

A JSFX resource (2nd edition)

re-compiled by [Keith Haydon](#) July 2023

Reaper was created with many aspects of it being "open source". JSFX and scripts, mostly, I think. This helps our community create better music, by creating the tools that make the music better. I have been a Reaper user since a long time, and have found the Reaper community to be a real blessing. I owe much to this community, as I reap of the benefits of all the shared knowledge. I don't have the technical savvy to offer much music production advice, so I thought this "resource" would be a worthwhile way to give something back. I was going to call it a "Guide", but it doesn't really deserve to be called that. "Resource" will have to do.

I really hope folks enjoy this.
Peace, Keith

If you're brand new to this, you'll want to install [ReaPack](#).
Keep [repositories](#) updated, because new repositories are added from time to time.

How to install JS plugins: <https://www.youtube.com/watch?v=9EegrN-gF5o>
<https://www.youtube.com/watch?v=KIhrxeE3kK0>

List of native JSFX: <https://github.com/ReaTeam/Doc/wiki/JSFX-from-REAPER-Native>
And WIKI: https://wiki.cockos.com/wiki/index.php/Jesasonic_Documentation

With a little knowledge, you can customize existing JSFX to your specific needs.
Here's a tutorial: <https://www.youtube.com/watch?v=pRIFOTiDp7w>

Note: Sometimes you can find info/instructions about a plugin in the actual code of the plugin. Just hit the "Edit." button and choose "Open in external editor" to see the code, in "notepad". If there are any instructions, you'll find them near the very beginning.

Learn to edit JSFX (*-w/o learning a ton of coding*), [Click here](#).

CATEGORIES:

[Reverbs](#), [Delay/Echo](#), [Chorus/Flangers](#), [EQ/Coloring](#),
[Bass/Lo-end](#), [Transients](#), [Gate/Expander](#),
[Compressors](#), [Limiters](#), [Lo-Fi](#), [Crushers](#), [Distortion](#),
[Other FX](#), [Filters](#), [Guitar Amp/Cab](#), [Audio Analysis](#),
[Utilities](#), [Stereo/Panning](#), [Mastering](#), [Synths-Sound](#)
[Generators](#), [Arps/Seqencers](#), [MIDI FX](#), [MIDI Utilities](#),
and [MIDI Editing](#)
(Supplemental [Scale](#), [Sequence](#) and [KeyMap](#) data)

Table of Contents:

Reverbs:

Abyss Reverb
Atlantis
Lava Verb
[Lexikan 1, 2](#) (w/presets)
Satan Verb (w/presets)
Verb Ducker

Delays/Echoes:

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

Chorus/Flangers:

Chorus w/GUI
Flange Baby
JS Flanger (w/GUI)
Kawa XY Chorus
Kawa XY Flanger
Ozzifier
Spring-Box
ZE Big Chorus
ZE Scanner Chorus

EQ/Coloring:

Envelope Shaper
EQT-2Kan
exciter
Green Dynamic EQ
Overtone EQ
Parametric Exciter 2
Presence EQ
RBJ1073

RBJ4
ReaAnalog
ReEq
Soft Clipper
Tape recorder S2 (w/presets)
Warble - Pitch Shift

Bass/Low End:

Bass ManagerBooster
Bass Professor I & II
Bass Squeezer
Exciter + Sub (w-presets)
Huge booty
Thunderkick

Transients:

Envelope Shaper
Transience
Transient Controller 2
Transpire
Violet Envelope Shaper S2

Gates:

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

Compressors:

1175 Compressor
Auto Expander
Blue Compressor S2
Bus Comp 2 S2
Bus Comp (JS)
Compressor 2 (w/side-chain)
Compressor 3
Dirt Squeeze Compressor
Dis-Treasure
Fairly Childish

General Dynamics:
Hybrid Bus Compressor HBC-2
LA-1A Compressor
LA-2KAN S2
Major Tom & Master Tom
Mawi Compressor
Multiband Ravager
Never Odd or Even
Not OTT
S.LA.X
Tight Compressor
Track Comp
VariBus Comp S2
VOLA
Upward Expander

Limiters:

Event horizon
Limiter 2
NC76 Limiting Amplifier
NP1136 Peak Limiter
Smooth Limiter
Stillwell Event Horizon
Turquoise Limiter S2
Vocoder

Lo-Fi / Distortion:

Filther (w/presets)
Lo-Fi
Mod – izer
Nostalgizer
Paranoia mangler (w/presets)
Phase Mangler
RCInflator (Oxford Edition)
RC Inflator, Ideal Edition
Sandwich Amp
Squashman
Waveshaping Distortion
Wild Wave

Other FX:

4-tap Phaser
4-pole Band Splitter
AC Trem (w/presets)

Auto Gain Stager
Bad Connection
Black DeNoiser S2
Blacklight Modulation S2
DeNoiser
Downward Expander
Dusk Verb
fx_glitch
Hackey Trackey Sample Playback Mod
Lime DeEsser S2
LFO Generator
Partials (w/presets)
Phaser
Ring Modulator
Ripple Phaser (w/presets)
Saturation
Steps Modulator
Subtractive Stereoizer
Tanh Saturation w/anti-alias
Telephone
Wahriffic
Warble

Filters:

3 Band PeakFilter
Apple 12-pole filter
Butterworth Filter
Chebyshev Filter - Type1
EQ1979
FM Filter 2
Lattice Filter
MIDI
Moog Filter
RBJ Stereo Image Filter
SC Filter
Shelving Filter
State Variable Morphing filter

Miscellaneous:

Avocado Ducking Glitch Generator
SEQS
Sequencer MegaBaby
Spectral Hold
Sum Bus
Sum Channel / Sum Thing SI

Tone Gate

Guitar Amps-Cabinets:

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:

Mid-Side Encoder / Decoder
Modulation 2
Panalysis
Phase Rotator
Pseudo-stereo fx
RBJ Stereo Image Filter
SAW 2 / Seriously Amazing Widener 2
Stereo Bub II & III
Stereo2Surround Rotator
Stereo Manipulator
Stereo Width
Transform-Rotate-Tilt-Tumble (quad; 5.1)
Volume/Pan Smoother v5

Mastering:

BBE Sonic Maximizer
Loudener
Master Limiter
QuadraCom

Synths/Sound generstors:

2op PM Synth
Complex X filter Synth
Hammer And Chord (w/presets)
Humonica (w/presets)
Lorenz Attractor
Nymphes Control Freak
PadSynth (w/presets)

ReaRack2 Modular Synth
RC NoiseBuzz
Shepherd Paradoxical Synth
Simple Drum Synth
Soft Bell (w/presets)
SpectroPaint-Synthesis
Swellotron
The Digit Ham Organ
Yutani Mono Bass synth
Ze Musette Organ

Audio Analysis:

Audio Statistics
Goniometer
Goniometer (Tukan)
Green Circles Meter S2
Peak Needle S2
Phase Scope
ReSpectrum
Side Spectrum Meter
Skope II
SNR Meter (w/presets)
Spectral Analyzer

Utilities:

Amaranth (w/presets)
Automatic Gain
Auto Mute
BandJoiner
Band-splitter/joiner
Bleed Kill-pressor
Bric-a-Brac
De-Esser
De-Esser (Tukan)
DrumReplacer
Learning Baby
Learning Sampler
Loudness Meter
Macro Controller
Monitor Routing Utility
Multiband Processor
Non-Linear Processor
Preamp w/shelving filters
Pre-arranged Loop (Audio)
Random Modal Sequencer
Reference Noise

Routing tool
Second-Order Phase Shifter Allpass
Silence Meter
SNR Meter (w/presets)
[Spectrum Matcher](#)
[Sphinx S2](#)
Stereo Alignment Delay
Tone Sweep
Tool S2
Triggered Random Modal Riffer
TriLeveler 2
Waveshaper Multi

Arps/Sequencers:

arp!0 - groovy MIDI arp
El Chordero
Gaussian Humanizer
MIDI Arp
MIDI Arpeggiator
Nova Two - Generative Sequencer
Sendo
Sequencer MegaBaby
Stochasticizer
Super Arp!
VeloCycle

MIDI FX:

CCRider
Channel to Key-switch
Choking Hazard
Cross-Polyphonic FM
Droplets (w/presets)
Karplus-Strong Delay
KeyMap II
KeySnap
Latch
Looper
Mibrato
MIDI Constant Note Length
MIDI Gate
MIDI Harmony
MIDI Polyphonic Splitter
MIDI Strummer
MIDI Pattern/Scale Variation Generator
MIDI Vocoder
Mipressor

MIDI Pitch Follower
MIDI Re-mapping
Probalocity
Tool II
Vibrato
Wobulator

MIDI Utilities:

16 pad MIDI
AB Level Matching
Audio to MIDI
Audio to MIDI Drum Trigger
Fretboard Mapper
MB ReAutomate
MIDI CC Mapper X
MIDI CC LFO
MIDI Chord Splitter
MIDI Chordizer
MIDI Event Filter
MIDI Note Preview
MIDI Performer2
MIDI Pitch Bend and Modulation Wheel
MIDI Polyphonic Splitter
MIDI Rhythm Trainer
MIDI Timing and Velocity Humanizer
MIDI Velocity viewer
Pitchwheel Control Center
Pre-arranged MIDI Looper
ReaAutomate
Rearticulate
SwixMitch GUI
VI Sculpt
Vmorph

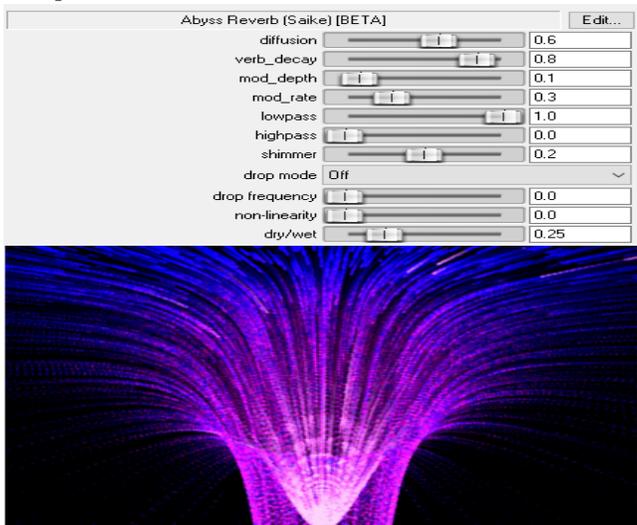
MIDI Editing:

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

Additional text: [SCALE text](#), [SEQUENCE texts](#) and [KEYMAP text](#)

REVERB:

Abyss Reverb:



A shimmering reverb that's very popular.

Note: the Abyss reverb 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:

Specializes in long ambient sounds and shimmering textures.



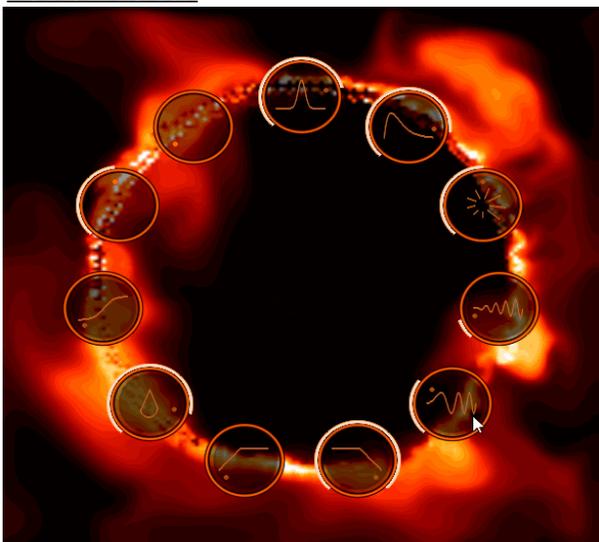
"Grain" size controls the freq./time resolution. Longer grains give smooth and pure tones; shorter ones give a thicker, wavering tones. The "shimmer" control slowly morphs the reverb up by octaves over time, adding a bright and ethereal sound to the reverb.

"Fifths" dials in octave-and-a-fifth shifts. "Release" controls (decay section), allow you to move the current echoes over to a second, faster-decaying reverb line. It can be triggered by mouse, automation, or MIDI controller #64 (if enabled).

If the quieter bits sound great, but the louder sections sound harsh, the "input comp" section can help you tame the peaks.

https://www.youtube.com/watch?v=Os7b_yzYZlw

Lava Verb:



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 ambience 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 diffuse 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" you can clean that up with 'Verb Ducker'.



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:

- delay_chfun: stereo bounce delay
- delay_chorus: delay with integrated chorus in the delay path
- delay_lowres: delay with adjustable resolution of the signal in the delay path
- delay_tone: delay with tonal control
- delay_varlen: variable length delay
- delay_pong: Ping-pong delay
- delay_tempo: Delay with optional tempo synchronization.

Delay Machine 2:

An advanced dual-delay with time/sync options.



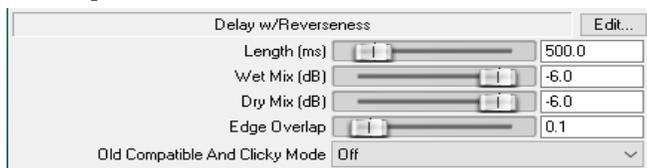
Capable of side-chain input, the delays can be processed by any other plugins while the clean signal stays clean. The plugin itself features a lot of flexibility of delay-designing and effects on the delays (distortion, bit crush, filter...)

User contributed presets:

https://stash.reaper.fm/v/43713/js-Tukan_Delaymachine2%20%28Tukan%29.ini

YouTube Videos: <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):

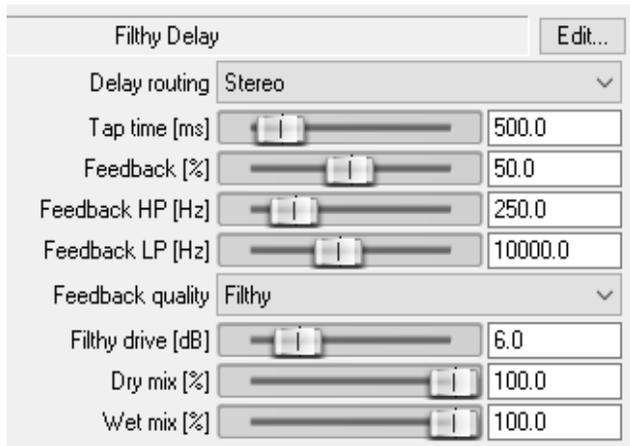


A feedback delay effect where the echoes move through the stereo space.

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

<https://www.youtube.com/watch?v=BZ-1z7IKYTs>

Filthy Delay:



Three signal routing modes:

Stereo: delay tap happens where the signal happened

Inverted: delay happens on the opposite side of the signal

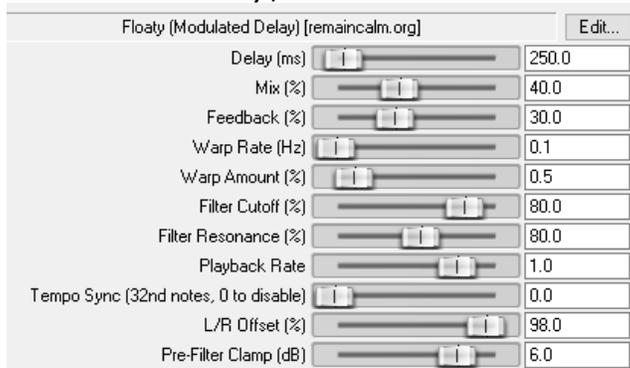
Ping-pong: delay reflects back / forth between both sides

(*More instructions in the actual code*)

Link to [Filthy Delay updates](#)

Floaty:

Modulated delay; lots of extra craziness.



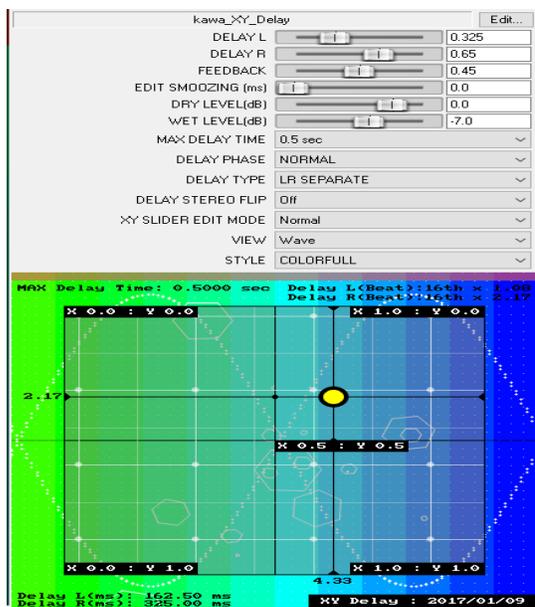
It's creator says, "It's a tape-style modulated delay - the play head can "float" around the tape in interesting ways."

"Only stock delay with modulation (ReaDelay doesn't have it)"

"I use it sparingly (i.e. with modest, gentle settings) to help create a subtle "dreamy" effect for an instrument...."

It goes great on big washy echoes and dubby stuff but it's a secret weapon on vocals, 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:



Link to: [Kawa XY effects \(YouTube\)](#)

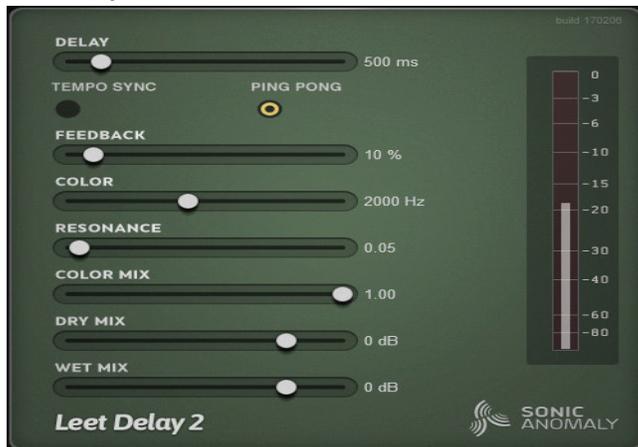
Khaki Delay S2 (w/presets):



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

Leet Delay 2:

A delay with character



Can sync with host tempo.

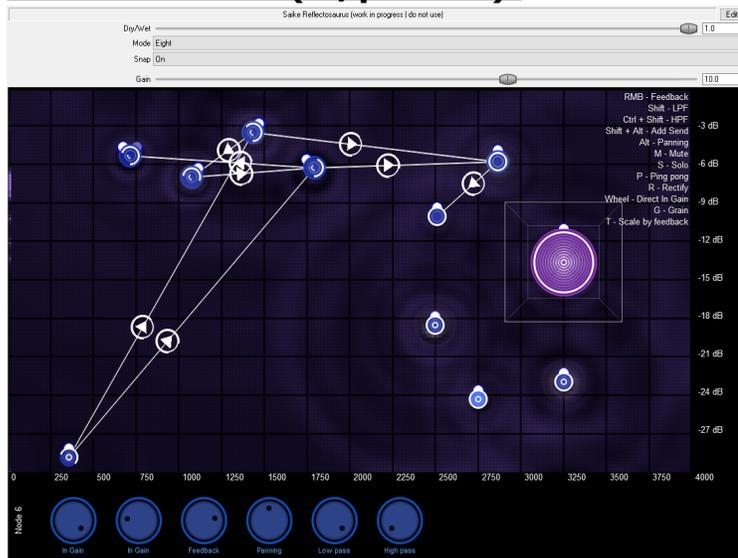
Delay time 0-4000ms
Ping Pong mode.

Color slider adjusts the filter frequency of feedbacked signal.

Resonance control can go to extreme values.

Can create self-oscillating infinite loop.

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>

Manual:

https://github.com/JoepVanlier/JSFX/raw/master/Reflectosaurus_Manual/Reflectosaurus_Manual.pdf

Examples: <https://www.youtube.com/watch?v=47L9bysgIiA>

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

Simple Delay:



NOTE: 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>

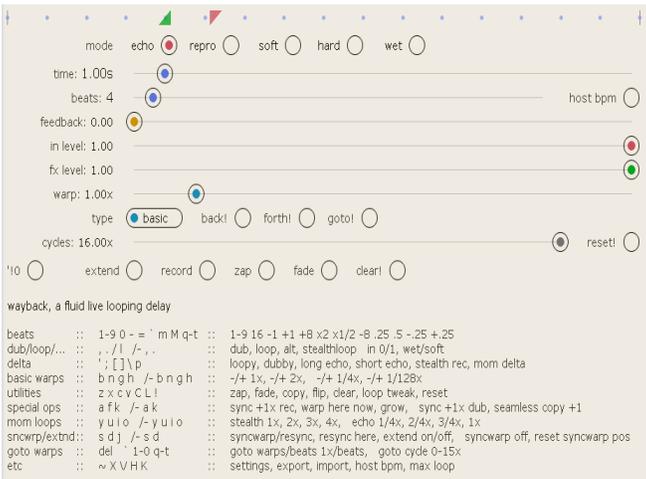
Tukanoplex Tape Echo S2:



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

Wayback:

An audio delay for live looping, with warp, which 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.

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

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

CHORUS/FLANGERS:

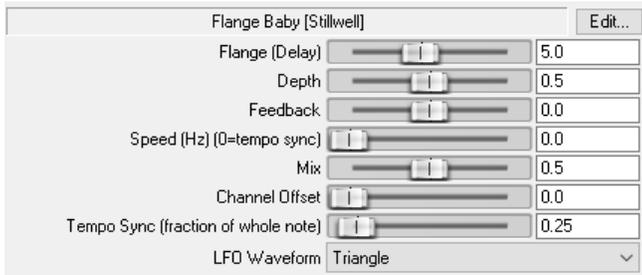
Chorus w/GUI:



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>

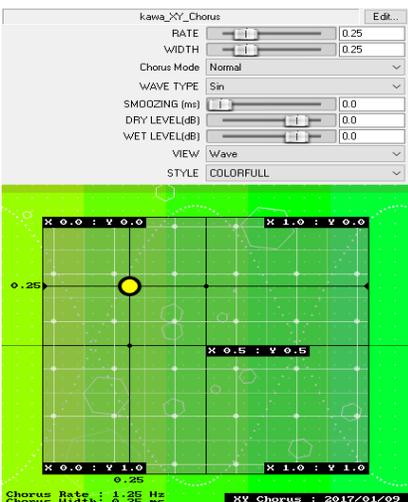
Flange Baby:



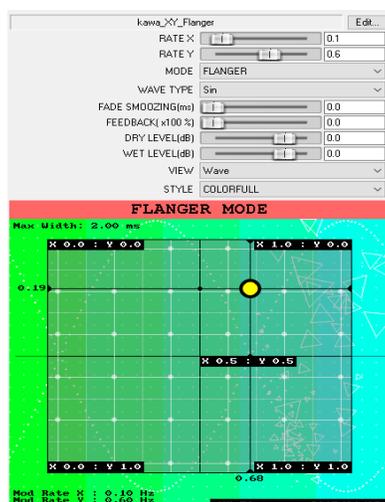
JS Flanger (w/GUI):



Kawa XY Chorus:



Kawa XY Flanger:



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

Ozzifier GUI:



Multi-voice chorus/delay...you'll recognize it.

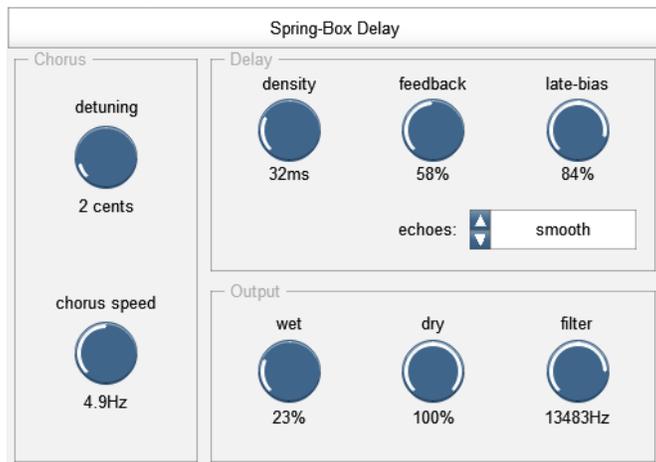
A classic fattening pitch Left/Right effect
Click voice buttons to turn on/off;
Click/drag slider to set
Right-click controls to reset to default values.

<http://forum.cockos.com/showthread.php?t=17605>
<https://www.youtube.com/watch?v=HV3sK0ted6I>

https://www.youtube.com/watch?v=Nnk_5AjxRg

Spring-Box:

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

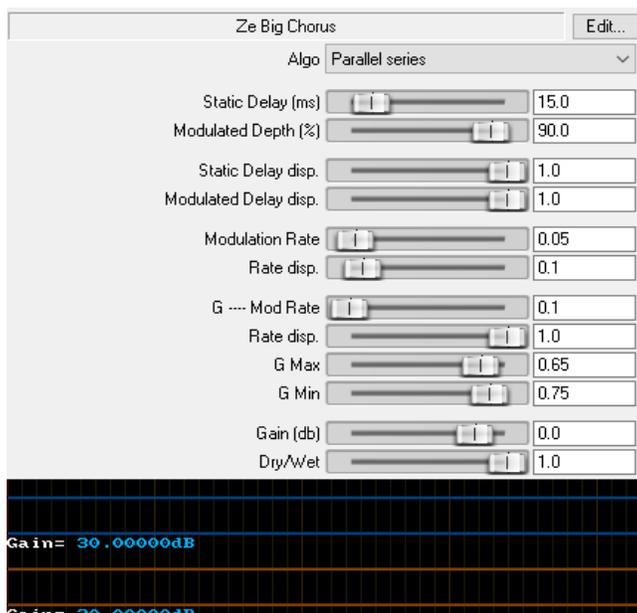


The delay lines vary in length according to the chorus parameters, so you can create a range of sounds from choruses and ambiences to space-like reverb effects.

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=UqryhWXHbA>

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

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

EQ/COLORING:

Envelope Shaper:



A basic but effective envelope shaper.

Transients and releases can very easily be adjusted.

No need for expanders, gates or compressors to shape the punch and sustain.

EQT-2KAN S2:

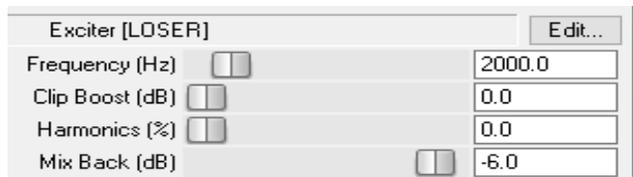


A Pultec-type EQ

Knobs say "cps", rather than "hz"

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

Exciter:



HF boost/enhancer

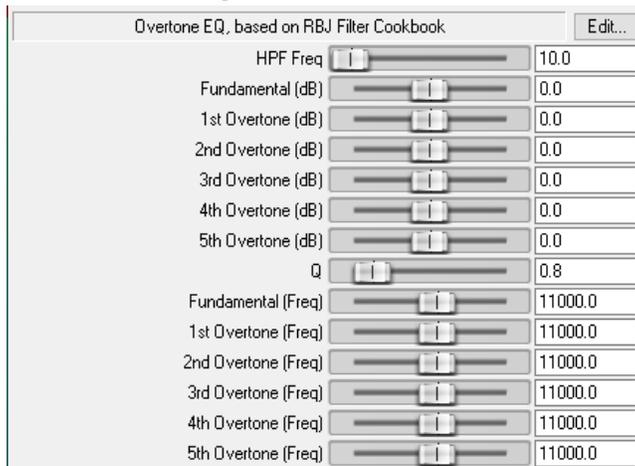
Green Dynamic EQ S2:



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

Note: "Orange EQ" by Tukan is the same plugin, without the dynamics capabilities

Overtone EQ



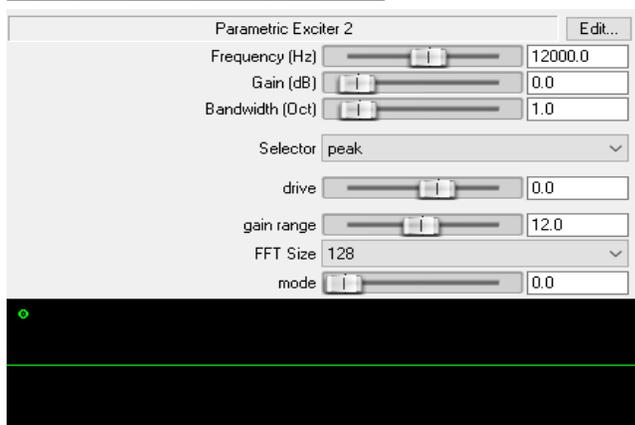
It's a dynamic EQ that takes a MIDI note input and calculates the note frequency and harmonic overtones then adjusts each EQ bands frequency accordingly.

Best used as a sound shaping tool.

Works well on monophonic lines, although it can also work on polyphonic lines when just fed the bass notes.

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

Parametric Exciter 2:



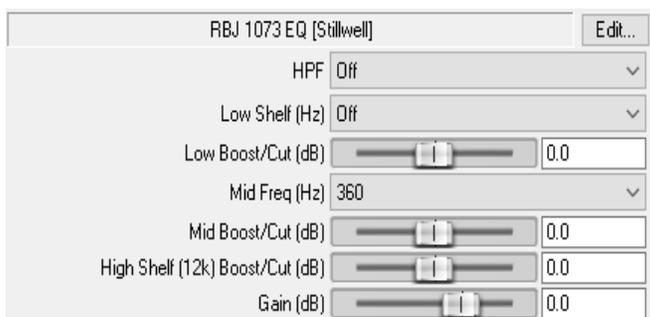
Presence EQ:



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

- stereo/mono processing
- 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.

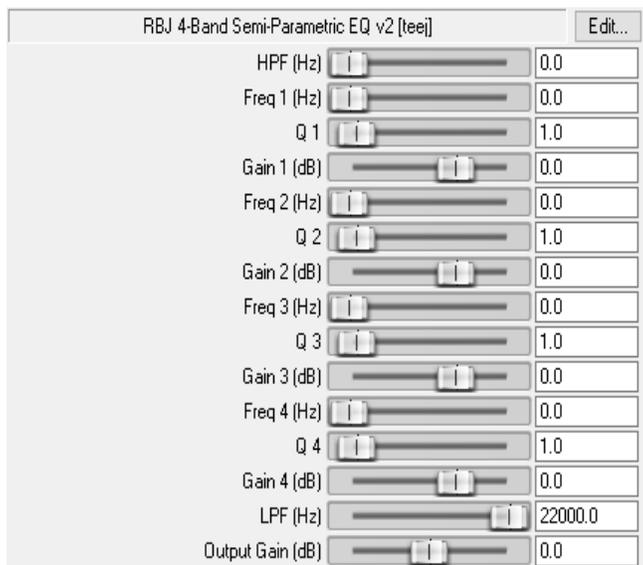
It has a fixed frequency of 12k, but the wide Q of the slope affects the signal lower down the spectrum.

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:

Its goal is to provide analog-style saturation/coloration of various flavors.



It performs frequency-specific (emphasis) saturation with its various presets.

The 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.

The million-dollar plugin."

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, great 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>

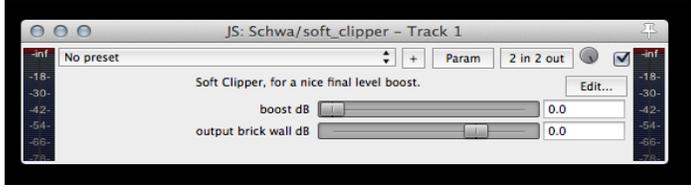
<https://www.youtube.com/watch?v=ddKCSUjSMLk>

<https://www.youtube.com/watch?v=IbfkWOGvVE4>

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.

The JS soft_clipper has only two controls:

- 1) Boost increases the input up to 9dB
- 2) Output brickwall is the ceiling or absolute max output level which can be set from -3 and +1 dBFS

"Use on master bus either before/in place of a brickwall limiter. Useful on kick and snare tracks where I need them to be loud but not actually take up headroom."

Tape Recorder S2 (w/presets):



This gives you the non-linearity (wow/flutter/noise/freq. response) of tape recorder.

Warble - Pitch Shift:



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

Note:

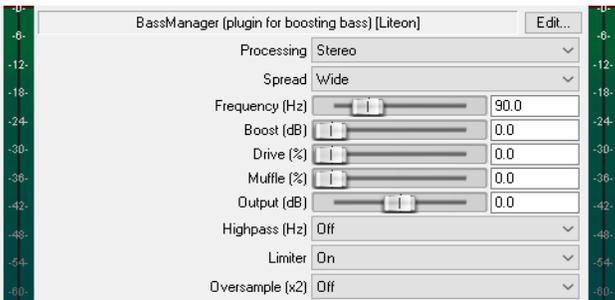
It has a few features missing at the moment. Most notably, there isn't a way to "snap to nearest note".

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

BASS / LOW-END:

Bass Manager/Booster:

Has 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 - amount of boost for the low end - 0/24db
- drive - adds saturation
- muffle - "muffles" sharp high-end frequencies.

- output - controls the output gain -24/+24db
- hipass - 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:



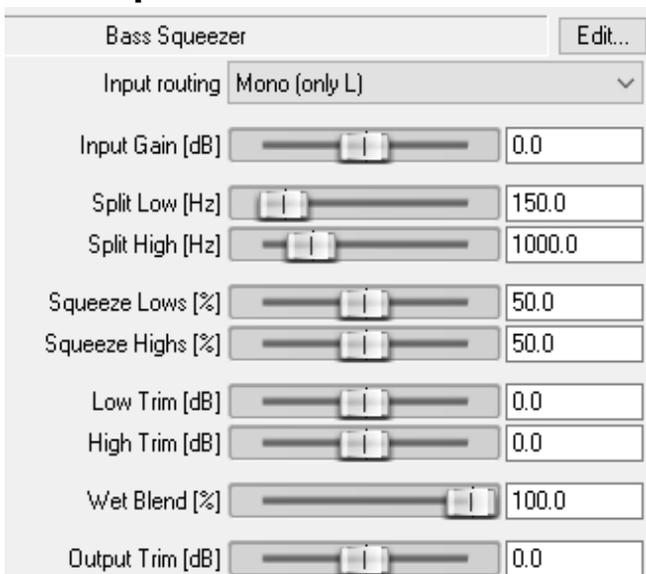
Sound-shaping suite for a bass guitar.

Bass Professor Mark II is not a replacement for the first generation of Bass Professor, 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:

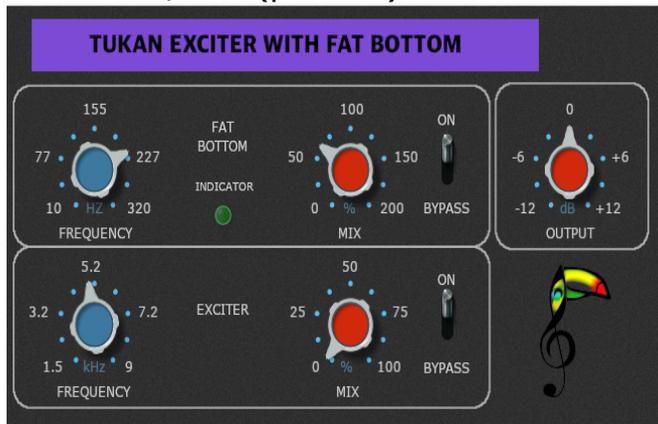


Split-band compression and filtered distortion for instant "bathtub" bass.

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

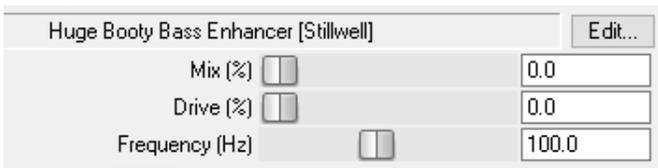
Exciter w/Sub (presets):



Based on the idea of the Type-C Aural Exciter.

This plugin pushes the lows and highs by adding sub-harmonics and high-band enhancement.

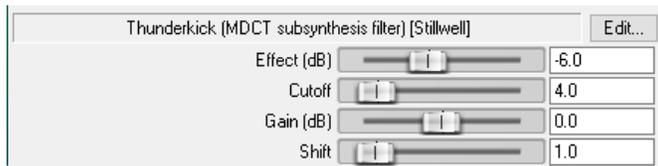
Huge Booty Bass Enhancer;



LF frequency enhancer...adds upper harmonics to LF content

Thunderkick:

LF enhancer...adds in sub-harmonics to enhance lowest octaves.



Note: does NOT work with pitched instruments. Mostly useful for kick drum. Think of it as a MIDI compressor...scales output volume range and adds/removes gain.

Learn about it, here: <https://www.youtube.com/watch?v=ZynVR9bMSZc>

TRANSIENT:

Envelope Shaper:

This plugin is a basic but effective envelope shaper.

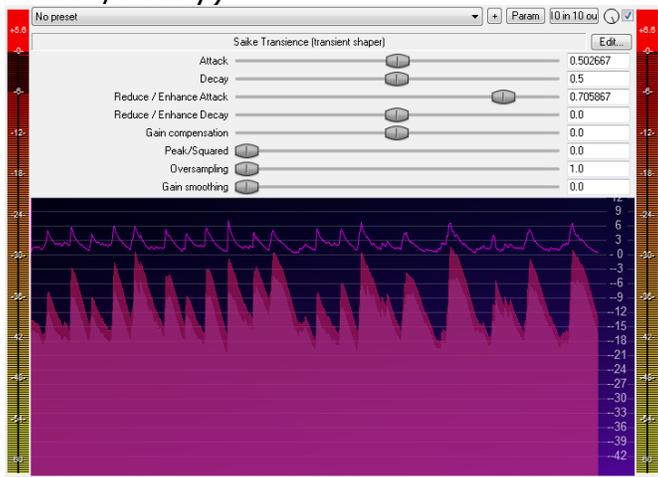


Transients and releases can very easily be adjusted.

No need for expanders, gates or compressors to shape the punch and sustain.

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.

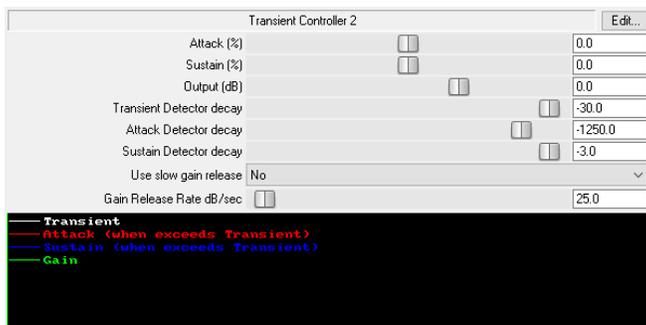
The plugin operates in logarithmic space.

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.

Kenny Gioia:

<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:



GATES:

Basic Trance Gate:



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

There is a rudimentary graphical display to help demonstrate what the sliders are doing.

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

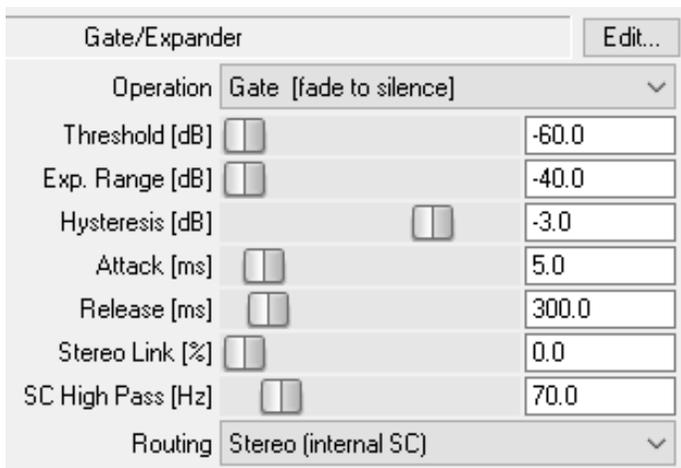
ExpGate 2:

This plugin is a gate/expander with all the features you need.



Gating guitars or drums is very effective and easy with this plugin. A nice trick is added: This plugin also features an anti-gate, so if the signal gets too loud it will be muted. The anti-gate is great for cleaning up drums via side-chain or to get that pumping effect in EDM music.

Gate/Expander:



There's a lot of information to be found in the JSFX code (Load the effect, hit "Edit..." button).

The code opens. Hit "Open in external editor" to view the code, in notepad.

Any info/instructions are usually found at/near the very top)

Purple Gate/Expander S2:



SEGX2 Gate - Expander:

A smooth dual band expander gate with look-ahead



Always has soft knee, which starts at the threshold point.

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.

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

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

COMPRESSION/EXPANSION:

1175 Compressor:

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



The attack slider goes from 20 microseconds (that's 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, change the line:

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

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

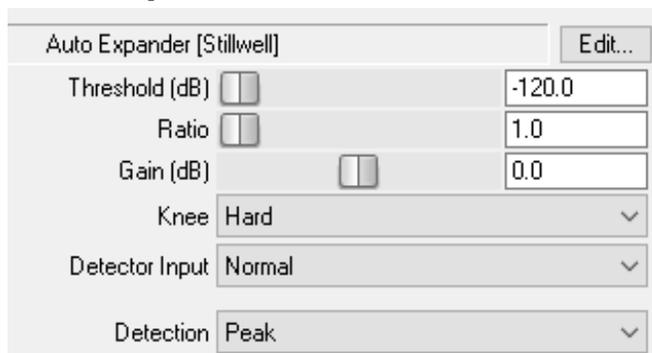
(This allows to set attack times up to 10ms (1 ms = 1000usec).

"Use it with a Nebula "Mojo" program or one of the corresponding "preamp" programs)"

Kenny G's video: <https://www.reaper.fm/videos.php#eJM9qZbI0k4>

<https://www.youtube.com/watch?v=eJM9qZbI0k4>

Auto Expander:



Downward expander with program-dependent attack/release.

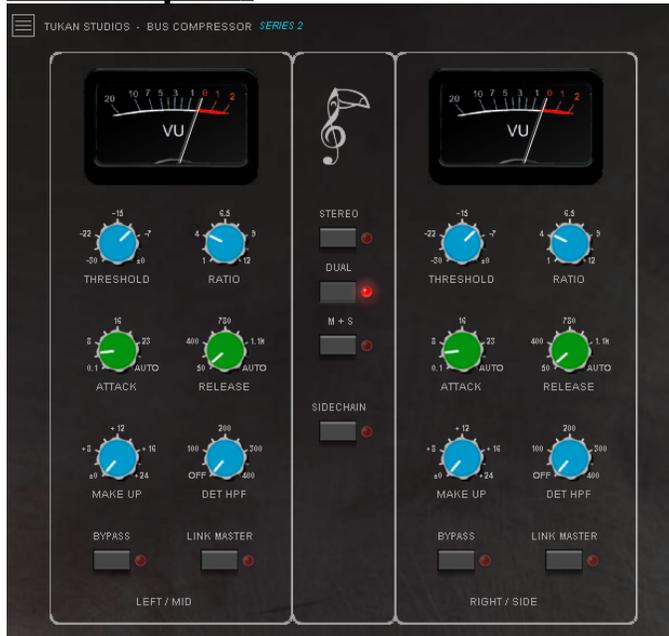
Blue Compressor S2:



Mentioned in this video:

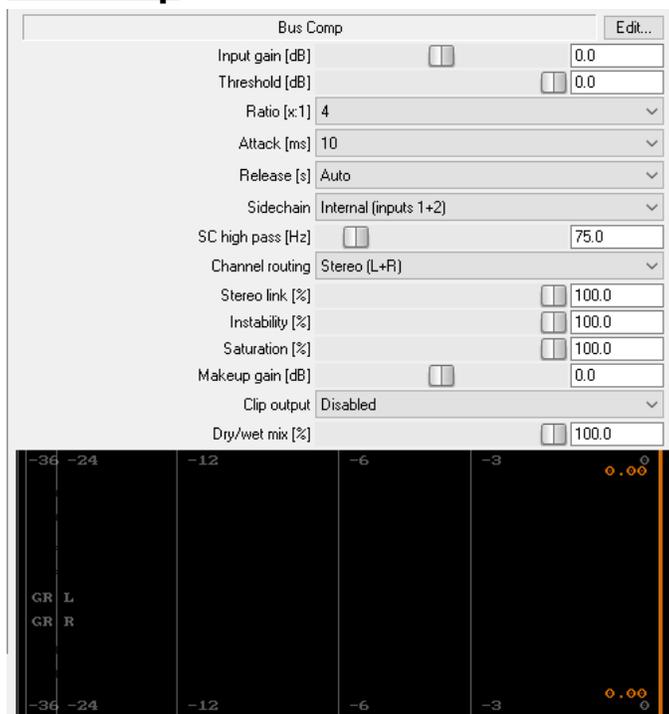
https://www.youtube.com/watch?v=lsB_Jf50R0Q

Bus Comp S2:



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

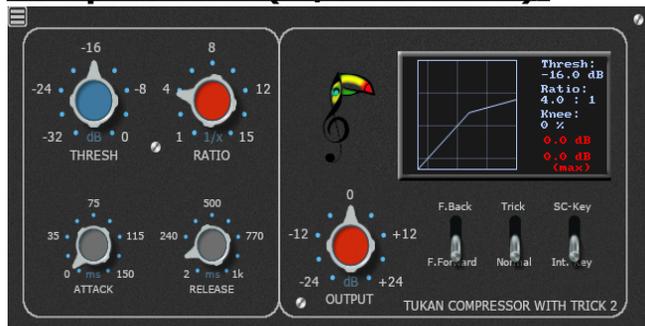
Bus comp



This comp side-chains.

Chokehold created this, and provided great 'splain, in his intro.

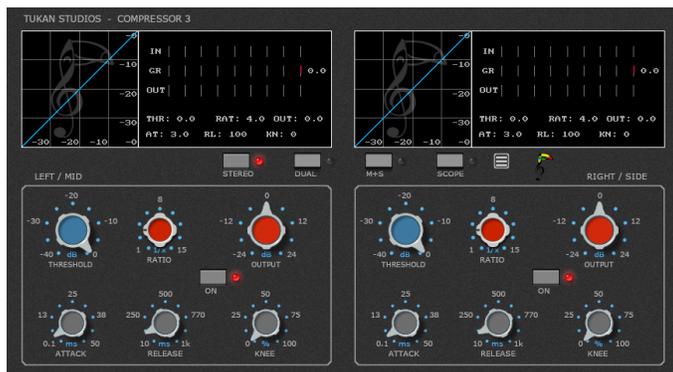
Compressor 2 (w/side-chain):



You can use it as a "gate", as well. Also features parallel compression, side-chain, knee settings and more.

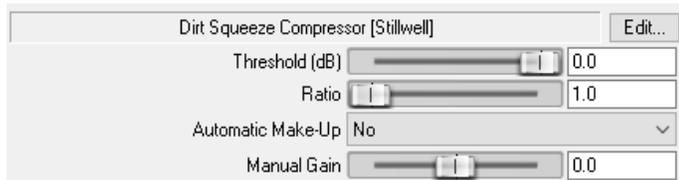
<https://www.youtube.com/watch?v=vzKvzIp9sT4>

Compressor 3:



Dirt Squeeze Compressor:

A compressor that adds grit and distortion.



Example: Out on the rhythm guitar: first normalize the track (right click on the track's event>item processing>then normalize).

Then insert dirtsqueeze and dial in the following:

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.

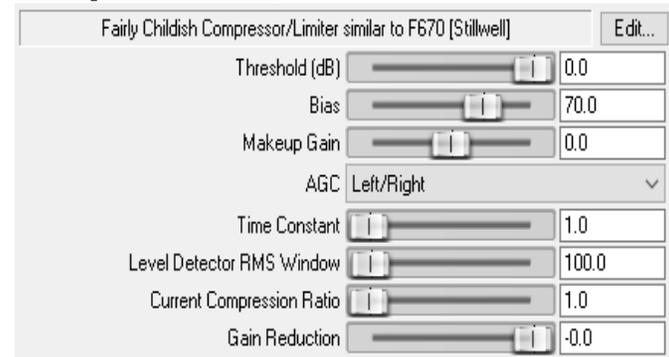
Dis-Treasure:



Based on the idea of a well-known compressor, offering heavy compression with great sounding results.

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:

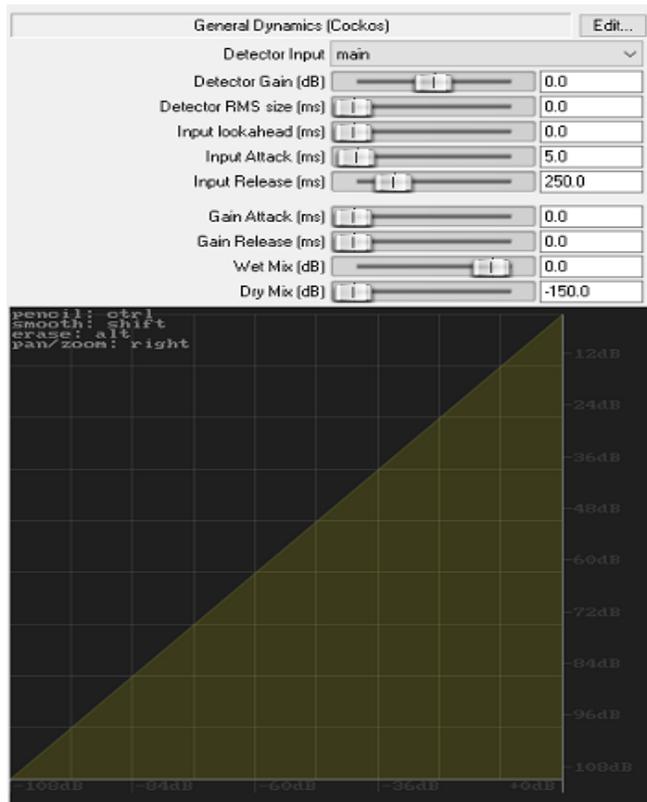


A well-regarded compressor, modeled after the "Fairchild"

The documentation is rather extensive, check the links below.

https://wiki.cockos.com/wiki/index.php/Jesusonic_Effects_Documentation#FairlyChildish
Discussion: <https://forum.cockos.com/showthread.php?t=5636>

General Dynamics:



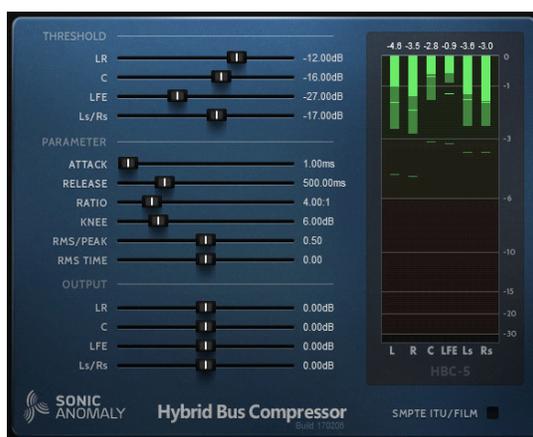
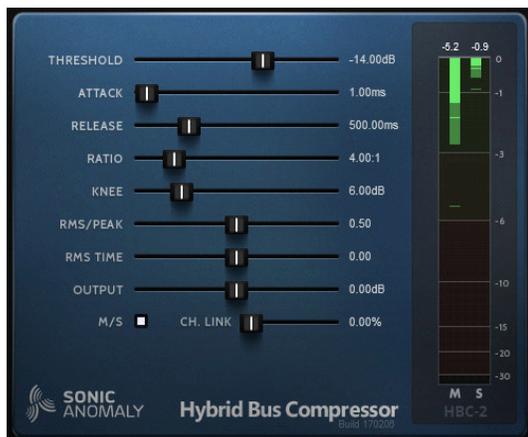
A powerful compressor/expander.

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

<https://www.reaper.fm/videos.php#xTOimswNf0M>

Hybrid Bus Compressor HBC-2 (& HBC-5, for 5.1):

HBC-2 is a stereo version of the HBC-5, w/ additional M-S processing capability.



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.

HBC-2: M-S mode compresses mid-side information instead of left-right.

HBC-2: Channel link adjusts amount of compression interaction between L-R or M-S

LA-1A Compressor:

This plugin emulates the famous optical compressor with tube amp.

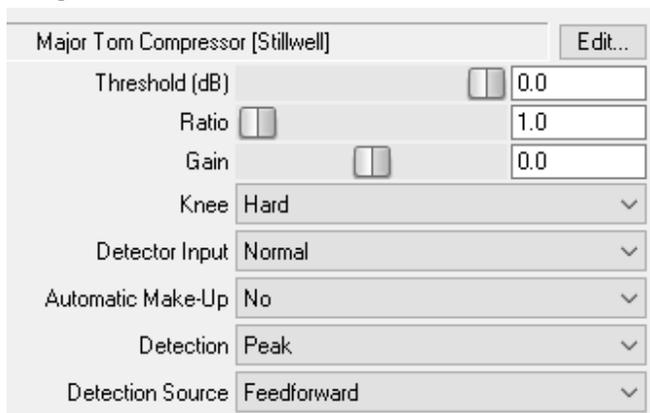


It is derived from measurements of the real thing with many different spare parts to get a good average

LA-2KAN S2 – Opto-Compressor:



Major Tom and Master Tom:

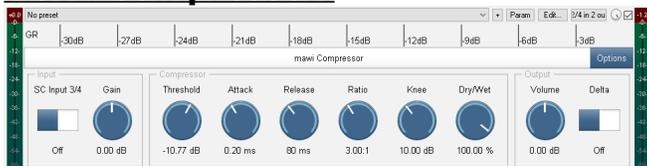


Controls exactly identical, but each has different algorithms, for a slightly different sound.

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:



Multiband Ravager:



Extreme upwards compression

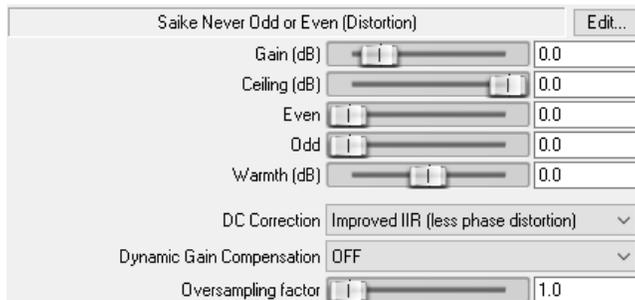
Features:

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

Instructions:

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

Never Odd or Even:



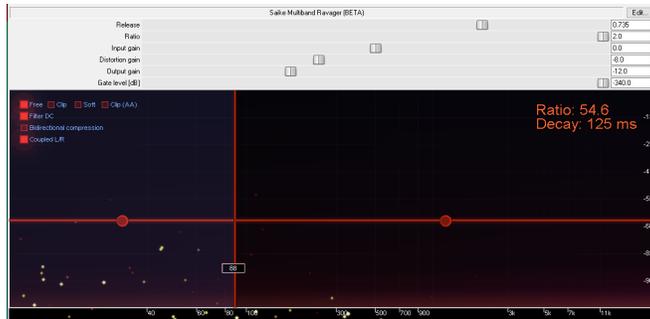
Distortion using different colors/biases

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:



NC76 is the "fastest" compressor. In addition to the regular behavior, this compressor allows a special "punch" option i.e. for drums.

<https://www.youtube.com/watch?v=E4hiGzpZVhs>

S.L.A.X:



A retro compressor inspired by the LA-2A.

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.

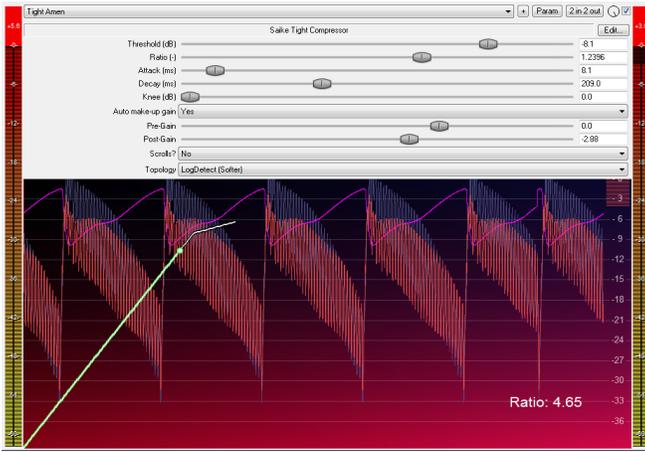
Emphasis: The amt. of high frequency influence in the side-chain Smooths out sibilants.

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:



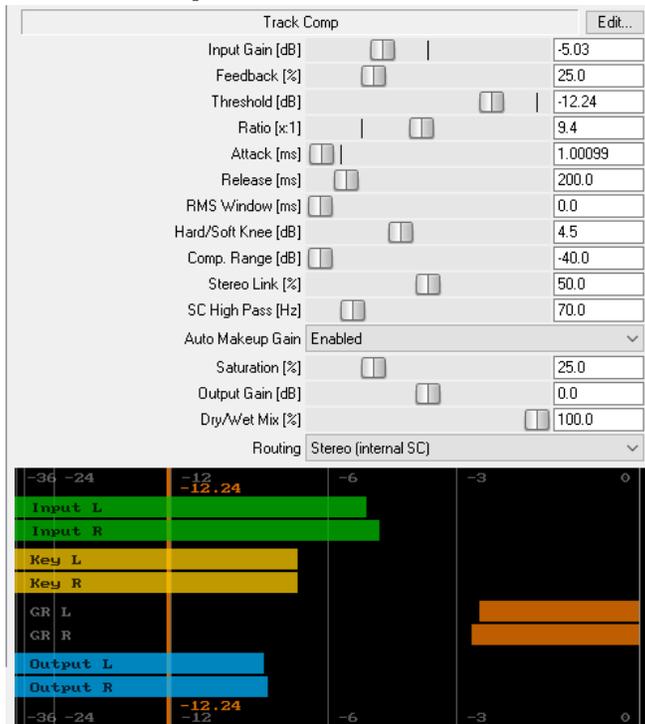
A peak compressor with a -very- tight compression and aggressive attack.

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

Instructions:

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

Track Comp:



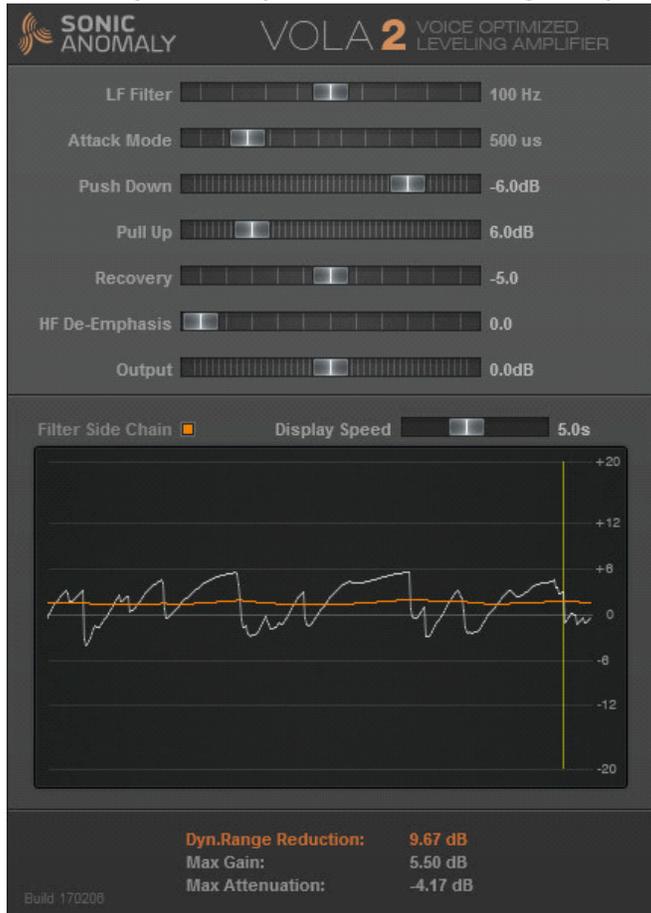
VariBus Comp 2 S2:



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

https://www.youtube.com/watch?v=C2ezLd_nnhU
(the last 3rd of the video)

VOLA: (Voice Optimized Leveling Amplifier)



VOLA was made for broadcast voice dynamics processing but it works well 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.

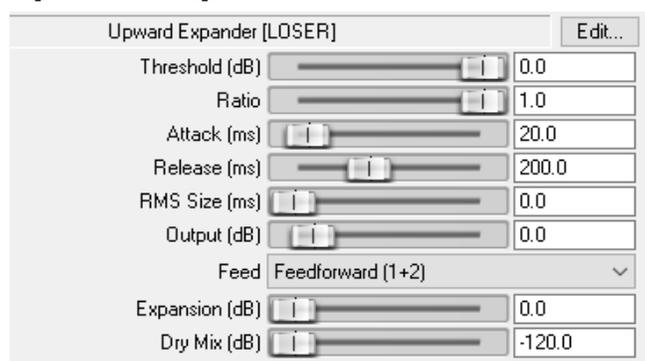
HF De-Emphasis: How much high freq. can affect the dynamics compression.

(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:



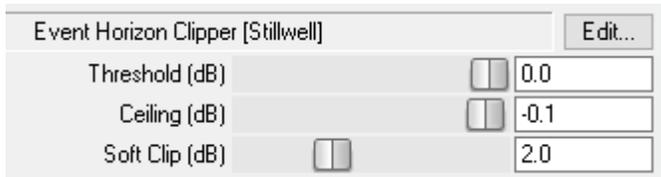
Often used to emphasize the louder parts of the audio signal.

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

LIMITERS:

Event Horizon Clipper:

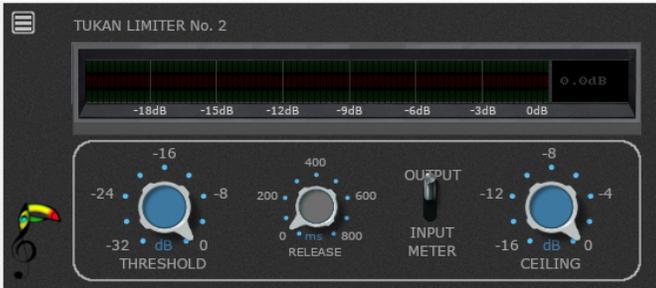
Non look-ahead limiter that simply rounds off and truncates peaks.



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

Limiter 2:

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

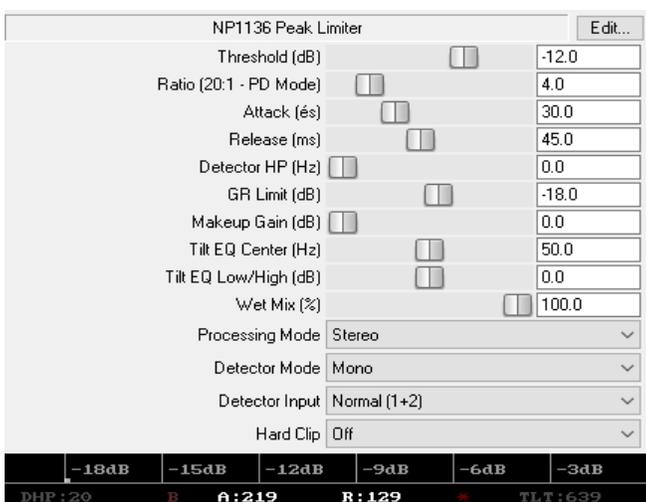


This plugin is especially designed to reduce the peaks and get the loudness to your target level without destroying the overall sound and dynamics.

Limiter 3:



NP1136 Peak Limiter:



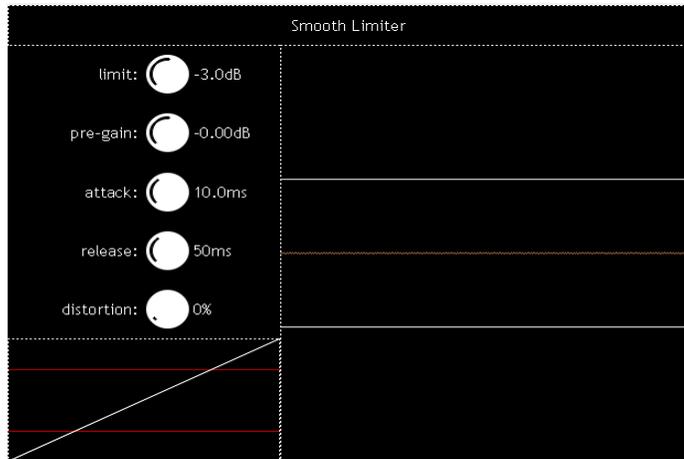
Program dependent peak limiter.

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

http://sites.google.com/site/neolit123/Home/np1136_manual.pdf

Smooth Limiter:

A brick-wall limiter that aims to curve smooth/responsive.



It will recover completely from any peak in a fixed amount of time.

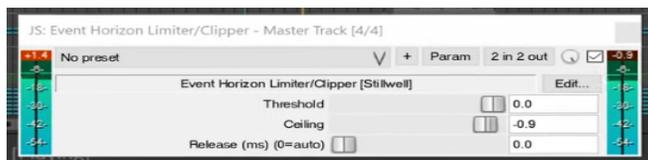
Both the attack and release follow a curve that is similar to a sinusoidal segment ($1 + \cos(x)$), with the goal of reducing cross-modulation.

The "distortion" parameter changes the correction mode - at 0%, the correction is applied by scaling the output signal.

At 100%, the correction is applied using a non-linear distortion (smooth, not a hard-clip), which can sound good for some applications such as drums. The display in bottom-left shows current correction response.

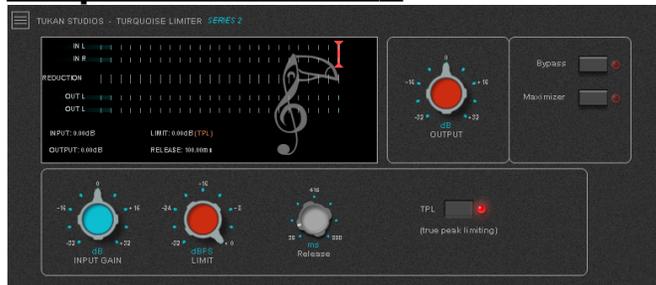
Stillwell Event Horizon:

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>

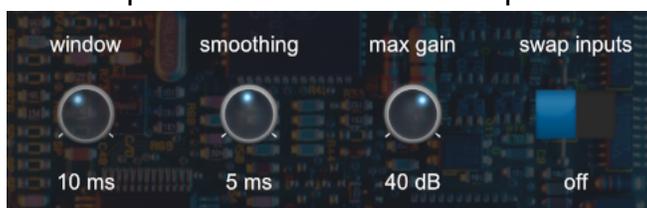
Turquoise Limiter S2:



Included in the plugins mentioned:
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.



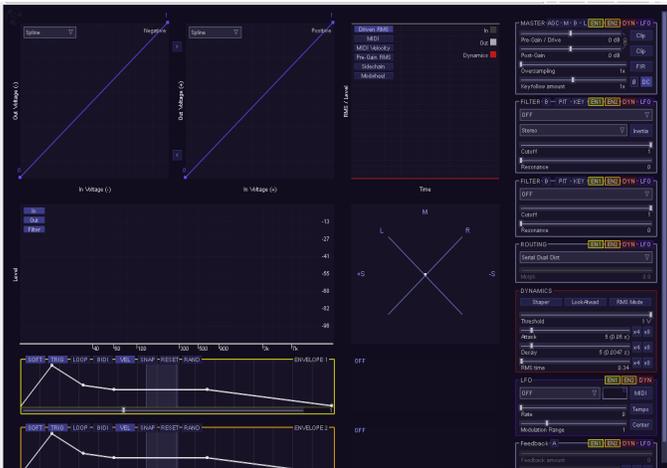
Longer windows will better for low sounds in the main input, but will be less reactive.

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):

A waveshaper/filter/dynamics processing combo.



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.

A distortion effect which allows dynamic filtering and wave-shaping.

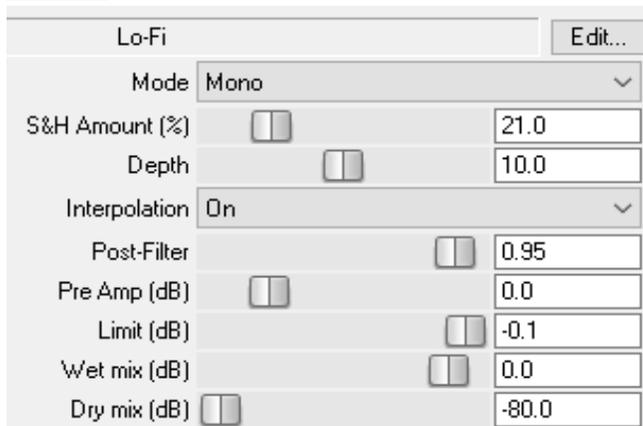
Manual here: <https://joepvanlier.github.io/FiltherManual/>

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

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

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

Lo-Fi:



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

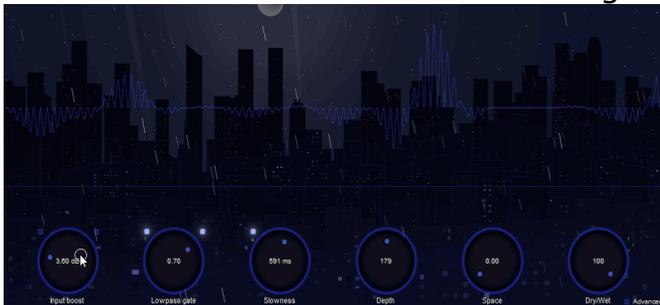
- bit-crusher/sample rate reducer
- 2 point linear interpolation
- 12db/octave, low-pass filter

Mod-izer:



Nostalgizer:

Make audio sound old with the nostalgizer.



A combination of a lowpass-gate and detuning module.

Features

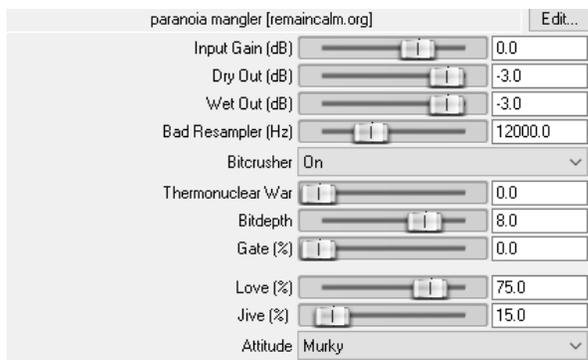
- Pitch instability.
- Low pass gate modeled after famous unit.
- Adaptive saturation.
- Modeled noise through a compander.

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

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

Paranoia mangler (w/presets):

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



Controls:

- * input gain: doesn't affect dry mix
- * dry out: amount of clean signal to mix in
- * wet out: amount of broken signal to mix in
- * resampler: aliasing resampler. lower is worse.
- * bit-crusher: off disables (including next two controls). 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.

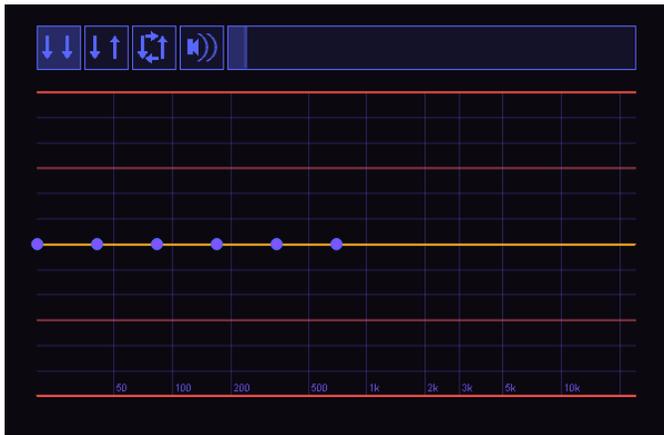
* bit depth: bit reduction, 10-3 bit. lower is worse.

* 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 freaking out.

* 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:



Taken from in the code/header:
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:

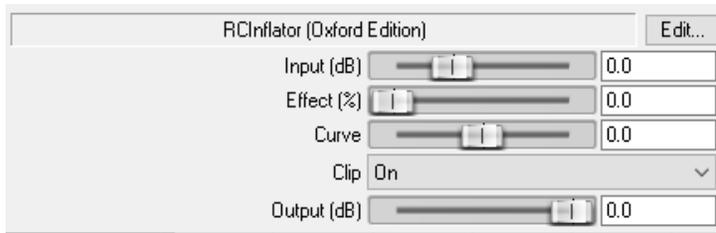
Linked - Left and right are distorted according to the same shape.

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 waveshaper/saturation plugin.



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

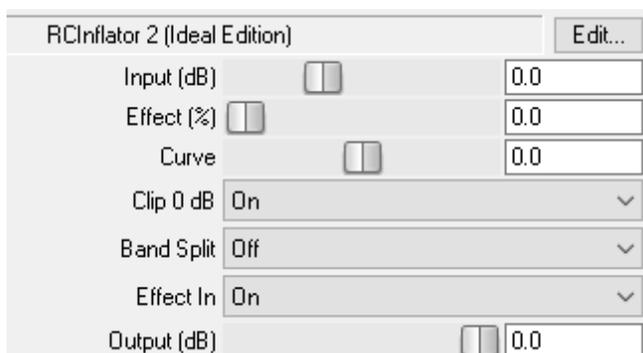
"Very effective!"

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

RCInflator (Ideal Edition):

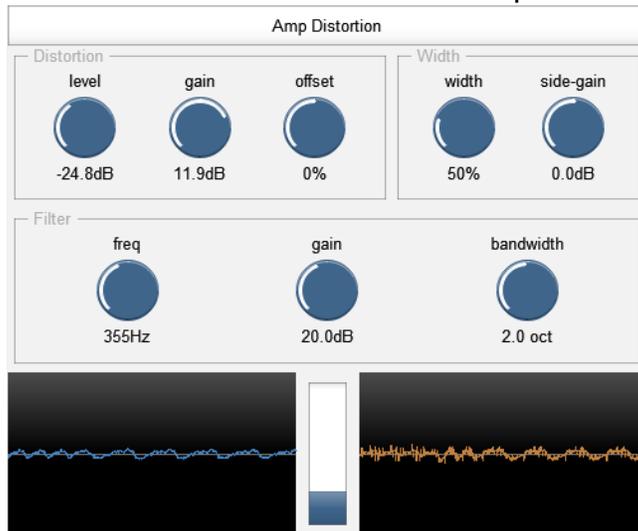


This edition improves the behavior further by omitting the odd quirks found in the original Sonnox plug-in. Inspired by Sonnox Oxford Inflator and RCInflator (Oxford Edition) by RCJaCH with additions by sai'ke and BethHarmon.

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

Sandwich Amp:

A distortion effect with a set of paired filters on either side, to provide a range of timbres.



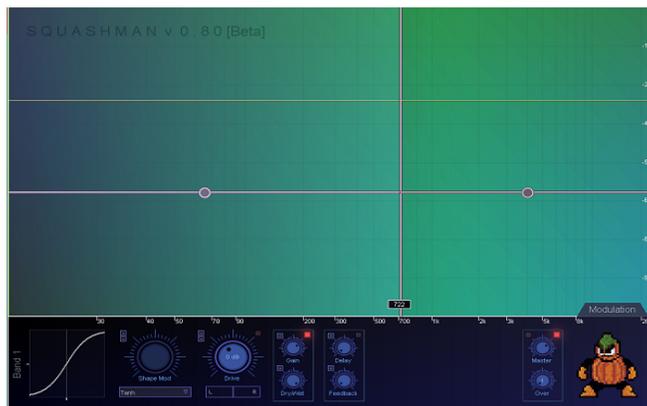
The underlying distortion function is $\tanh()$ (which is a fairly "soft" distortion, as opposed to a hard clip), but it can be driven quite hard, and an offset can be added to get asymmetrical response.

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.

Squashman:



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

-25 modulatable waveshapers and 4 fixed ones.

Features:

-Optional high quality oversampling

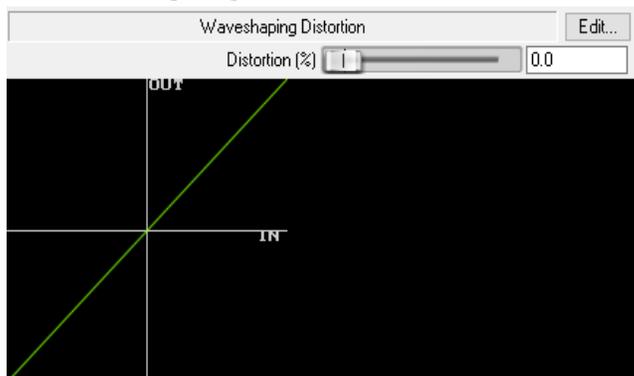
-Flexible band count, up to five bands can be used to manipulate sound

-24 db/oct Linkwitz Riley crossover filters

Instructions:

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

Waveshaping Distortion:



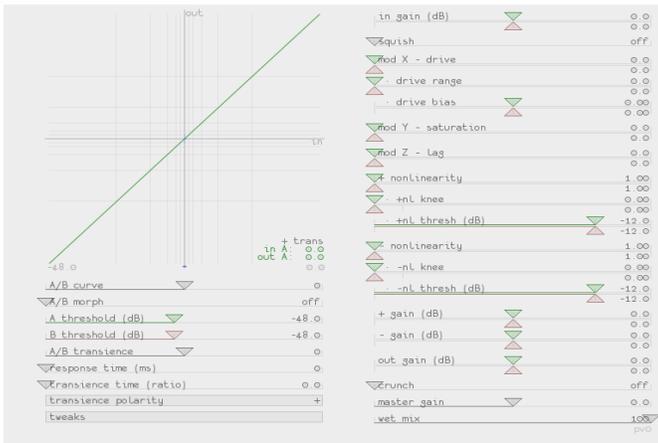
A more "extreme" distortion plugin.

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

"I'll use the simpler waveshaping 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:

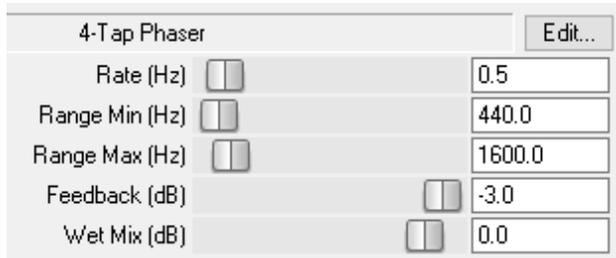


An extreme waveshaper
Much information in the JSFX code

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

OTHER FX:

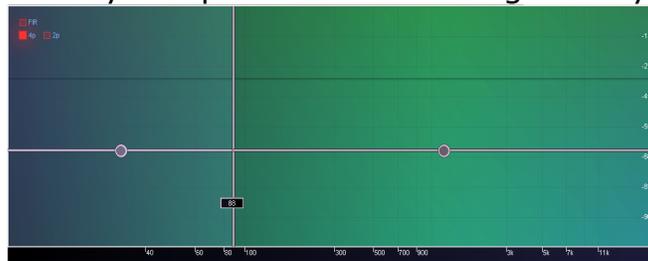
4-tap Phaser:



Kenny Gioia tutorial: https://www.reaper.fm/videos.php#ot_NS56wIps

4-pole Band Splitter:

"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"



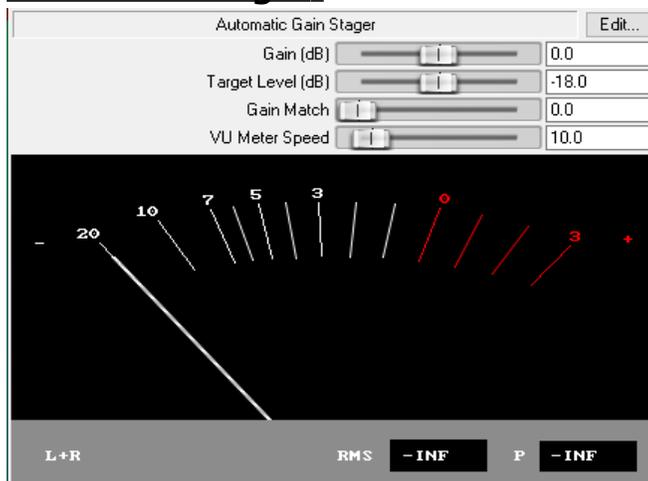
https://www.youtube.com/watch?v=JU_7gIr5RTI

AC Trem (w/presets):



A tremolo and reverb plugin that is designed to add these effects to your 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.

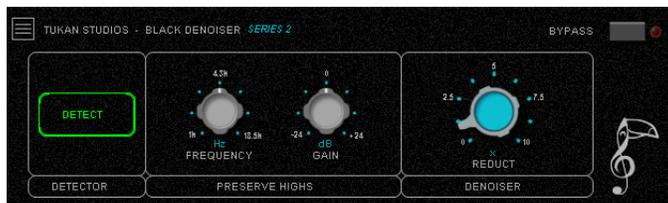
It can be used to imitate dodgy radios or glitchy CPU overloads.

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>

Black Denoiser S2:

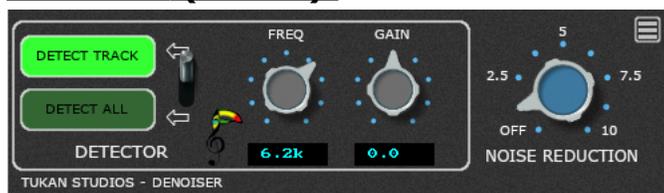


see the plugin's "Edit notes" for info

Blacklight Modulation S2:



DeNoiser (Tukan):

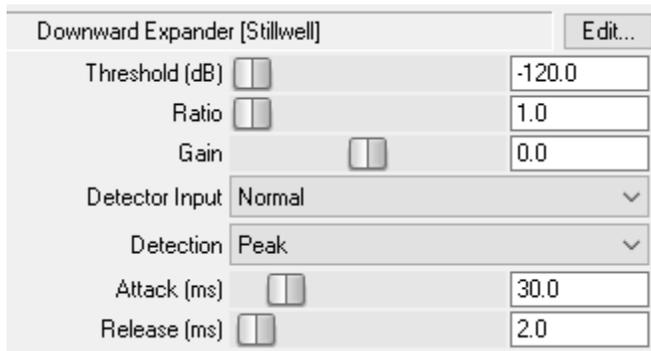


Many notes in the code about what happens at each stage.

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.

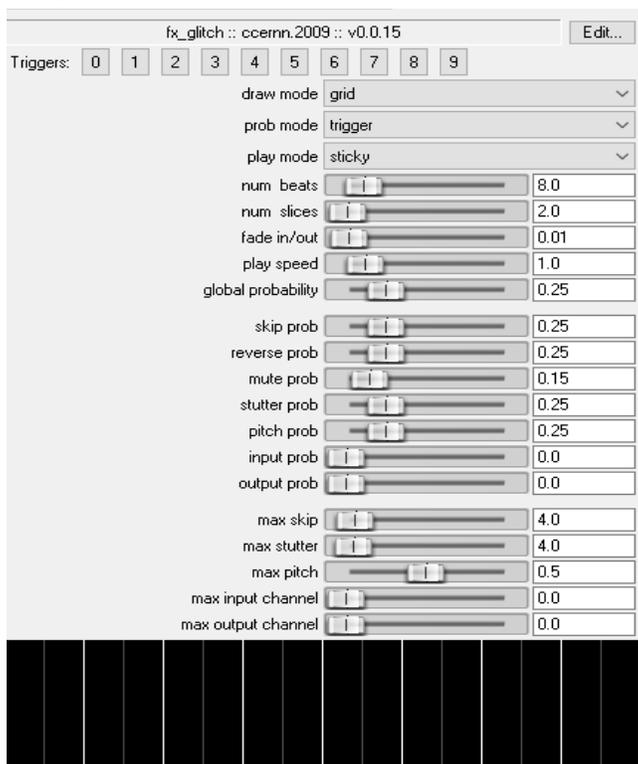
<http://forum.cockos.com/showthread.php?t=31724>

Dusk Verb (presets):



A multi-effect plugin intended to enhance atmospheric arpeggios

fx glitch:



Hackey Trackey Sample Playback Module:



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

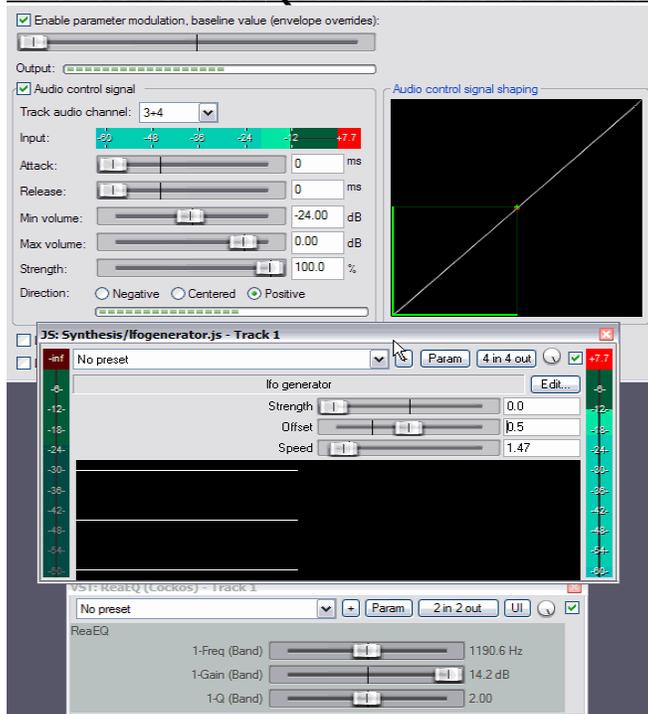
**Read the info in the header if the JSFX plugin. There's much information, there.

Lime DeEsser S2:



Included in the plugins mentioned:
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>

It sounds like this, when playing with inharmonicity/stiffness:

<https://github.com/JoepVanlier/Audio...z.mp3?raw=true>

Simple sounds with MIDI input: <https://github.com/JoepVanlier/Audio...t.mp3?raw=true>,

<https://github.com/JoepVanlier/Audio...2.mp3?raw=true>

Get all the details (so far), here:

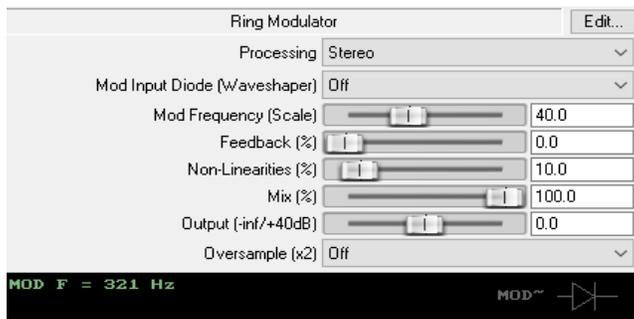
<https://forum.cockos.com/showthread.php?t=220277&highlight=abyss&page=26>

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.

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% - adds small variations to mod-freq/feedback amt.

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

Ripple Phaser (w/presets):



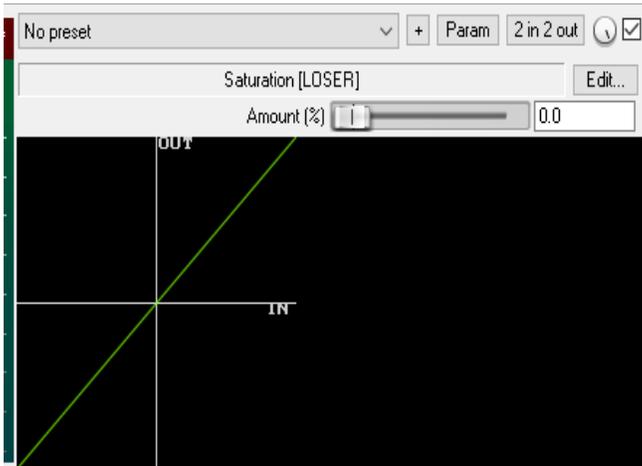
Phaser-like effect which continually rises or falls.

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.

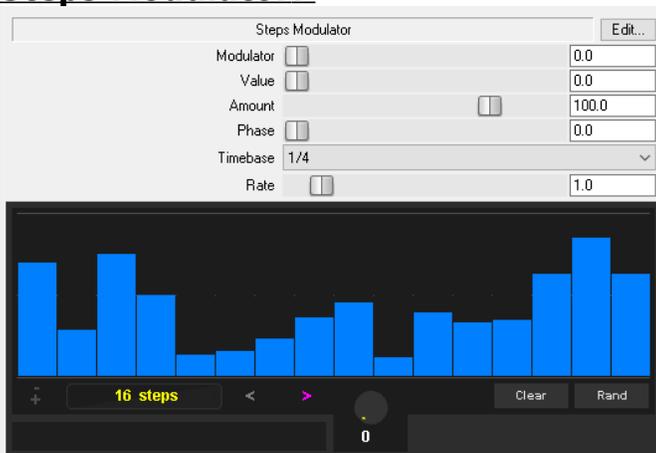
A variable number of filters (up to 20), stereo phase-offset and a tempo-synced LFO.

https://www.youtube.com/watch?v=Nnk_5AjJxRg

Saturation



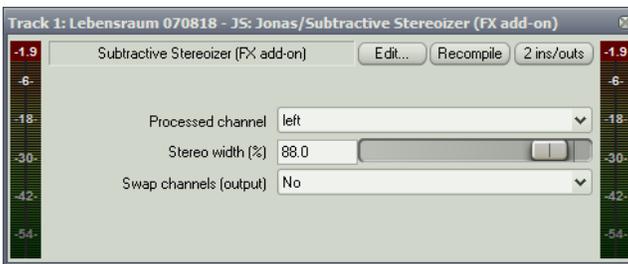
Steps Modulator:



Download from:

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

Subtractive Stereoizer:



Put the Subtractive Stereoizer after another effect of your liking (EQ, transient modifier etc) 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 in a way that is 100% mono compatible.

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

Tanh Saturation w/anti-aliasing:

Saike Tanh Saturation with anti aliasing		Edit...
Gain (dB)	<input type="text" value="0.0"/>	
Ceiling (dB)	<input type="text" value="0.0"/>	
Continuous antialias mode	Constant	
Fix DC?	<input type="text" value="0.0"/>	
Inertia (ms)	<input type="text" value="50.0"/>	
Correct for HF loss	<input type="text" value="1.0"/>	
Shaping function	tanh	
Oversampling	<input type="text" value="1.0"/>	

Telephone:

Telephone		Edit...
Audio routing	Stereo	
Compression [dBfs]	<input type="text" value="-40.0"/>	
Noise Crackle	Auto-Blanking	
Noise [dBfs]	<input type="text" value="-60.0"/>	
Crackle [dBfs]	<input type="text" value="-24.0"/>	
Crackle [%]	<input type="text" value="25.0"/>	
Filter [Hz]	<input type="text" value="1750.0"/>	
Filter [Q]	<input type="text" value="3.5"/>	
Drive [dBfs]	<input type="text" value="0.0"/>	
Trim [dBfs]	<input type="text" value="0.0"/>	
Overshoot	Clip	

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?

Wahriffic:

Saike Wahriffic		Edit...
Model	Weeping Demon Mode 1	
Drive (dB)	<input type="text" value="0.0"/>	
Post Gain (dB)	<input type="text" value="0.0"/>	
Cutoff	<input type="text" value="1.0"/>	
Cutoff 2	<input type="text" value="0.0"/>	
Grunge	<input type="text" value="0.0"/>	
Inertia	On	
Oversampling	<input type="text" value="2.0"/>	

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.

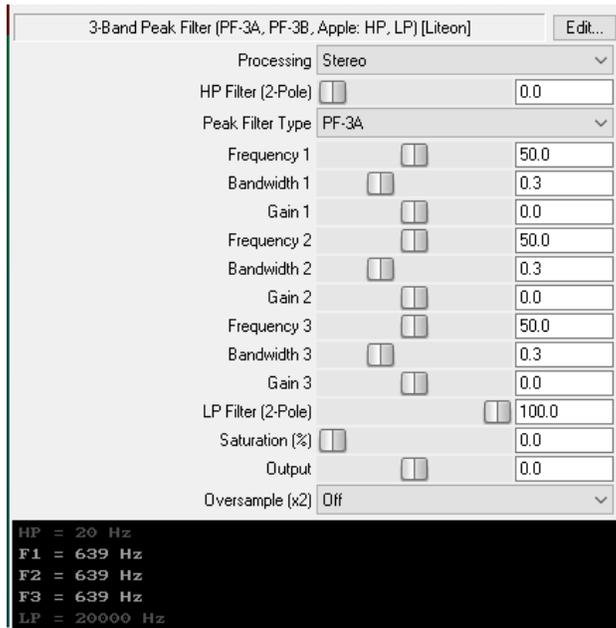
The current change amount is displayed in red.

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:

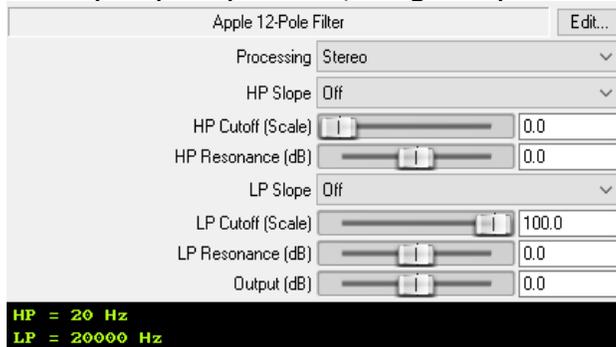
Filter bank containing two bi-quad peak filters.
Each filter provides three fully parametric bands.
Saturation control is also available.



- 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:

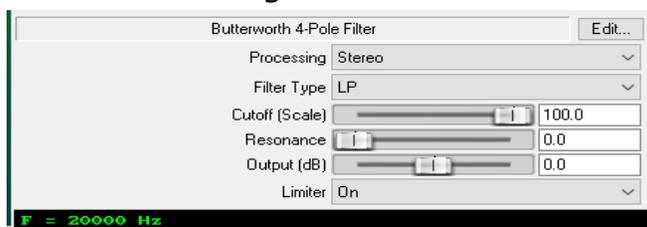
A very "synthy" filter; originally from apple.com.



- 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

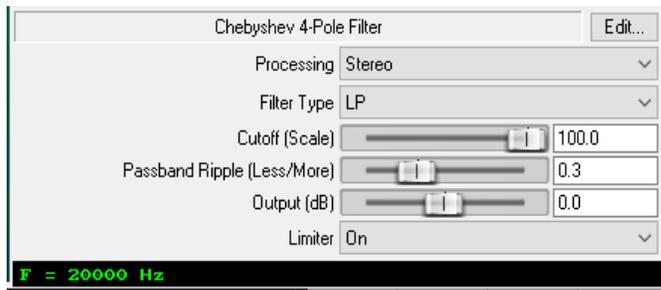


- stereo/mono processing
- filter mode - LP/HP
- cutoff frequency - 20-20000hz
- resonance amount - 0-0.9
- limiter(on/off) - to limit output
- output gain control -24/+24db

!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
- cutoff frequency - 20-20000hz
- 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:



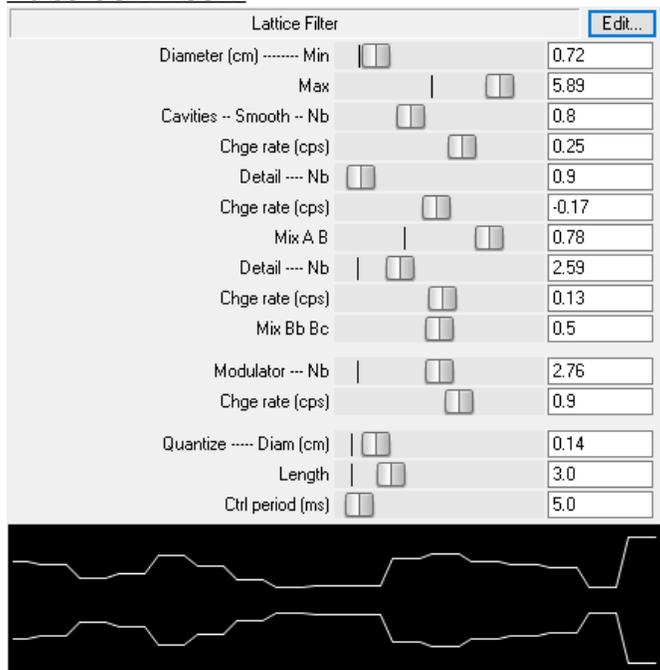
Features:

- 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 the page)

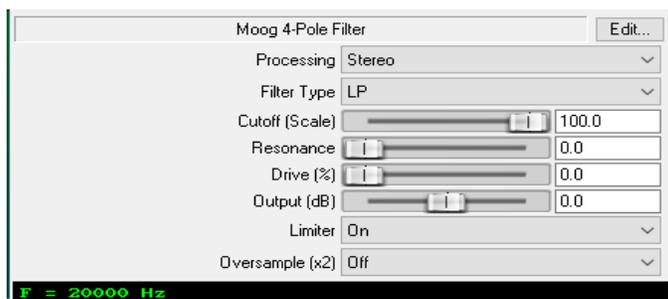
Lattice Filter:



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

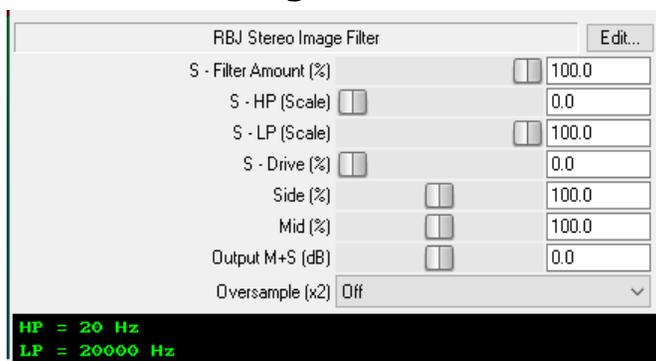
Moog Filter:

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



- stereo/mono processing
- filter mode - LP/HP/BP
- cutoff frequency - 20-20000hz
- resonance amount - 0-0.85
- drive - adds saturation to the signal
- limiter(on/off) - to limit the output
- output gain control -24/+24db
- oversampling (on/off)

RBJ Stereo Image Filter:



A filter that controls 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 hipass 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)

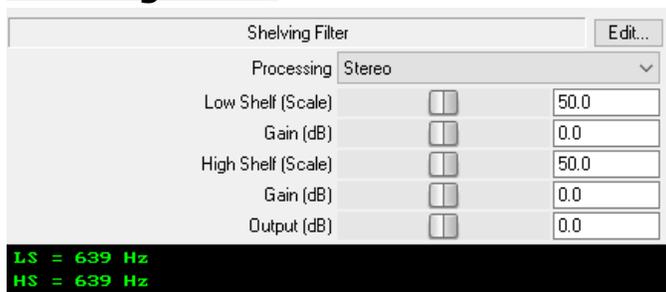
SC Filter (side-chain filter):



An easy to use EQ. Featuring High-pass, Low-pass, shelving, and full parametric filters you can filter to "whereveryouwant".

"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

Shelving Filter:

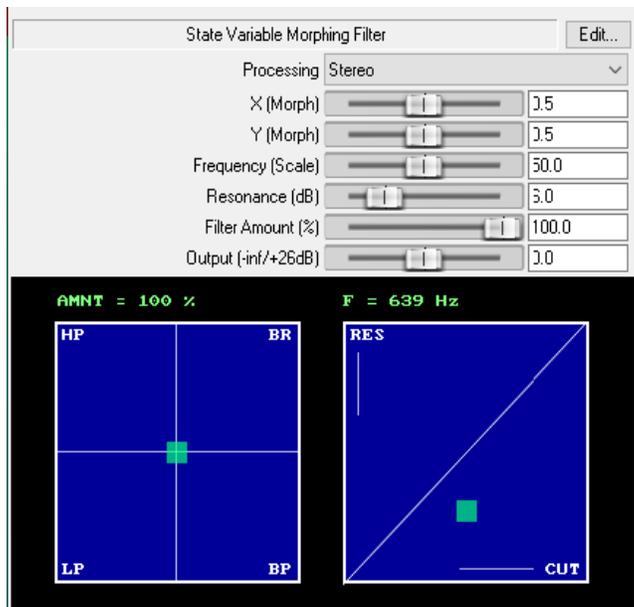


Plugin with Low-shelf and High-shelf biquad filters based on James A. Moorer's formulas.

- 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.



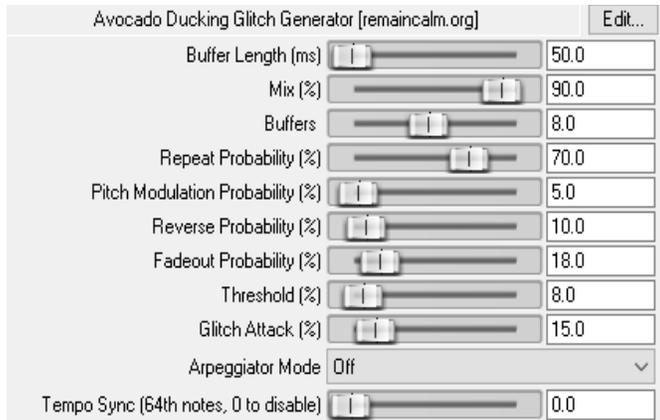
Features:

- 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"

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."

SEQS:



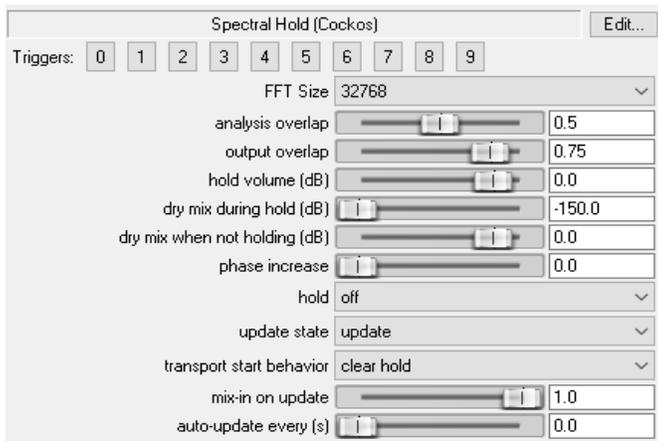
A small GUI-based effect sequencer for stutters, slowdowns and various audio effects.

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

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

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

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: (Tukan):



Sum Channel S2/



Sum Thing SI:

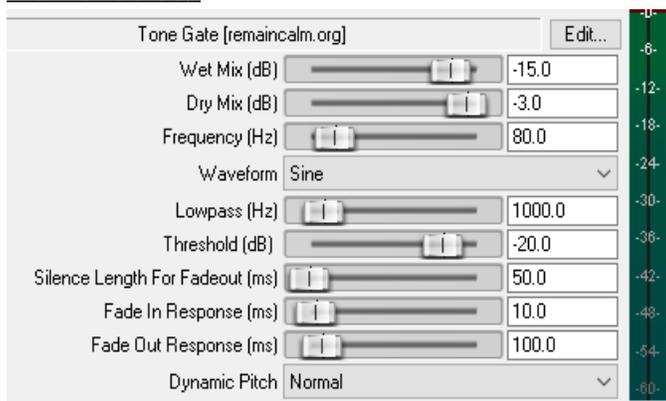


"Think your recording or mix sounds too digital? Give yourself the option of having the saturation and feeling of big analog mixers. Three mixers can be chosen in these plugins. Sum Channel features EQs, compressors, gates and even more options in a free arrangement of signal flow. SumThing and Sum Channel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

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

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

Tone Gate:



Triggered tone generator

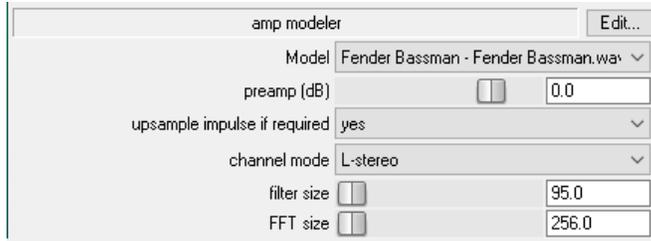
Features:

- * 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>

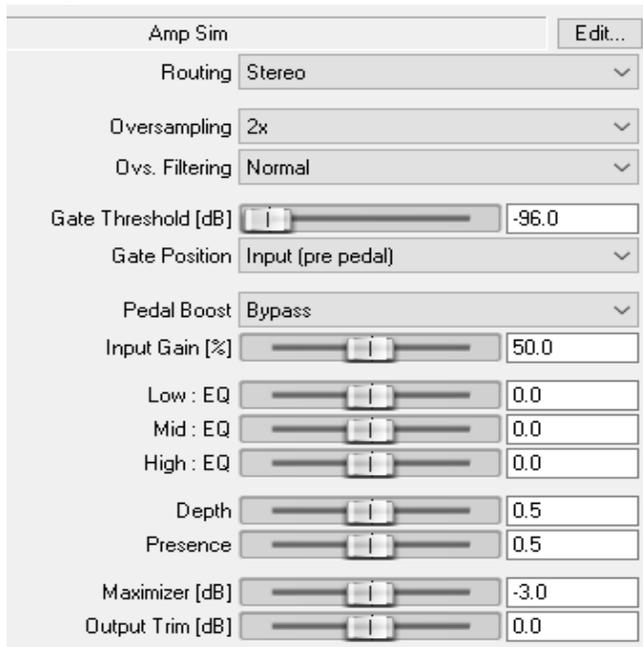
GUITAR AMP-CABS:

Amp Modeler:



12 different models to choose from.

Amp Sim:



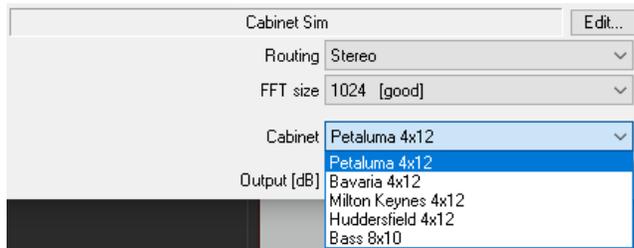
Does not come with a built-in cabinet, so you'll likely want to insert an IR loader (like my Cabinet Sim JSFX) after it.

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 additional instructions. (Click "Edit...", then "Open in external editor". Look toward the top)

Cabinet Sim:



5 simulated cabinets

Chug Thug (for palm-muted guitar)

The Chug Thug plugin interface includes the following controls:

- 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:

The Convolution Amp/Cab Modeler plugin interface includes the following controls:

- 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:

The Convolution Dual Amp Modeler (mono->stereo) plugin interface includes the following controls:

- 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:

The Dual Amp Modeler (mono->stereo) plugin interface includes the following controls:

- 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):

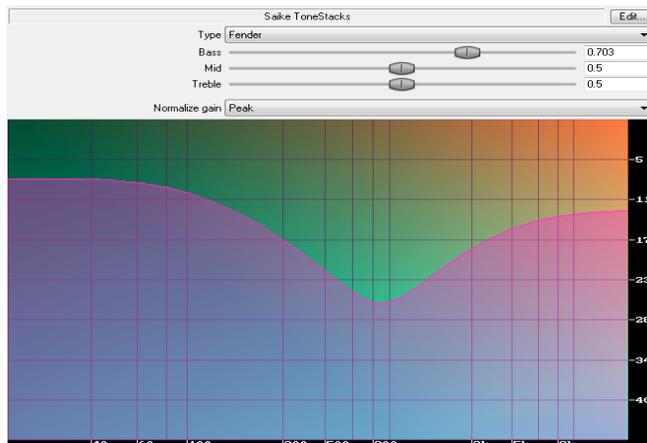


This plugin simulates the richness of a nice not too clean preamp.

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 the page)

Tube Amp:

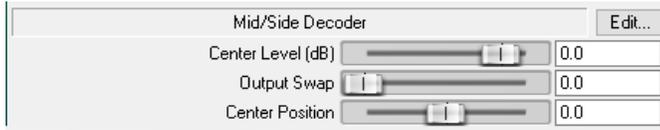
Tube amp		Edit...
Drive (dB)	<input type="range" value="0.0"/>	0.0
Cutoff (Hz)	<input type="range" value="20000.0"/>	20000.0
Mode	Stereo <input type="button" value="v"/>	
Oversample	2x <input type="button" value="v"/>	

STEREO/PANNING/SURROUND, 5.1:

JS Stereo Enhancer:



Mid-Side Encoder / Decoder:



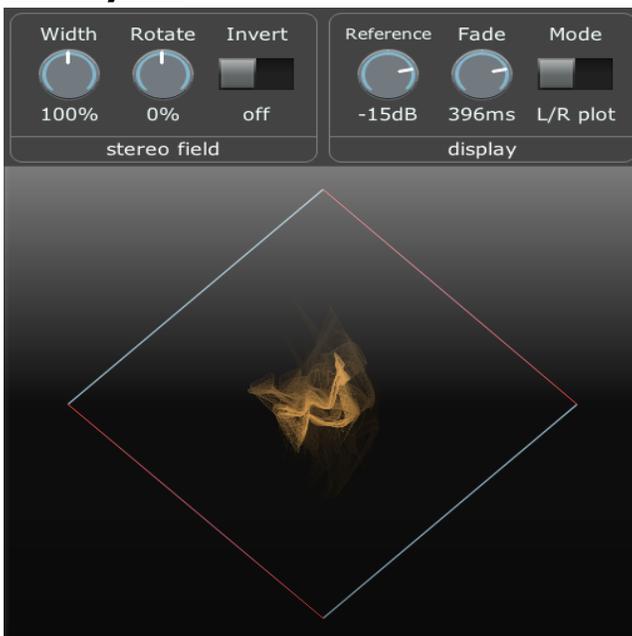
(There are no controls for "Encoder")

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.

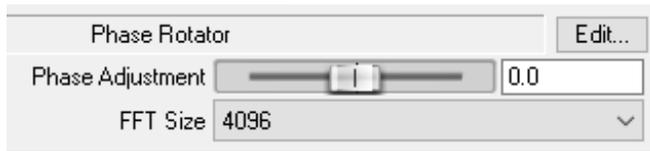
If L+R channels are independent, graph will have no defined clear direction (may appear round)

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-

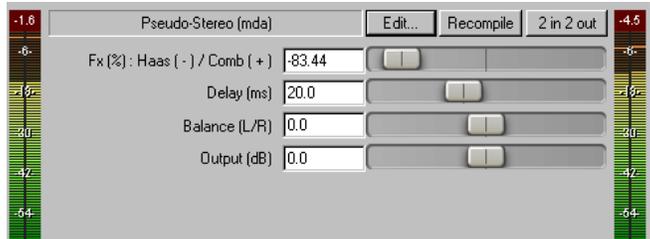
click the dial to reset it to the maximum "safe" width:

Phase Rotator:



For tuning multi-mic'd tracks by ear.
One, single slider

Pseudo-stereo fx:

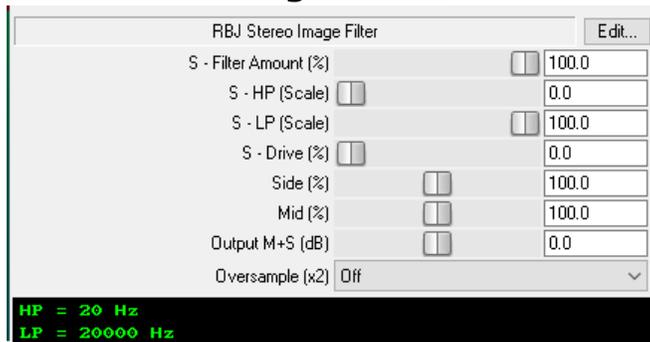


For mono-to-stereo conversions; light on CPU.
Uses one feedback delay on R ('Haas fx' mode)
or 2 separate feedback delays for L & R ('Comb'
mode).

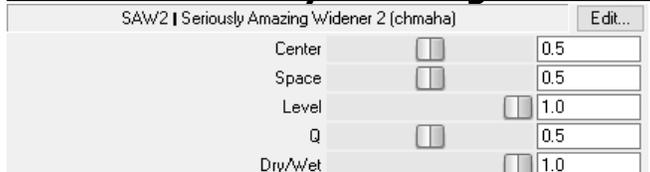
- fx amount (%) - haas / comb
- delay (ms) - feedback delay in milliseconds
- balance - L / R channel amount

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

RBJ Stereo Image Filter:



SAW2 – Seriously Amazing Widener 2:



Stereo Bub II:



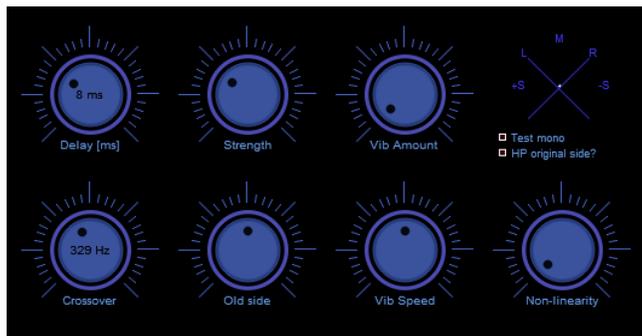
A mono compatible stereo widener.
Widens so mono-mix stays unaffected (unlike
Haas).

The crossover basically cuts the bass to avoid widening the bass too much.
The last slider allows you to mix in the original side channel.

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 :



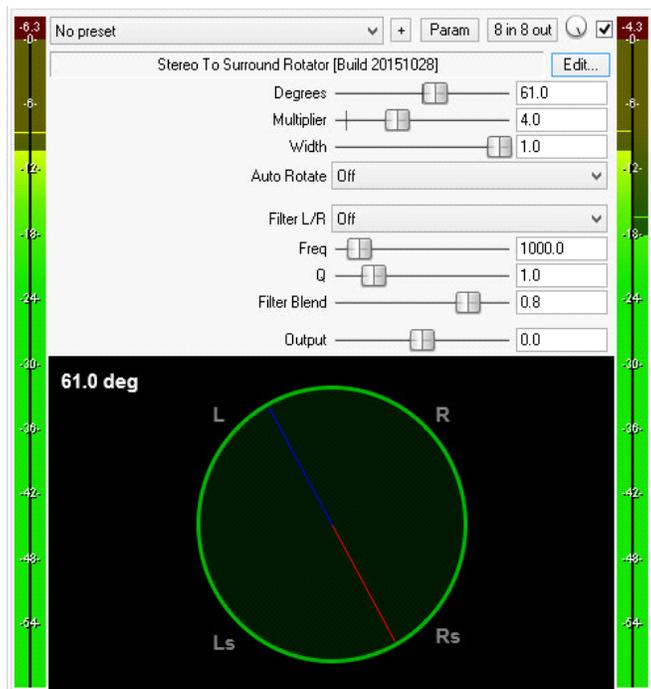
A stereo widener

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).

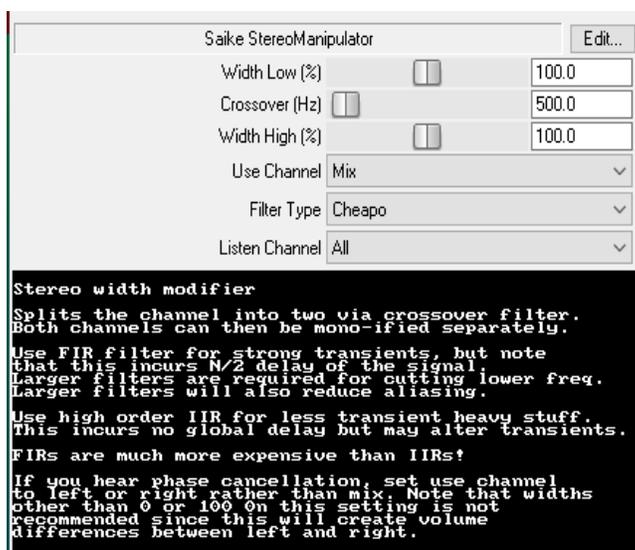
Can be also used with 2-channel tracks to achieve "Leslie" type fx.

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.

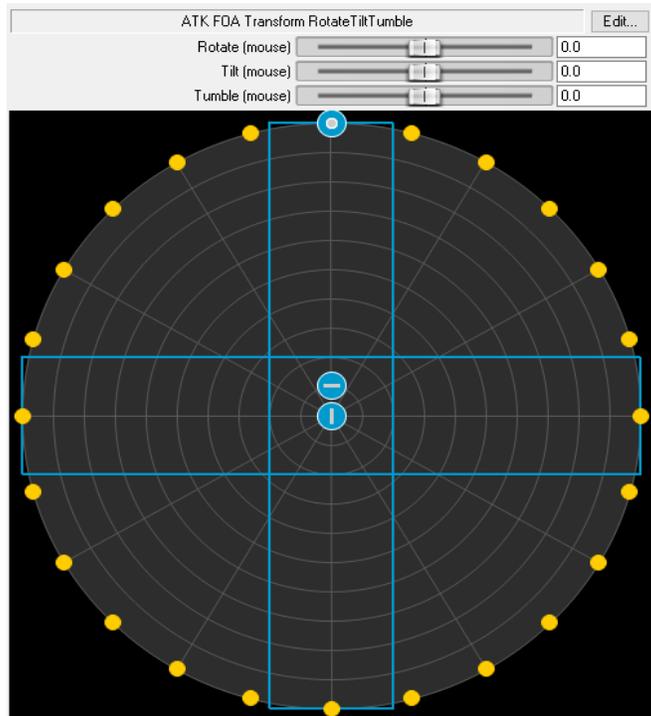
If you hear phase cancellation, set use channel to left or right rather than mix. Note that widths other than 0 or 100% in this setting is not recommended since this will create volume differences between left and right.

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

Stereo Width:



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.

Here's the download: <https://www.ambisonictoolkit.net/download/reaper/>
Creating an Ambisonic Audio File using Reaper and the ATK for Reaper
<https://www.youtube.com/watch?v=ClgVMjczFc>

Volume/Pan Smoother v5:

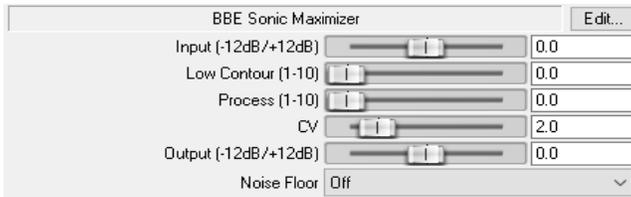


Gives movement to mono tracks

Kenny Gioia's demo: <https://www.youtube.com/watch?v=WiaSy-NWMe8>

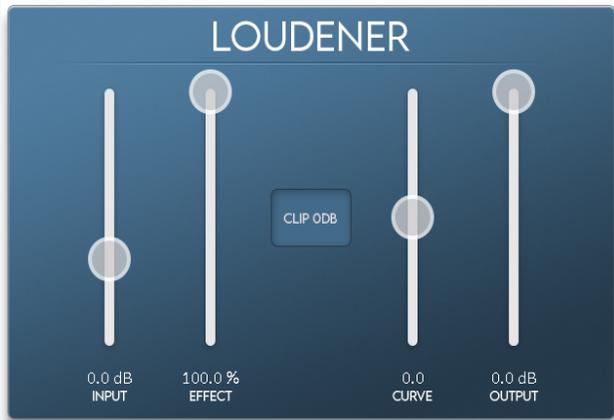
MASTERING:

BBE Sonic Maximizer:



Get the code, here:
<https://forum.cockos.com/showthread.php?t=91439>

Loudener:

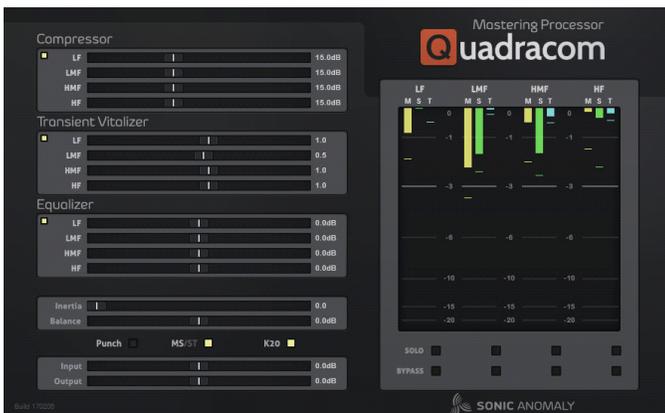


Here's the code:
<https://github.com/ReaTeam/JSFX/blob/master/index.xml>

Master Limiter:



QuadraCom:



A 4-band dynamics processor for mix bus and mastering.
Mono or stereo mode, bundled with a Compressor, Transient Visualizer, 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"

The screenshot shows the '2op PM Synth' interface. At the top, it is set to 'Mono' and 'All' MIDI channel. The piano roll shows notes for 'Wheel', 'ADSR1', 'LFO', 'ULFO', 'ADSR2', and 'AftTch'. The parameter list includes:

- Carrier Fb: U1 0.00, U0 0.00
- Detune: U1 0.00, U0 0.00
- Index: U1 0.00, U0 0.00
- Mod. Fb: U1 0.00, U0 0.00
- Delayed Fb: U1 0.00, U0 0.00
- LFO Rate: U1 7.00 Hz, U0 6.00 Hz
- Uib Depth: U1 0.000, U0 0.000

Below the piano roll, there are ADSR envelopes for A (0.001 s), D (0.300 s), S (0.50), and R (0.700 s). A parameter list at the bottom right shows:

- SAW FbType: SQR
- Ratio: 2.000
- MU Ratio: 0.000
- DelauFb: 250.000 ms
- DelauFb G: 0.600
- ULFO: 8.000s
- C Glide: 0.000 s
- M Glide: 0.000 s

(x3 with detune for fatness)" (in code)

Complex X filter Synth:

The screenshot shows the 'Complex X Filter Synth' interface. It is set to 'No preset' and '2 in 2 out'. The parameters are:

- Env: Main (Organ), Auxiliary (Piano)
- Time factor (>4 vel sens): 1.0
- cXFilter -- Morph Preset 1: Classic resonance
- Morph Preset 0: Typical
- Morph Mod src: Modulation Wheel
- Pitch offset 1: 36.0
- Pitch offset 0: 12.0
- Pitch Mod src: Aux Env (velocity sensitive)
- Resonance: Static 0.5
- Auxiliary Osc Ratio / Source: 2
- Beat (s): 8.0
- Mix Mod src: Modulation Wheel
- Ring'n Bend: Normal
- VLFO cycle (s): 4.0
- LFO rate (Hz): 5.5
- Vibrato depth (cents): 10.0
- Glide type / MIDI stack: Off

At the bottom, a MIDI piano roll is visible with a gain of 30.0000dB.

Hammer and Chord (w/presets):



A polyphonic string resonator.

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

It has two resonators for each note (left and right) and they 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.

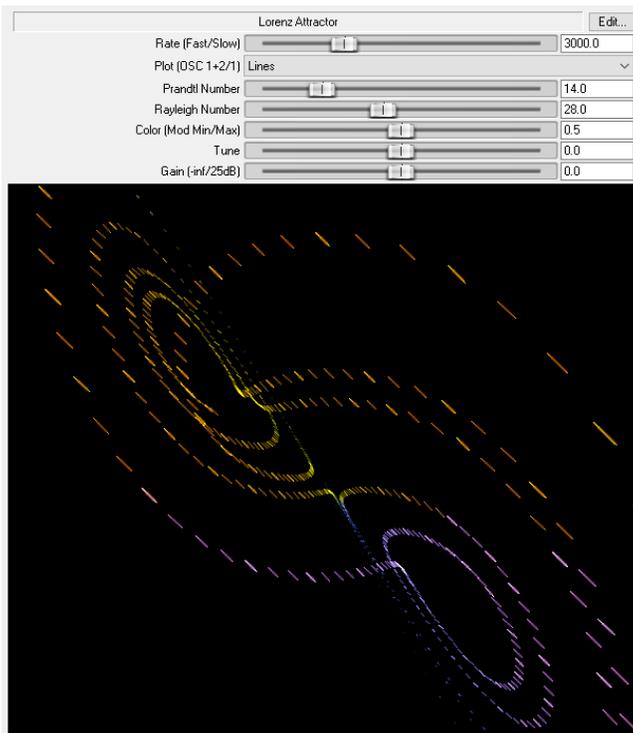
The "fixed" mode lets you draw the spectrum for a single pulse of the oscillator using the mouse.

Shift-click lets you draw straight lines.

"Walkthrough": <https://www.youtube.com/watch?v=eTiwH886nAc>

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

Lorenz Attractor:

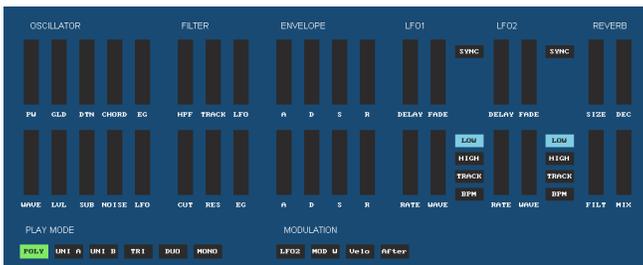


Synthesizer w/2 two oscillators: one sine wave, one square wave and various parameters that control both the sound and the plotted graphics.

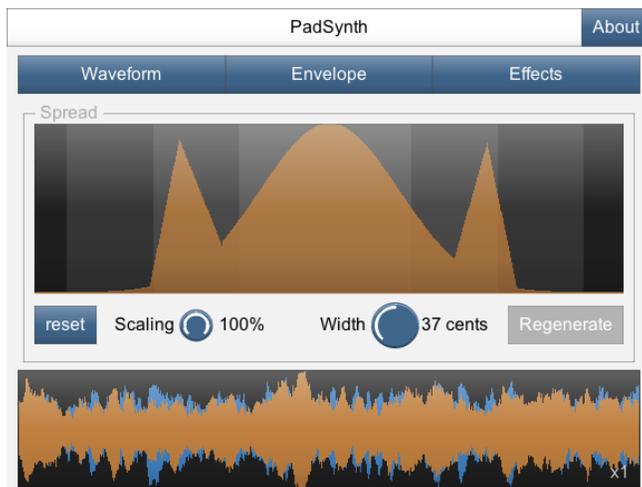
Can be used to produce ambient sounds.

- 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.
 - reileight 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.

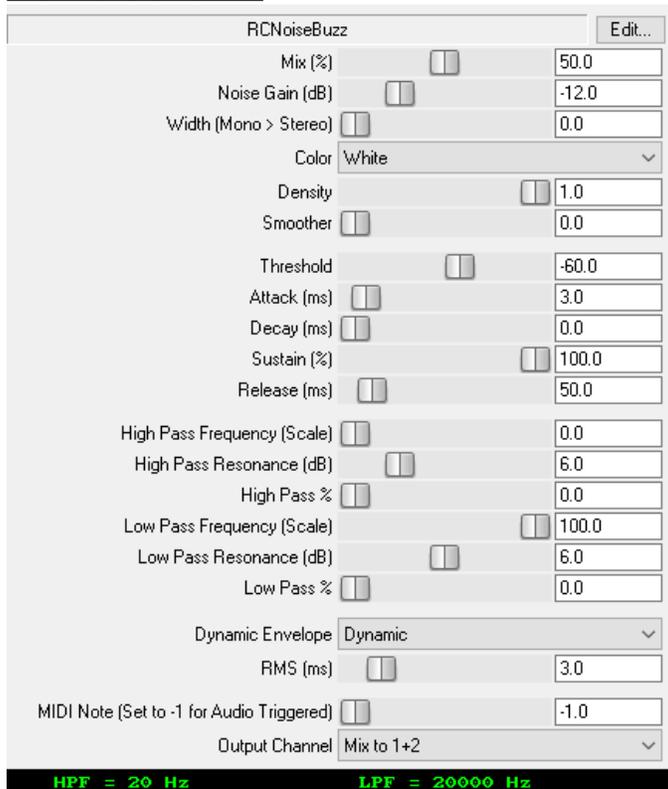
Features:

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=BF3SXuKBolM>

RC NoiseBuzz:



Audio triggered dynamic noise generator with ADSR and filter.

(See instructions in the JSFX code)

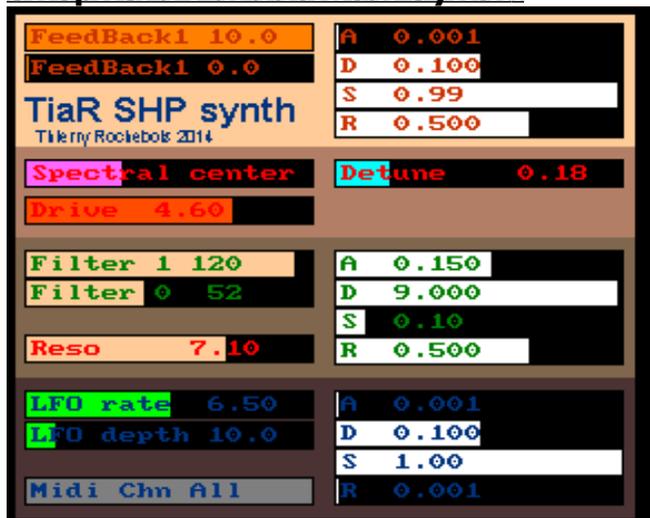
ReaRack2 Modular Synth:

A collection of JSFX modules for use in modular synthesis.

Monophonic, but polyphony is possible using the "poly splitter" module.

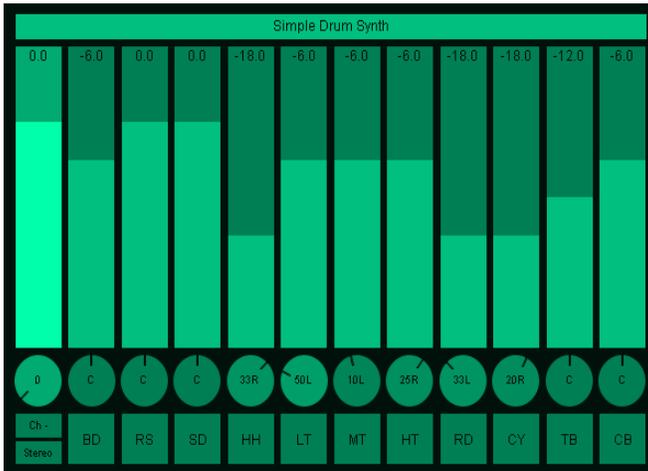
19 modules including: 4 types of Oscillator, LFO, Envelope generator, 2 Filters, Amplifier, CC mixer, Trigger, Poly splitter, Key follower, Note filter, Audio to MIDI converter, Note Scope and MIDI Nonlinearizer.

Shepherd Paradoxical Synth:



Continually rising pitch

Simple Drum Synth:



Electronic drum synth supports the following

General MIDI (GM) subset:

```
// Note | Sound      | Outputs
```

```
// -----+-----+-----
```

```
// 31 | Sticks      | 21/22
```

```
// 35 | Bass Drum 2  | 1/2
```

```
// 36 | Bass Drum 1  | 1/2
```

```
// 37 | Rimshot      | 5/6
```

(and so forth...)

See the JSFX code for complete list)

Internally the different sounds are generated by 12 sound generators, whose 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):

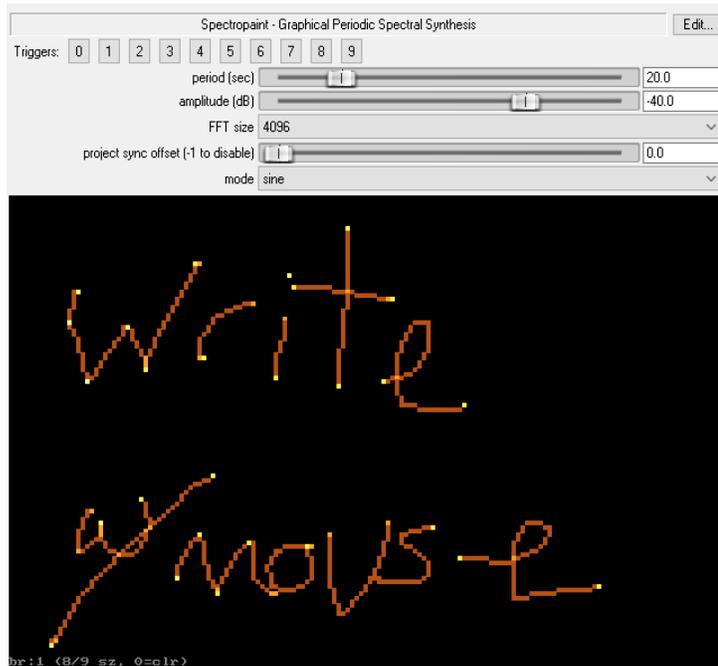
Produces chime-like tones with individually specified harmonics.



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

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

SpectroPaint Synthesis:



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.

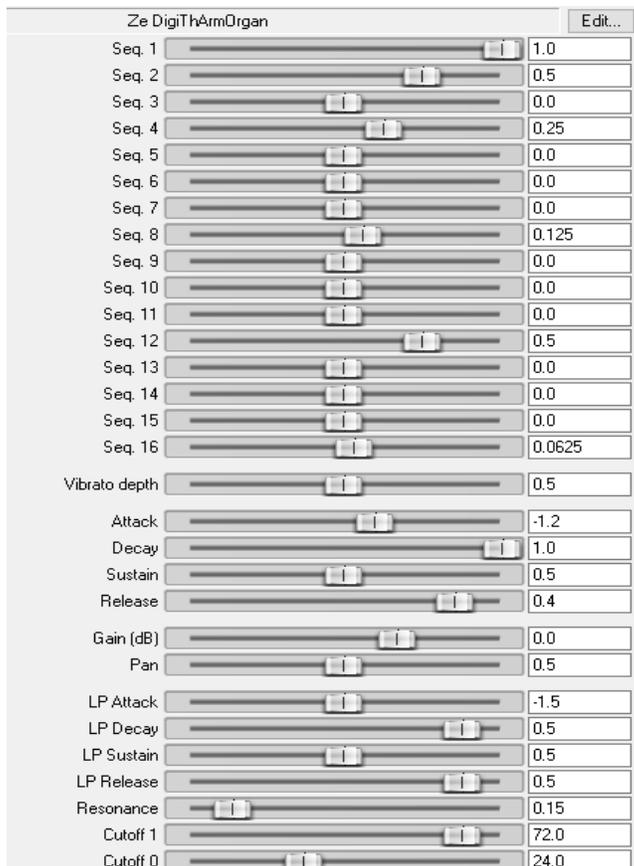
Diffusion: Spectral blur.

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 the page)

The Digit Ham Organ:

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.

Yutani Mono Bass synth



Monophonic, 4-voice paraphonic bass synth w/fancy filters and modulation options.

Features:

-Anti-aliased oscillators.

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

-Audio-rate modulation options on the filter.

-Velocity, modulation wheel and LFO modulation options.

-Stereo widening effect.

-Noise.

-Distortion module.

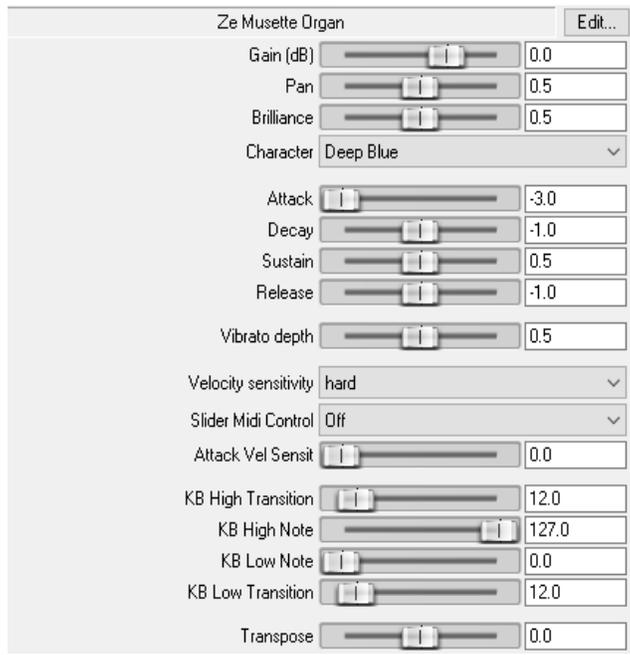
-Glide.

-Modwheel, MIDI velocity and pitch bend support.

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

Ze Musette Organ:

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

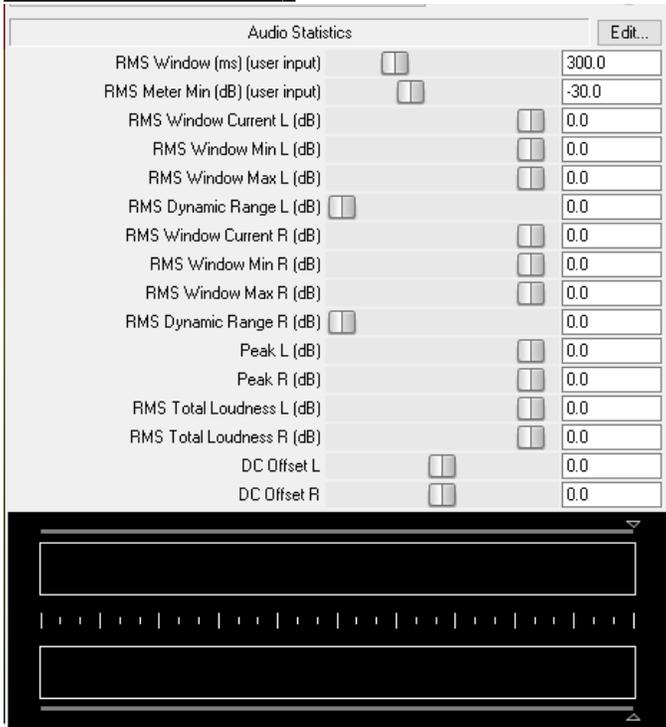


Features

- * Five tone "characters"
- * Adjustable "brilliance"
- * Vibrato controlled by the Mod. Wheel and 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.

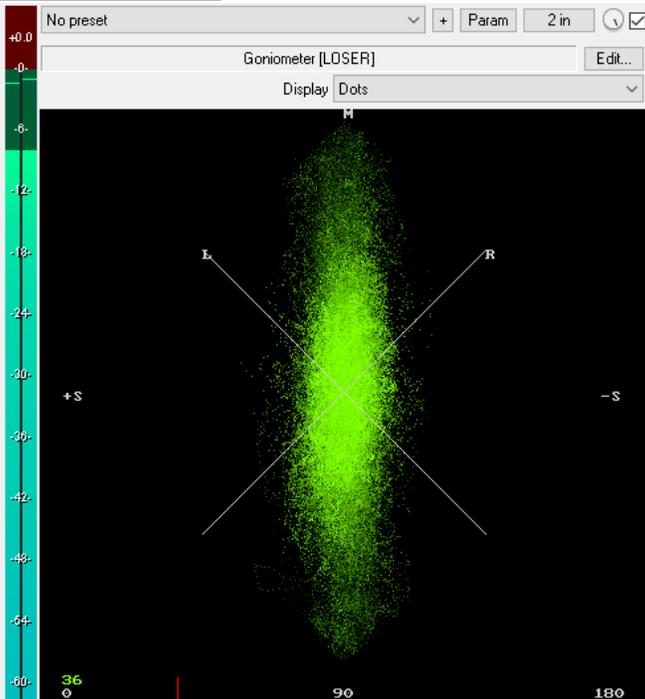
AUDIO ANALYSIS:

Audio Statistics:



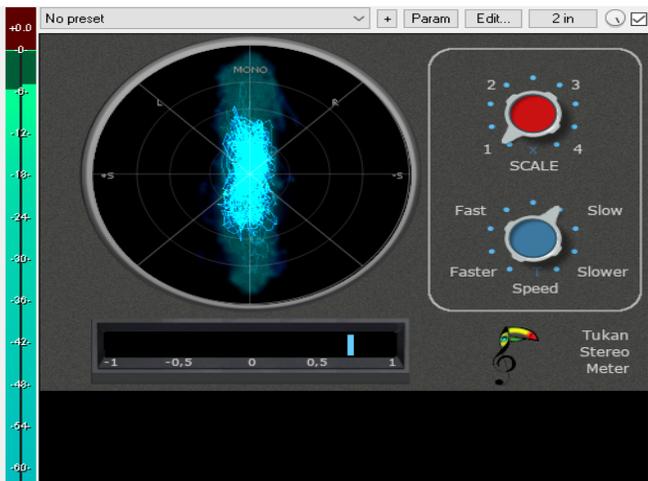
<https://www.youtube.com/watch?v=ZTPqowLvgTc>

Goniometer:



Goniometer (Tukan):

Tukan's Goniometer is 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.

Included in this instructional:

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

[https://en.wikipedia.org/wiki/Goniometer_\(audio\)](https://en.wikipedia.org/wiki/Goniometer_(audio))

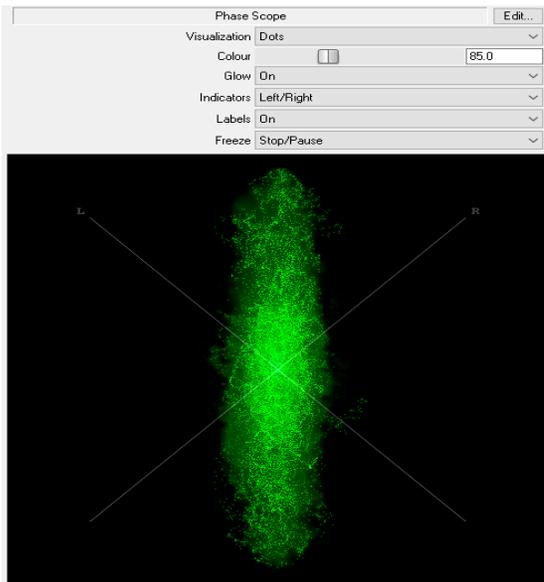
Green Circles Meter S2:



Peak Needle 2 (Tukan)



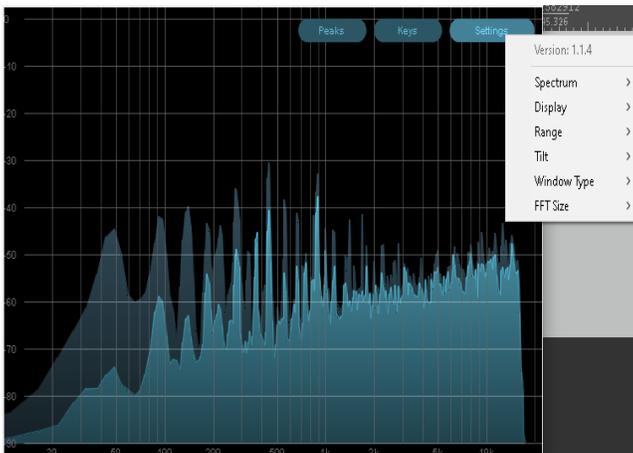
Phase Scope:



Get it here:

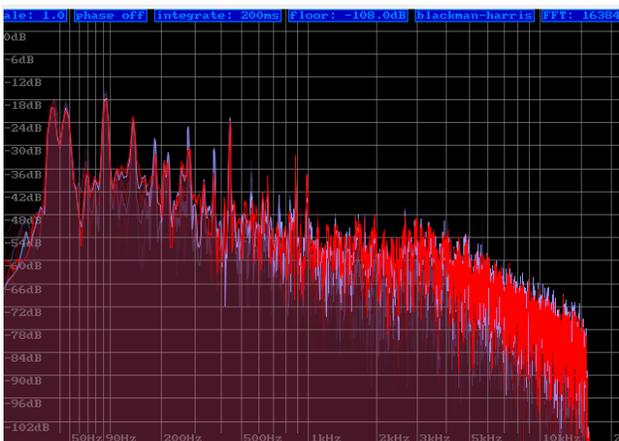
https://github.com/chkhld/jsfx/blob/master/plugins/phase_scope.jsfx

ReSpectrum:



“A great analyzer w/useful settings”

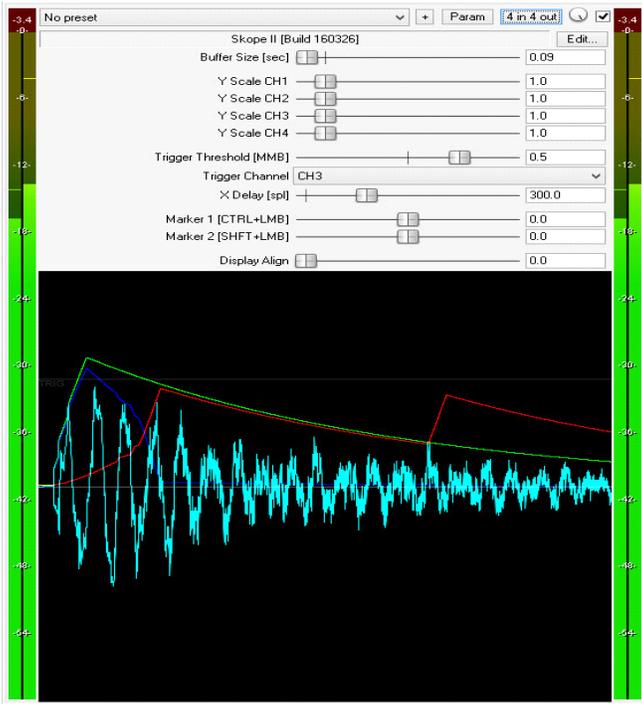
SideSpectrum Meter:



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

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

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.

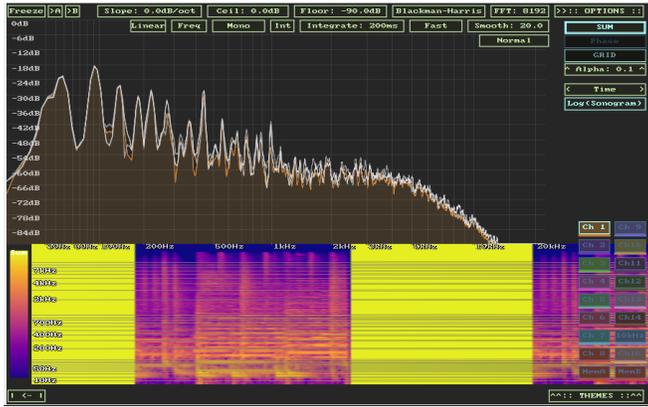
With LMB pressed you can paint X-axis and information will be displayed.

RMB will clear the display.

SNR Meter (w/presets):



Spectral Analyzer:



It comes with a lua script.

This adds a spectral comparison tool to selected tracks when you run the 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, and 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.

Here's the link to the code:

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

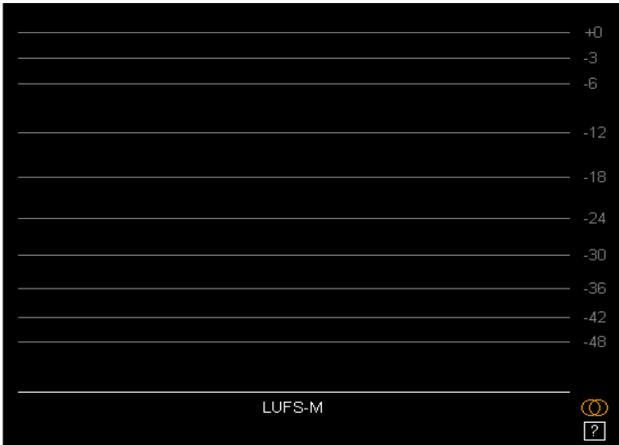
UTILITIES:

Amaranth (w/presets)



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

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."

BandJoiner:



Short Description:

CP is channel pair, aka chain (1/2,3/4 etc)

Power = 0, 1 (Off,On)

Vol = -60 .. 30 (dB)

Pan = -100 ... 100

(L<>R)Phase = 0, 1 (Normal, Inverted)

Solo = 0, 1 (Not soloed, Soloed)

SumMode = Sum (simply add them); SumMode = Average (the amt., divided by the number of active channels)

In functions names - CP = chan pair, 1 = 1/2; 2 = 3/4 etc.

Bandsplitter/joiner:

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



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

Also has option for linear phase FIR crossovers, and not the default IIR filters.

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

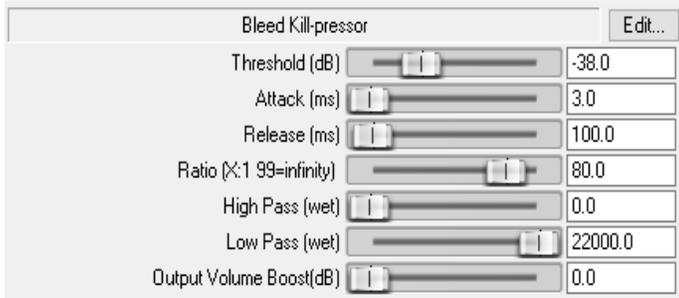
Features:

- 24 dB/oct Band-splitting
- Maintains phase coherence between bands.
- Optional linear phase mode for the crossover filters.
- Solo/Mute options for each band.

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

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

Bleed Kill-pressor:



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.

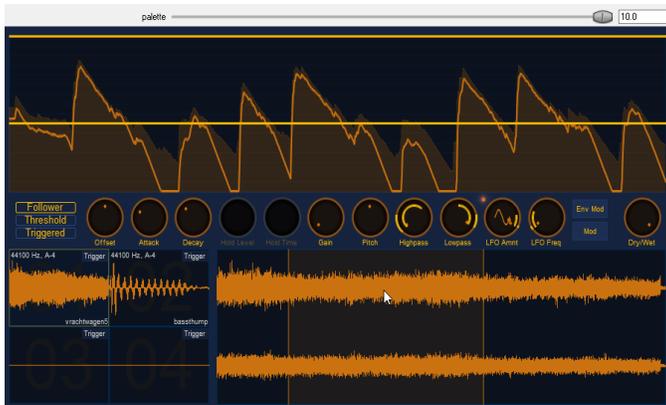
This plugin does all this internally, eliminated the need to actually create a duplicate track. This helps keep the track count down.

HP/LP Filters apply to signal going into compressor.

Previously the compressor output was filtered.

Now only the frequencies you want to hear will hit the compressor and be output.

Bric-a-Brac:



Adds textures to existing sounds.

Can be used to 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.

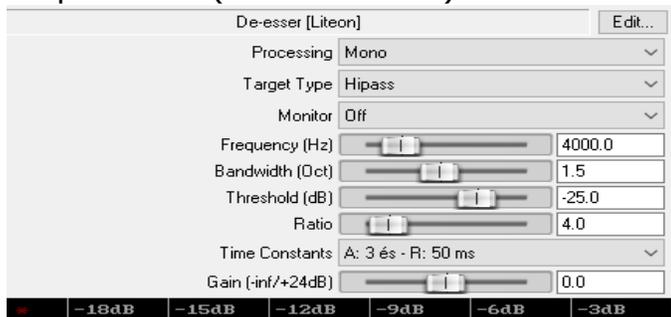
Features:

- 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.
- 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>

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):

Simple but very effective dresser plugin with a straight forward user interface.



Uses "split-band" compression.

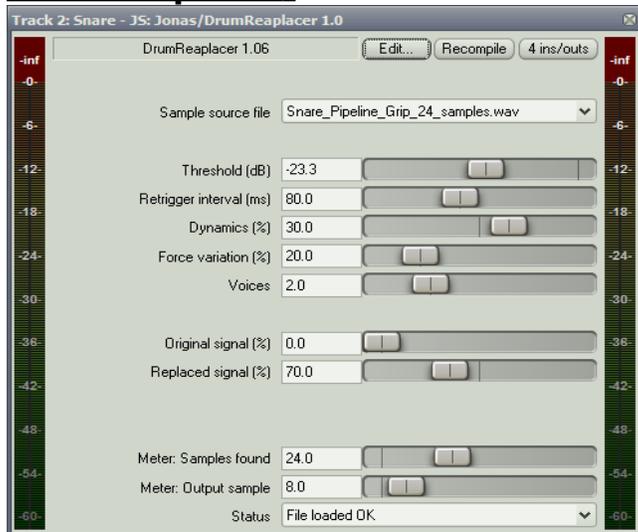
stereo/mono processing

target type - compress a band or the whole top end.

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

- ratio - 1:1 - 20:1
- 3 time constants.

DrumReplacer:



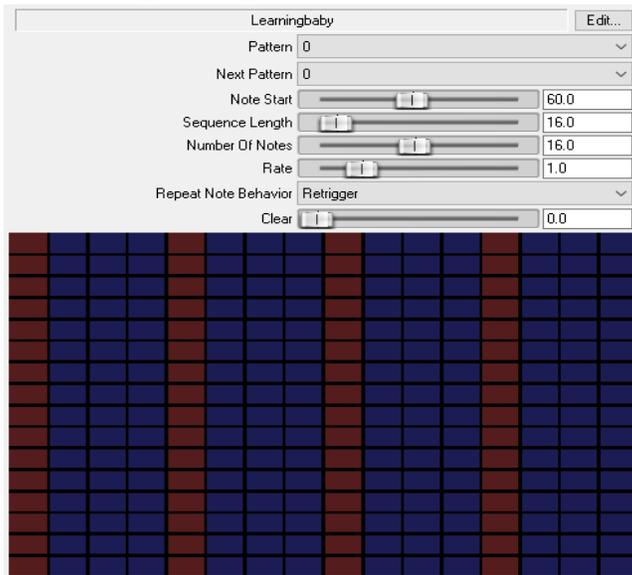
Features:

- Velocity sensitive drum replacer
- Force variation-slider to avoid machine gun-effect
- built-in sampler that 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.

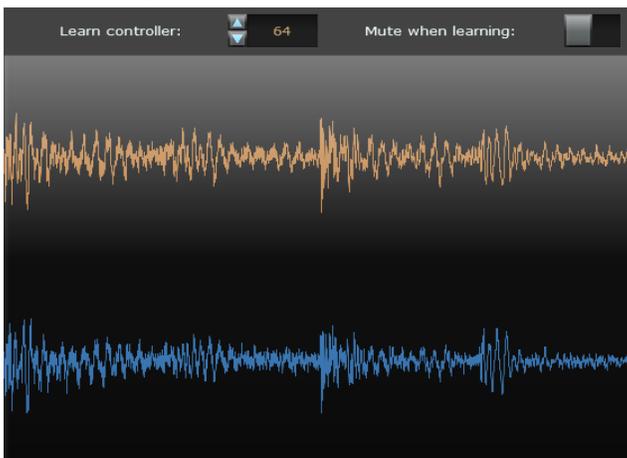
Change the "Next Pattern" during a loop and you'll get a correct transition.

Forum:

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

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

Learning Sampler:



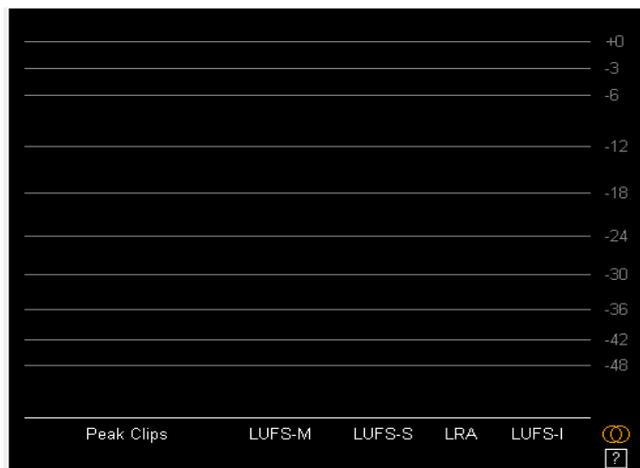
Records samples from incoming audio when in learning mode (selected by a controller switch), and plays them back when in playback mode.

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.

Loudness Meter:



Kenny Gioia video:

<https://www.reaper.fm/videos.php#BF3SXuKBoIM>

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:



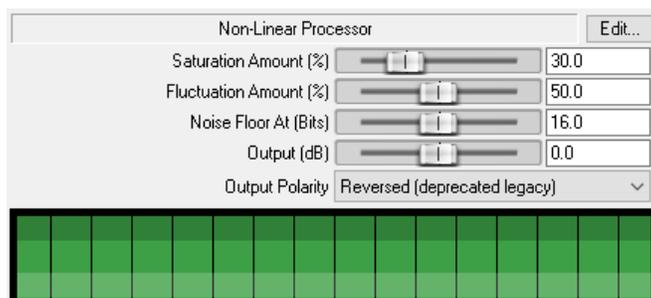
Multi-band processor:



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

Non-Linear Processor:

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



- saturation: waveshaper adds "odd" harmonics.
- fluctuation: adds probability to all parameters.
- floor reduction - adds filtered white noise at a defined range, calculated from bit depth.
- output gain -24/+24db

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 (Audio):

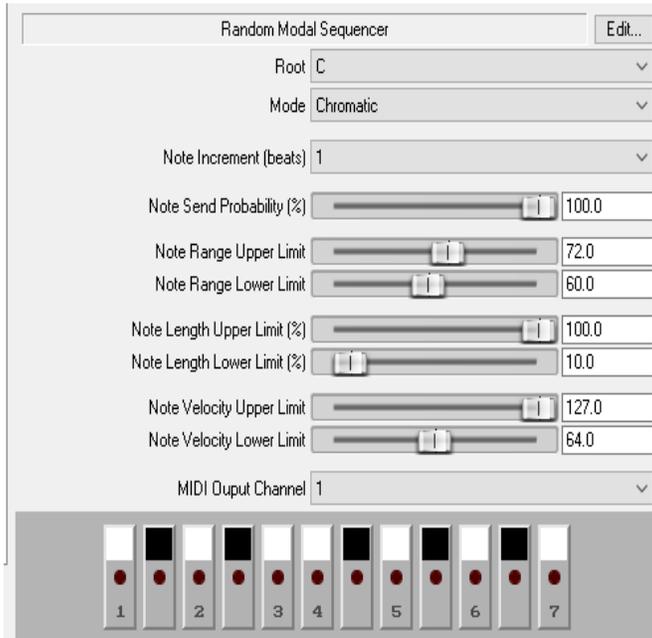
Pre-Arranged Looper		Edit...
Record Start (Beats)	<input type="checkbox"/>	4.0
Record End (Beats)	<input type="checkbox"/>	8.0
Recording	<input type="checkbox"/>	0.0
Playing	<input type="checkbox"/>	0.0
Playback Start	<input type="checkbox"/>	8.0
Playback End	<input type="checkbox"/>	20.0
Has Audio	<input type="checkbox"/>	0.0

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:



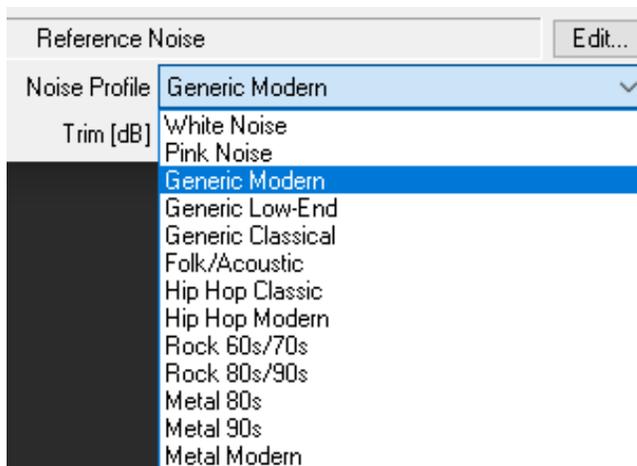
Random note generator with the option of filtering the output by mode, or a custom scale.

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.



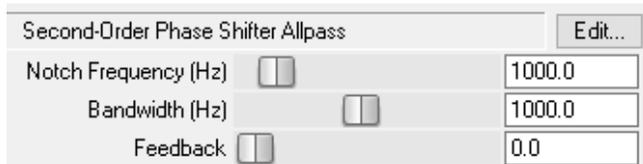
Meant to go on the master monitor FX or master bus.

Used for quickly toggling routing to different outputs.

Instructions:

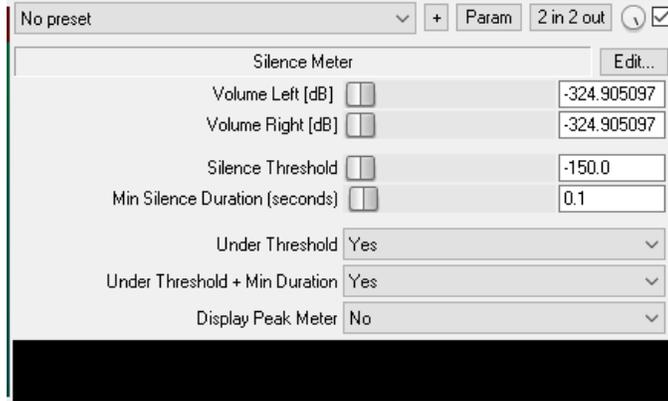
<https://github.com/JoepVanlier/JSFX> (scroll down the page)

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”

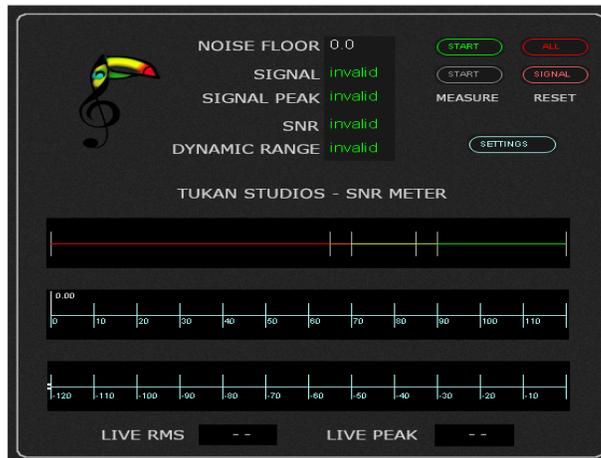
Silence Meter:



Notes say: About: A minimal colored rectangle indicator, typically used to check when reverb or FX tails go to silence.
You can embed in TCP. Mod of Michael Gruhn's Peak-Meter.
// Note: Min duration helps to avoid flashes.
// Note: Under Threshold and Under Threshold + Min Duration could be on same slider
// TODO: better peak meter

SNR Meter (w/presets):

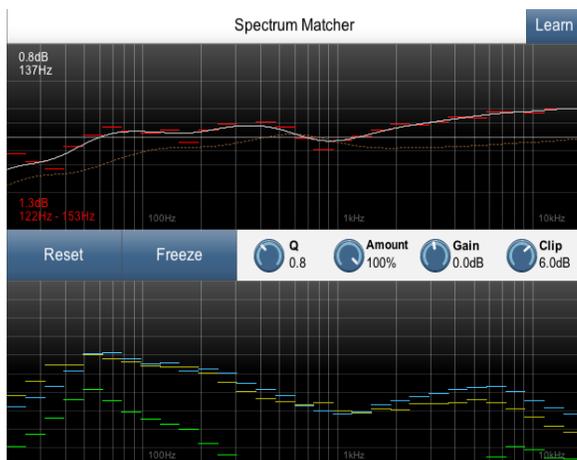
“Microphone bleed, cross-talk, background noise...ever wondered if your recording would finally work in the mix?
Check this before you go for recording with the signal-to-noise meter.”, says Tukan Studios.



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

Spectrum Matcher:

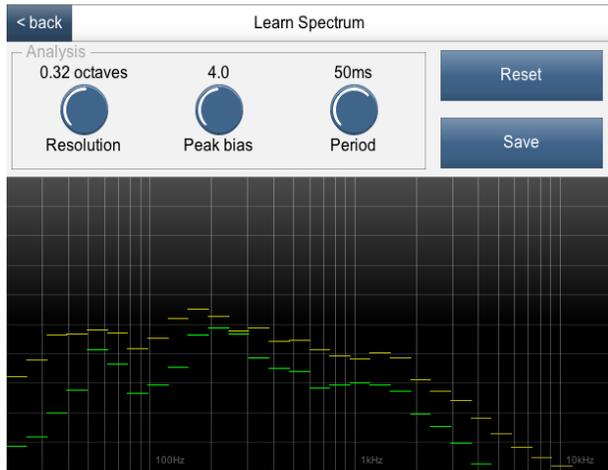
A tool for comparing the spectrum/timbre of an input against a model, and optionally applying a correction filter.



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, hit "Freeze" to set or update the fixed correction values.

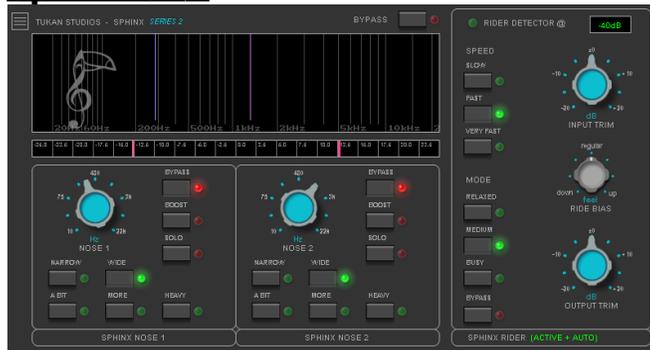
It can learn new models from the incoming audio, and save this as a preset for later use:

This effect is quite CPU-intensive, so if you're not using it it could be good to bypass it.

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

<https://www.youtube.com/watch?v=QLh6b880vFs>

Sphinx S2:



Find and deal with problem frequencies

<https://www.youtube.com/watch?v=gXhRzC55tfo&feature=youtu.be>

Stereo Alignment Delay:



Makes small delays to individual channels, including a delay analyzer.

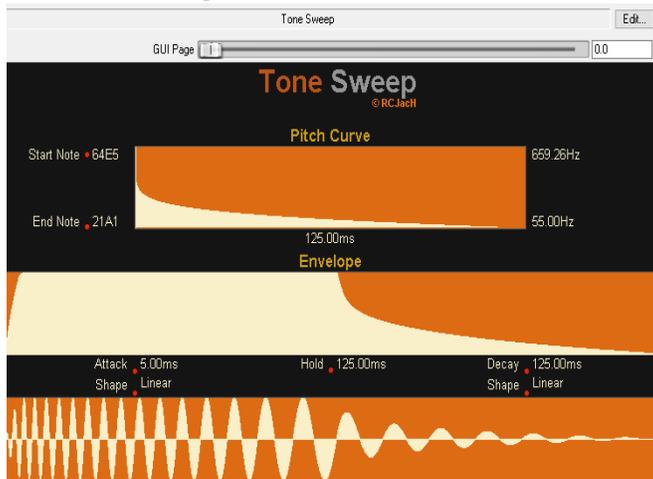
Delay amount can be displayed in ms or samples.

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.

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

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

Tone Sweep:



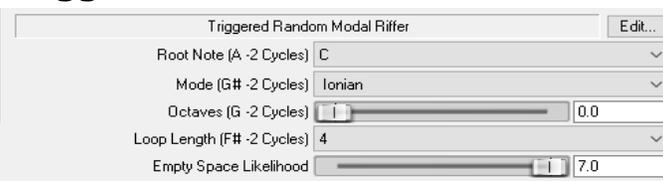
- This generates a sweeping tone base on settings
- Instructions:
1. Set start/ending note, fine tuning, if desired.
 2. Set sweeping time and envelope time.
 3. Adjust envelope curves
 4. Select different wave shape if desired.

Tool S2:



<https://www.youtube.com/watch?v=E3ALkLxUqW4>

Triggered Random Modal Riffer:



This plugin populates and repeats riffs from modal scales when triggered by a MIDI message.

//Reset riff of selected random notes with MIDI note 5

// tick through riff with MIDI note 4

// tick through root note w / MIDI note 7

// tick through modes w / MIDI note 6

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

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

TriLeveler 2:

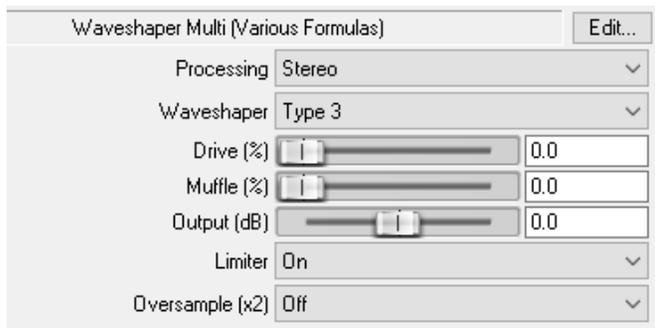


A voice broadcast leveler plugin.

For podcast & Youtube producers, radio/tv work or anything speech related.
Set and forget operation.
105 ms latency.

WaveshaperMulti:

A waveshaper bank with different waveshaper formulas.



- mono/stereo processing
- type - selected wave-shaper formula
- drive - controls amount of saturation
- muffle - dulls sharp, high-end frequencies.
- output gain control -24/+24db
- limiter (on/off) to limit the output.
 - oversampling (on/off)

"3 modes, wave-shaper/exciter.

Works well for individual tracks and included muffle slider (high shelf attenuation).

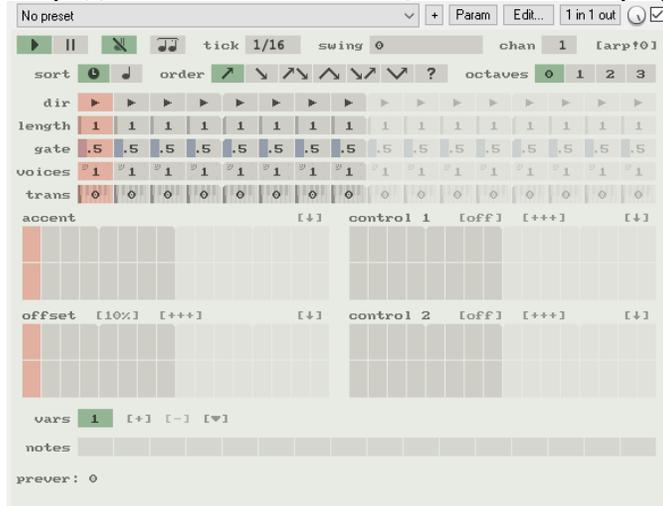
"Works perfect to compensate build-up in hig8hs and to tame overall increased brightness"

MIDI:

ARPS/SequencersGENERATORS:

arp!0 - groovy MIDI arp:

<http://forum.cockos.com/showthread.php?t=95841>

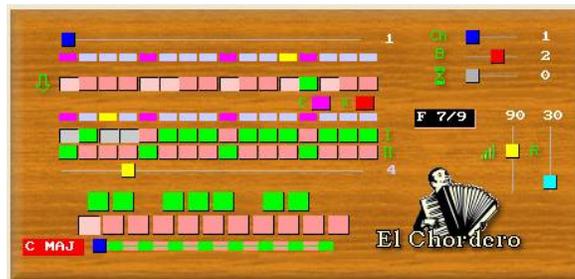


Features:

- Independent length for each control sequence. parameter poly-rhythms!
- All real-time controls visible at once. change anything immediately.
- Expandable control grids for even more immediacy!
- Accent and offset sequences can create cool rhythmic grooves.
- Step length and voices sequences for uneven, chordal arpeggios.
- Variants for quick change arps with mouse or midi programs changes.

- User definable sort transforms rearrange input notes in unique ways.
- Syncs to the beat when the host is playing or recording.
- Plays in time as settings change, and through variant & preset changes!
- All arp parameters are saved in Reaper presets.
- Real-time display of active notes, played notes, and current steps.

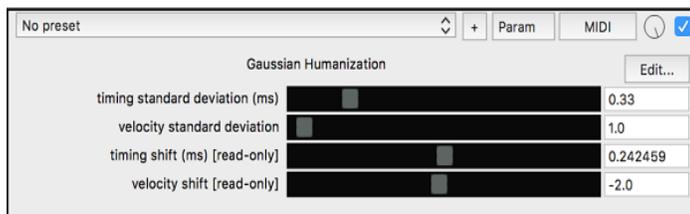
El Chordero:



A chord sequencer / micro arranger

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

Gaussian Humanizer:



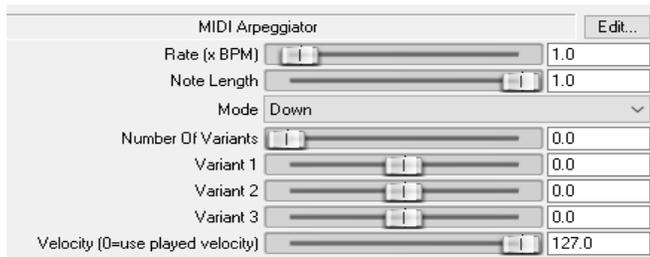
<https://forum.cockos.com/showthread.php?t=234279>

MIDI Arp:



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

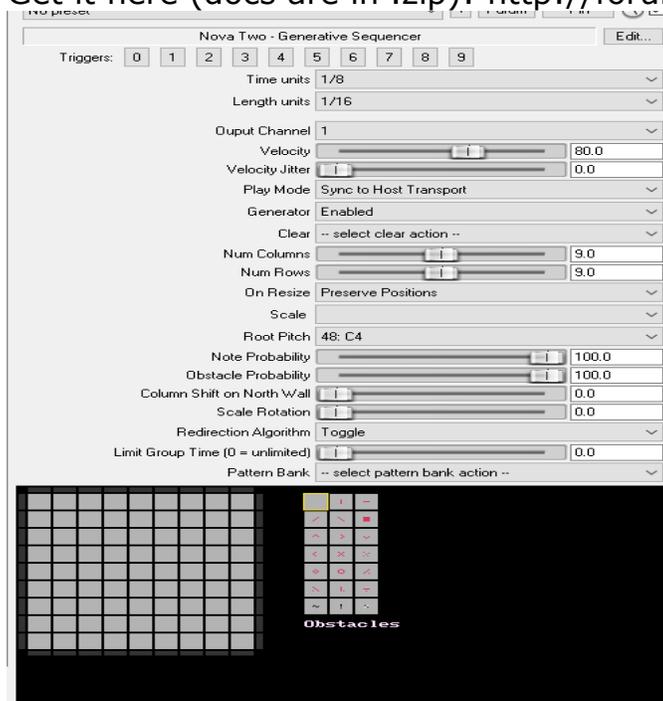
MIDI Arpeggiator:



Nova Two - Generative Sequencer:

A generative sequencer.

Get it here (docs are in .zip): <http://forum.cockos.com/showthread.php?t=79873>



Overview:

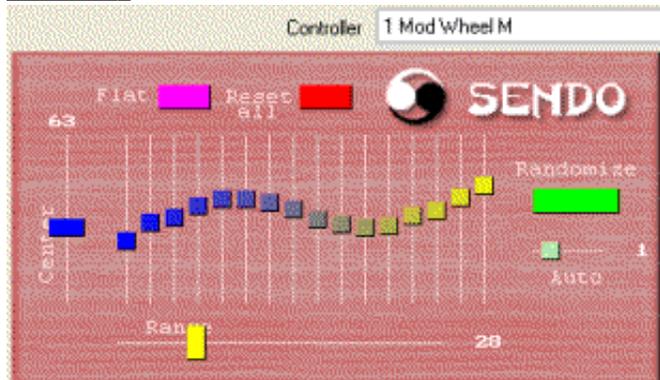
The idea is that a set of rovers move through a matrix of cells until they encounter a wall, another rover, or an obstacle.

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.

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:

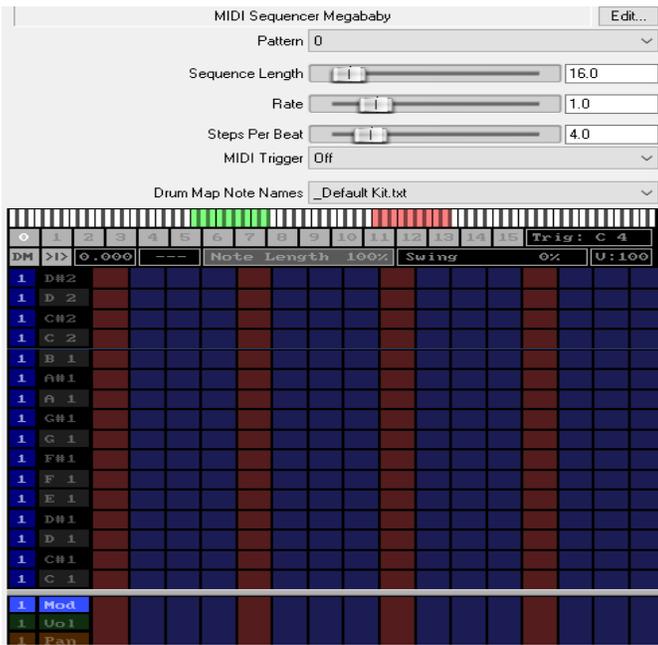


A MIDI CC timed sender

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.

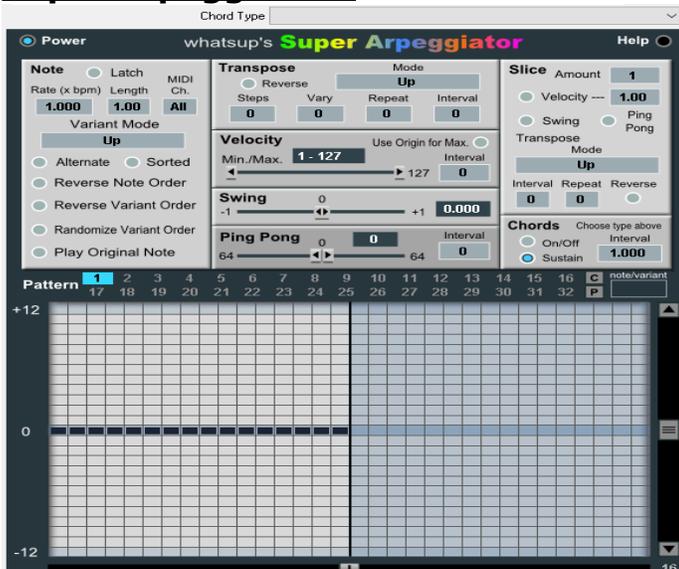
Works great as a straight sequencer.

Save patterns and automate their playback
<http://forum.cockos.com/showthread.php?t=181051>

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

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

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

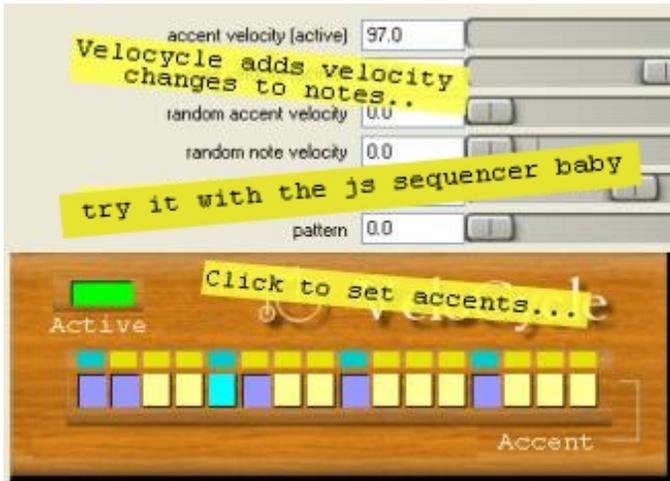
Left-Click paints variant

Right-Click erases variant

Alt-Click resets to default value

Discussion: <http://forum.cockos.com/showthread.php?t=44692>

VeloCycle:



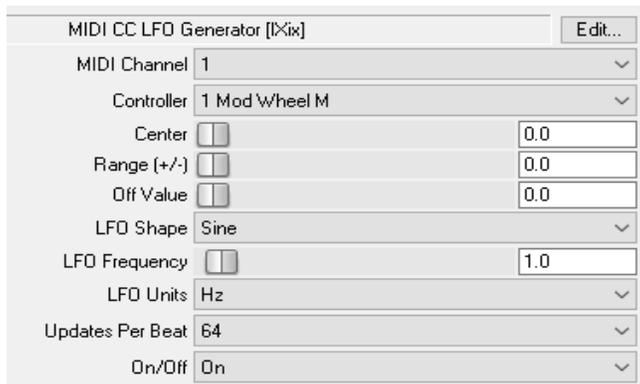
2 levels of randomization
Active or passive mode
16 patterns

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

MIDI FX:

CCRider:

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.

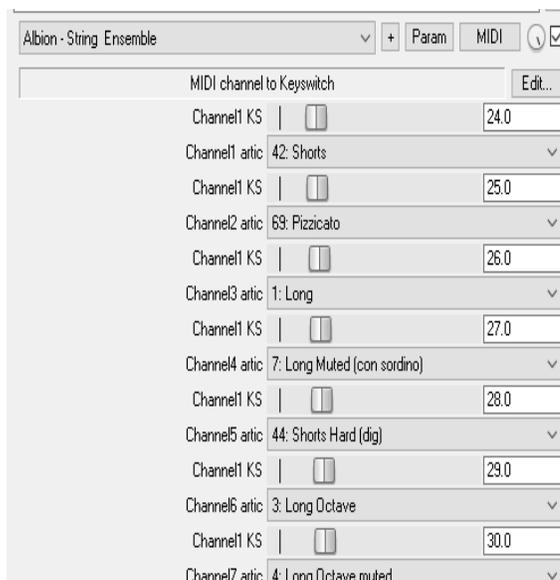
Tips:

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:



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		Edit...
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.

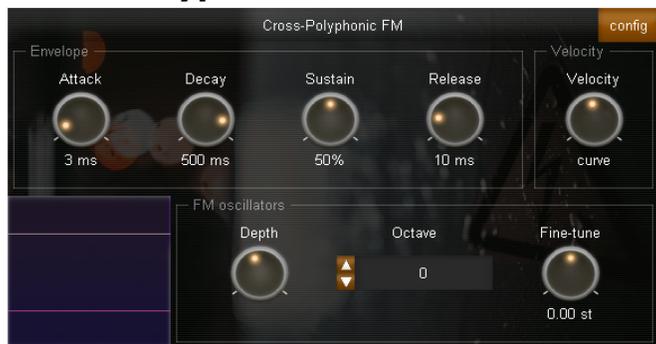
Tips:

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.

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

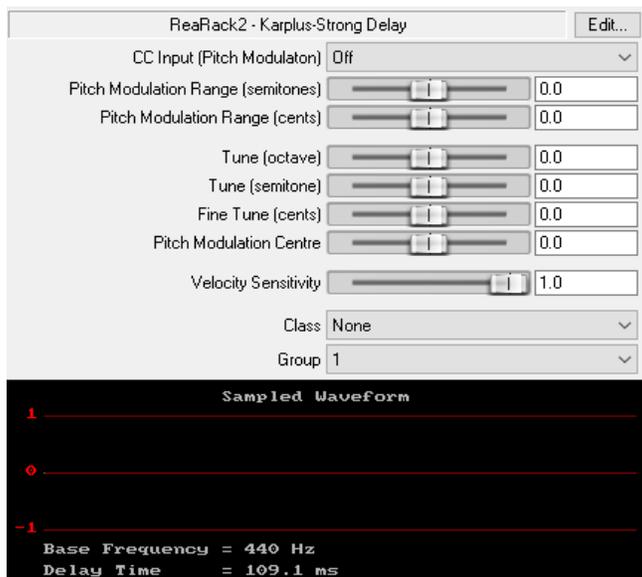
You can also allow it to transpose the input up/down octaves, to move it to a target note range. This is automatable, so your music can float up/down in pitch.

"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>

Karplus-Strong Delay:

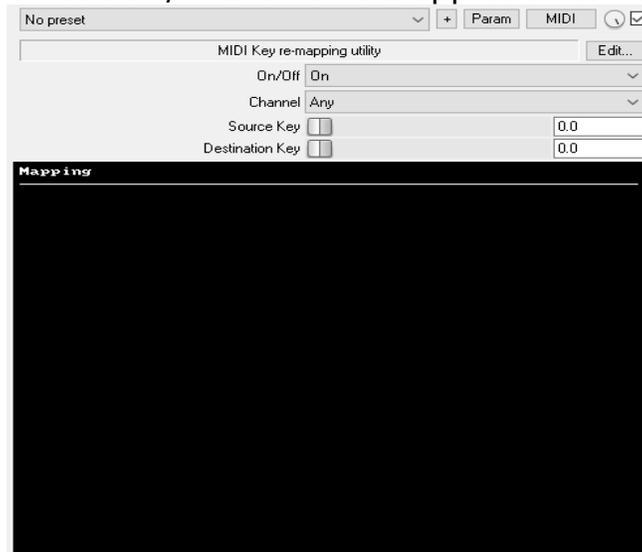


Based on the pitched delay part of the Karplus-Strong plucked string physical modeling algorithm.

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 easier / more 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.

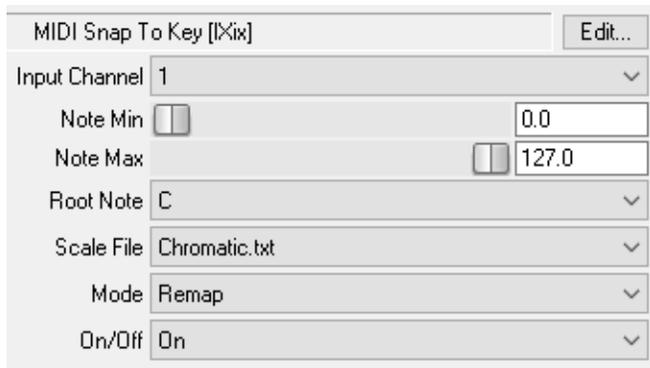
You can now save your mappings as presets.

Download from: <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:



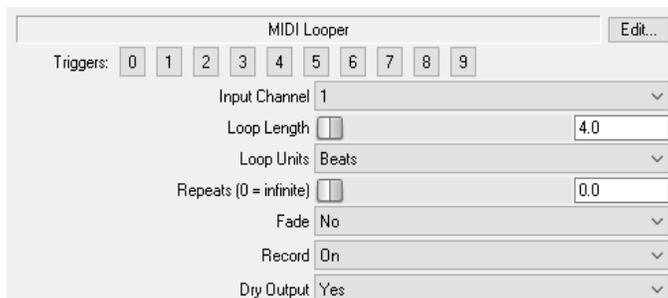
Forces specified keys to hold until they are pressed again.

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.

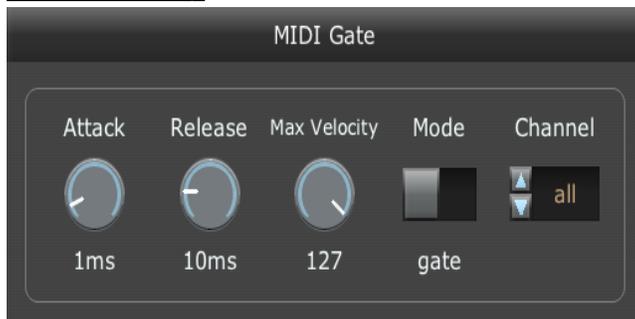
MIDI Constant Note Length:



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:

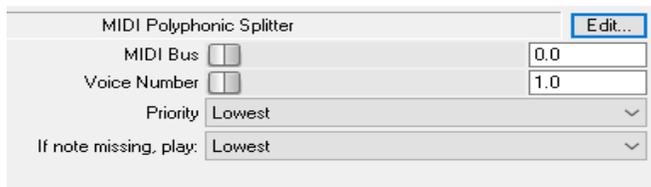
Shifts MIDI notes up or down by octaves, to fit within a target range.



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).

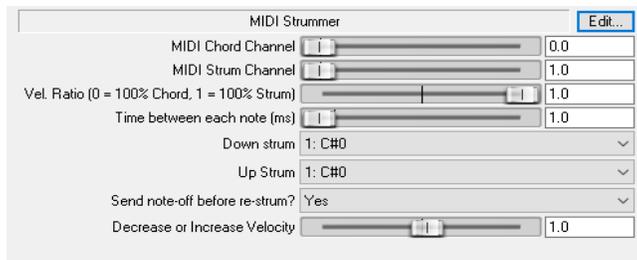
It also has a MIDI-input mode -so, instead of the target region or note being fixed (e.g. "one octave around Middle C") it is defined by a second input on a different MIDI channel (channel 16 by default). This lets you very quickly take one MIDI input, and re-cast it into a different scale or a different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

MIDI Polyphonic Splitter:



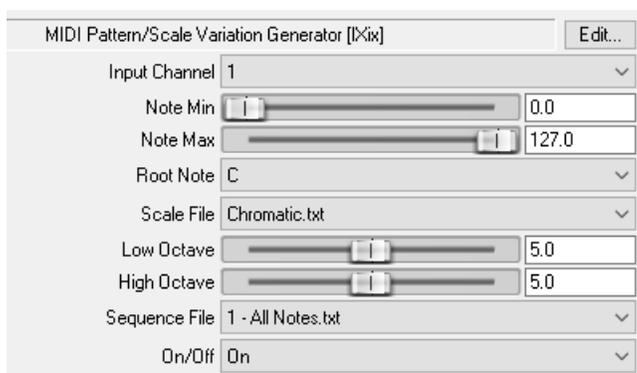
Takes incoming polyphonic MIDI notes and outputs monophonic notes based on user criteria. Details and FX below: <https://forum.cockos.com/showthread.php?t=179338>

MIDI Strummer:



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

MIDI Pattern/Scale Variation Generator:



A pattern/scale variation generator

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

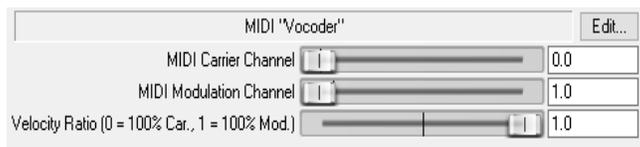
****Important Note****

This requires user defined scale and sequence files.

These are at the end of this document.

http://wiki.cockos.com/wiki/index.php/Jesusonic_Effects_Documentation#Variant

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.

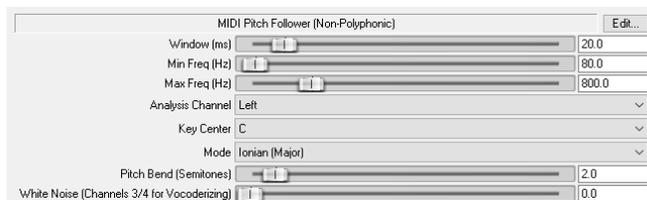
Bypass - bypass mode

Const - All notes the same level; mouse-

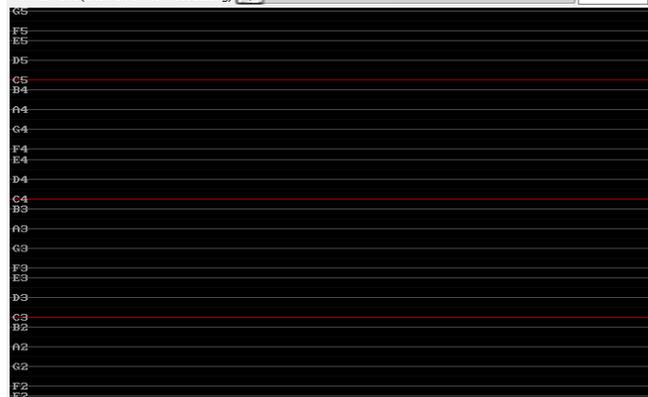
touchpad changes volume.

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

MIDI Pitch Follower:



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

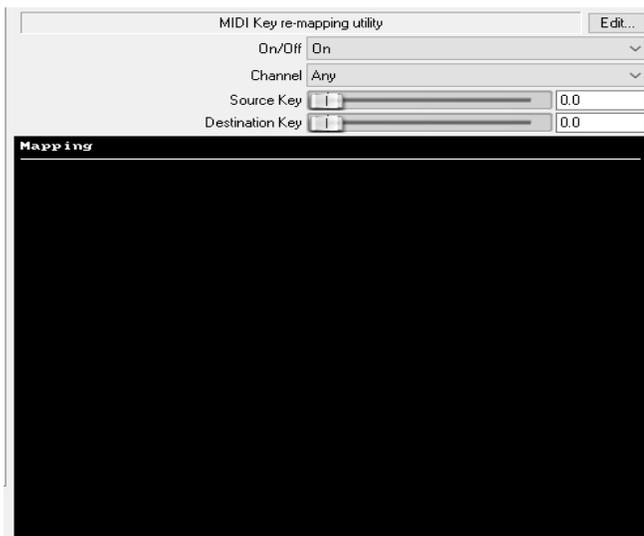


For examples of use, watch these videos:

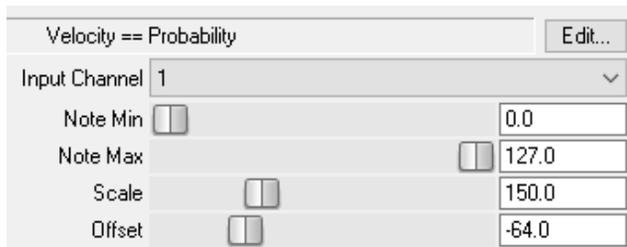
https://youtu.be/DJ_fNW3Rz6Y

https://youtu.be/rZQcivrBn_OY

MIDI Re-mapping:



Probalcity:



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 specified range will pass through the plugin

unchanged.

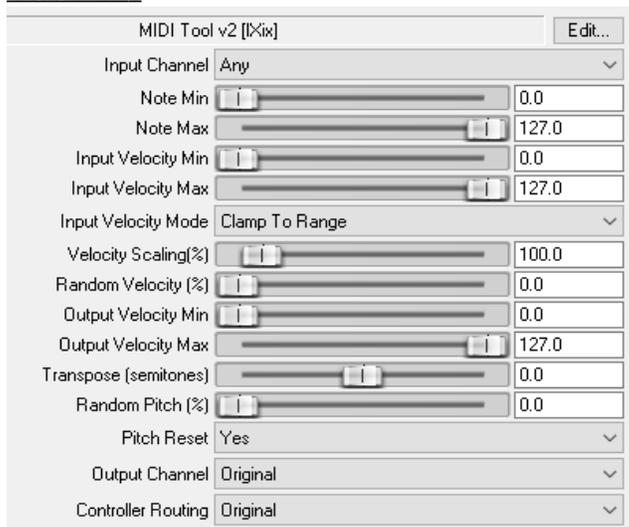
Parameters:

- 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.

Tips:

Use Scale and Offset controls to compensate for the softer velocities of less likely notes.
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.

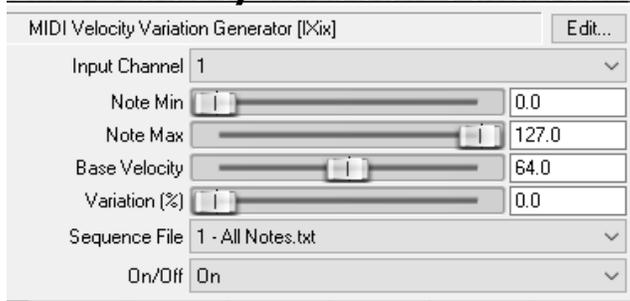
- 5) Note is transposed by n semitones.
- 6) A random (+/- n% of travel) pitch wheel message is sent to the output channel.
- 7) Modified note/velocity information is output on the selected output channel.

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

MIDI Velocity Variation Generator. (Sequence files are at end of this guide)



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, `"/Data/ix_sequences/"` (see text at the end) See below for details of how to create your own sequences.

Note that 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.

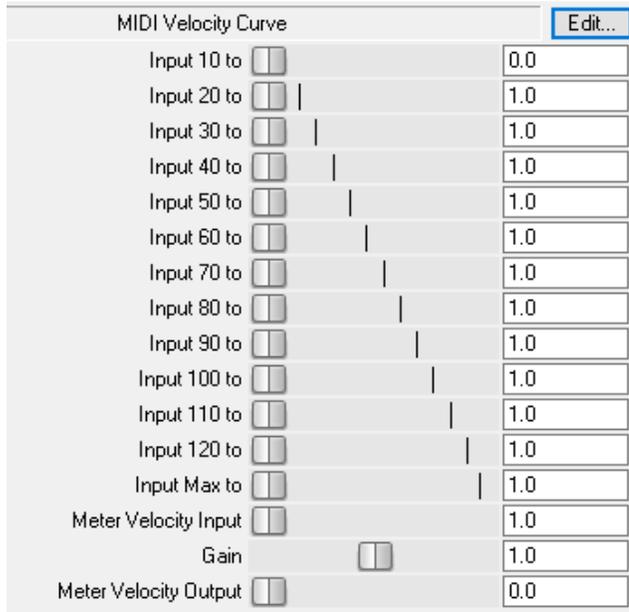
Parameters:

- 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.

VeloCurve:



<http://forum.cockos.com/showthread.php?t=22060>

Vibrato (w/presets):

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



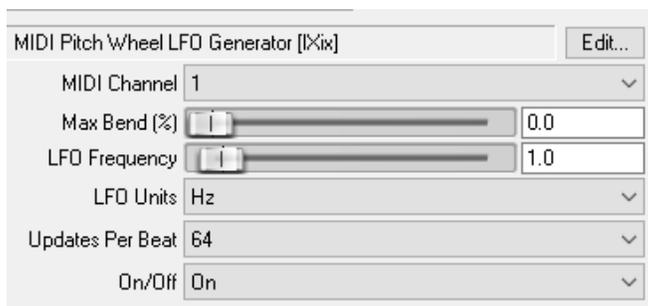
Each note resets the vibrato to zero, and it is slowly introduced.

Useful for adding vibrato to synths that don't have already have it.

The "Lookahead" dial controls how much latency is added.

When setting to "0", 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:

MIDI Channel - Channel to send controller data on.

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; use On/Off switch rather than bypassing the effect.

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:

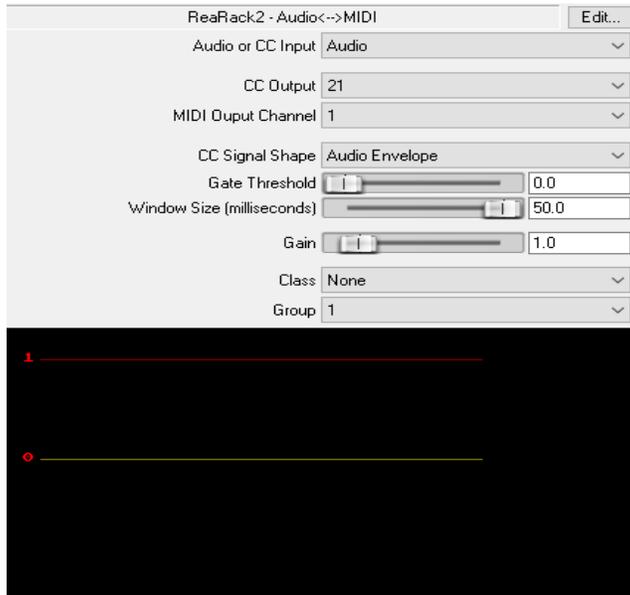
13	48	14	49	15	50	16	51
48 C	49 C#	50 D	51 D#	9	44	10	45
44 G#	45 A	46 Bb	47 B	5	40	6	41
40 E	41 F	42 F#	43 G	1	36	2	37
36 C	37 C#	38 D	39 D#	3	38	4	39

AB Level Matching:

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

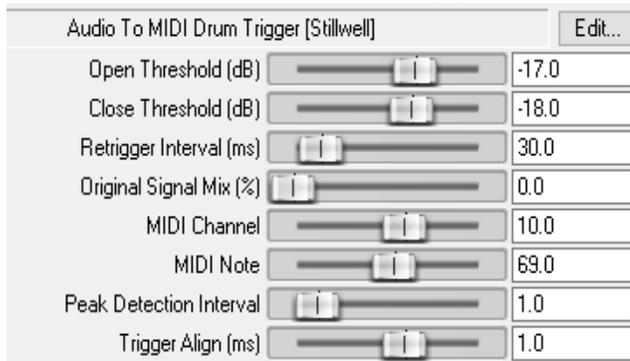
<https://www.youtube.com/watch?v=wNICbcy2GjA>

Audio to MIDI:



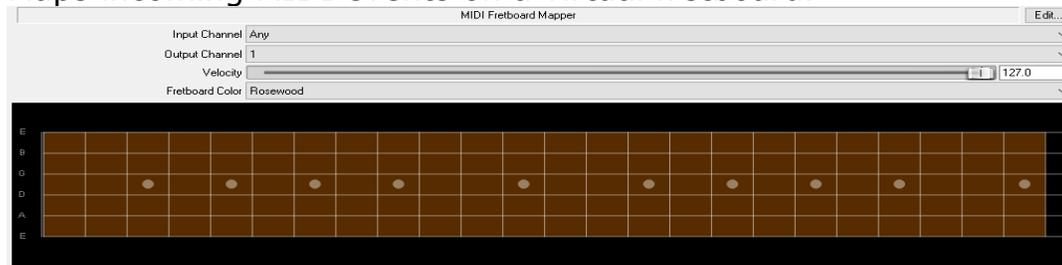
<https://www.youtube.com/watch?v=XtnuecwO8hM>

Audio to MIDI Drum Trigger:



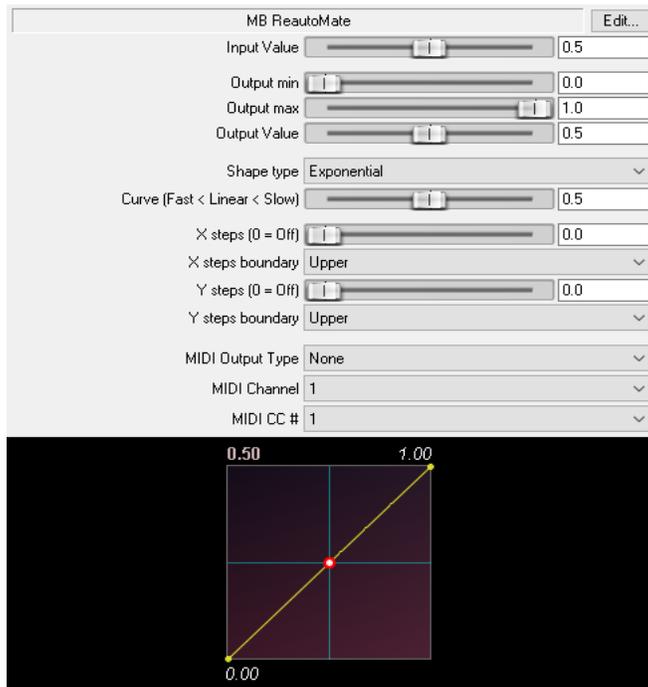
Fretboard Mapper:

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

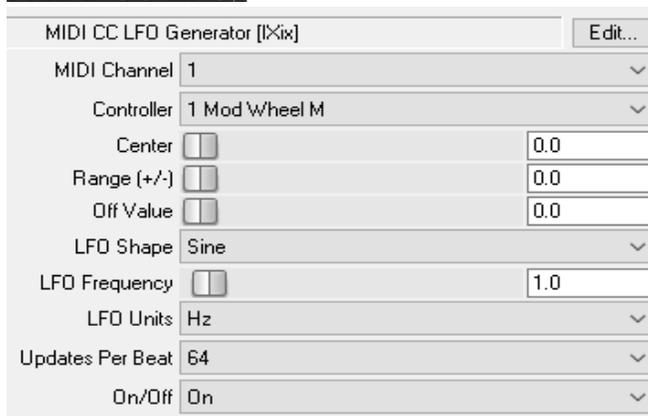
4b) Set MIDI output as wanted and have the desired plugin parameter respond to the matching MIDI message

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 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 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.
Endless possibilities: Adjust each channel separately (sound, panning, etc...)

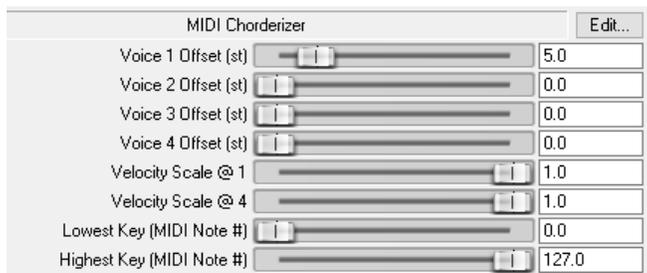
Usage:

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)

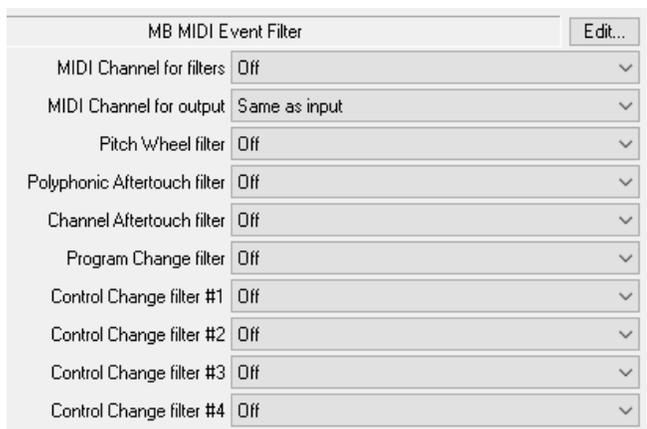
Example:

- 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>

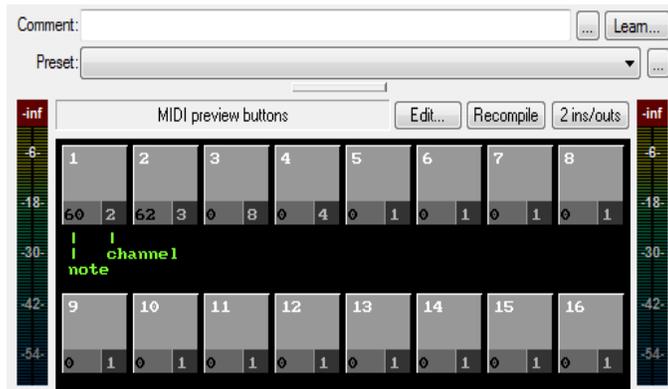
MIDI Chordizer:



MIDI Event Filter:



MIDI Note Preview:



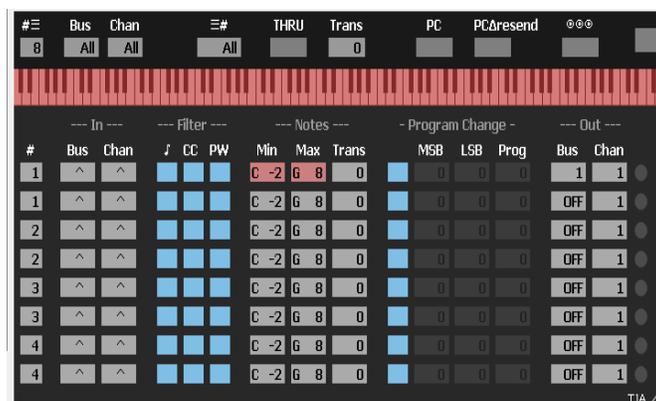
To preview the drum sounds already loaded, when I load my drum template tracks.

Why?

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>

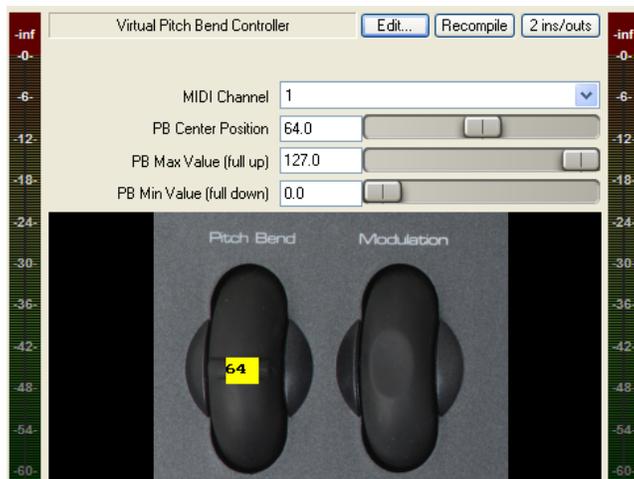
MIDI Performer2:



Forum:

<https://forum.cockos.com/showthread.php?t=216034>

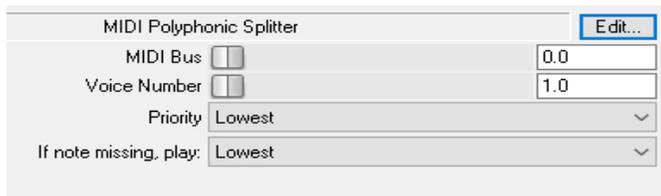
MIDI Pitch Bend and Modulation Wheel:



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>

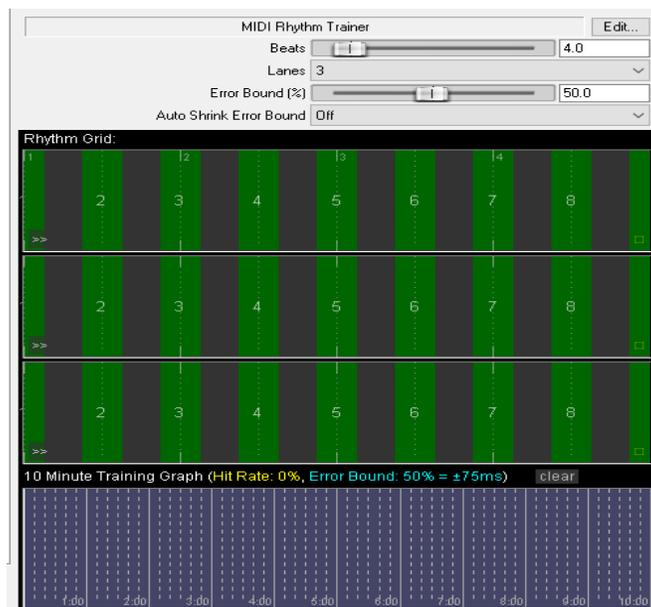
MIDI Polyphonic Splitter:



Instructions, discussion:

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

MIDI Rhythm Trainer:



Features:

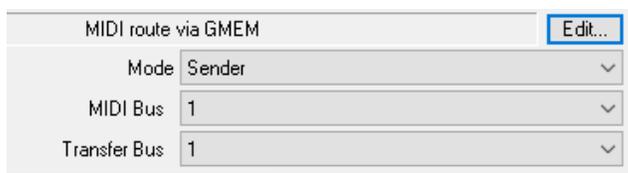
- Define rhythmic pattern and play along to hit the pattern. Only accurate notes will be heard.
- Get visual + audio feedback; controllable target Support complex poly-rhythms.
- Set up complex splits - up to 4 "lanes", receiving separate key ranges and input channels.
- Get "click" sounds for each lane (as metronome).
- "Swing" and "Phase" parameters.
-

Tutorial https://youtu.be/cifj6eh_LF0

Discussion:

<https://forum.cockos.com/showthread.php?t=250891>

MIDI route via GMEM:



The MIDI route via GMEM JSFX is 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.

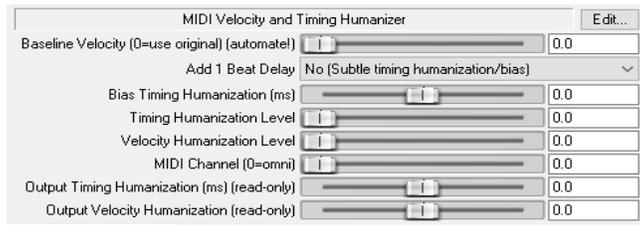
The slider "Mode" sets the Sender or Receiver mode.

The slider "MIDI Bus" determines which MIDI bus is use 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.

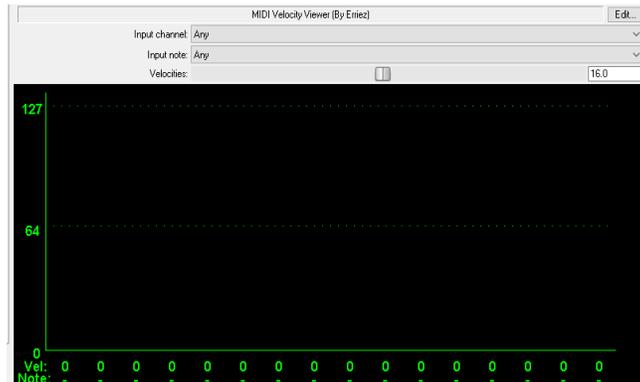
All MIDI Messages are passed through unchanged by a the plugin.

MIDI Timing and Velocity Humanizer:



Record using automation/LFO on.

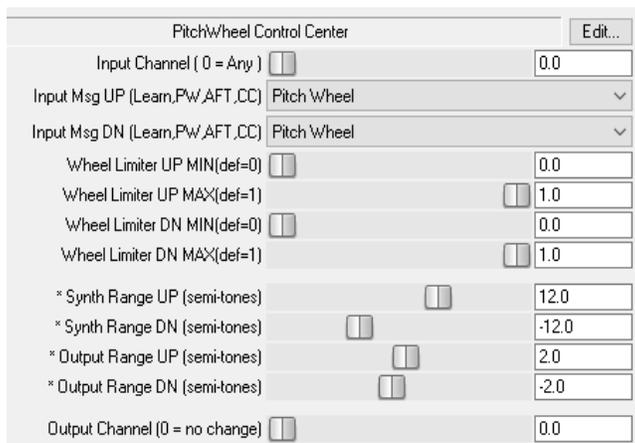
MIDI Velocity Viewer:



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:



Loops MIDI based on a pre-arranged record and loop position.

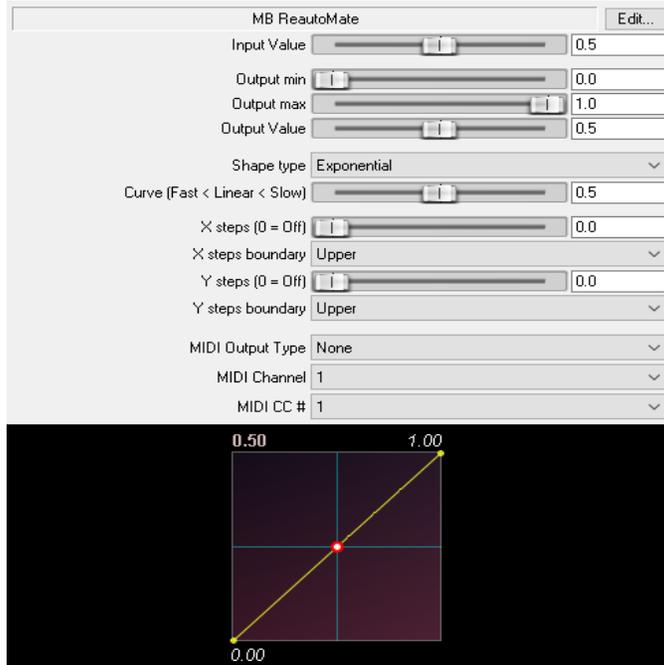
For example, you can have it automatically start recording at beat 4, and finish record at beat 8, and have that automatically loop throughout beats 8 - 20.

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.
- Prebuffer 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.

ReaAutomate:

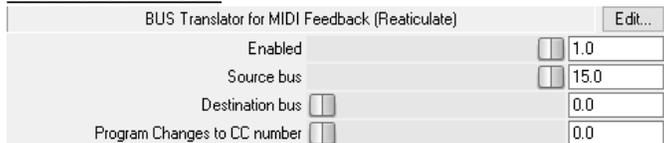
Made to re scale full automation envelopes to a restricted interval for the target output MIDI parameter, allowing to achieve finer precision over settings like filter cutoff, resonance, and wherever narrow sweet spots or limited ranges are relevant or useful.



- To use:
- 1) Add the FX to a track
 - 2) Set an automation envelope for the "input value" parameter
 - 3) set "min" and "max" output parameters to the actual minimum and maximum values desired in output.
 - 4) Set quantization and curve options as desired.
 - 5) Set parameter linking from "output value" to the desired plugin parameter\
- OR\
Set MIDI output as wanted and have the desired plugin parameter respond to the matching MIDI message type.

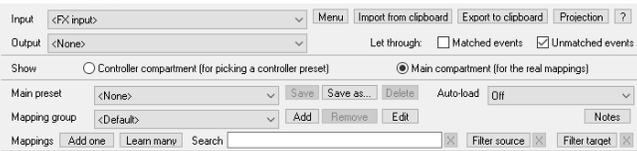
Download, instructions: <https://forum.cockos.com/showthread.php?t=251684>

Reaticulate:



An amazing way to trigger keyswitches.

ReaLearn:



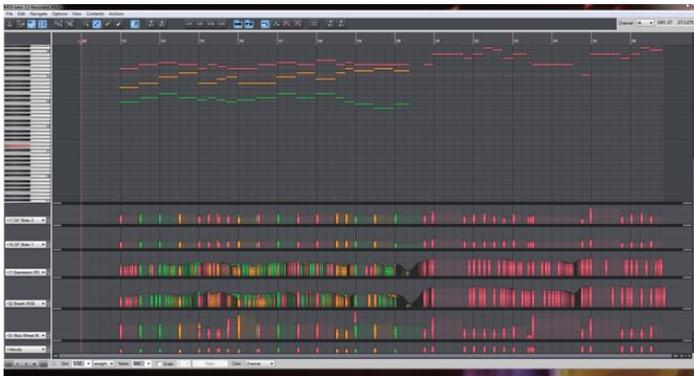
<https://www.youtube.com/watch?v=dUPyqYaIkYA> for relearn2

SwixMitch GUI:



<http://forum.cockos.com/showthread.php?t=35748>

VI Sculpt:



To shape virtual instruments

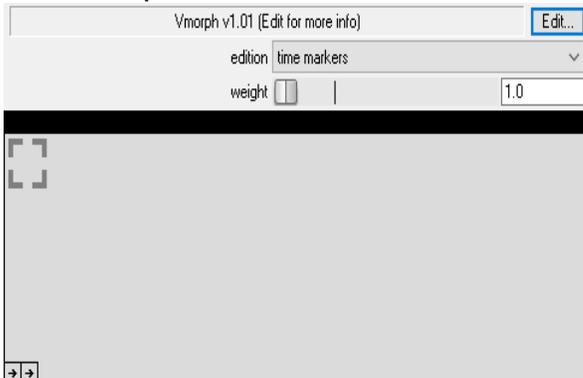
Performs multiple tasks to help automate the sculpting of pre-recorded MIDI data for more organic playback.

Especially for virtual instruments with many articulations and/or CC automation

Get it, here: <http://forum.cockos.com/showthread.php?t=131845>

Vmorph:

A JS adaptation of AudioMulch's Metasurface.



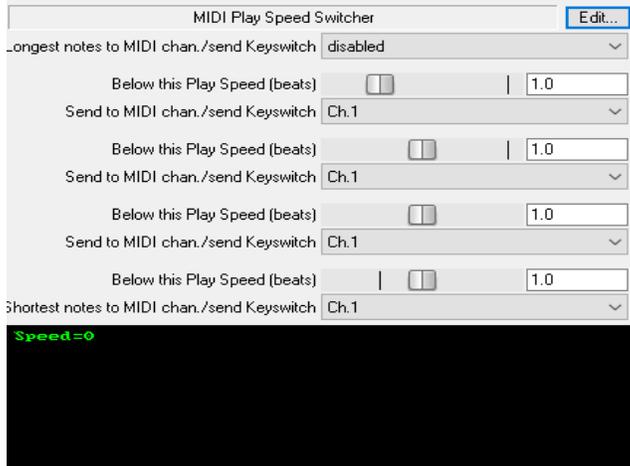
It stores the parameter values of instruments and effects in patch dots, and interpolates between these dots while dragging the cursor on the XY pad or following time based vectors.

Tutorial Video: <http://vimeo.com/16399678>

<http://forum.cockos.com/showthread.php?t=67977>

MIDI EDITING:

Play speed Switcher of MIDI notes:

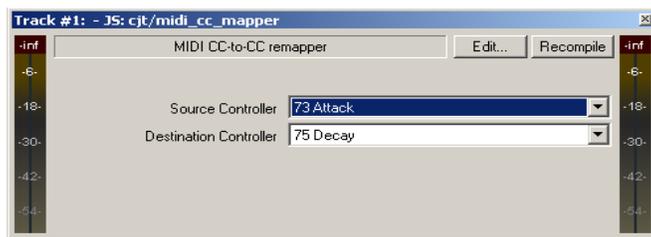


Detects the speed of a MIDI performance, either a live performance or upon playback. Also, the JS would toggle between MIDI channels based on performance speed.

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>

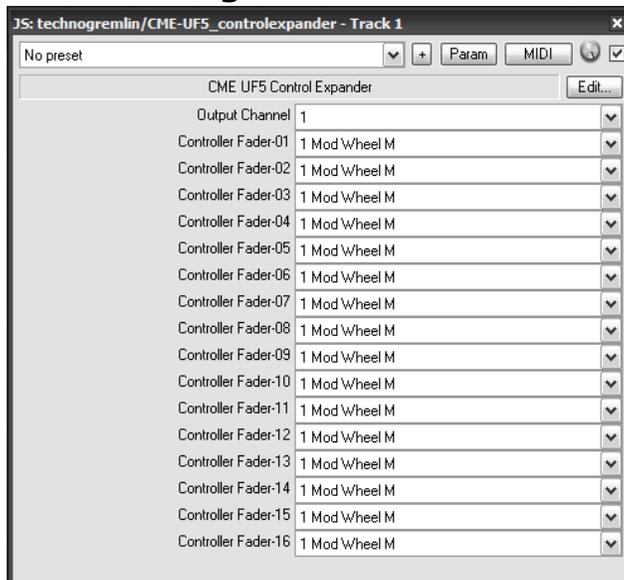
MIDI CC to Pitch Bend:



"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

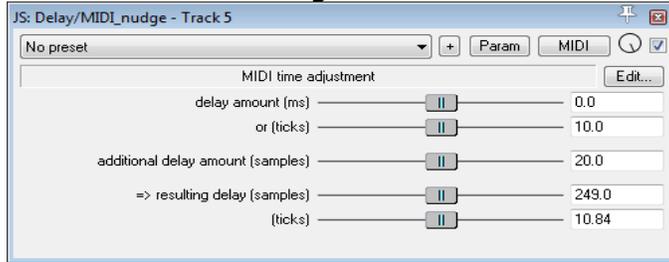
This FX maps ALL incoming MIDI-channels to one output MIDI-channel, at the same time mapping each CC-7 message (from each incoming channel for the two banks set as 'mixer controls') to a different CC-message.

You can set the output CC-message for each of the incoming volume faders.

<http://forum.cockos.com/showthread.php?t=129813>

MIDI Nudge:

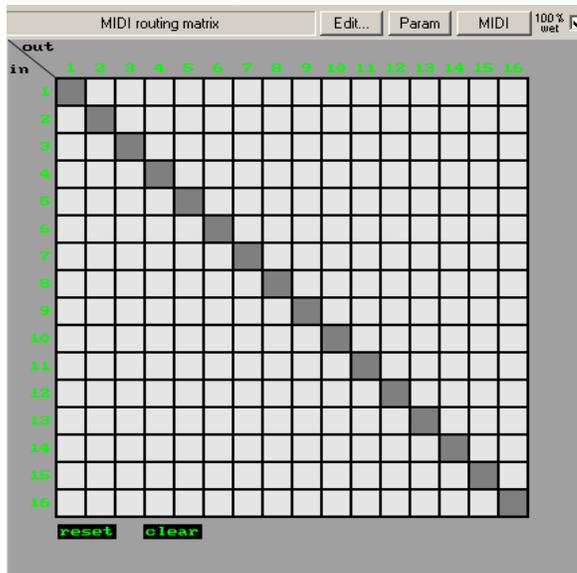
Moves MIDI messages forwards or backwards.



Set either of the top two sliders (960 ticks per 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>

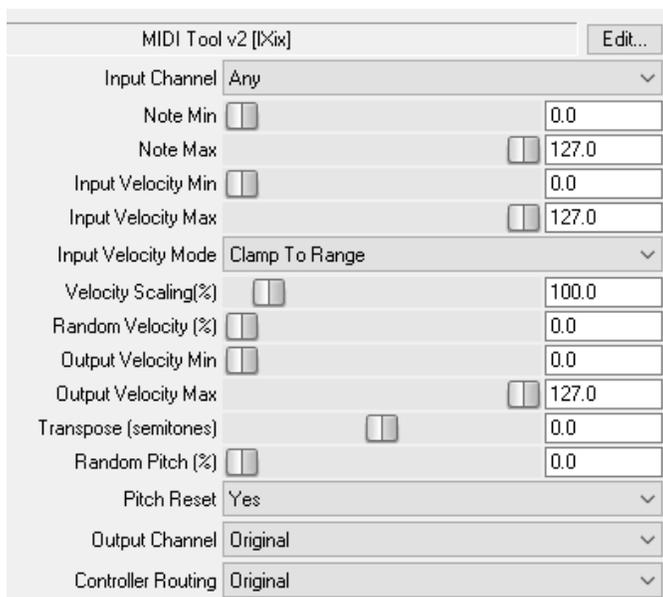
MIDI Routing Matrix:



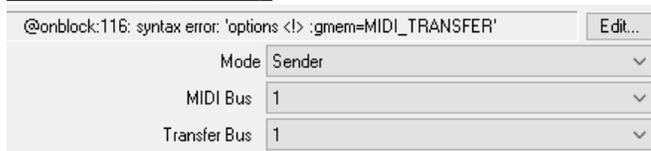
This FX allows arbitrary routing of MIDI channels.

Discussion:
<http://forum.cockos.com/showthread.php?t=67115>

MIDI Tool v2:



MIDI Transfer:



natively can't do that."

The documentation is in the code; here's is a portion:

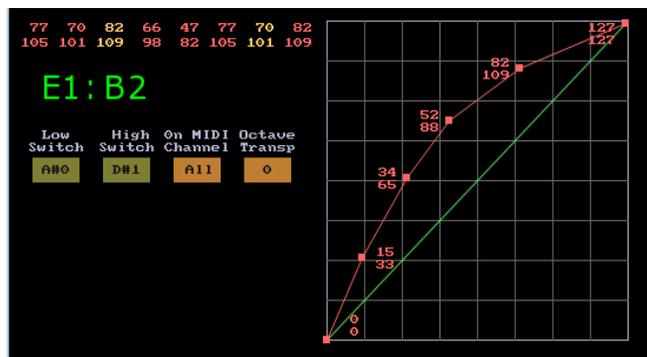
The MIDI Transfer JSFX are mostly used to route MIDI events between project tabs, as Reaper

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
```

Man, this was a lot of work... :)