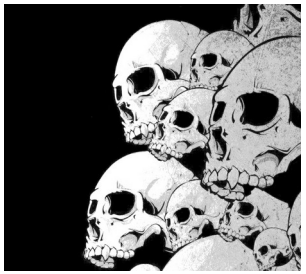
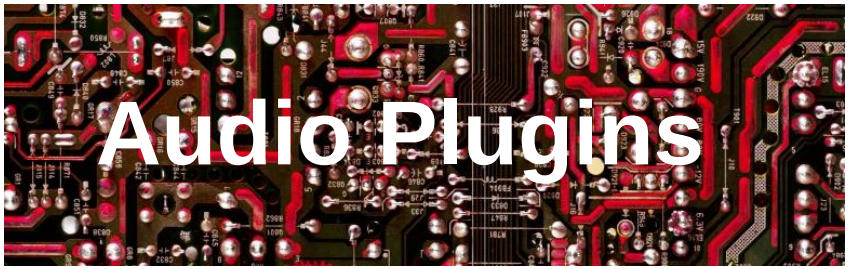
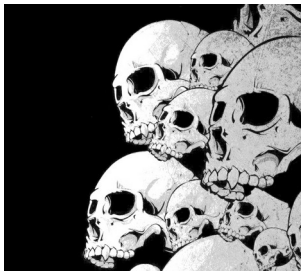




LADSPA

Y. Collette (ycollette.nospam@free.fr)
https://audinux.github.io



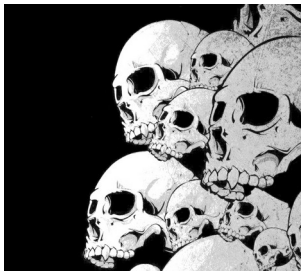
LADSPA plugins

Extract from http://linuxmao.org

This is the first graft standard developed under GNU/Linux. The first specification of this standard was finalized on April 2, 2000.
The development SDK (to create new effects) can be found here:

http://www.ladspa.org

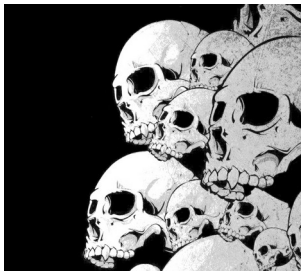
LADSPA effects (Linux Audio Developer's simple plugin) allow you to apply a number of sound effects on a sound file or on a sound file portion.



LADSPA plugins

Some of the LADSPA plugins we can found on most Linux distributions :

AMB
Blepvco
Blop
CAPS
CMT
FIL
FOO
MCP
NJL
Omins
REV
SWH
TAP
VCF
VCO

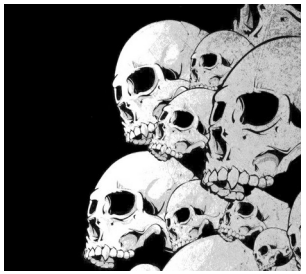


LADSPA plugins

VLevel	https://vlevel.sourceforge.net/
Vocoder	https://www.sirlab.de/linux/vocoder/download
WASP	http://linux01.gwdg.de/~nlissne/wasp/index.html (dead)
Nova	https://tim.klingt.org/nova/download/nova_filters-0.2.tar.bz2 (dead)
Calf	http://calf-studio-gear.org

Socal's LEET Plugins https://code.google.com/archive/p/leetplugins/
Invada plugins http://www.invadarecords.com/Downloads.php?ID=00000263 (dead)
DSSI-VST 0.7 now with LADSPA Extensions https://www.breakfastquay.com/
Holap synthesizer and DSP effects http://holap.berlios.de (dead)

Pour plus d'informations : http://linuxmao.org



LV2 plugins

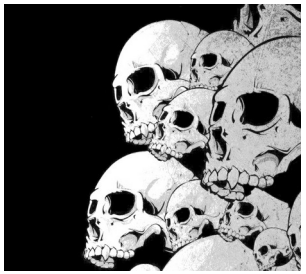
Extract from http://linuxmao.org

At the origins of LV2, there is LADSPA.
LADSPA is an aging standard of effects, it had its day. There is no need of questioning the DSP quality of the LADSPA effects, moreover the majority of LV2 effects re-use this part of the LADSPA effect code.

The LV2 format comes from the Linux Audio Developer consortium = LAD.

https://lv2plug.in

For the moment (October 2009), there are fewer LV2 effects than LADSPA effects, hope that the trend is reversed, because the LV2 format is much better for user requirements and expectations, in particular, for graphic UI much more advanced than LADSPA. In addition, it makes life easier for graft developers.
You can say that LV2 is to LADSPA what XML+CSS is to HTML.



LV2 plugins

SWH: https://github.com/swh/lv2/
Ll-plugins : https://ll-plugins.nongnu.org
Zynadd : https://home.gna.org/zyn/ (dead)
CALF: http://calf-studio-gear.org
Linuxsp : https://github.com/lsp-plugins/lsp-plugins

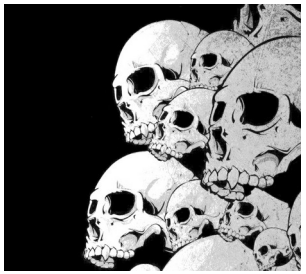
For more information: http://linuxmao.org

To use a plugin without using a application,
We can use Jalv:
- jalv: to use a plugin with its RDF interface
- jalv-qt: to use a plugin with its Qt interface (if it has one)
- jalv-gtk: to use a plugin with its Gtk interface (if it has one)
- jalv-gtkmm: to use a plugin with its Gtkmm interface (if it has one)

Example :

```
$ jalv.gtk http://nickbailey.co.nr/triceratops
```

You can use jalv_select to simplify.



DSSI plugins

Extract from http://linuxmao.org

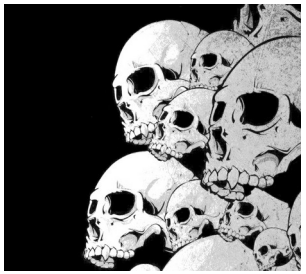
DSSI = Disposable Soft Synth Interface?, Which means: interface of available software synthesizers. It should be pronounced Dizzy.
It is a Software Interface Standard (API) for software instruments and effects. It brings to GNU/Linux an equivalent to the VSTI standard.
DSSI is based on the API LADSPA which is another standard of effects, the types of events of ALSA sequencer, and the OSC communication (Open Sound Control) with suitable graphic interfaces.

The first publication of DSSI specifications, version 0.1, dates from April 27, 2004.
The current publication, version 1.0, dates from January 9, 2009.

Several DSSI effects exist, both synthesizers and sound effects or even tools.

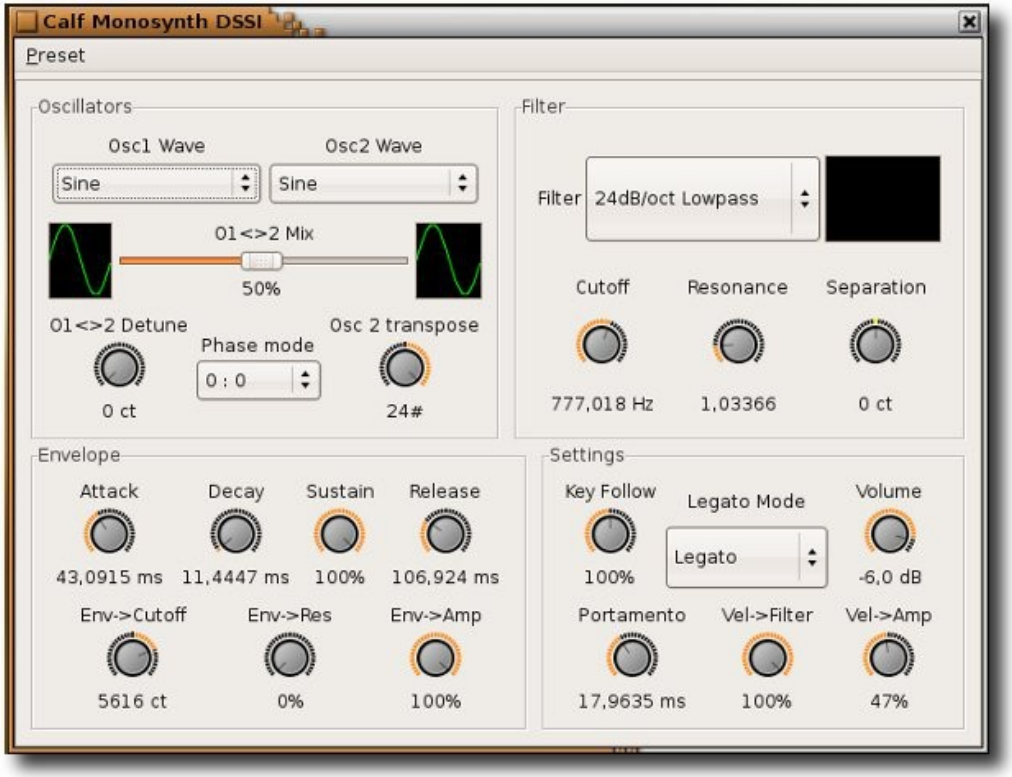
https://dssi.sourceforge.net/

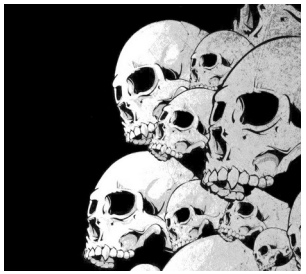
Today, the SPEC LADSPA V2 (or LV2) advantageously replaces DSSI



DSSI

* Calf Monosynth
* Calf Organ
* Hexter
* Xsynth-dssi
* Fluidsynth-dssi
* Sineshaper
* Oscilloscope
* WhySynth
* Nekobee
* Wsynth
* Holap
* Dssi_convolve
* Xy-controller
* amSynth



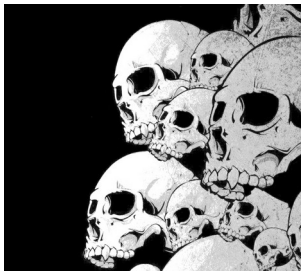


Carla - A multi-plugin rack

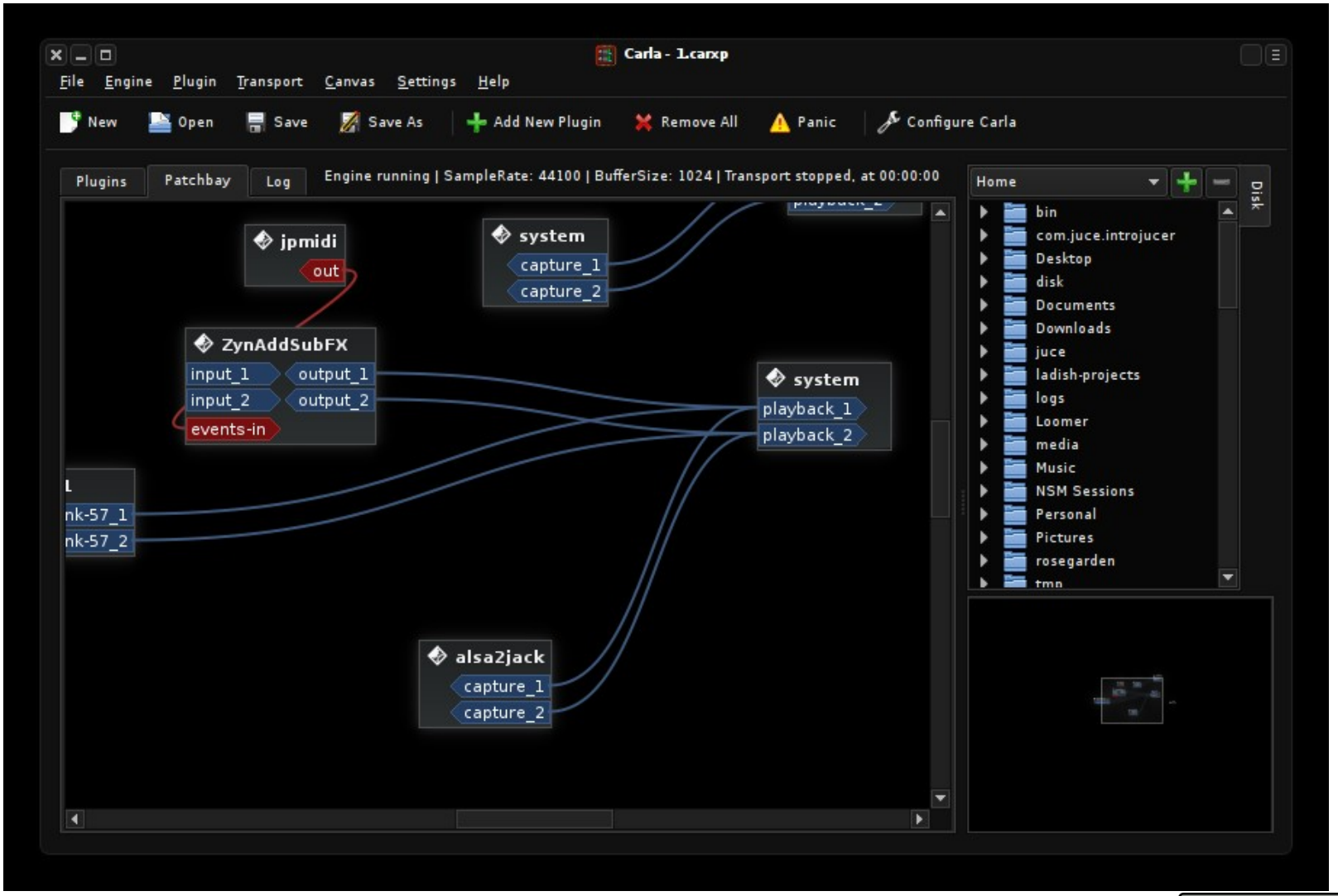
https://github.com/falktx/carla

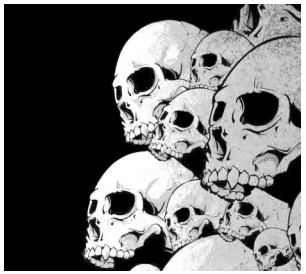
The Audinux version provides the Windows Bridge which allows you to read VST Windows

```
$ dnf install carla # Fedora
$ dnf install Carla-mao # Audinux
```



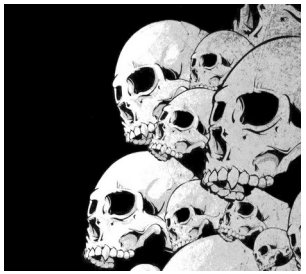
Carla - A multi-plugin rack





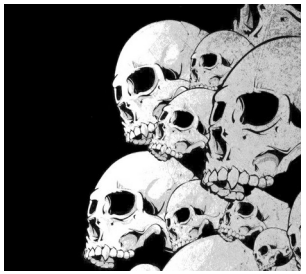
Surge


Scene
Split
Patch Browser
Status
FX Bypass / Character
Output
A
B
Select
SINGLE
KEY SPLIT
CH SPLIT
DUAL
Mode
C#4
1 / 8
Poly
Category: Website
Creator: Tomislav Zlatic
Bedroom Producers Blog
Category
Patch
Store
MPE
Tune
Zoom
Off
Send
Send+ Master
All
Warm
Neutral
Bright
Master Volume
Oscillator
1
2
3
KEYTRACK
RETRIGGER
-3 -2 -1 0 +1 +2 +3
CLASSIC
Bend Depth
Play Mode
Down Up
2 2
POLY
MONO
MONO ST
MONO FP
MONO ST + FP
LATCH
Osc Drift
Noise Color
Oscillator FM Routing
01
02
03
N
NO FM
2▸1
3▸2▸1
2▸1◂3
FM Depth
Filter Configuration
F1
F2
A
S 1 S 2 S 3 D 1 D 2 L-R RING
Feedback
Output
Volume
Pan
Width
Send FX 1 Level
Send FX 2 Level
A
REV
DLY
B
Send FX 1 Return
Send FX 2 Return
Scene -3 -2 -1 0 +1 +2 +3
2
Filter 1
Filter 2
Pitch
Shape
Width
Sub Osc Width
Main<>Sub Mix
Sync
Unison Detune
Unison Voices
Pitch
Portamento
Cutoff
Resonance
F1
F2
Cutoff
Resonance
A Insert FX 1
Reverb 1
Pre-Delay
Pre-Delay
Reverb
Room Shape
Size
Decay Time
HF Damping
EQ
Low Cut
Peak Freq
Peak Gain
High Cut
M
S
1 2 3 1×2 2×3 N Gain
OSC
RING
C4
Keytrack
Waveshaper
OFF
SOFT
HARD
ASYM
SINE
DIGI
Filter EG
DIGITAL
ANALOG
Amp EG
Amp
A D S R ▸F1 ▸F2 HP
A D S R ▸F1 ▸F2
A D S R Gain Vel
Velocity
Keytrack
Poly AT
Channel AT
Pitchbend
Modwheel
Timbre
LFO 1
LFO 2
LFO 3
LFO 4
LFO 5
LFO 6
Amp EG
S-LFO 1
S-LFO 2
S-LFO 3
S-LFO 4
S-LFO 5
S-LFO 6
Filter EG
Output
Width
Mix
Menu
Rate
Phase / Shuffle
Amplitude
Deform
Freerun
Keytrigger
Random
Unipolar
Sine
Triangle
Square
Sawtooth
Noise
S&H
Envelope
Step Seq
0 s
10 s
20 s
30 s
40
LFO EG
D A H D S R

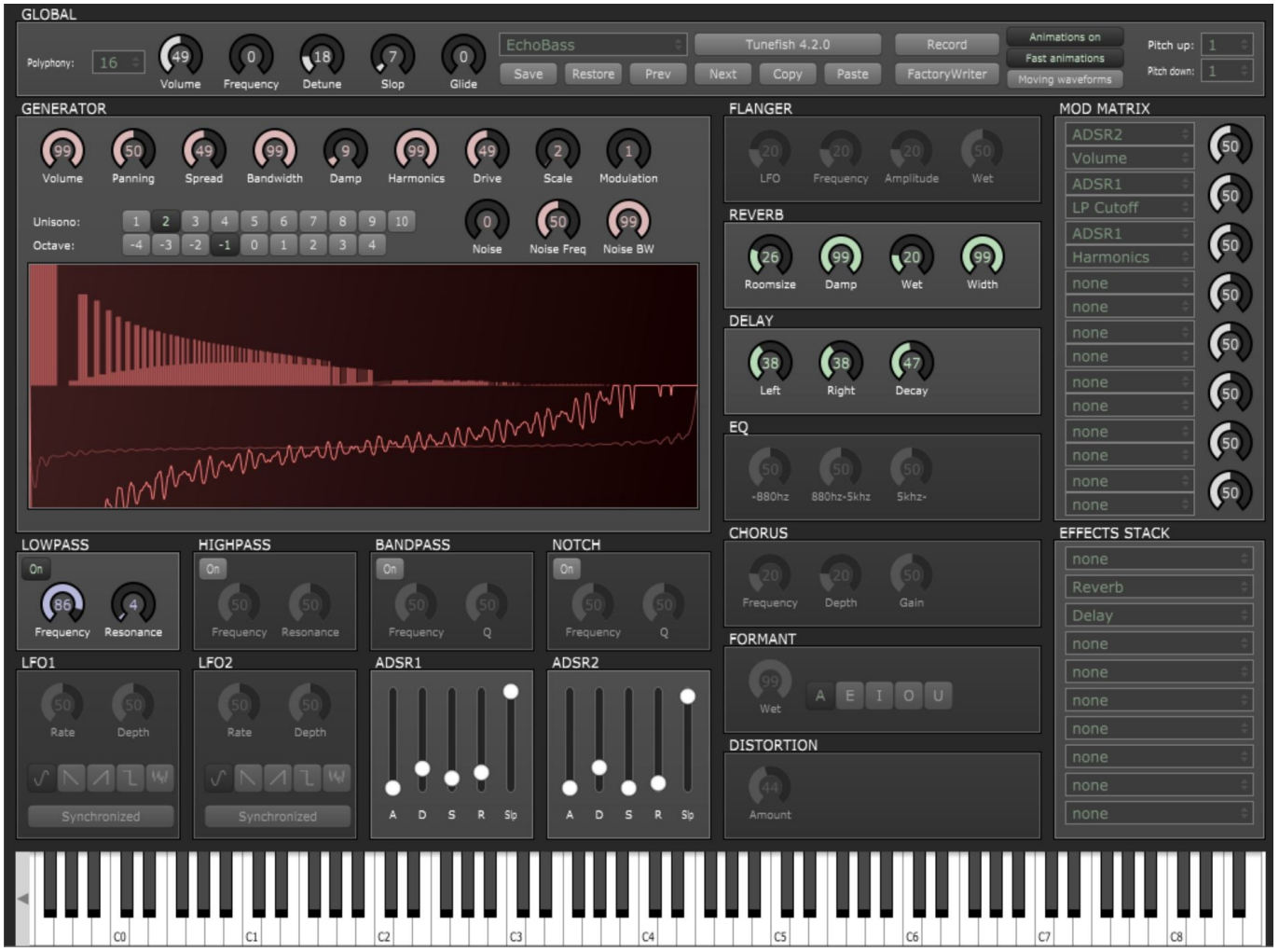


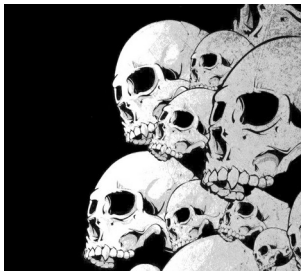
Odin2


Save
Init_patch
Load
Reset
ODIN2
120 BPM
Poly
Legato
AnalogOsc
Oct
Semi
Fine
Vol
Rst
PW
Drift
VectorOsc
X
Y
A
Saw
B
Reed 2
C
Strings 3
D
Sine
Sync
WaveDrawOsc
Lowpass24
Vel
Env
Kbd
Gain
Frequency
Resonance
Saturation
Amplifier
Width
Pan
Distortion
Clamp
Boost
DryWet
Filter 2
Delay
Phaser
Chorus
Flanger
AmpEnv
ModEnv
FilterEnv
GlobalEnv
LOOP
Korg35HP
PingPong
Feedback
HP
Ducking
Time
Dry
Wet
LFO 1
LFO 2
LFO 3
GlobalLFO
Freq
Glide
Master
Pitch Bend
Modwheel
LFO 1 79 Filter1 Frequ... 0 Dest 2 100 ModWheel
Filter Envelope -40 Osc2 Pitch Exp -40 Osc3 Pitch Exp 0 Scale
MIDI note 60 Amp Gain 0 Dest 2 0 Scale
Source 0 Dest 1 0 Dest 2 0 Scale

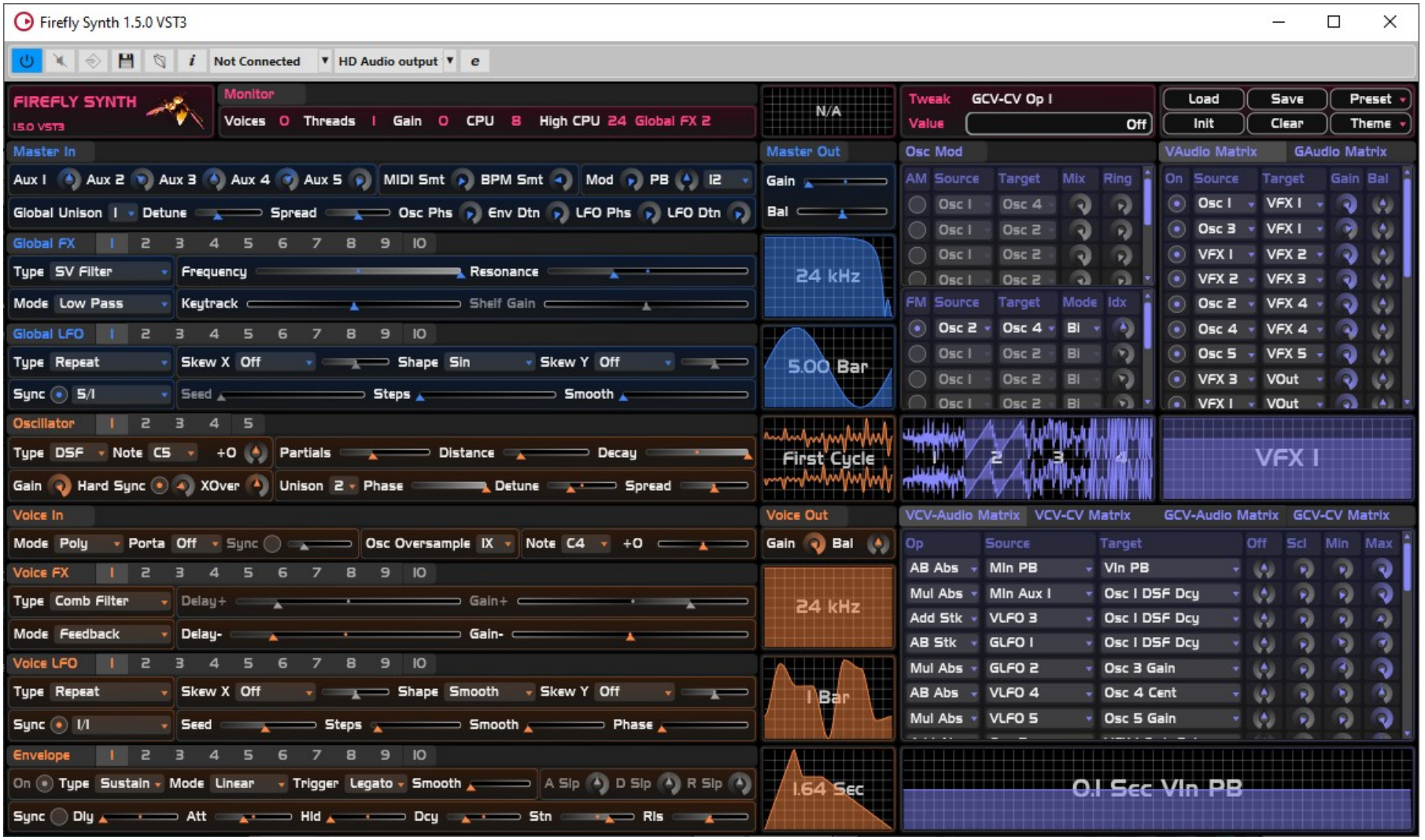


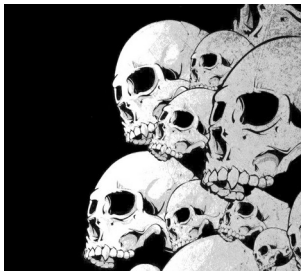
TuneFish 4



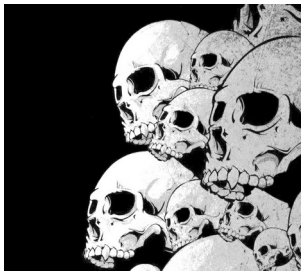


Firefly

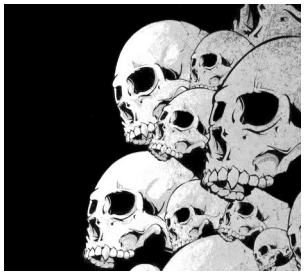




Wavetable

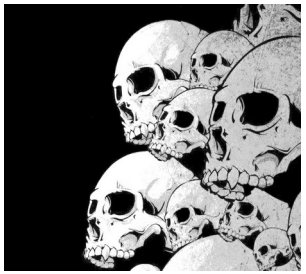


Dexed
DX7 Emulation



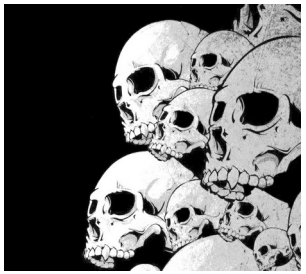
CALF plugins

- A series of LV2 plugins
- An applications to connect these plugins to Jack: **calfjackhost**



Calf Jack Host

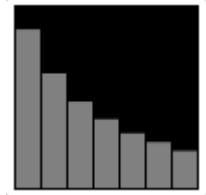
calfjackhost is a rack application that allows you to load and associate several CALF effects via Jack.



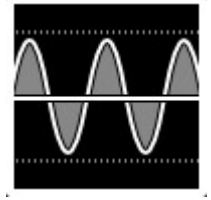
CALF : the plugins 1/2

Instruments and tone generators (Organ, Monosynth)

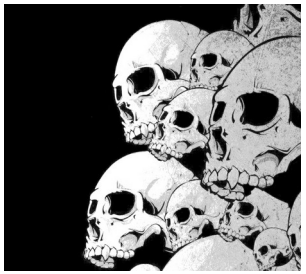
Modulation effects (Multi Chorus, Phaser, Flanger, Rotary, Pulsator)



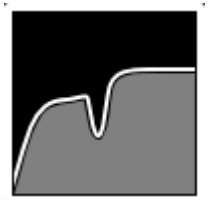
Delay effects (Reverb, Vintage Delay, Compensation Delay Line)



Dynamic processors (Compressor, Sidechain Compressor, Multiband Compressor, Deesser, Gate, Sidechain Gate, Multiband Gate, Limiter, Multiband Limiter, Transient Designer



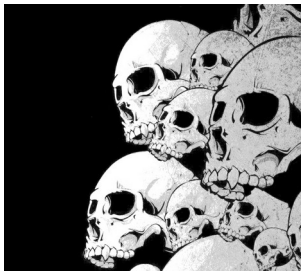
CALF : the plugins 2/2



Filters and equalizers (Filter, Filterclavier, Equalizer 5 Band, Equalizer 8 Band, Equalizer 12 Band

Distortion and enhancement (Saturator, Exciter, Bass Enhancer, Tape Simulator)

Tools (Mono Input, Stereo Tools, Analyzer)

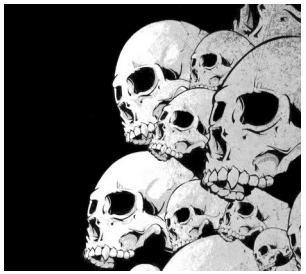


Instruments : CALF Organ

A versatile organ/pad synthesizer, capable of producing many types of sounds:

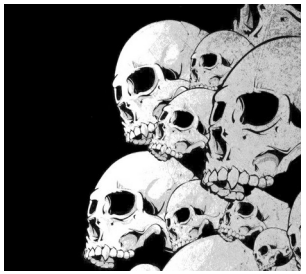
tonewheel organs (up to 9 drawbars)
solid state organs (9 independent oscillators with many waveforms to choose from, individual panning, phase shift and detune for each oscillator)
strings-like or choir-like pads (thanks to a set of long looped samples generated using padsynth algorithm invented by Nasca Octavian Paul)
fat basses and searing leads

The sound from some or all oscillators can be processed using 2 independent (but connectable) filter sections, controlled by up to 3 ADSR envelopes. A vibrato/chorus/phaser section makes the sound more vivid.

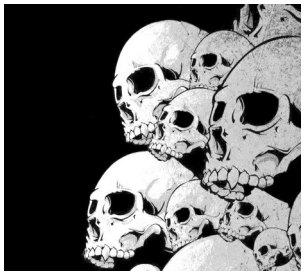


Instruments : CALF Organ
Tone generator - 1/3

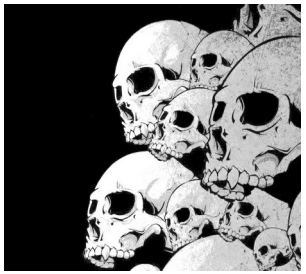
Presets selection



Instruments : CALF Organ Sound processor - 2/3



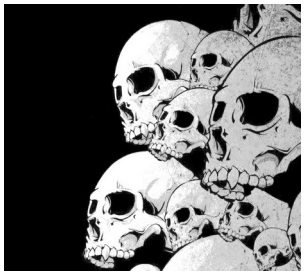
Instruments : CALF Organ Advanced - 3/3



Modulation effects : Multi Chorus

Multi-tap stereo chorus with adjustable number of voices. Adds warmth and richness, especially if you give it a lot of CPU power. A lot of options make this effect highly flexible in expression.

Presets selection



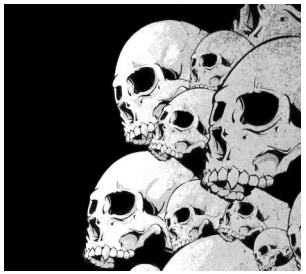
Modulation effects

Chorus:
The Chorus adds a "copy" of the original signal with a vibrato with variable depth, remembering the sound of two guitars playing a "chorus" section.

Flanger:
The Flanger mixes the original signal with a "delayed copy" of this. This will sound like the "jet plane" effect that you should know of a lot of famous records.

Phaser:
The Phaser generates a exponential phase-cancellation, creating a "comes in and out" sound similar to the Flanger.

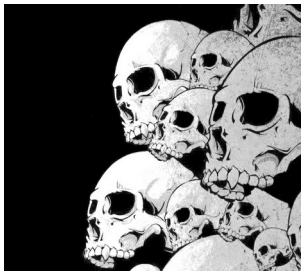
Cry Baby (Wah):
Famous for being used by rock and funky musicians like Jimi Hendrix, Frank Zappa, Geezer Butler, Cliff Burton, Kirk Hammet... The Wah-Wah effect modify the cut-frequency with the use of a MIDI controller (or expression pedal) in Manual Mode. If we select the Auto Mode, a LFO (Low Frequency Oscillator) will modify the cut-freq by our playing.



Delay effects : Reverb

Simple reverb with basic controls and relatively neutral sound. No dreaded metal barrel sound, but at the expense of higher CPU use and less time density. Like most artifficial reverberators, it is not suitable for every instrument, but try it on vocals, guitars or Calf synths, and you will like it.

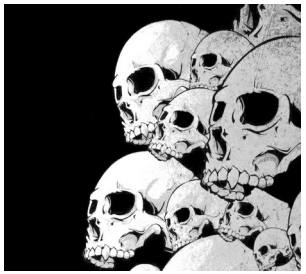
Presets selection



Delay effects : Vintage Delay

A very simple simulation of tape echo, with a filter in a feedback loop and BPM-based time setting. The number of controls is limited, but all the essential stuff is there. Suitable for synths, guitars and almost anything else.

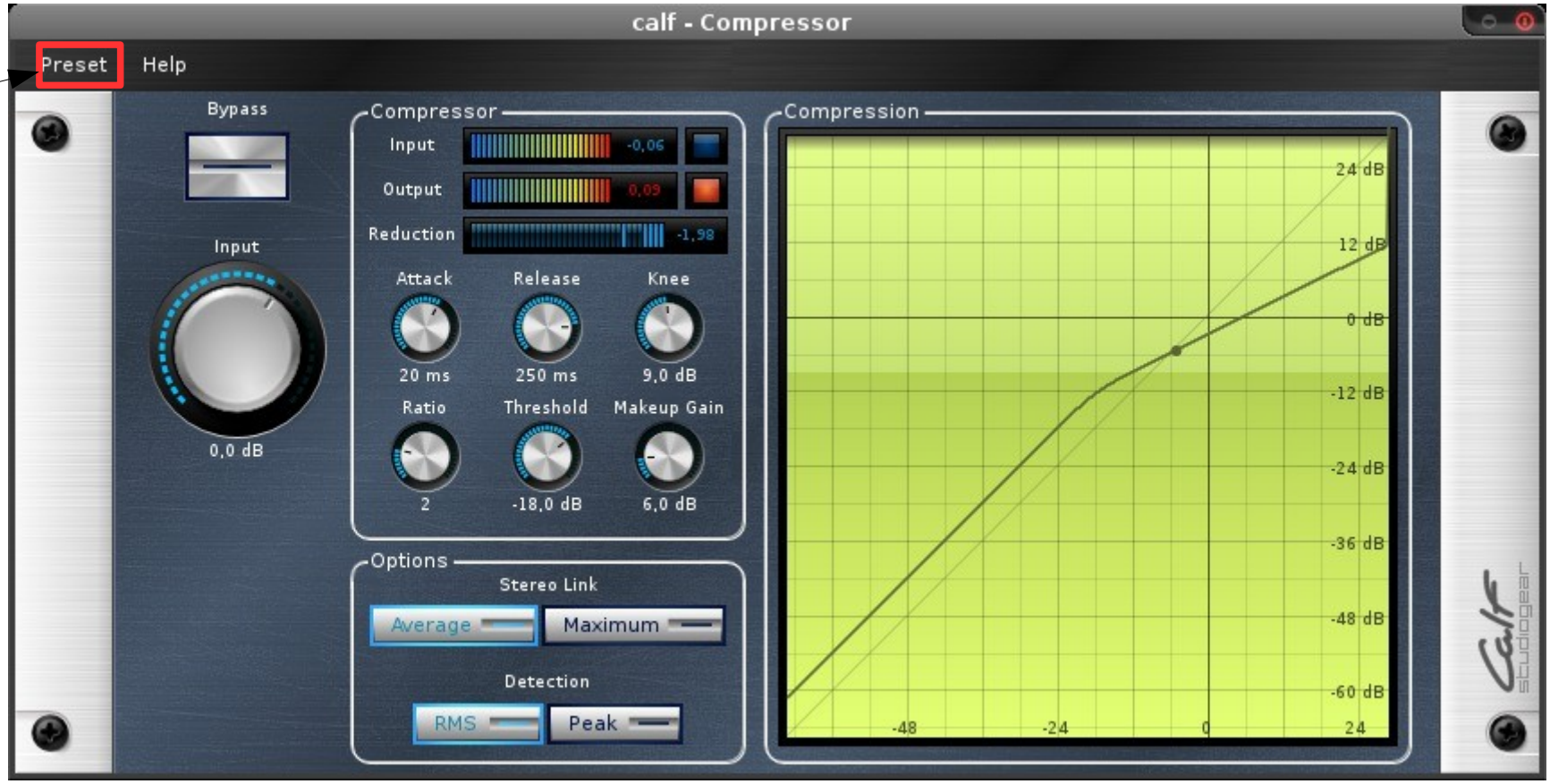
Presets selection

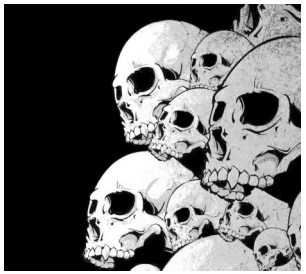


Dynamics : Compressor

Smooth sounding dynamic compressor with a variety of settings, written by Thor Harald Johansen. RMS/peak modes, A-weighting, metering - feels like real studio gear!

Presets selection

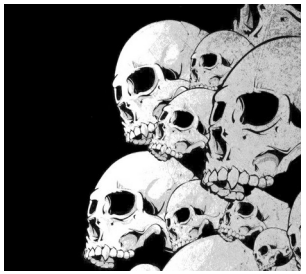




Distortion effects : Saturator

Universal distortion tool. Saturator can act as a guitar distortion as well as a harmonics generator. Some useful filters before and after the distortion stage and gapless adjustment between 2nd and 3rd harmonics give you a great flexibility in sound. The saturation stage is taken from Tom Szilakyi's TAP-plugin pack.

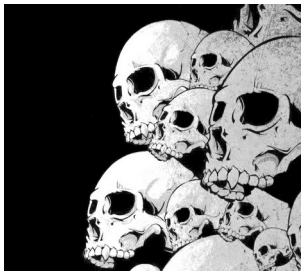
Presets selection



Tools : Mono Input

Since Calf doesn't provide mono versions of the plugins yet, it is essential to split your signal into stereo signals when used in an audio production environment like Ardour. The Mono Input has some useful funtions to deal with the split process like phase inversion and balance.

Presets selection

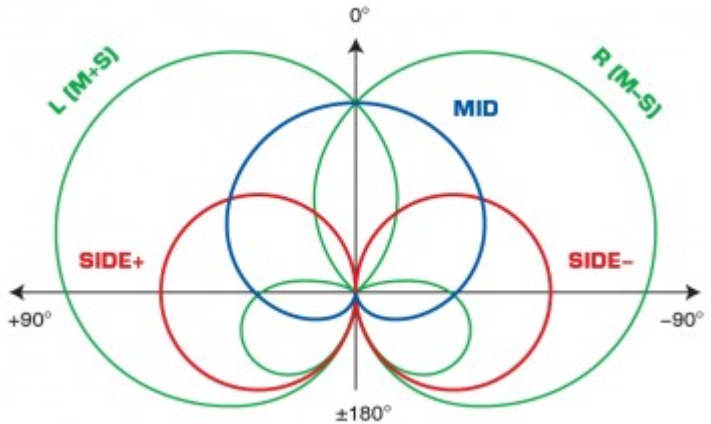


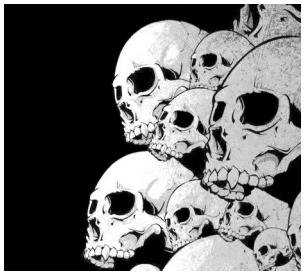
Tools : Stereo Tools

This device is a toolbox for handling stereo signals. It is able to change M/S microphone signals to L/R and vice versa. Switching the phase, muting a channel, widening the stereo base or delaying one of the channels up to 20ms are some of the features of this input or mastering tool.

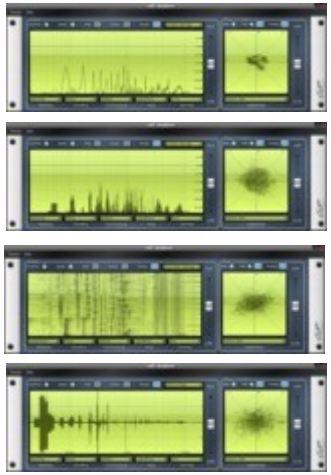
Presets selection

Mid / Side mic setting





Tools : Analyzer Tools



The FFT-Analyzer of this package has a frequency domain display and a goniometer. The frequency chart displays its information from various input modes like L/R, Average or Stereo; it can draw lines or bars, logarithmic or linear graphing. Various output modes like Stereo Image, Stereo Difference and even a Spectralizer with temporal domain are available. Lots of options provide full control of the way the signal is processed and rendered.

https://www.youtube.com/watch?v=TWfqcf-EyUE