigger control is activated by any MIDI note it receives and it merely selects which 'page' of Choke controls to view and modify.

You can store your mappings as presets.

Download from <http://stash.reaper.fm/v/1422/IX%20MIDI%20Utils%20II.zip>

## Cross-Polyphonic FM:

This effect is a MIDI-controlled frequency-modulator effect.

It can be used to add character to an existing sound.

Multiple MIDI notes produces multiple modulation frequencies.

The notes aren't processed separately, they're added together to form the modulation

waveform.

This means that different notes interact (slightly similar to distortion).

## Droplets (w/presets):

This effect re-plays the notes of a chord in a random fashion.

Each MIDI note in the input is triggered randomly over time.

Control the re-triggering rate, and how much this is affected by velocity or # of current notes ("Independence").

You can transpose by octaves, which is automatable.

"Regularity" prevents notes from playing too soon after their previous instance -high settings produce patterns which evolve slowly over time.

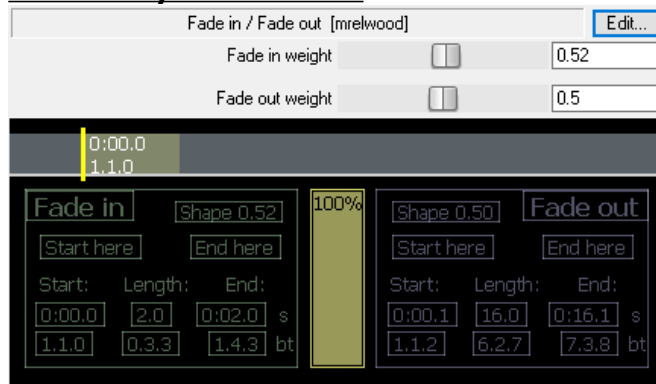
"Kickstart" will play incoming notes immediately, with the specified probability.

"Quantize" lets you specify that notes can only occur near beat boundaries.

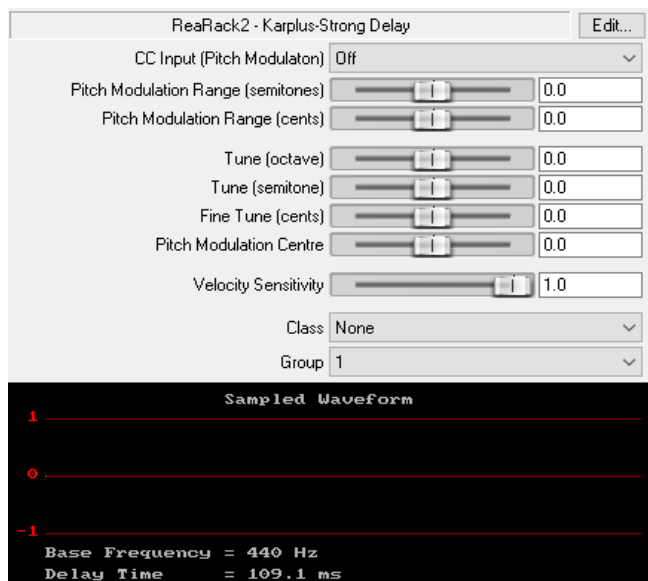
You can let the final notes ring on after the input ("Release"), and change the velocity randomization curve, add look-ahead to shift the input forward, and set how it reacts to the sustain pedal (ignore it, use it, or use it but don't send it on).

ReaperBlog video: <https://www.youtube.com/watch?v=DHKvd4ou67o>

## Fade In / Fade Out:



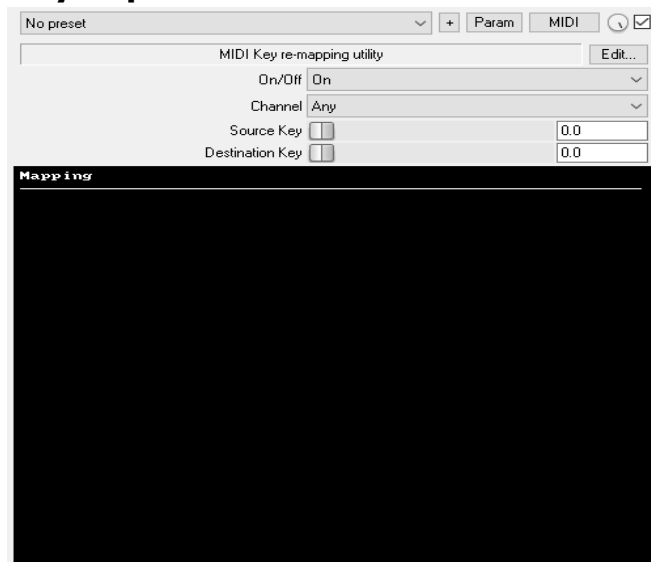
## Karplus-Strong Delay:



Based on the pitched delay part of the Karplus-Strong plucked string physical modeling algorithm.

Use with an audio input source (e.g white noise) and an envelope generator driving a low-pass filter, to get the complete plucked string sound

## KeyMap II:



An easy, flexible approach to key re-mapping.

### Parameters:

- On/Off - Whether mapping is in effect or not.
- Channel - MIDI Channel to monitor.
- Source Key - Selects which mapping to view and modify.
- Destination Key - Selects which note will be sent when Source Key is pressed.

### Tips:

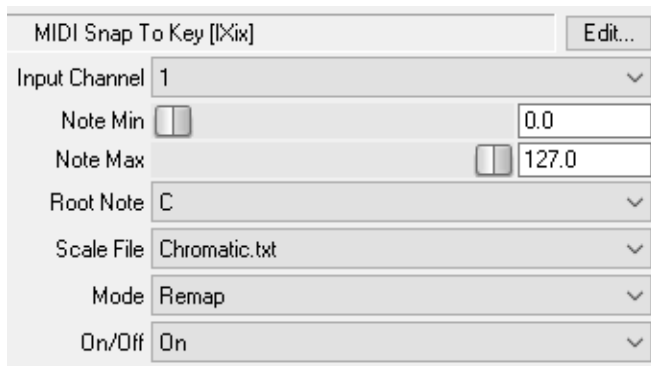
Don't be confused by the Source Key control. The plugin is activated by all notes on the selected channel. The plugin maintains an internal map of source/destination pairs for all 128 possible MIDI notes and the Source Key control merely selects

which pair to modify.

You can now save your mappings as presets.

Download: <https://stash.reaper.fm/v/1422/IX%20MIDI%20Utils%20II.zip>

## KeySnap:



MIDI Note constrain effect.

It listens the input channel and either replaces or blocks bad notes.

Allowable notes are controlled by a scale file which should be located in 'REAPER/Data/ix\_scales' (see end of this document)

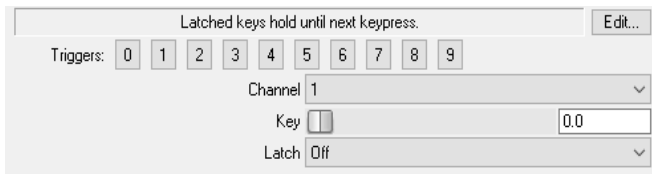
### Parameters:

- Input Channel - Which channel to work on.
- Note Min - Note range minimum. Notes lower than this will not be affected.
- Note Max - Note range maximum. Notes higher than this will not be affected.
- Root Note - The root note upon which to construct the scale.
- Scale File - The file containing the scale information.
- Mode - Work mode. Whether to block or remap notes outside the scale.
- On/Off - Fairly pointless bypass switch.

This will only work with positive scale values between 0 and 11.

Values outside this range will cause incoming notes to map to the closest root note further down the keyboard.

## **Latch:**



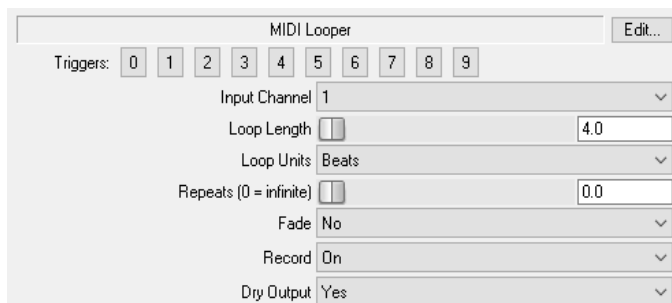
Forces specified keys to hold until they are pressed again.

### **Parameters:**

- Channel - Which MIDI channel to monitor.
- Key - Selects which key to view and modify the settings for.
- Latch - Whether latch is enabled for Key.-

Don't be confused by the Key control. The plugin is activated by all incoming notes on the selected channel. The plugin maintains an internal list of which keys to latch and the Key control merely selects which setting to modify. You can save the settings as a preset.

## **Looper:**



### **Parameters:**

- Input Channel: Which MIDI channel to monitor.
- Loop Length: Length of the loop, obviously.
- Loop Units: Units to use for Loop Length (Beats, Seconds, Ms. or Samples)
- Repeats: Sets # of times new notes will be repeated. Zero = infinite repeat.

- Fade: Reduces new note velocity to zero in n steps (n= the # of repeats).
- Record: When enabled, incoming notes are added to the loop.
- Dry Output: Whether to allow incoming notes to pass through the effect.

### **Tips:**

Trigger 0 clears the buffers, as does setting zero loop length.

Trigger 1 toggles MIDI input recording on/off

Changing the loop length will scale any existing loop to fit the new loop length but changing the units will reset the loop.

Dry Output blocking is overridden by record off (it assumes you want to play over a loop.)

Download: <http://stash.reaper.fm/v/1422/IX%20MIDI%20Utils%20II.zip>

## **Mibrato:**

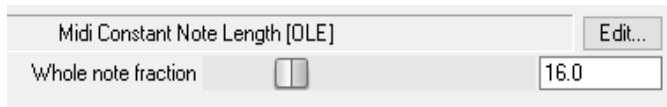


A LFO MIDI Vibrato effect with CC support (Hold pedal, Tap tempo), Mouse tap tempo,

Tempo from grid, Pitch bend wheel support, 3 bend modes: bend up, down and center, and visualization of the vibrato effect.

It has special feature 6 channels for MIDI guitar vibrato pitch-bends on 6 channels.

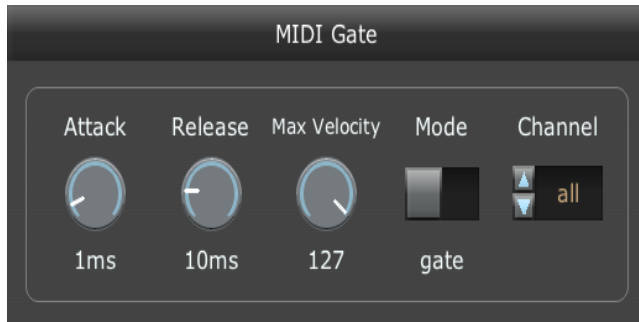
## **MIDI Constant Note Length:**



Quantizes note duration to a length specified by a slider as a fraction of a whole note.

It is intended for use with drum- and percussion pads which generally don't provide a consistent note duration.

## **MIDI Gate:**



A simple MIDI-triggered.

In "gate" mode, when a MIDI note is down (any MIDI note), the audio is passed through. In "mute" mode, audio passes through when no notes are held down.

The "Max Velocity" control sets the velocity that counts as "down fully". Values between 0 and this value result in a partially opened/closed state. Multiple notes add their velocities together - so two notes with velocity 50 are equivalent to one note with velocity 100.

Tutorial, links to FX: <https://reaperblog.net/2019/10/midi-gate-jsfx/>

## **MIDI Harmony (w/presets):**

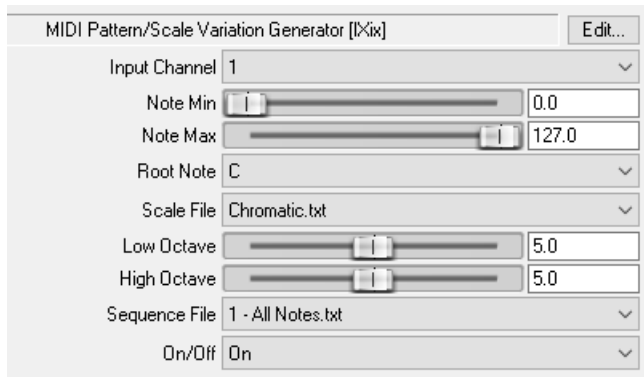


Shifts MIDI notes up or down by octaves, to fit within a target range.

This can be used to fold whatever chord is being played by some other instrument into a particular region (e.g. 1 octave near middle C). A built-in sequencer can be used as an arpeggiator (so it will play a pattern, but only using octave-shifted notes that you are already holding down).

It also has a MIDI-input mode -so, instead of the target region or note being fixed (e.g. "one octave around Middle C") it is defined by a second input on a different MIDI channel (channel 16 by default). This lets you very quickly take one MIDI input, and re-cast it into a different scale or a different chord.

## MIDI Pattern/Scale Variation Generator:



The screenshot shows the 'MIDI Pattern/Scale Variation Generator' window. It has an 'Edit...' button in the top right. The settings are as follows: Input Channel is set to 1; Note Min is 0.0 and Note Max is 127.0; Root Note is C; Scale File is Chromatic.txt; Low Octave is 5.0 and High Octave is 5.0; Sequence File is 1 - All Notes.txt; and On/Off is set to On.

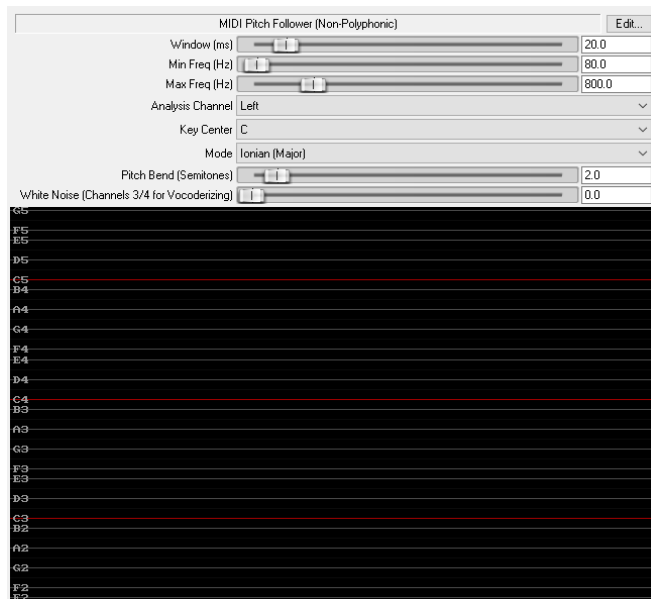
Creates variation in incoming note messages. When triggered by the pattern, outputs a random note from the specified scale.

**\*\*Important Note\*\***

This requires user defined scale and sequence files, which can be found at the end of this document.

[http://wiki.cockos.com/wiki/index.php/Jesusonic\\_Effects\\_Documentation#Variant](http://wiki.cockos.com/wiki/index.php/Jesusonic_Effects_Documentation#Variant)

## MIDI Pitch Follower:



The screenshot shows the 'MIDI Pitch Follower (Non-Polyphonic)' window. It has an 'Edit...' button in the top right. The settings are: Window (ms) is 20.0; Min Freq (Hz) is 80.0 and Max Freq (Hz) is 800.0; Analysis Channel is Left; Key Center is C; Mode is Ionian (Major); Pitch Bend (Semitones) is 2.0; and White Noise (Channels 3/4 for Vocodizing) is 0.0. Below the settings is a piano roll showing a scale from G5 down to E2.

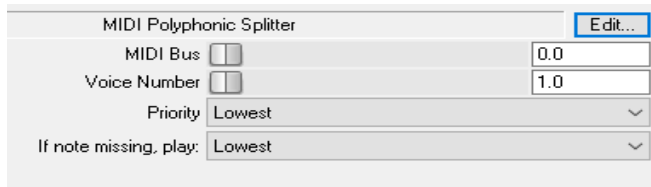
Tracks the pitch of the (monophonic) audio track to which it is applied, and generates a stream of MIDI notes which match that pitch.

For examples of use, watch these videos:

[https://youtu.be/DJ\\_fNW3Rz6Y](https://youtu.be/DJ_fNW3Rz6Y)

[https://youtu.be/rZQcwrBn\\_OY](https://youtu.be/rZQcwrBn_OY)

## MIDI Polyphonic Splitter:



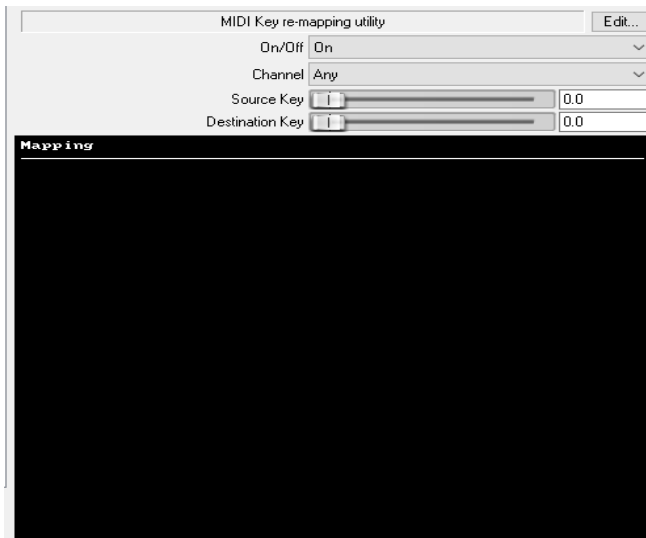
The screenshot shows the 'MIDI Polyphonic Splitter' window. It has an 'Edit...' button in the top right. The settings are: MIDI Bus is 0.0; Voice Number is 1.0; Priority is Lowest; and If note missing, play: is Lowest.

Takes incoming polyphonic MIDI notes and outputs monophonic notes based on user criteria.

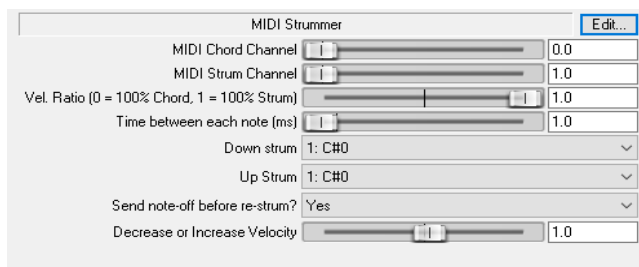
Details and FX below:

<https://forum.cockos.com/showthread.php?t=179338>

## MIDI Re-mapping:



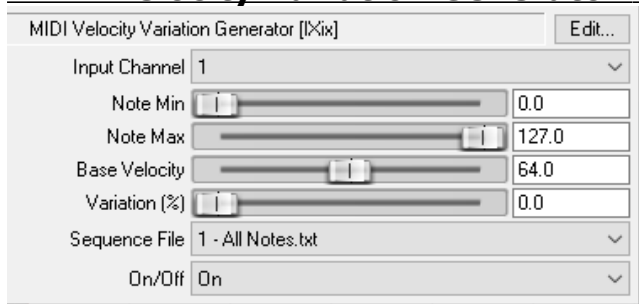
## MIDI Strummer:



Get code here:

<https://forum.cockos.com/showthread.php?t=186766>

## MIDI Velocity Variation Generator.



It listens to the input channel and adjusts the velocity of some of the notes. Which notes get adjusted is controlled by a sequence file which should be located in the folder, ([Sequence files are at end of this guide.](#))

The sequence works by counting notes, so it will only work as an actual pattern on sequential notes. If four notes are played at once, the sequence will hear four notes and advance four steps.

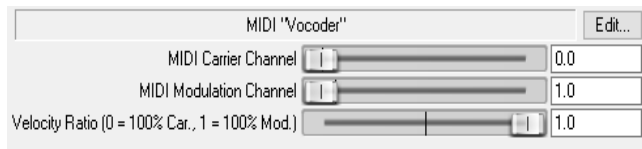
### Parameters:

- Input Channel - Which channel to work on
- Note Min - Note range minimum. Notes lower than this will not be affected.
- Note Max - Note range maximum. Notes higher than this will not be affected.
- Value - The center velocity value for modified notes.
- Variation - Random velocity variation (percentage of center value)
- Sequence File - The file containing the sequence information.
- On/Off - On/Off switch. Not quite the same thing as bypass.

### Tips:

The On/Off switch resets the sequence counter. You can automate it to force the sequence to start at a specific point in your track.

## MIDI "Vocoder":



Takes one set of MIDI on a 'carrier' channel. A different MIDI channel acts as the 'modulator.' The result is that the rhythm of the modulator is used on the notes found in the carrier.

Get the code, here:

<https://stash.reaper.fm/28076/MIDI%20Vocoder.txt>

<https://forum.cockos.com/showthread.php?t=179340>

<https://www.youtube.com/watch?v=ZTPqowLvGtc>

## Mipressor:



MIDI expander/compressor

### Switches:

Linear - linear dependency: for LOW -> 1, for HI -> 127

Level - All notes louder: for HI and more -> 127, for less -> linear dependency

Knee - like linear, but you can change knee of dependency. Mouse-touchpad changes knee.

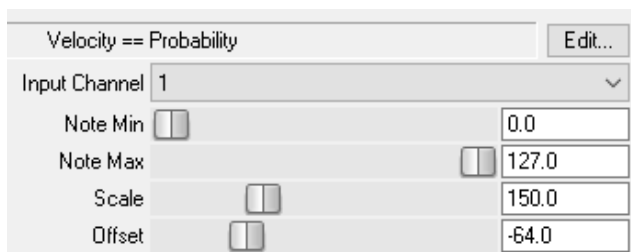
Learn - learn Mipressor levels: play louder and silent notes, then change to one of above options. Low and Hi will be equal to loudest and quietest notes played.

Bypass - bypass mode

Const - All notes the same level; mouse-touchpad changes volume.

<http://forum.cockos.com/showthread.php?t=76620>

## Probalocity:



Treats the velocity of incoming notes as a percentage probability that the note will be passed through the plugin.

A velocity of 127 has a 100% chance of being played and a velocity of 12 has around a 10% chance of being played. Notes outside the range will pass through the plugin unchanged.

### Parameters:

-Input Channel - Which MIDI channel to monitor.

-Note Min - Note range minimum.

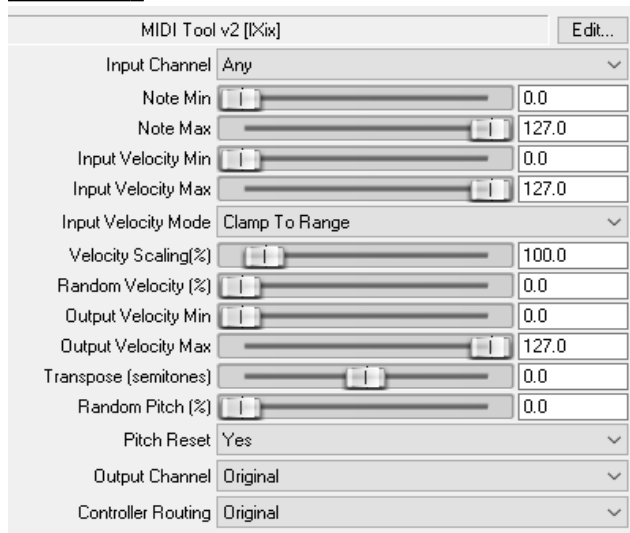
-Note Max - Note range maximum.

-Scale - Multiplies input velocity by the specified amount.

-Offset - Adds/subtracts the set amount from the scaled output velocity.

Download from <http://stash.reaper.fm/v/1422/IX%20MIDI%20Utils%20II.zip>

## Tool II:



Transform MIDI messages in various ways.

Listens for note events fitting note/velocity rules on the input channel.

If it hears one then these things happen in this order:

- 1) Depending on the 'Input Velocity Mode' setting, velocity may be clamped to the specified range.
- 2) Velocity is multiplied by the scaling percentage.
- 3) A random amount (+/- n% of velocity at this point) is added to the velocity.
- 4) Velocity is clamped to the 'Output Velocity' range.
- 5) Note is transposed by n semitones.

6) A random (+/- n% of travel) pitch wheel message is sent to the output channel.

7) Modified note/velocity information is output on the selected output channel.

### Parameters:

- Input Channel - Channel to monitor.
- Note Min - Note range minimum. Lower notes will not be affected.
- Note Max - Note range maximum. Higher notes will not be affected.
- Input Velocity Min / Max - See above.
- Input Velocity Mode - Sets input velocity behavior. See above.
- Velocity Scaling - Multiplies the velocities by the specified percentage.
- Random Velocity - Random velocity percentage.
- Output Velocity Min - Minimum velocity value for outgoing notes.
- Output Velocity Max - Maximum velocity value for outgoing notes.
- Transpose - Transpose affected notes by n semitones.
- Random Pitch - Random pitch wheel adjustment.
- Pitch Reset - Reset pitch wheel for unprocessed notes.
- Output Channel - Send affected notes and generated pitch wheel data to this channel.

[http://wiki.cockos.com/wiki/index.php/Jesusonic\\_Effects\\_Documentation#Tool\\_II](http://wiki.cockos.com/wiki/index.php/Jesusonic_Effects_Documentation#Tool_II)

### Vibrato:(w/presets)



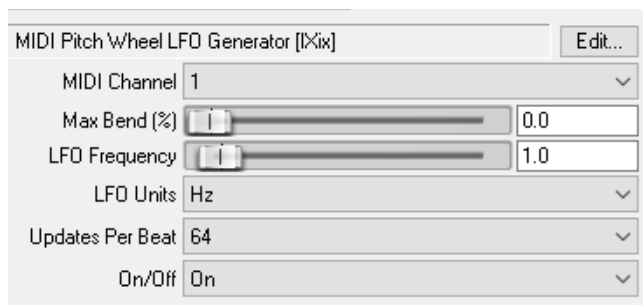
Adds vibrato, using MIDI notes to produce a more natural envelope (vs. a constant LFO).

Each note resets the vibrato to zero, and it is slowly introduced. Useful for adding vibrato to synths that don't have already have it.

The "Look-ahead" dial controls how much latency is added.

When setting to "O", the start of a note might momentarily detune because of ongoing vibrato. To prevent this, turn the dial to max. value (which scales according to the LFO Rate value).

## **Wobulator:**



LFO Controlled MIDI Pitch Wheel Generator.  
It "wobulates" your notes.

### Parameters:

Max Bend - Percentage of pitch wheel travel.

LFO Frequency - LFO rate. Effect depends on the selected Units.

LFO Units - Unit for LFO rate calculation.

Updates Per Beat - How many time per beat to send pitch wheel data.

On/Off - On/Off switch. Not quite the same as bypass.

Turning it off centers the pitch wheel; turning it on resets the effect so you can sync the LFO to your song by automating the switch.

# MIDI UTILITIES:

## 16 Pad MIDI Notes:

16 pads MIDI Notes Map

Input Channel: Any

Pad1 Input Note: 36.0

Remap: Active

Notes Out Mapping File: mt-power-drum-kit.txt

Reload Mapping: ---

Display: Numbers

13 48 48 C	14 49 49 C#	15 50 50 D	16 51 51 D#
9 44 44 G#	10 45 45 A	11 46 46 Bb	12 47 47 B
5 40 40 E	6 41 41 F	7 42 42 F#	8 43 43 G
1 36 36 C	2 37 37 C#	3 38 38 D	4 39 39 D#

## AB Level Matching:

AB Level Matching Control JSFX V3.3 Lite (TBProAudio)

LinkID: 0.0

Monitor: Post FX

RMS window ms: 300.0

Delta Monitor: Off

Source Gain dB: 0.0

Source RMS Avg dB: -144.0

Final RMS Avg dB: -144.0

Post Gain dB: 0.0

PDC (Smp): 0.0

Reset: Off

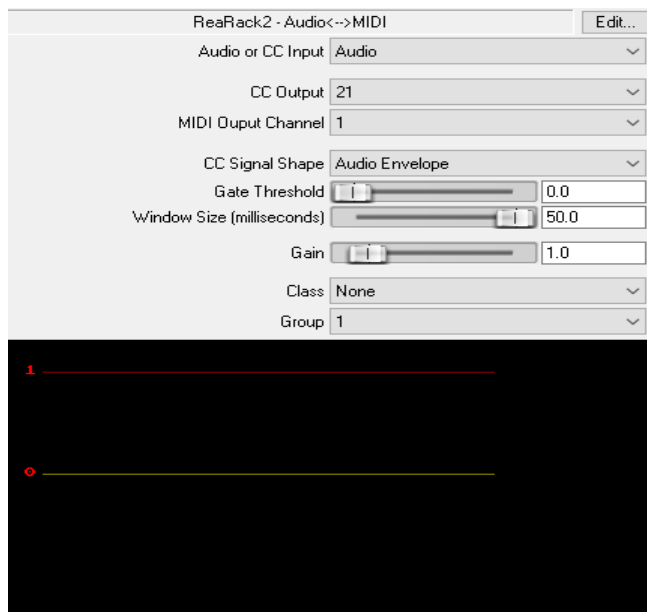
POST FX Delta AUTOGAIN ON PREFILTER SYNC PDC RESET

"Great for testing plugins or avoiding 'louder is better' mixing choices."

<https://reaper70.rssing.com/chan-13539901/latest-article7-live.php>

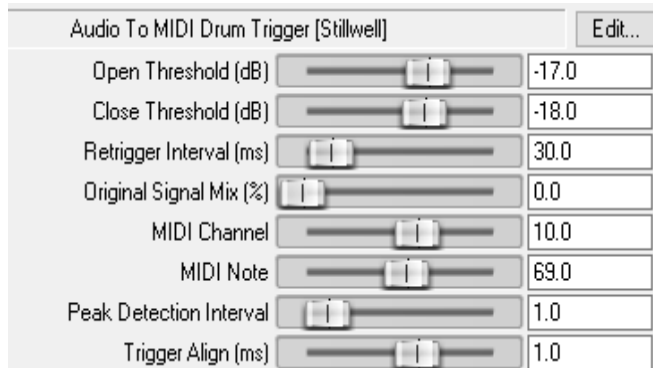
<https://www.youtube.com/watch?v=wNICbcy2GjA>

## Audio to MIDI:

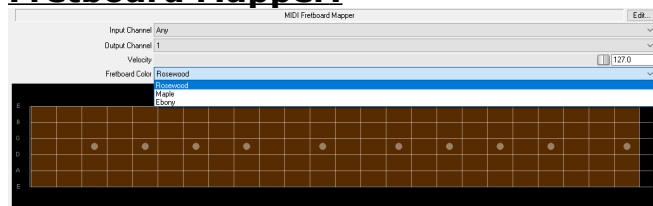


<https://www.youtube.com/watch?v=XtnuecwO8hM>

## Audio to MIDI Drum Trigger:



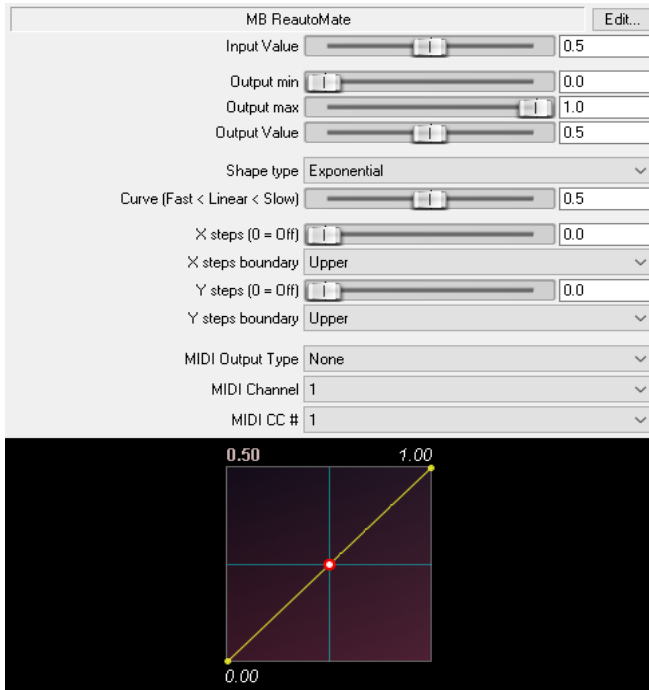
## Fretboard Mapper:



Maps incoming MIDI events on a virtual fretboard.

<https://github.com/KnightHill/JSFX>

## MB ReautoMate:



**The goal:** To use full automation envelopes ranges for sweet spots, where only a limited range is relevant or useful.

You can redefine the min / max values to which the full 0-1 automation envelope range actually refers.

I also added the options to apply nonlinear transformations (exponential, logarithmic, quadratic bezier), stepping (example: quantize pitch-bend envelopes to semitones or whole tones), and various MIDI output options.

### Usage:

- 1) set an automation envelope for the "input value" parameter
- 2) set "min" and "max" output parameters to the actual minimum and maximum values sent in

output.

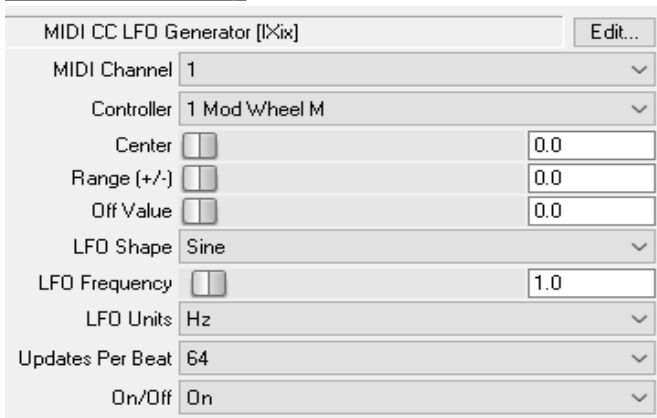
3) Set quantization and curve options as desired.

4a) Set parameter linking from "output value" to the desired plugin parameter

OR 4b) Set MIDI output as wanted and have the desired plugin parameter respond to the matching MIDI message

Download and tutorial: <https://forum.cockos.com/showthread.php?t=251684>

## MIDI CC LFO:



### Features:

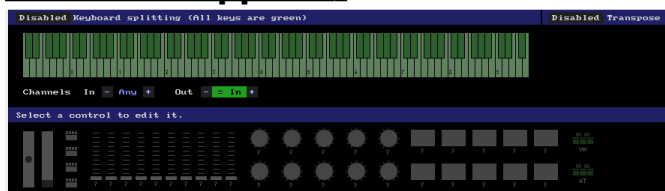
- normal mode & trigger on note mode (optional restart)
- 2 trigger note ranges
- freerun without "gaps" when changing frequency
- simple LFO-stuff like pulse-width & phase
- trigger on CC (first CC toggles on, next CC toggles off, next on, ...), CC# definable
- LFO fade in & fade out in trigger mode (various

fade shapes)

-CC support for every slider.

<http://forum.cockos.com/showthread.php?t=76230>

## MIDI CC Mapper X:



This allows modifying the behavior and the real-time feel of a MIDI controller, by acting as a pre-filter on the MIDI input.

## MIDI Chord Splitter:



To play chords with a monophonic synth just schedule the incoming polyphonic-MIDI-notes to individual Reaper-tracks.

Each such track is embedding an instance of the monophonic-synth. Adjust each channel separately (sound, panning, etc...)

### Usage:

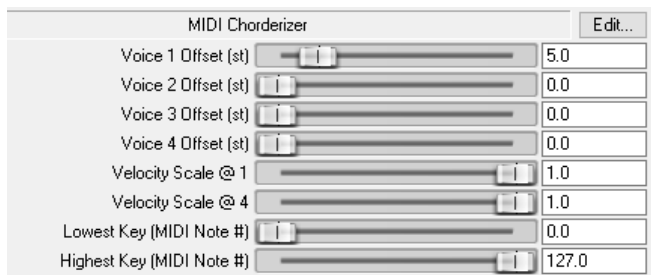
1. create a track for MIDI-input
2. insert an instance of the MIDI Chord Splitter Effect
3. Set the number of voices to use
4. for each voice create another track and insert a VSTi of your choice
5. route the MIDI-output of the first track to each instrument track (1:n)

### Example:

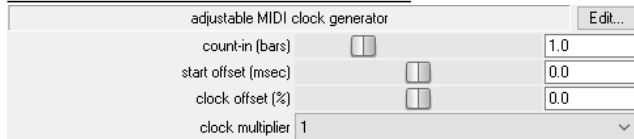
- Track1: MIDI IN -> MIDI Chord Splitter (parameter Voices = 3)
- Track2: VSTI Synth1a, Receive MIDI from Track1 to MIDI-Channel1
- Track3: VSTI Synth1b, Receive MIDI from Track1 to MIDI-Channel2
- Track4: VSTI Synth1c, Receive MIDI from Track1 to MIDI-Channel3

<http://forum.cockos.com/showthread.php?t=26559>

## MIDI Chordizer:



## MIDI Clock Generator:



Manual: <https://forum.cockos.com/showpost.php?p=2226200&postcount=19>

Discussion:

<https://forum.cockos.com/showthread.php?t=144134>

Direct download link:

<https://stash.reaper.fm/21479/adjustable%20MIDI%20clock>

“Very useful for solving the problem of 'lag' when syncing external hardware to Reaper via MIDI clock. Better than MIDI clock offset in Prefs > MIDI devices as this only allows a small negative

shift (and is dependent on buffer size). Has 'clock offset' as a percentage and 'start offset' in milliseconds. Range of the latter is +/- 20ms but this can be easily increased by changing the values in slider3 in the code.”

MIDI Event Filter:



MIDI Note Preview:



To preview the drum sounds already loaded, when I load my drum template tracks.

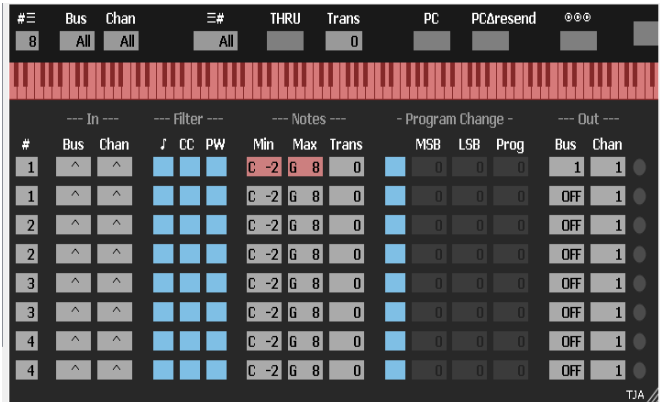
To be able to draw automation envelopes for external MIDI gear (or internal).

Simply automate the plugin's parameters as needed.

Instructions, discussion:

<http://forum.cockos.com/showthread.php?t=27840>

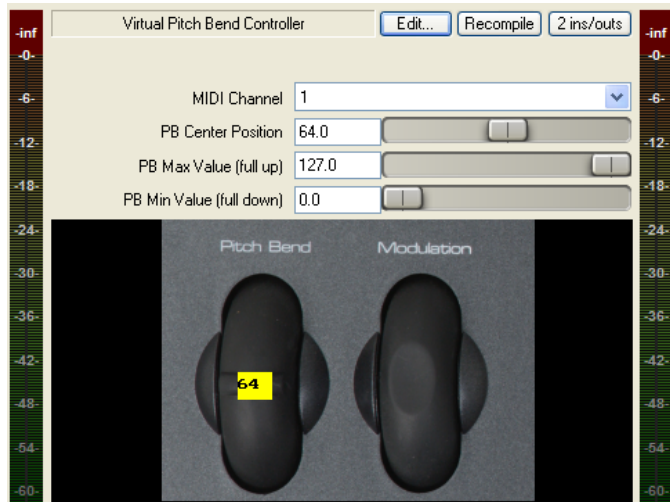
MIDI Performer 2:



Forum:

<https://forum.cockos.com/showthread.php?t=216034>

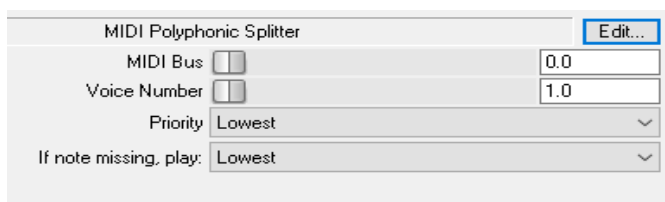
## MIDI Pitch Bend and Modulation Wheel:



To bend pitch, hold the left mouse down on the center of the wheel, and drag up or down. Releasing the mouse button will return to the center position.

<http://forum.cockos.com/showthread.php?t=25368>

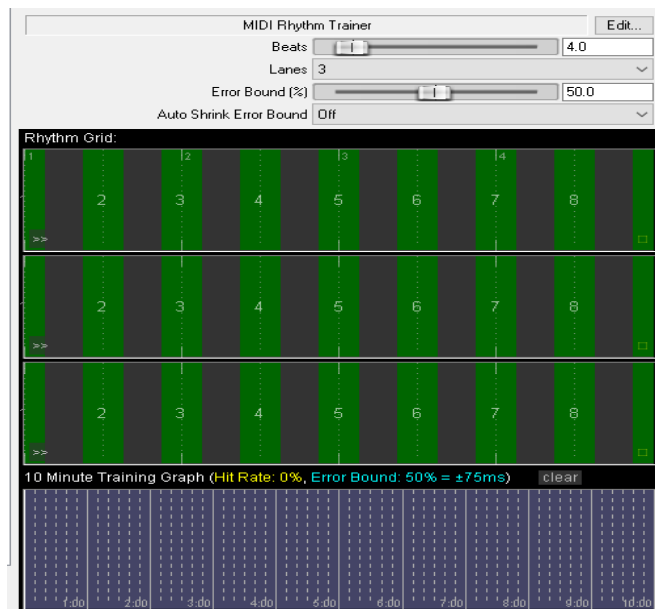
## MIDI Polyphonic Splitter:



Instructions, discussion:

<https://forum.cockos.com/showthread.php?t=179338>

## MIDI Rhythm Trainer:



### Features:

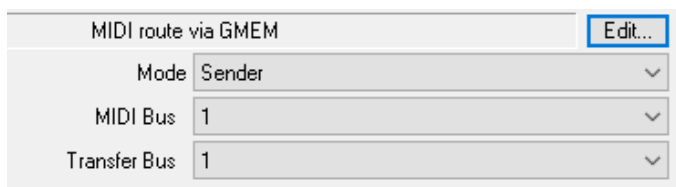
- Define rhythmic pattern and play along to hit the pattern. Only accurate notes will be heard.
- Get visual + audio feedback; controllable target Support complex poly-rhythms.
- Set up complex splits - up to 4 "lanes", receiving separate key ranges and input channels.
- Get "click" sounds for each lane (as metronome).
- "Swing" and "Phase" parameters.

Tutorial [https://youtu.be/cifj6eh\\_LF0](https://youtu.be/cifj6eh_LF0)

Discussion:

<https://forum.cockos.com/showthread.php?t=250891>

## MIDI route via GMEM:



Mostly used to route MIDI events to the Monitor FX chain or between project tabs, as Reaper naively can't do that.

The JSFX in "Sender" mode sends MIDI events to MIDI route via GMEM instances in

"Receiver" mode.

Multiple instances in Receiver mode are allowed, as long as they don't share the same transfer bus. If two Receivers work on the same Transfer Bus, the behavior is undefined.

The slider "Mode" sets the Sender or Receiver mode.

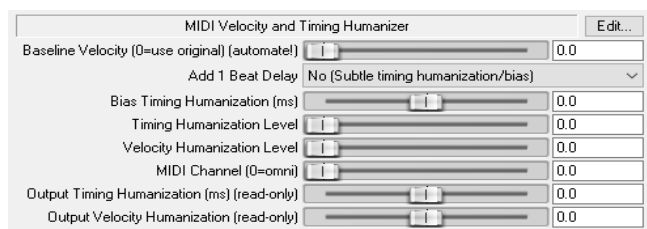
The slider "MIDI Bus" determines which MIDI bus is used to take the messages from or to send MIDI messages to.

MIDI Buses can be used to allow for up to 16 independent MIDI streams in an FX chain.

The slider "Transfer Bus" selects one of 16 transfer buses. A receiver will get only the messages from a sender set to the same Transfer Bus.

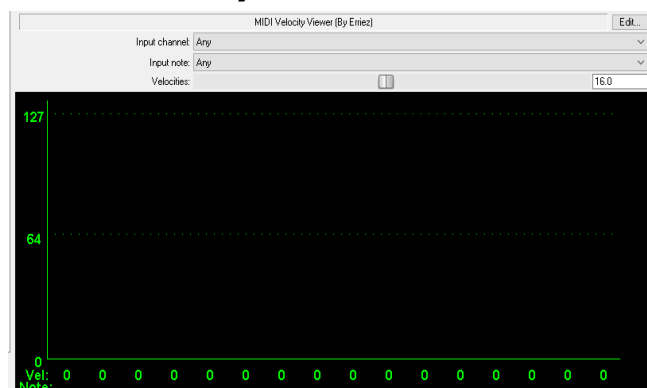
All MIDI Messages are passed through unchanged by the plugin.

## MIDI Timing and Velocity Humanizer:



Record using automation/LFO on.

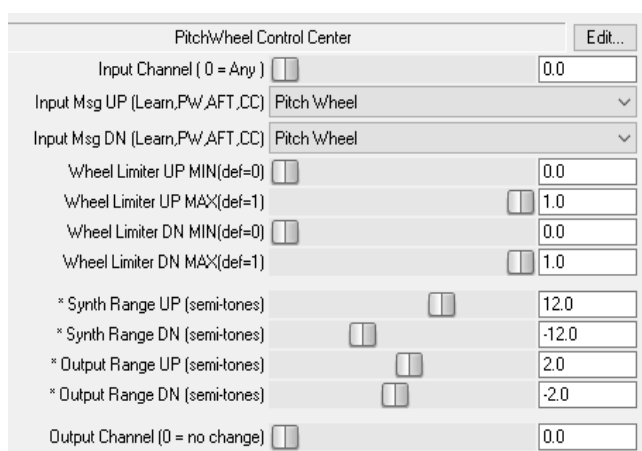
## MIDI Velocity Viewer:



Developed to measure/improve MIDI dynamics (velocities) of my electronic drum kit.

<http://forum.cockos.com/showthread.php?t=93421>

## Pitchwheel Control Centre:



Converts channel after-touch or any CC to PW (included a Learn mode).

If both up and down use the same CC (or AFT) it uses a full range, so 64 becomes 0.

If only Up or Dn is active, or we use different CCs, the full CC range will apply only to Up OR Dn PW.

It also has MIDI channel input filter (others get sent untouched) and the possibility to select a specific output channel (only the Pitch-wheel is

affected)

<http://forum.cockos.com/showthread.php?t=20852>

## Pre-Arranged MIDI Looper:

Pre-Arranged MIDI Looper		Edit...
Record Start (Beats)	<input type="checkbox"/>	4.0
Record End (Beats)	<input type="checkbox"/>	8.0
Recording	<input type="checkbox"/>	0.0
Playing	<input type="checkbox"/>	0.0
Playback Start	<input type="checkbox"/>	8.0
Playback End	<input type="checkbox"/>	20.0
Prebuffer Size	<input type="checkbox"/>	0.5
Has MIDI	<input type="checkbox"/>	0.0

Loops MIDI based on a pre-arranged record and loop position.

For example, you can have it automatically start recording at beat 4, and finish record at beat 8, and have that automatically loop throughout beats 8 - 20.

### ## Options

- Record Start (Beats) - The position at which you'd like to start recording.
- Record End (Beats) - The position at which you'd like to end recording.
- Recording - Indicator slider for when the plugin is recording. 0 = not recording, 1 = recording.
- Playing - Indicator slider for when the plugin is looping. 0 = not looping, 1 = looping.
- Playback Start - The position (in beats) at which you'd like to begin loop playback.
- Playback End - The position (in beats) at which you'd like to end loop playback.
- Pre-buffer Size - The amount of beats before the start of recording that the plugin will still accept MIDI messages. These message positions will be moved to the start of each clip loop. Useful when you can't time it exactly to the start and for things like piano sustain pedals which you might step on before you actually start playing.
- Has MIDI - Indicator for whether or not the plugin has MIDI data saved. 1 = has MIDI data.

## Reaticulate:

BUS Translator for MIDI Feedback (Reaticulate)		Edit...
Enabled	<input type="checkbox"/>	1.0
Source bus	<input type="checkbox"/>	15.0
Destination bus	<input type="checkbox"/>	0.0
Program Changes to CC number	<input type="checkbox"/>	0.0

For managing your key-switching needs.

A must for creating realistic midi performances.

## ReaLearn:

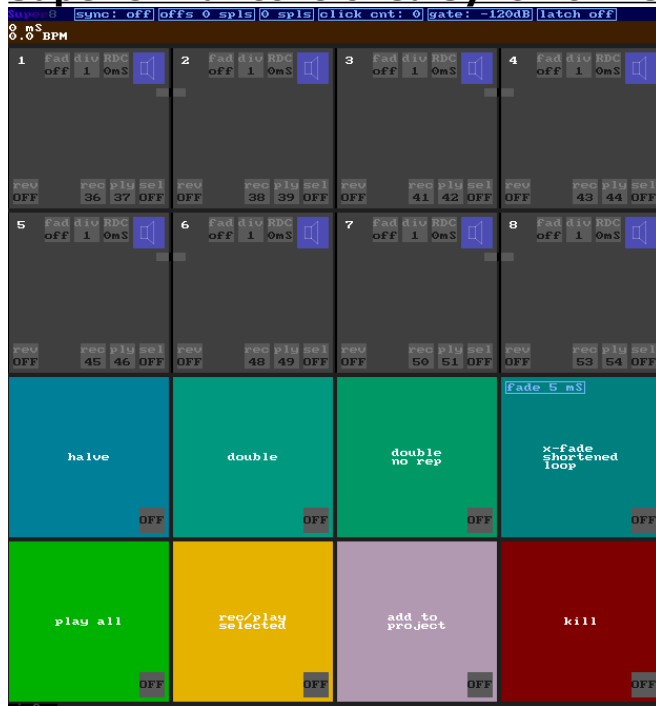
Input	<FX input>	Menu	Import from clipboard	Export to clipboard	Projection	?
Output	<None>	Let through: <input type="checkbox"/> Matched events <input checked="" type="checkbox"/> Unmatched events				
Show	<input type="radio"/> Controller compartment (for picking a controller preset) <input checked="" type="radio"/> Main compartment (for the real mappings)					
Main preset	<None>	Save	Save as...	Delete	Auto-load	Off
Mapping group	<Default>	Add	Remove	Edit	Notes	
Mappings	Add one	Learn many	Search	Filter source	Filter target	

Assign parameters to you controller, easily/quickly

<https://www.youtube.com/watch?v=dUPyqYaIkYA> (for Realearn2)

ReaperBlog video: <https://reaper.blog/2021/02/introduction-to-realearn-2/>

## Super 8 Midi-controlled Synchronized Looper:



ReaperBlog video and template:

<https://reaper.blog/2015/12/super8-tutorial-and-project-template/>

Kenny Gioia video:

<https://www.youtube.com/watch?v=hiSTeVlinAg>

<https://www.youtube.com/watch?v=mMaJvEDCU4w>

"Tycho" guests on ReaperBlog for demo:

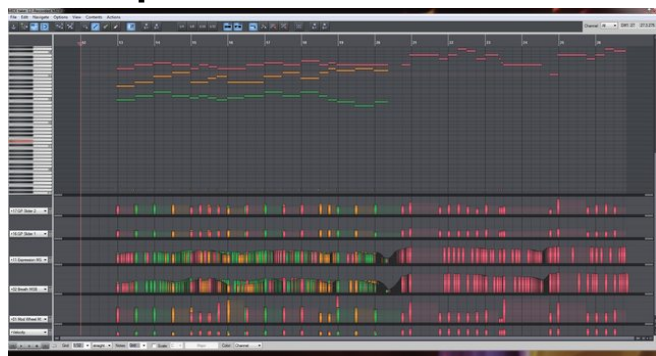
<https://www.youtube.com/watch?v=kpEQ1ZF81r4>

## SwixMitch GUI:



<http://forum.cockos.com/showthread.php?t=35748>

## VI Sculpt:



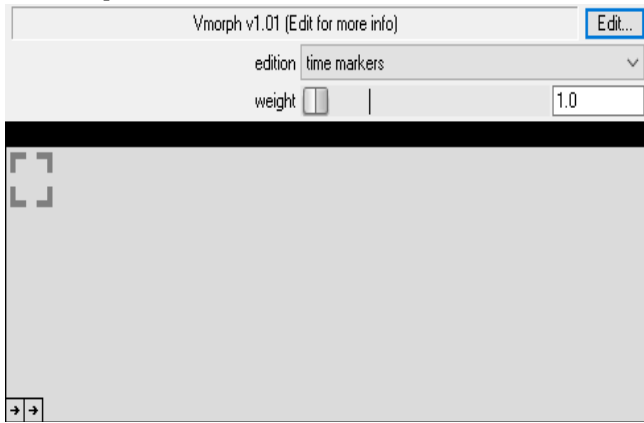
To shape virtual instruments

Performs multiple tasks to help automate the sculpting of pre-recorded MIDI data for more organic playback.

Especially for virtual instruments with many articulations and/or CC automation

Get it, here: <http://forum.cockos.com/showthread.php?t=131845>

## Vmorph:



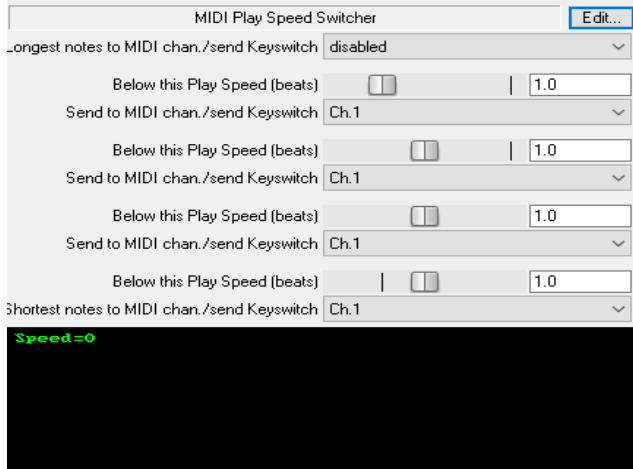
Stores the parameter values of instruments and effects in patch dots, and interpolates between these dots while dragging the cursor on the XY pad or following time based vectors.

A JS adaptation of AudioMulch's Metasurface.

Tutorial: <http://vimeo.com/16399678>  
<http://forum.cockos.com/showthread.php?t=67977>

# MIDI EDITING:

## Play speed Switcher of MIDI notes:

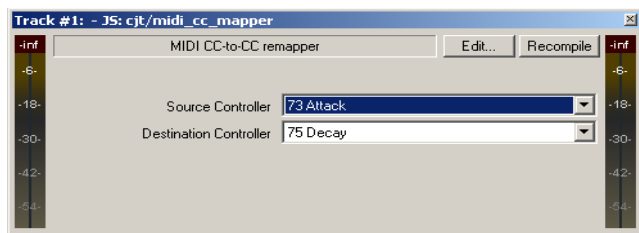


Detects the speed of a MIDI performance, either a live performance or upon playback. Also, the JS would toggle between MIDI channels based on performance speed.

It detects the length of notes, and outputs a MIDI controller from 0 to 127 based on 'percentage' of maximum length.

<http://forum.cockos.com/showthread.php?t=31403>

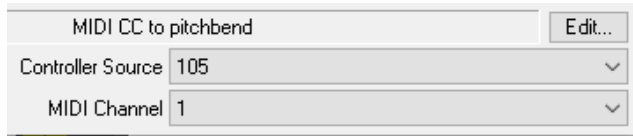
## MIDI CC-to-CC Remapper:



In this example, all CC73 messages (on any channel) are translated into CC75 messages.

<http://forum.cockos.com/showthread.php?t=21515>

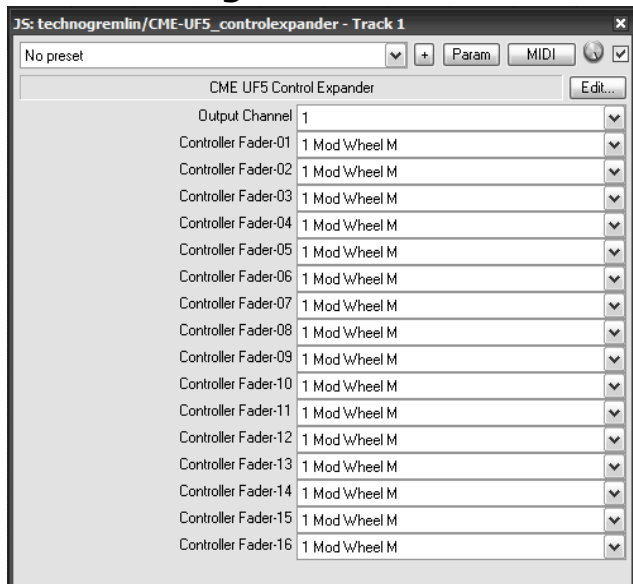
## MIDI CC to Pitch Bend:



"Pitch bend MIDI when the only useful pitch bend input you have is a CC converted from a gamepad joystick."

<http://forum.cockos.com/showthread.php?t=21408>

## MIDI Message Converters



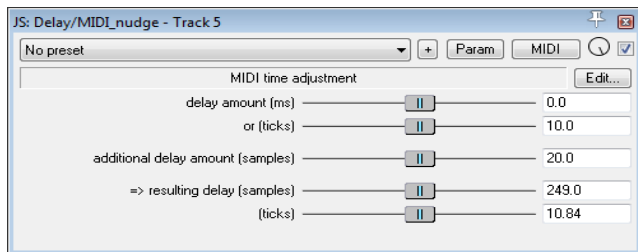
Control surface expander

This FX maps ALL incoming MIDI-channels to one output MIDI-channel, at the same time mapping each CC-7 message (from each incoming channel for the two banks set as 'mixer controls') to a different CC-message.

You can set the output CC-message for each of the incoming volume faders.

<http://forum.cockos.com/showthread.php?t=129813>

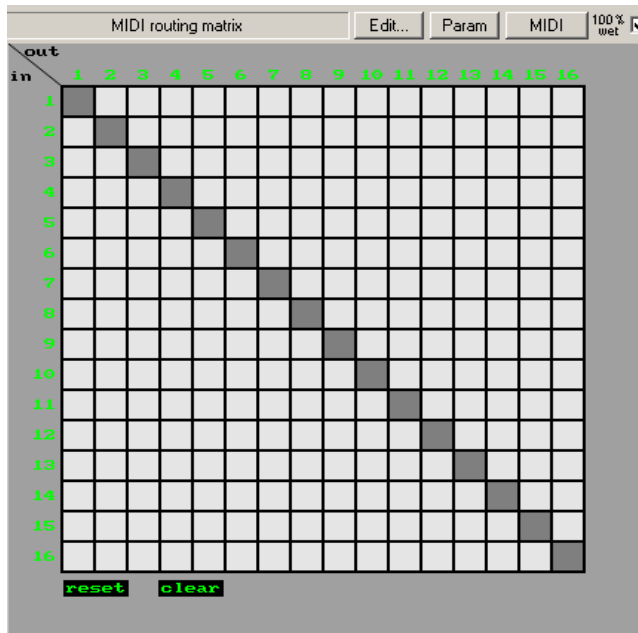
## MIDI Nudge:



Moves MIDI messages forwards or backwards. Set either of the top two sliders (960 ticks/beat). Set the third slider, if desired. The net resulting delay is shown on the 4th and 5th sliders. It should do negative nudges too, by passing a PDC value back to Reaper.

<http://forum.cockos.com/showthread.php?t=129433>

## MIDI Routing Matrix:

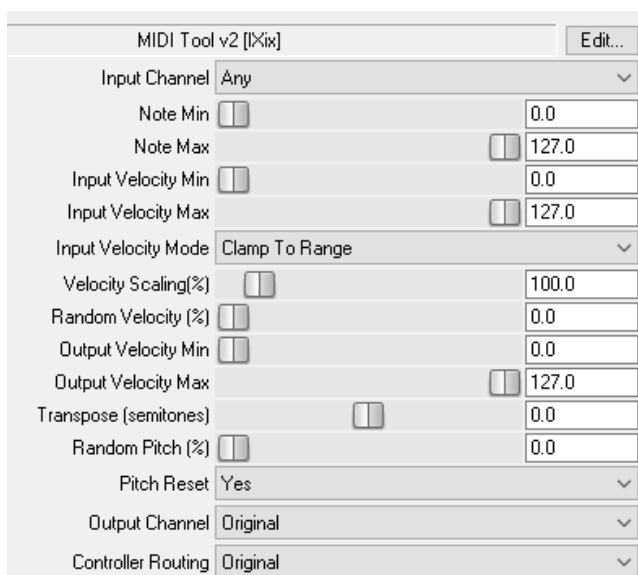


This FX allows arbitrary routing of MIDI channels.

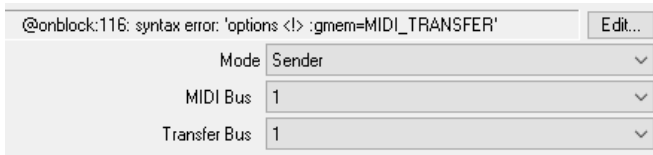
Discussion:

<http://forum.cockos.com/showthread.php?t=67115>

## MIDI Tool v2:



## MIDI Transfer:



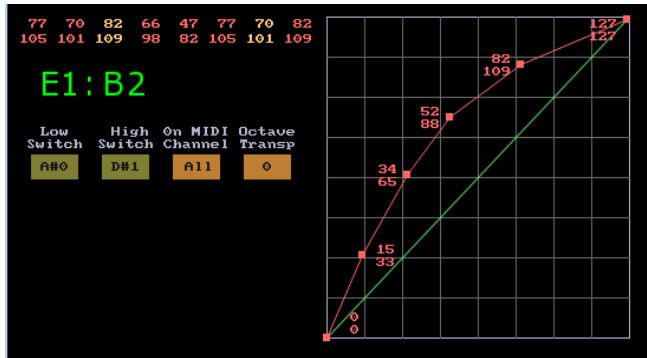
From the documentation is in the code:

"The MIDI Transfer JSFX are mostly used to route MIDI events between project tabs, as Reaper natively can't do that."

The JSFX in "Sender" mode sends MIDI events to MIDI Transfer instances in "Receiver" mode.

Multiple instances in Sender mode are allowed. The MIDI messages are combined to be received.

## MIDI Transposer and Compressor:



To facilitate utilizing keyswitches in Kontakt instruments, when playing a short, MIDI keyboard, because when you play higher notes, the keyswitches are no longer available.

### Features:

- the range of keys for keyswitches can be defined
- the other (playable) keys can be transposed by an octave at a time

- the octave transpose can be changed from 2 buttons (sending CC value of 127) on the MIDI keyboard
- the range of keys (above the highest key switch) is displayed, as a reminder
- many of the controls can be automated / controlled from the keyboard

Also, there is a MIDI velocity "compressor" to alter the velocities of the notes played.

- it has 4 draggable nodes to set the compression curve.
- different curves can be saved as Reaper presets

<http://forum.cockos.com/showthread.php?t=91981>

## **IX Scale Files**

Scale files are currently used by KeySnap and Variant.

A scale file is just an ASCII text file containing a bunch of numbers representing semitones above the root note (represented as zero).

Each digit should be on a separate line. Spaces for readability are okay but there should be no extra lines after the last digit, otherwise the loader thinks there's another step.

Comment lines starting with // are okay too.

Scales can be any length (the limit is 1024) and can contain any positive or negative value.

Here's an example:

//Scale file. This is the major scale.

0  
2  
4  
5  
7  
9  
11

The above example is how these scales were intended to be used. Here's another possibility:

//Scale file. Specialist values, limit to white keys of octave five.

60  
62  
64  
65  
67  
69  
71

With a scale like this, you can cause Variant to limit itself to the specified note numbers by setting the high and low octaves to zero. This would be useful for altering drum patterns.

## **IX Sequence Files**

Sequence files are currently used by Variant and Velocifier II.

A sequence file is an ASCII text file containing a bunch of zeros and ones which will tell the effect to either do something or not. Each digit should be on a separate line. Spaces for readability are okay but there should be no extra lines after the last digit, otherwise the loader thinks there's another step. Comment lines starting with // are okay too. Sequences repeat and can basically be as long as you like as the limit is close to 1MB.

Here's an example:

```
//Sequence file. This sequence will trigger the effect on every fifth note.
```

```
0
```

```
0
```

```
0
```

```
0
```

```
1
```

# **IX KeyMap Files**

Used by the KeyMap plugin, keymap files are ASCII text files containing a list of numbers representing how input notes will be transformed. The file should contain 128 entries, one for each note of the MIDI range. Each line that starts with a number will be treated as an entry.

One keymap, "00 - Default Mapping.txt", is supplied with REAPER and you can find it in the folder 'REAPER/Data/ix\_keymaps/'.

Make a copy of this and edit it to suit your requirements.

Note that only the number at the beginning of the line matters.

Everything else is ignored.

//Key Mapping File. Change the number at the beginning of the line to set the output note.

//Octave 0

0	(0) C
1	(1) C#
2	(2) D
3	(3) Eb
4	(4) E
5	(5) F
6	(6) F#
7	(7) G
8	(8) G#
9	(9) A
10	(10) Bb
11	(11) B

//etc.

//Octave 10

120	(120) C
121	(121) C#
122	(122) D
123	(123) Eb
124	(124) E
125	(125) F
126	(126) F#
127	(127) G

## **REPOSITORIES and Websites with JSFX:**

These are links to JSFX plugin packs:

<https://github.com/JoepVanlier/JSFX>  
<https://github.com/chkhld/jsfx>  
<https://geraintluff.github.io/jsfx/>  
<https://www.tbproaudio.de/download>  
<https://github.com/asb2m10/jsusfx/tree/master/scripts/liteon>  
<https://ajaxsoundstudio.com/cookdspdoc/#download>  
<https://www.ambisonictoolkit.net/documentation/reaper/>  
[https://www.taletn.com/reaper/mono\\_synth/](https://www.taletn.com/reaper/mono_synth/)  
<https://mrelwood5.wixsite.com/plugins>  
[https://stash.reaper.fm/v/25168/js\\_plugins.zip](https://stash.reaper.fm/v/25168/js_plugins.zip)  
<https://github.com/cfillion/reapack>

If you happen to be interested in "[Airwindows](#)" plugins, [click here](#).

On "Github" pages, you can go to "CODE" (green button) and select "download .zip".

Un-archive the file and place the effects in "Effects" folder of Reaper (in a PC is: ...App Data>Roaming>Reaper> Effects)

=====

### **Repositories:**

You can "cut-and-paste" these URLs into ReaPack's "Import repositories". Some of these might be for scripts.

<https://reapack.com/index.xml>  
<https://github.com/ReaTeam/ReaScripts/raw/master/index.xml>  
<https://github.com/ReaTeam/JSFX/raw/master/index.xml>  
<https://github.com/ReaTeam/Themes/raw/master/index.xml>  
<https://github.com/ReaTeam/LangPacks/raw/master/index.xml>  
<https://github.com/ReaTeam/Extensions/raw/master/index.xml>  
<https://github.com/MichaelPilyavskiy/ReaScripts/raw/master/index.xml>  
<https://github.com/X-Raym/REAPER-ReaScripts/raw/master/index.xml>  
<https://acendan.github.io/reascripts/index.xml>  
[https://github.com/AmelianceSkyMusic/ASM\\_Reaper\\_scripts/raw/master/index.xml](https://github.com/AmelianceSkyMusic/ASM_Reaper_scripts/raw/master/index.xml)  
[https://github.com/ArchieScript/Archie\\_ReaScripts/raw/master/index.xml](https://github.com/ArchieScript/Archie_ReaScripts/raw/master/index.xml)  
<https://github.com/beaunus/REAPER-ReaScripts/raw/master/index.xml>  
<https://github.com/bfut/ReaScripts/raw/main/index.xml>  
[https://github.com/chtammik/chtammik\\_Reaper\\_Scripts/raw/master/index.xml](https://github.com/chtammik/chtammik_Reaper_Scripts/raw/master/index.xml)  
<https://github.com/Claudiohbsantos/Claudiohbsantos-Scripts/raw/master/index.xml>  
<https://github.com/Dafarkias/REAPER-Lua-Scripts-/raw/master/index.xml>  
<https://github.com/Erriez/erriez-reaper-jsfx/raw/master/index.xml>  
<https://github.com/EUGEN27771/ReaScripts/raw/master/index.xml>  
[https://github.com/fernsehmuell/reaper\\_scripts/raw/master/index.xml](https://github.com/fernsehmuell/reaper_scripts/raw/master/index.xml)  
<https://github.com/iliaspoulakis/Reaper-Tools/raw/master/index.xml>  
<https://geraintluff.github.io/jsfx/index.xml>  
<https://github.com/helgoboss/reaper-packages/raw/master/index.xml>  
<https://github.com/IXix/JSFX/raw/master/index.xml>  
<https://bitbucket.org/kawaCat/kawascript2/raw/master/index.xml>  
<https://bitbucket.org/kawaCat/reascript-m2bpack/raw/master/index.xml>  
<https://github.com/leafac/reaper/raw/main/index.xml>  
<https://github.com/nikolalkc/LKC-Tools/raw/master/index.xml>  
<https://github.com/me2beats/reapack/raw/master/index.xml>  
<https://github.com/mrlimbic/reascripts/raw/master/index.xml>  
<https://github.com/n0ner/Reaper/raw/master/index.xml>  
<https://github.com/Neutronic/ReaScripts/raw/master/index.xml>  
<https://github.com/nofishonfriday/ReaScripts/raw/master/index.xml>

<https://github.com/Outboarder/ReaScripts/raw/master/index.xml>  
<https://github.com/pelori/PeloReaper/raw/master/index.xml>  
<https://ply.github.io/ReaScripts/index.xml>  
<https://github.com/przemoc/REAPER-ReaScripts/raw/master/index.xml>  
<https://github.com/RcJach/ReaScripts/raw/master/index.xml>  
[https://bobobo-git.github.io/reaperwrb\\_2/index.xml](https://bobobo-git.github.io/reaperwrb_2/index.xml)  
<https://github.com/RobU23/ReaScripts/raw/master/index.xml>  
<https://github.com/JoepVanlier/JSFX/raw/master/index.xml>  
<https://github.com/lemerchand/lemerchand/raw/master/index.xml>  
<https://github.com/GoranKovac/ReaScripts/raw/master/index.xml>  
<https://github.com/Sonic-Anomaly/Sonic-Anomaly-JSFX/raw/master/index.xml>  
<https://github.com/StephanRoemer/ReaScripts/raw/master/index.xml>  
<https://github.com/jtackaberry/reascripts/raw/master/index.xml>  
<https://github.com/sonictim/TJF-Scripts/raw/master/index.xml>  
<https://github.com/JoepVanlier/Hackey-Trackey/raw/master/index.xml>  
<https://github.com/X-Raym/MIDI-Makey-Makey/raw/master/index.xml>  
<https://github.com/zaibuyidao/ReaScripts/raw/master/index.xml>  
[https://github.com/tormyvancool/TormyVanCool\\_ReaPack\\_Scripts/raw/master/index.xml](https://github.com/tormyvancool/TormyVanCool_ReaPack_Scripts/raw/master/index.xml)  
<https://github.com/bsmith96/Reaper-Scripts/raw/master/index.xml>  
<https://github.com/Yaunick/Yannick-ReaScripts/raw/master/index.xml>  
[https://raw.githubusercontent.com/TukanStudios/TUKAN\\_STUDIOS\\_PLUGINS/main/index2.xml](https://raw.githubusercontent.com/TukanStudios/TUKAN_STUDIOS_PLUGINS/main/index2.xml)  
<https://github.com/Justin-Johnson/ReJJ/raw/master/index.xml>  
<https://github.com/jeremybernstein/ReaScripts/raw/main/index.xml>  
<https://github.com/AlbertoV5/ReaperTools/raw/master/index.xml>  
<https://github.com/DaveInDev/Binbinhfr-Scripts/raw/master/index.xml>  
<https://raw.githubusercontent.com/juanriccio/Reaperism/master/index.xml>  
<https://github.com/Dragonetti1/dragonetti-reascripts/raw/master/index.xml>  
<https://github.com/chmaha/ReaClassical/raw/main/index.xml>  
<https://raw.githubusercontent.com/daniellumertz/DanielLumertz-Scripts/master/index.xml>  
<https://raw.githubusercontent.com/NablaTools/Nabla/main/index.xml>  
<https://raw.githubusercontent.com/odedd/ReaScripts/master/index.xml>  
[https://raw.githubusercontent.com/Bird-Bird/ReaScript\\_Testing/main/index.xml](https://raw.githubusercontent.com/Bird-Bird/ReaScript_Testing/main/index.xml)  
<https://github.com/chmaha/airwindows-JSFX-ports/raw/main/index.xml>  
<https://github.com/Audiokinetic/Reaper-Tools/raw/main/index.xml>  
<https://raw.githubusercontent.com/Souk21/REAPER-scripts-and-effects/master/index.xml>  
<https://github.com/joabeslopes/Reaper-scripts-multitrack-show/raw/main/index.xml>  
<https://reaticulate.com/index.xml>  
<https://raw.githubusercontent.com/mawi-design/JSFX/main/index.xml>  
[https://raw.githubusercontent.com/Ultraschall/ultraschall-lua-api-for-reaper/master/ultraschall\\_api\\_index.xml](https://raw.githubusercontent.com/Ultraschall/ultraschall-lua-api-for-reaper/master/ultraschall_api_index.xml)  
<https://github.com/jozmac/reapack-jm/raw/master/index.xml>  
<https://raw.githubusercontent.com/Fleeesch/ReaPack-Fleeesch/master/index.xml>  
<https://raw.githubusercontent.com/sinfricia/ReaScripts/master/index.xml>  
<https://reapertoolkit.dev/index.xml>  
<https://raw.githubusercontent.com/MonkeyBars3k/ReaScripts/master/index.xml>  
<https://raw.githubusercontent.com/AntoineBalaine/perken-reaper-scripts/master/index.xml>  
<https://raw.githubusercontent.com/mccrabney/Reascripts/master/index.xml>  
<https://raw.githubusercontent.com/s0u7h/pcp/master/index.xml>

Whew...that was a lot of work! :)

If you appreciate this and find it useful, please consider visiting [my website](#) and listening to my Reaper-made music.

Keith