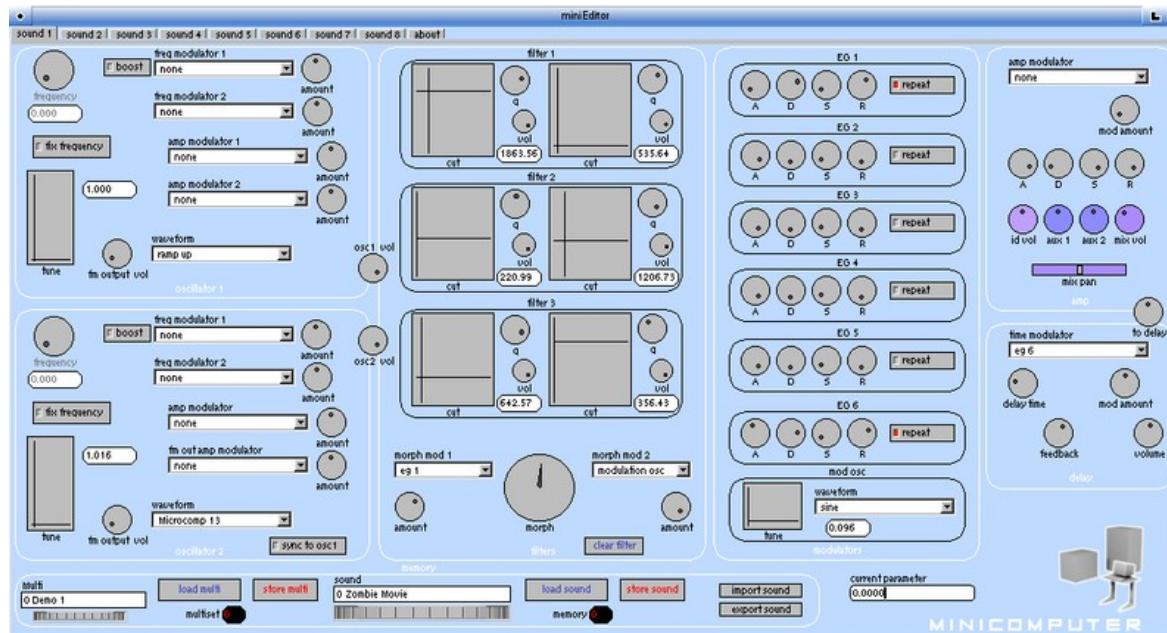
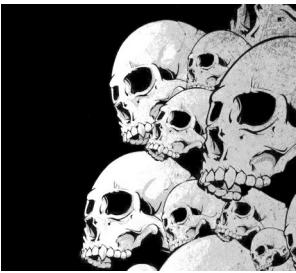


# Linux and Synthesizers



Y. Collette ([ycollette.nospam@free.fr](mailto:ycollette.nospam@free.fr))  
<https://audinux.github.io>



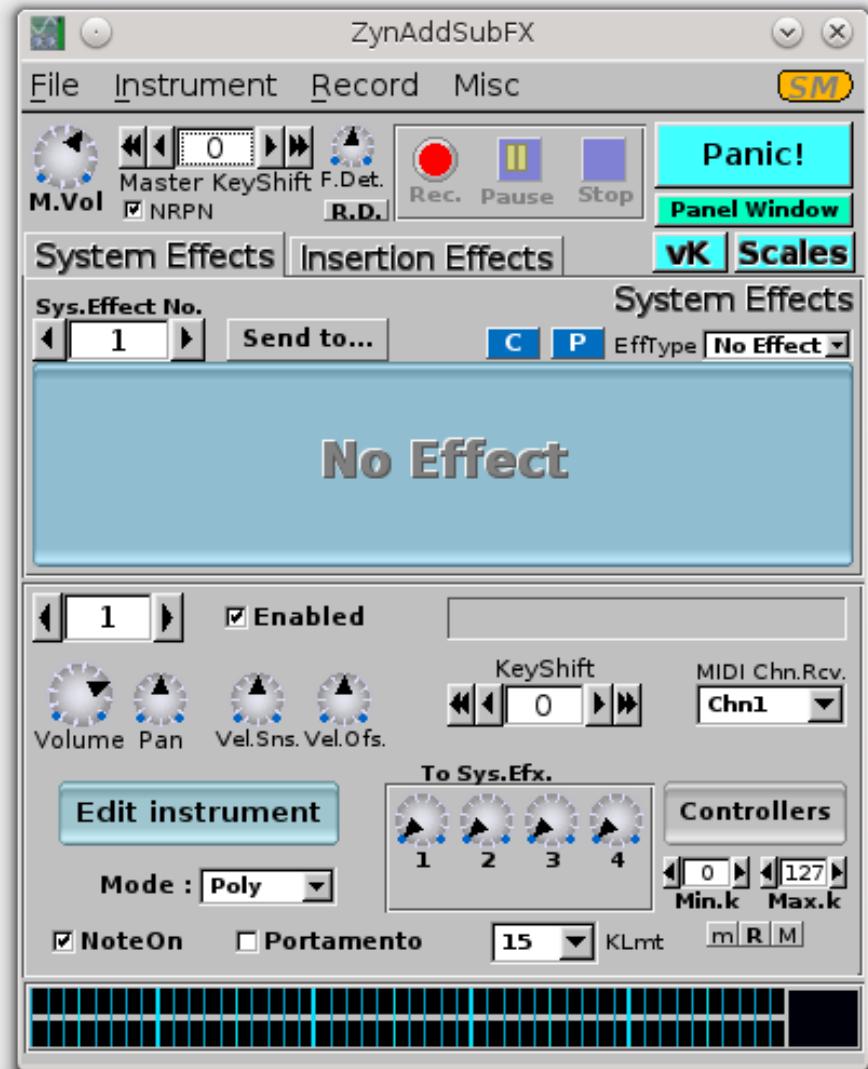


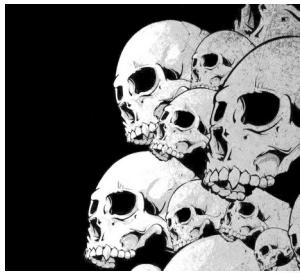
# ZynAddSubFX 1/3

Un synthétiseur très puissant qui est installé avec plein de patches.  
Supporte Jack et Alsa.  
Existe sous la forme de plugin DSSI.

<https://zynaddsubfx.sourceforge.io/>

```
$ dnf install zynaddsubfx  
$ dnf install zynaddsubfx-lv2  
$ dnf install zynaddsubfx-vst  
$ dnf install zynaddsubfx-dssi
```



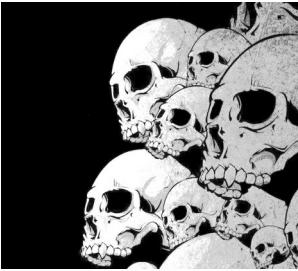


# ZynAddSubFX 2/3

/usr/share/zynaddsubfx/banks/Collection/

|                       |                       |                        |                      |                      |
|-----------------------|-----------------------|------------------------|----------------------|----------------------|
| 1. Xylophone          | 33. Sweep Synth       |                        | 97. Sharp            |                      |
| 2. Vibraphone         | 34. Warm Synth        |                        | 98. Sharp and Warm   |                      |
| 3. Soft Vibes         | 35. Hard Synth        | 67. Soft Flute         | 99. Sharp and Deep   |                      |
| 4. Simple Chimes      | 36. Bright Synth      | 68. Warm Flute         | 100. Sharp Reed      | 131. Lite Guitar     |
| 5. Silver Bell        | 37. Multi Synth       |                        | 101. Far Reed        | 132. Trem Guitar     |
|                       | 38. Slow Saw          |                        |                      | 133. Smooth Guitar   |
|                       | 39. Medium Saw        | 71. Ocarina            |                      | 134. Nylon Guitar    |
| 8. Ethereal           | 40. Hard Saw          |                        | 103. Clarinet        |                      |
|                       | 41. Voiced Saw        | 73. Variable Reed      | 104. Bassoon         |                      |
| 10. Trem Lead         | 42. Sweep Saw         |                        | 106. Aooww           |                      |
|                       | 44. Wipe Synth        | 75. Smooth             | 107. Daooww          | 139. Home Piano      |
| 12. Trem Synth Piano  | 45. Hard Stereo Swee  | 77. Matrix             | 108. Yaooww          | 140. Moonlight Piano |
| 13. Trem Synth        | 46. Master Synth Low  | 78. Sweep Matrix       | 109. Yiee            | 141. Soft Piano1     |
| 15. Simple Square     | 47. Master Synth High | 79. Ice Field          | 110. Eeooww          | 142. Soft Piano2     |
| 16. Full Square       | 48. Sharp Synth       | 80. Hollow Ice Field   | 112. Overdrive       | 143. Space Piano     |
| 17. Super Square      |                       | 81. Beyond             | 113. Overdrive 2     |                      |
| 18. Steel Wire        | 50. Fretless Bass     |                        | 114. Overdrive 3     | 146. Space Voice     |
| 19. Metal Drips       | 51. Decay Bass        | 83. Sweep Pad          |                      | 147. Space Voice 2   |
| 20. Fantasia          | 52. Steel Bass        | 84. Breathy Pad        | 116. Power Guitar 1  |                      |
| 21. Soft              | 53. Synth Bass        | 85. Bottle             | 117. Power Guitar 2  | 149. Soft Choir      |
| 22. Ultra Soft        | 54. Distorted Bass    | 86. ReedBank           |                      | 150. Full Choir      |
| 23. Whistle           |                       | 87. Sweep Rushes       | 120. Wet Brass       | 151. Soft Ahh        |
| 24. Wipe Whistle      |                       | 88. Rushes             |                      | 152. Breathy Ahh     |
| 25. Ghost Whistle     | 57. Sub Delay         | 89. Medium Rushes      | 122. Extended Rushes |                      |
|                       | 58. Reed Organ        | 90. Bright Rushes      | 123. Prophesy        | 155. Super Pad       |
|                       | 59. Soft Organ        | 91. Bright Rush Pipe   |                      | 156. Hyper Pad       |
| 28. Echo Bubbles      | 60. Thin Pipe         | 92. Bright Rush Long T | 125. Pan Pipe 32     | 157. Hyper Matrix    |
| 29. Full Strings      | 61. Great Organ       | 93. Voyager            | 126. Pan Pipe        | 158. Extreme         |
| 30. Slow Strings      | 62. Hammond Organ     | 94. Soft Voyager       | 127. Pan Pipe 96     |                      |
|                       | 63. Percussion Organ  | 95. Soft Voyager Reve  |                      | 160. Wind and Surf   |
| 32. Pizzicato Strings | 64. Sines             | 96. Echo Choir         |                      |                      |

READ    WRITE    CLEAR    SWAP    Show PADsynth status    auto close



# ZynAddSubFX 3/3

Instrument Edit

Type: Synth Pad

Author and Copyright: Will Godfrey  
GPL V 2 or later

Comments:

ADDsynth SUBsynth PADsynth

Enabled  Enabled  Enabled

Edit Edit Edit

Kit Edit Effects

Close

Gestion d'effets par son

Gérer sa bibliothèques de sons / Midi

Part's Insert Effects

Preset: Phaser 3

Subtract:

Dpth Phase:  hyp.  Analog

Stages: 2

dist:

SIN:  LFO:  Fb:  St.df:  Rnd:  Pan:  D/W:  Freq:

FX No.: 1

bypass:

EffType: Phaser

Send To: Next Effect

Close

Instrument Kit

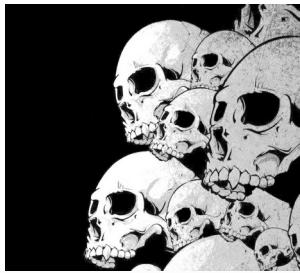
| M. | Min.k | Max.k | ADsynth                  | SUBsynth                 | PADsynth                 | FX.r. |
|----|-------|-------|--------------------------|--------------------------|--------------------------|-------|
| 10 | 0     | 127   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FX1   |
| 11 | 0     | 127   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FX1   |
| 12 | 0     | 127   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FX1   |
| 13 | 0     | 127   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FX1   |
| 14 | 0     | 127   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FX1   |
| 15 | 0     | 127   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FX1   |
| 16 | 0     | 127   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | FX1   |

Mode: OFF  Drum mode Close Window

3 types de modélisation :

- ADDSynth
- SUBSynth
- PADSynth

24/08/2013



# AmSynth



Synthétiseur simple d'utilisation fournit avec une grande quantité de patches.

Existe sous la forme de plugin LV2.

```
$ dnf install amsynth  
$ dnf install dssi-am synth  
$ dnf install lv2-am synth  
$ dnf install vst-am synth
```

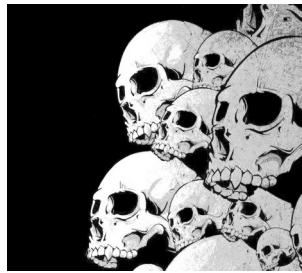
<http://code.google.com/p/am synth/?p=index>

24/08/2013

Y. Collette

5



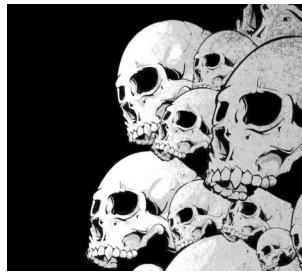


# Aeolus 1/2

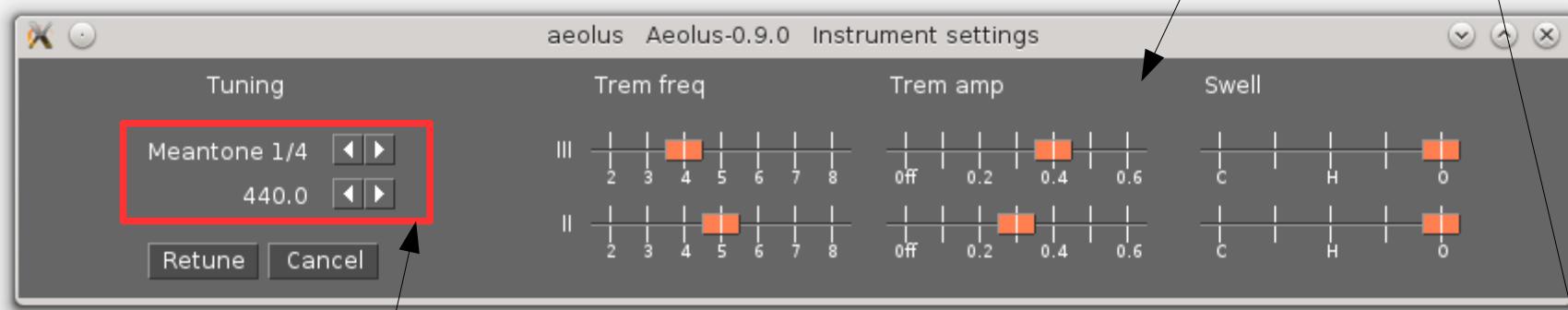
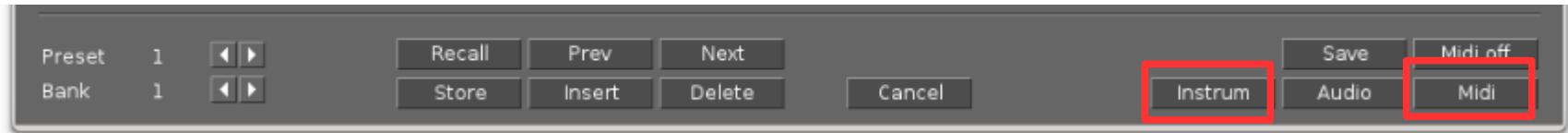
aeolus Aeolus-0.9.0 [130:0]

|        |                |                  |                |                 |                |                 |                     |                |              |              |
|--------|----------------|------------------|----------------|-----------------|----------------|-----------------|---------------------|----------------|--------------|--------------|
| III    | Principal<br>8 | Gemshorn<br>8    | Quinta-dena 8  | Suabile<br>8    | Rohrflöte<br>4 | Dulzflöte<br>4  | Quintflöte<br>2 2/3 | Super-octave 2 | Siffler<br>1 | Cymbel<br>VI |
|        | Oboe           | Tremulant        |                |                 |                |                 |                     |                |              |              |
| II     | Rohrflöte<br>8 | Harmonic Flute 8 | Flauto Dolce 4 | Nasard<br>2 2/3 | Ottavina<br>2  | Tertia<br>1 3/5 | Sesqui-altera       | Septime        | None         | Krumhorn     |
|        | Melodia        | Tremulant        | II+III         |                 |                |                 |                     |                |              |              |
| I      | Principal<br>8 | Principal<br>4   | Octave<br>2    | Octave<br>1     | Quint<br>5 1/3 | Quint<br>2 2/3  | Tibia<br>8          | Celesta<br>8   | Flöte<br>8   | Flöte<br>4   |
|        | Flöte<br>2     | Cymbel<br>VI     | Mixtur         | Trumpet         | I+II           | I+III           |                     |                |              |              |
| P      | Subbass<br>16  | Principal<br>16  | Principal<br>8 | Principal<br>4  | Octave<br>2    | Octave<br>1     | Quint<br>5 1/3      | Quint<br>2 2/3 | Mixtur       | Fagott<br>16 |
|        | Trombone<br>16 | Bombarde<br>32   | Trumpet        | P+I             | P+II           | P+III           |                     |                |              |              |
| Preset | 1              | ◀ ▶              | Recall         | Prev            | Next           |                 |                     | Save           | Midi off     |              |
| Bank   | 1              | ◀ ▶              | Store          | Insert          | Delete         | Cancel          |                     | Instrum        | Audio        | Midi         |

<http://kokkinizita.linuxaudio.org/linuxaudio/aeolus/index.html>



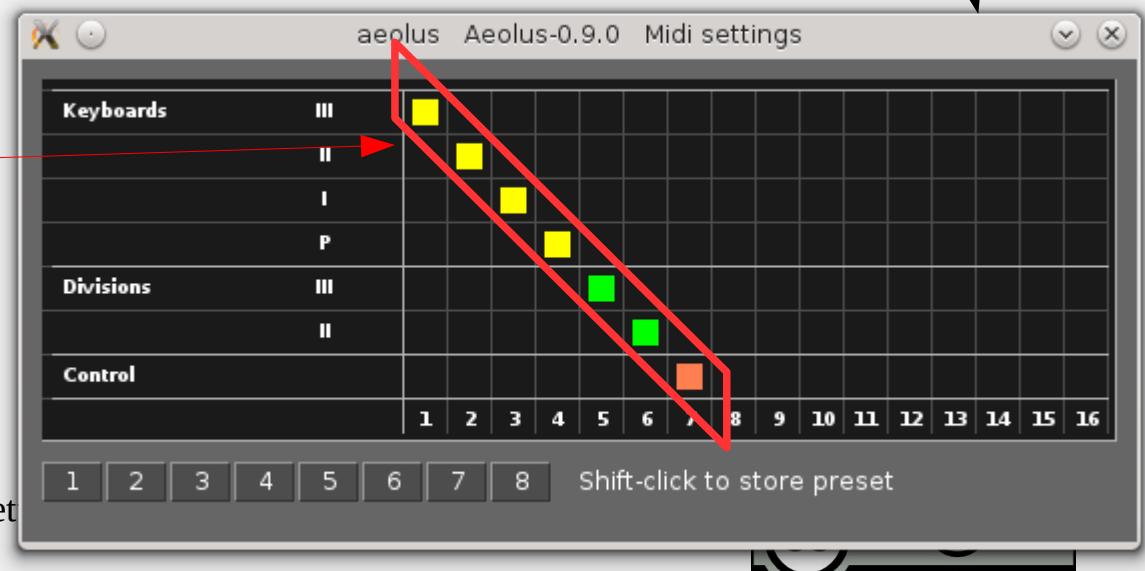
# Aeolus 2/2

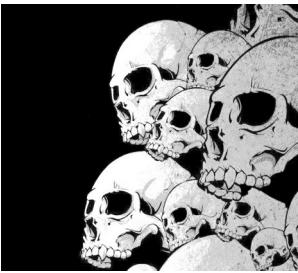


Gestion du type d'orgue

Affectation du canal  
MIDI et des  
différents claviers

```
$ dnf install aeolus  
$ dnf install lv2-aeolus_plugin  
$ dnf install vst3-aeolus_plugin
```





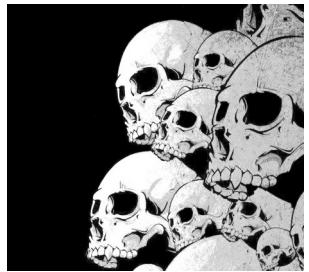
# PhaseX

<https://github.com/williamweston/phasex>



Entièrement contrôlable par MIDI.  
Très puissant.  
Installé avec quelques patches intéressants.

\$ dnf install phasex

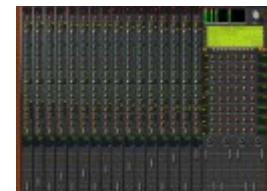
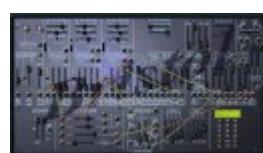


# Bristol

Les monuments du synthé

<http://bristol.sourceforge.net>

MOOG



HAMMOND



RHODES

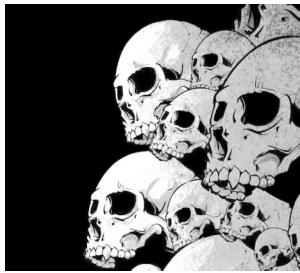


YAMAHA DX



lette





# Bristol

Le mini-moog

<http://fr.wikipedia.org/wiki/Minimoog>



Mini moog

Le minimoog est un synthétiseur analogique monophonique, inventé par Robert Moog. Commercialisé en 1970.

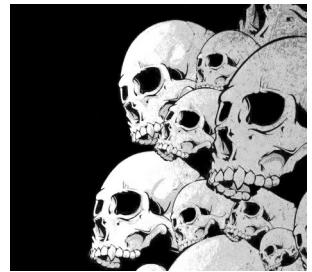
Il a notamment été utilisé par de nombreux musiciens, dont Eloy Fritsch, Rick Wakeman Jean-Michel Jarre, Rush, Toto, Marillion, Keith Emerson, Rick Wakeman, Yes, Vangelis, Herbie Hancock et Richard Tandy (ELO).

24/08/2013

Y. Collette



Min BY



# Bristol

Petit problème : bristol se lance en ligne de commande

```
$ startBristol -mini -jack -jdo
```

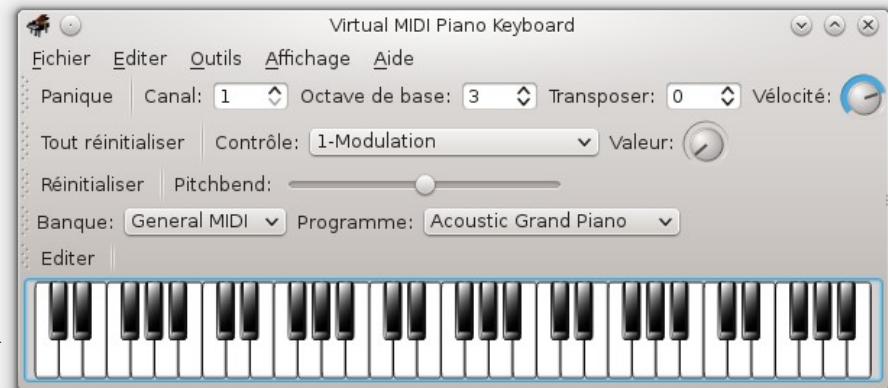
- mini : sélection du synthé
- jack: utilisation de jack pour la sortie audio
- jdo : utilisation de jack pour l'entrée midi



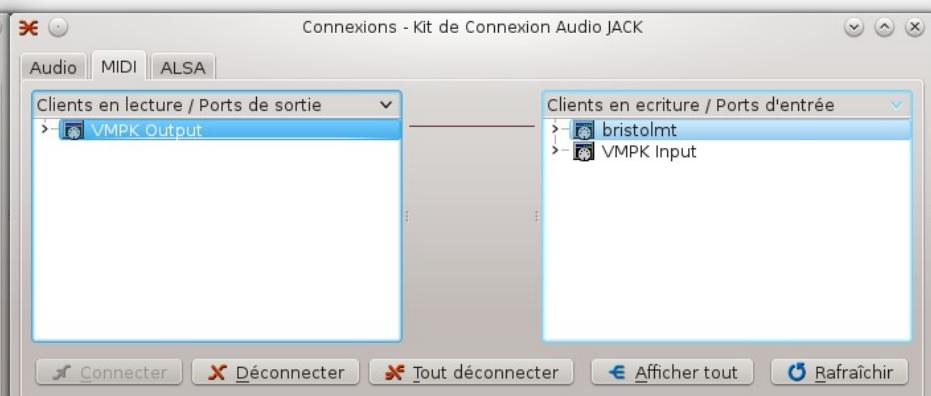
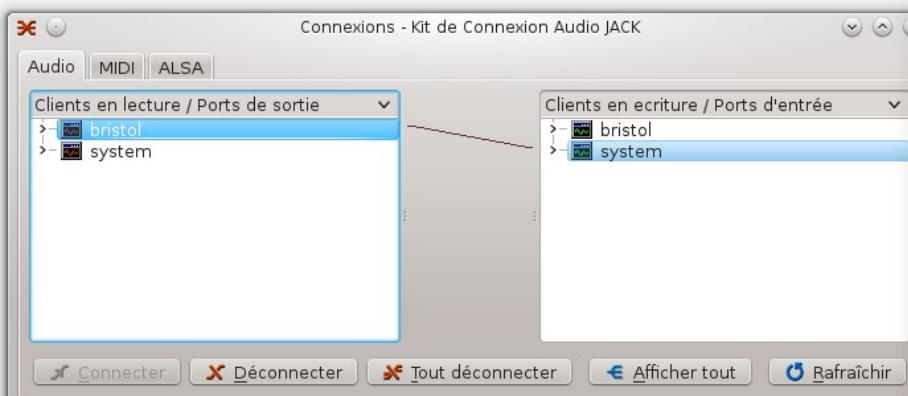
Jack audio

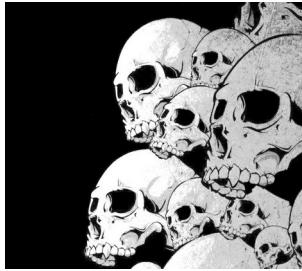
miniMoog

VMPK



Jack MIDI

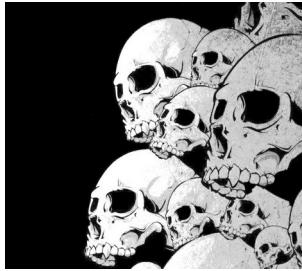




# Bristol

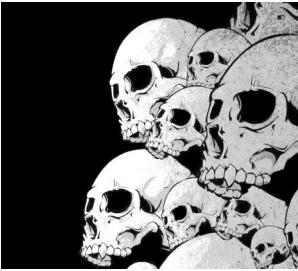
## Liste des synthétiseurs

|                    |                                      |
|--------------------|--------------------------------------|
| <b>-mini</b>       | moog mini                            |
| <b>-explorer</b>   | moog voyager                         |
| <b>-voyager</b>    | moog voyager electric blue           |
| <b>-memory</b>     | moog memory                          |
| <b>-sonic6</b>     | moog sonic 6                         |
| <b>-mg1</b>        | moog/realistic mg-1 concertmate      |
| <b>-hammond</b>    | hammond module (deprecated, use -b3) |
| <b>-b3</b>         | hammond B3 (default)                 |
| <b>-prophet</b>    | sequential circuits prophet-5        |
| <b>-pro52</b>      | sequential circuits prophet-5/fx     |
| <b>-pro10</b>      | sequential circuits prophet-10       |
| <b>-pro1</b>       | sequential circuits pro-one          |
| <b>-rhodes</b>     | fender rhodes mark-I stage 73        |
| <b>-rhodesbass</b> | fender rhodes bass piano             |
| <b>-roadrunner</b> | crumar roadrunner electric piano     |
| <b>-bitone</b>     | crumar bit 01                        |
| <b>-bit99</b>      | crumar bit 99                        |
| <b>-bit100</b>     | crumar bit + mods                    |
| <b>-stratus</b>    | crumar stratus synth/organ combo     |



# Bristol Liste des synthétiseurs

|                  |   |
|------------------|---|
| <b>-trilogy</b>  | crumar trilogy synth/organ/string combo |
| <b>-obx</b>      | oberheim OB-X                           |
| <b>-obxa</b>     | oberheim OB-Xa                          |
| <b>-axxe</b>     | arp axxe                                |
| <b>-odyssey</b>  | arp odyssey                             |
| <b>-arp2600</b>  | arp 2600                                |
| <b>-solina</b>   | arp/solina string ensemble              |
| <b>-polysix</b>  | korg polysix                            |
| <b>-poly800</b>  | korg poly-800                           |
| <b>-monopoly</b> | korg mono/poly                          |
| <b>-ms20</b>     | korg ms20 (unfinished: -libtest only)   |
| <b>-vox</b>      | vox continental                         |
| <b>-voxm2</b>    | vox continental super/300/II            |
| <b>-juno</b>     | roland juno-60                          |
| <b>-jupiter</b>  | roland jupiter-8                        |
| <b>-bme700</b>   | baumann bme-700                         |
| <b>-bm</b>       | bristol bassmaker sequencer             |
| <b>-dx</b>       | yamaha dx-7                             |
| <b>-cs80</b>     | yamaha cs-80 (unfinished)               |

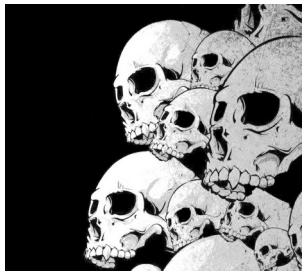


# Bristol

## Liste des synthétiseurs

|                   |   |
|-------------------|---|
| <b>-sidney</b>    | commodore-64 SID chip synth                       |
| <b>-melbourne</b> | commodore-64 SID polyphonic synth (unfinished)    |
| <b>-granular</b>  | granular synthesiser (unfinished)                 |
| <b>-aks</b>       | ems synthi-a (unfinished)                         |
| <b>-mixer</b>     | 16 track mixer (unfinished: <b>-libtest</b> only) |

```
$ dnf install bristol
```



# QMidiArp

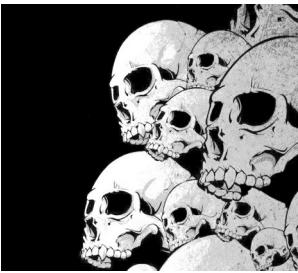
<http://qmidiarp.sourceforge.net/>

The screenshot shows the QMidiArp software interface with several open modules:

- Seq:1**: A sequencer module showing a grid of notes over four measures. It includes controls for Velocity, Note Length, Resolution, and Transpose.
- Arp:1**: An arpeggiator module. It has a "Pattern" section with a green grid showing a sequence of notes, and an "Output" section with envelope sliders for Attack (beats) and Release (beats).
- LFO:1**: A low-frequency oscillator module showing a waveform grid. It includes controls for Waveform, Resolution, Frequency, Length, Amplitude, and Offset.
- Global Store**: A global control module where sequences and arps can be assigned to specific MIDI CC# values. It lists "Seq:1", "Seq:2", "Arp:1", and "LFO:Testifitgets" with their respective assignments.

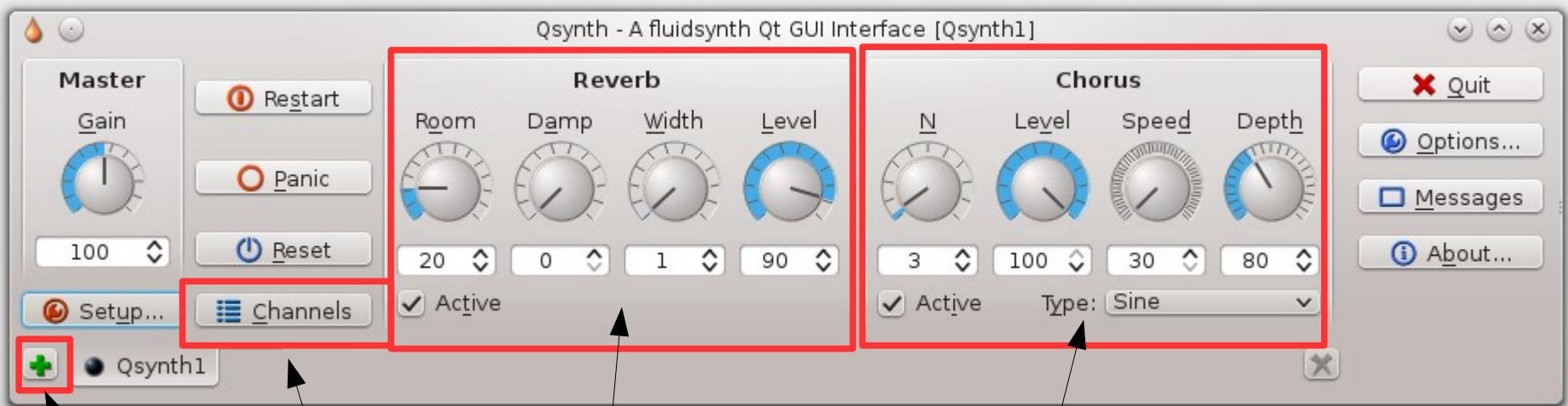
Pour transformer  
une note MIDI en  
séquences ou autre.

\$ dnf install qmidiarp



# QSynth

Qsynth est une interface graphique à fluidsynth. Elle permet de lire des Sound Fonts SF2.



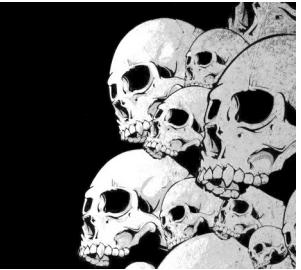
Ajouter des moteurs  
fluidsynth

Réglages

Réverbération  
globale

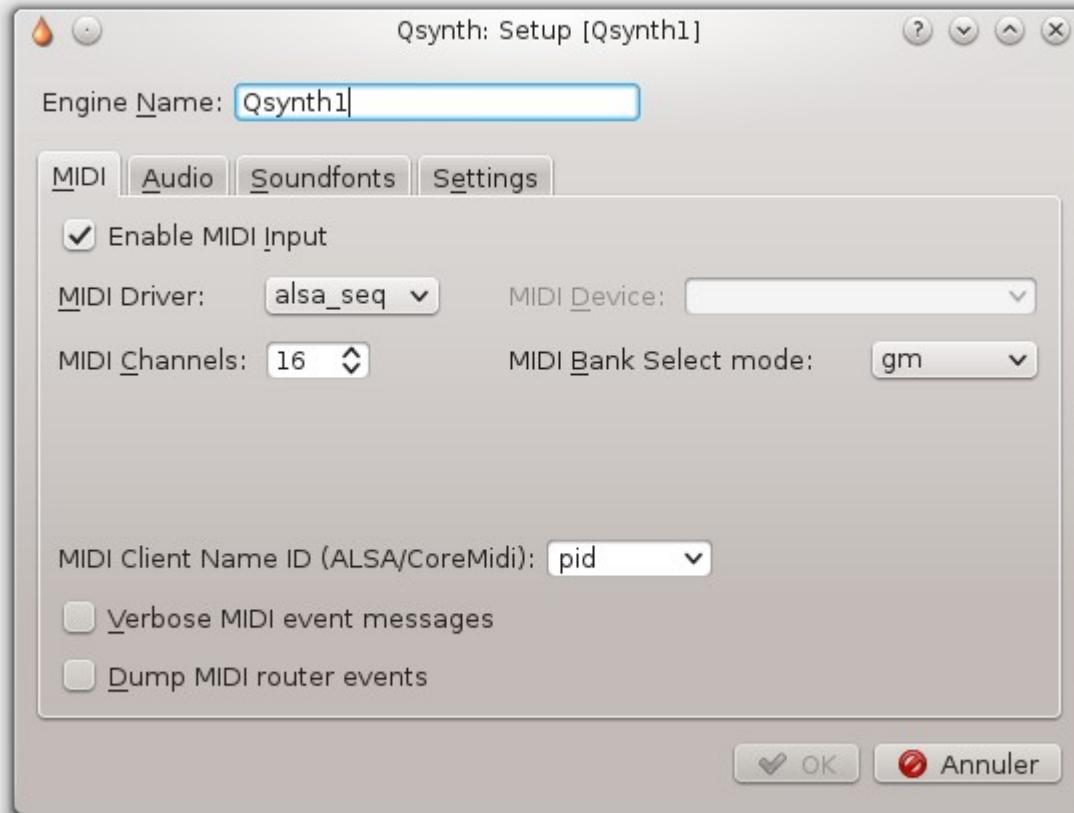
Chorus global

\$ dnf install qsynth



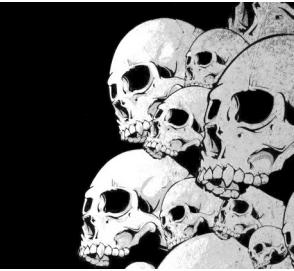
# Qsynth

## Setup 1/4



Menu permettant de sélectionner le type d'entrée MIDI à utiliser :

- alsaseq
- jack



# Qsynth

## Setup 2/4



Modification du nom du moteur

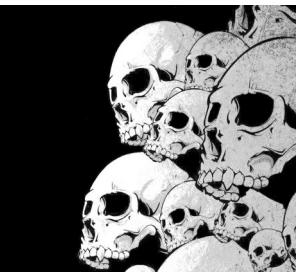
Sélection du driver audio :

- jack

- alsa

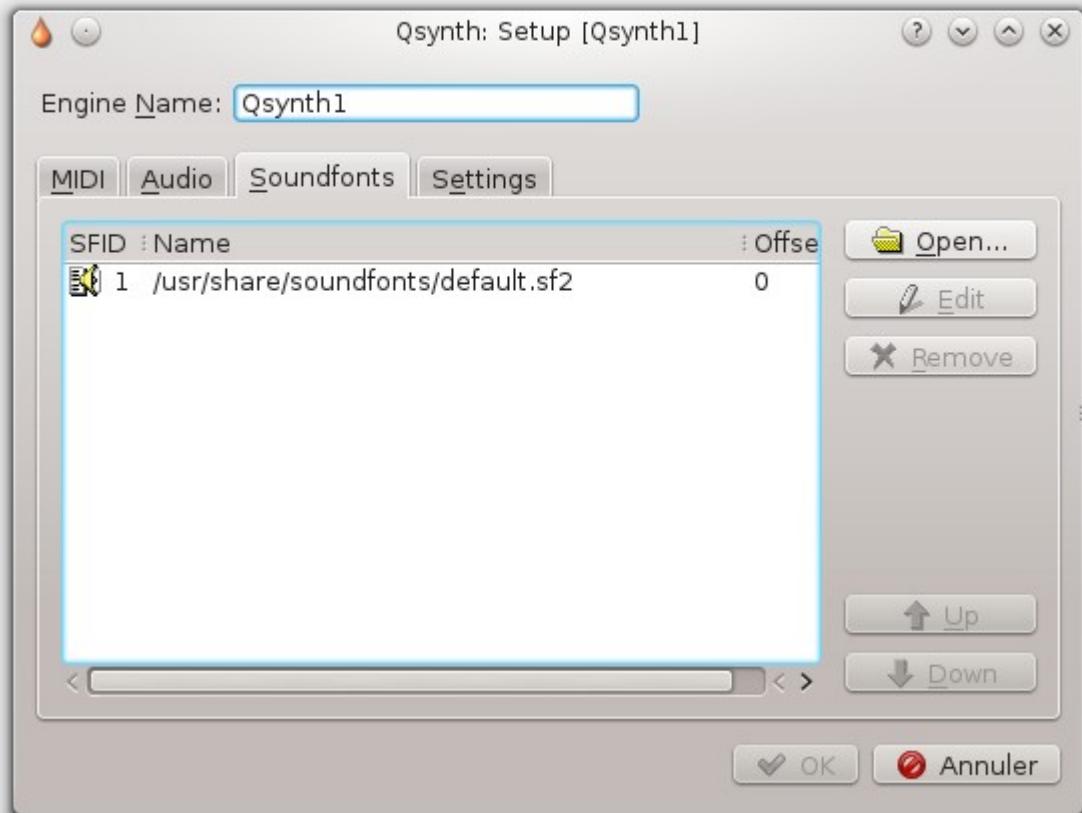
Sélection de certains paramètres audio

Modification du nom Jack

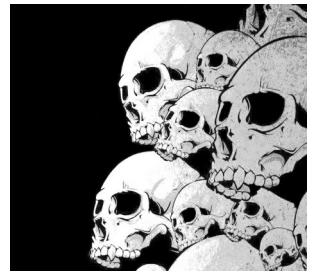


# Qsynth

## Setup 3/4



Fenêtre de chargement des SoundFonts

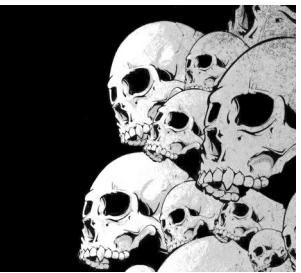


# Qsynth

## Setup 4/4



Fenêtre de réglage des options de fluidsynth



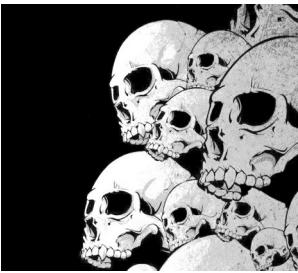
# Qsynth Channels

Qsynth: Channels [Qsynth1]

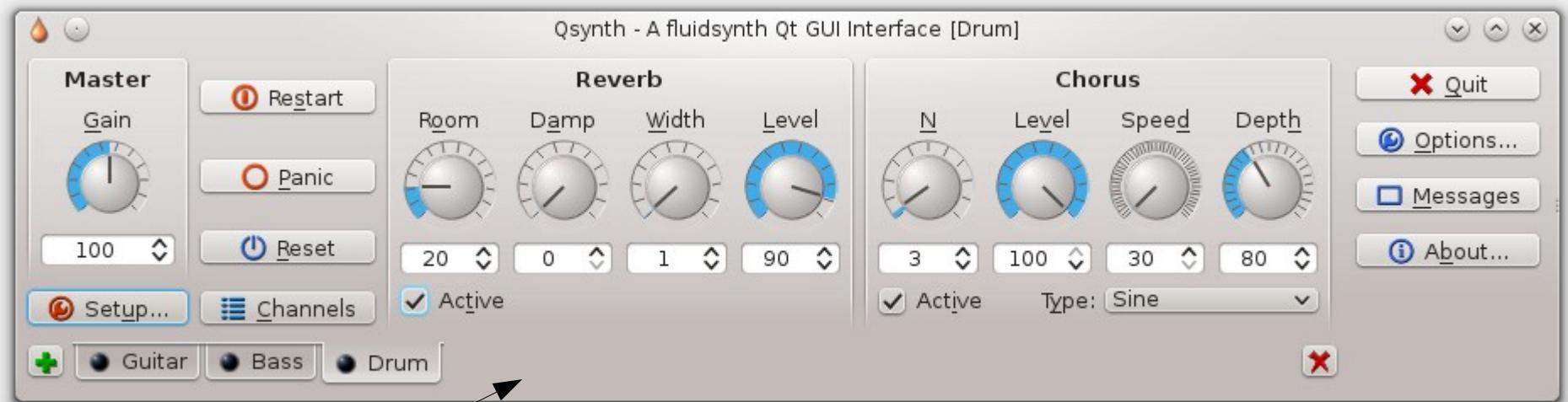
Preset Name: (default)

| In | Chan | Bank | Prog | Name                |
|----|------|------|------|---------------------|
| ●  | 1    | 0    | 0    | Yamaha Grand Piano  |
| ●  | 2    | 0    | 1    | Bright Yamaha Grand |
| ●  | 3    | 0    | 2    | Electric Piano      |
| ●  | 4    | 0    | 3    | Honky Tonk          |
| ●  | 5    | 0    | 4    | Rhodes EP           |
| ●  | 6    | 0    | 5    | Legend EP 2         |
| ●  | 7    | 0    | 6    | Harpsichord         |
| ●  | 8    | 0    | 7    | Clavinet            |
| ●  | 9    | 0    | 8    | Celesta             |
| ●  | 10   | 128  | 9    | Room 1              |
| ●  | 11   | 0    | 10   | Music Box           |
| ●  | 12   | 0    | 11   | Vibraphone          |
| ●  | 13   | 0    | 12   | Marimba             |
| ●  | 14   | 0    | 13   | Xylophone           |
| ●  | 15   | 0    | 14   | Tubular Bells       |
| ●  | 16   | 0    | 15   | Dulcimer            |

Fenêtre d'affectation des instruments et des canaux.  
1 fenêtre par moteur fluidsynth.



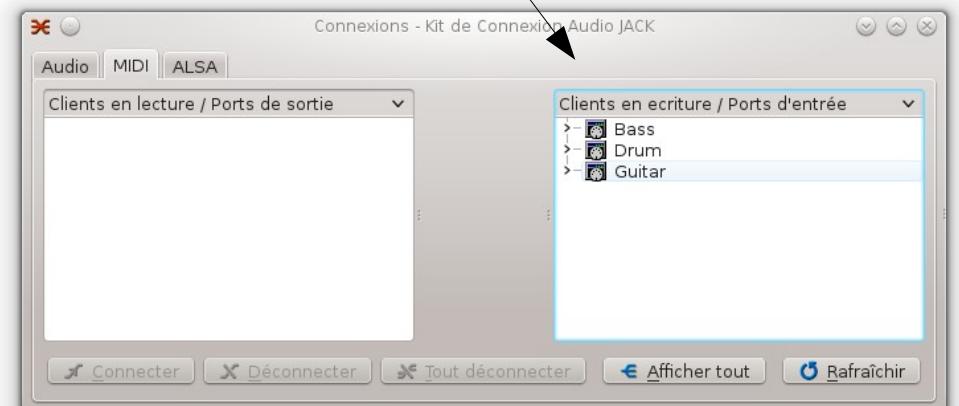
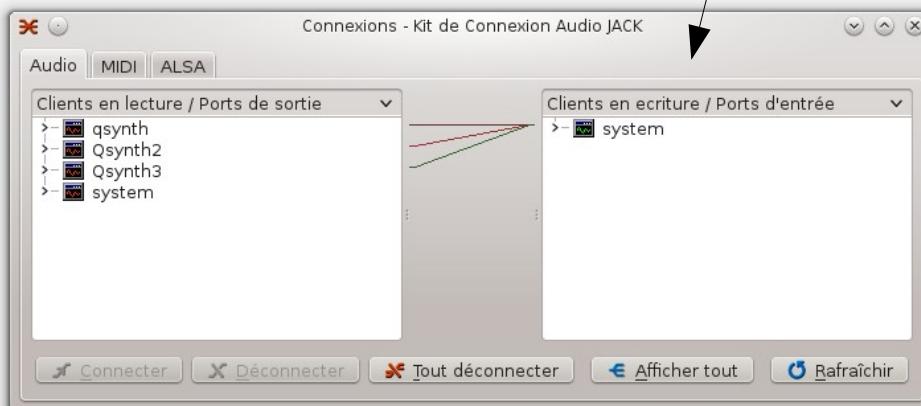
# QSynth

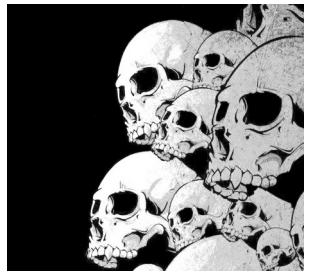


Coté QSynth

Coté Jack audio

Coté Jack MIDI





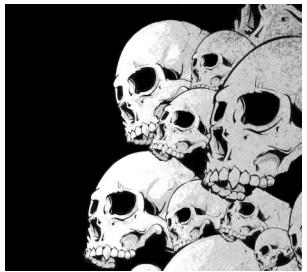
# SF2 swami / polyphone

Pour modifier ou créer une Sound Font SF2 :

- Polyphone (<http://www.polyphone.fr>)
- Swami (<http://www.swamiproject.org>)

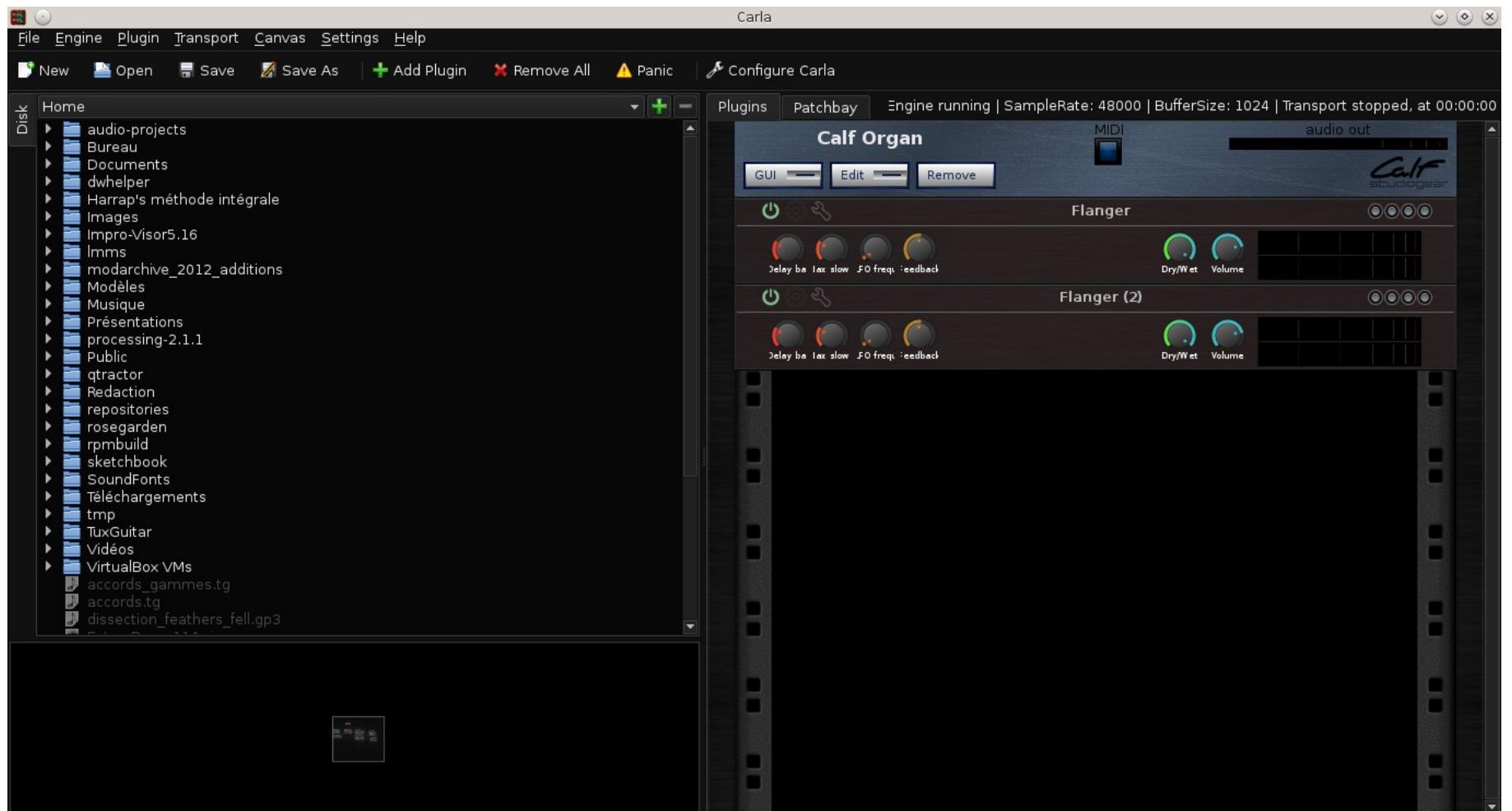
```
$ dnf install swami  
$ dnf install polyphone
```

The screenshot shows the Swami software interface. On the left, there's a tree view of patches and instruments, with 'Vintage Dreams Waves v 2.0' and 'Fluid-Release II' selected. The main workspace features a piano-roll editor at the top and a waveform editor at the bottom. The waveform editor displays a blue waveform with a green vertical line indicating a specific sample. To the right, a detailed sample editor window is open for 'F\_crom 8 062-DR'. It shows various parameters: Size (397918 - 9.023s), Loop (198756 - 199206), Rootkey (62), Correction (cents) (-1), Sample rate (44100), Type (right), and Link (F\_crom 8 062-DR). It also includes sections for Frequency (key 62, correction -2 (estimation)) and Equalizer (±15 dB).

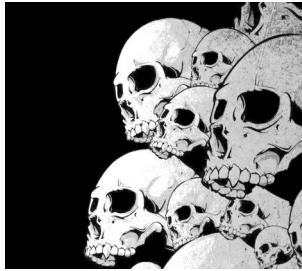


# Carla

## Rack de plugins

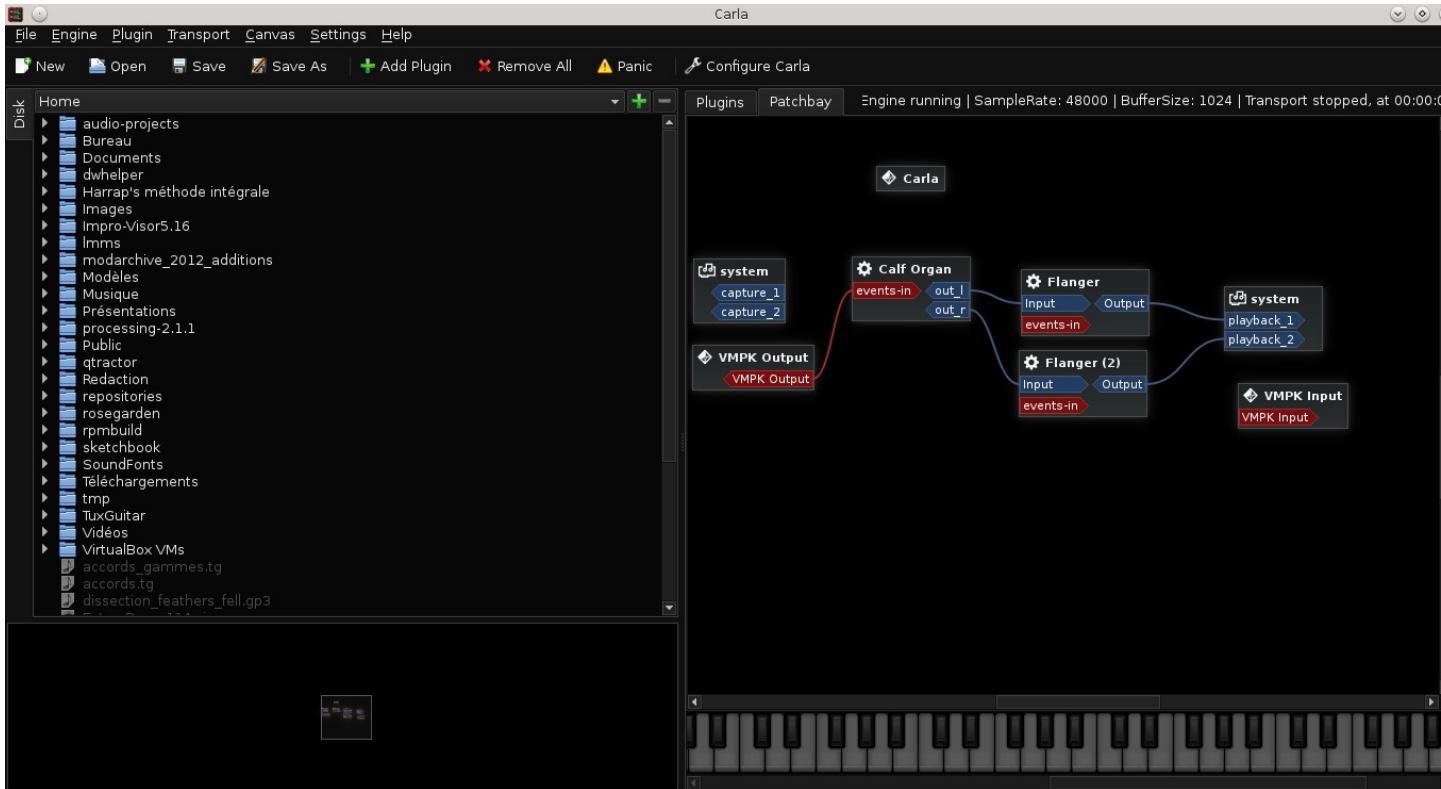


<https://github.com/falkTX/Carla>



# Carla

## Patchbay

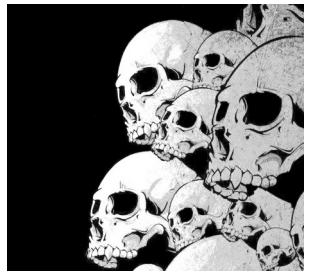


Carla :

```
$dnf install Carla
```

Carla-mao : same  
as Carla but with the  
windows bridge to  
open Windows VST

```
$ dnf install Carla-mao
```



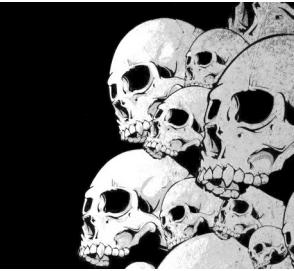
# Ouorgan

## Un orgue à samples



```
$ dnf install grandorgue
```

<http://sourceforge.net/p/ourorgan/wiki/Home/>



# Organs

**lv2-foo-yc20-plugins** : This is a Faust implementation of a 1969 designed Yamaha combo organ

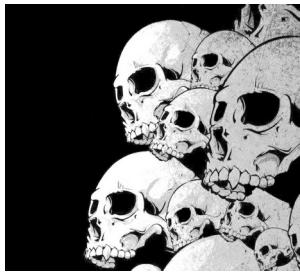
**lv2-prelude** : A wavetable-based church organ

**lv2-setBfree-plugins** : A DSP Tonewheel Organ emulator. LV2 version

**lv2-toccata** : A reasonable LV2 church organ

**organ** : Organ VST / LV2 plugin

**morgan** : Organ-inspired VST3 plug-ins



# LinuxSampler

## Un player de samples

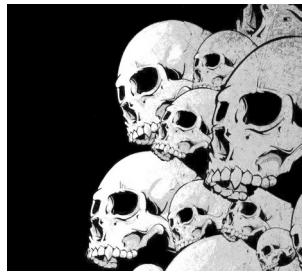
Supporte les formats :

- SF2
- SFZ
- GIG

```
$ dnf install qsampler  
$ dnf install gigedit
```



<https://linuxsampler.org/>



# Helm

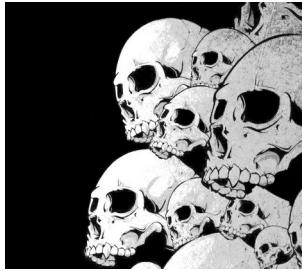
<https://tytel.org/helm/>

The Helm interface is a modular synthesizer and sequencer. Key features include:

- Oscillators:** Two main oscillators with tuning, transposition, and unison options. A sub oscillator and noise generator are also present.
- Feedback:** Includes transpose, tune, amount, and saturation controls.
- Stutter:** Provides frequency resampling and soft filtering.
- Delay:** Offers feedback, dampening, and wet/dry mix.
- Reverb:** Adds feedback, damping, and wet/dry mix.
- Volume:** A simple volume fader.
- Articulation:** Manages voices, pitch bend, portamento, velocity, and mod wheel.
- Step Sequencer:** A 8-step sequencer with frequency control.
- Envelopes:** Amplitude and filter envelopes with attack, decay, sustain, and release segments.
- LFOs:** Mono LFO 1 and 2, and a poly LFO for modulation.
- Global Controls:** Filter Cutoff, ARP (with 1/16 note resolution), Octaves, and various power and switch buttons.

\$ dnf install helm





# DISTRHO

Daxed

drowaudio-distortion

drowaudio-distortionshaper

drowaudio-flanger

drowaudio-reverb

drowaudio-tremolo

drumsynth

EasySSP

eqinox

KlangFalter

LUFSMeter

LUFSMeterMulti

Luftikus

Obxd

PitchedDelay

StereoSourceSeparation

TAL-Dub-3

Une série de plugins VST portés vers LV2.

<https://distrho.sourceforge.io/>

TAL-Filter-2

TAL-Filter

TAL-NoiseMaker

TAL-Reverb-2

TAL-Reverb-3

TAL-Reverb

TAL-Vocoder-2

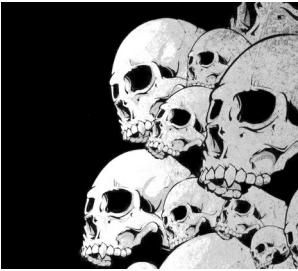
TheFunction

ThePilgrim

Vex

Wolpertinger

```
$ dnf install DISTRHO-Ports  
$ dnf install zynthian-data-distrho  
$ dnf install DIE-Plugins
```



# DISTRHO - 1/7



## Arctican :

These are simple but useful plugins, "developed as there was nothing similar out there".

In the pack you will find 2 Arctican plugins: "The Function" and "The Pilgrim".

## Daxed :

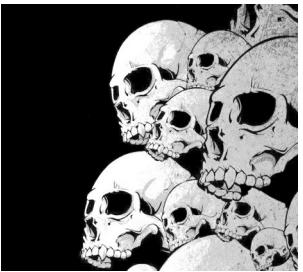
Daxed is a plugin synth that is closely modeled on the Yamaha DX7.

The goal of this synth is to be a tool/companion for the original DX7.

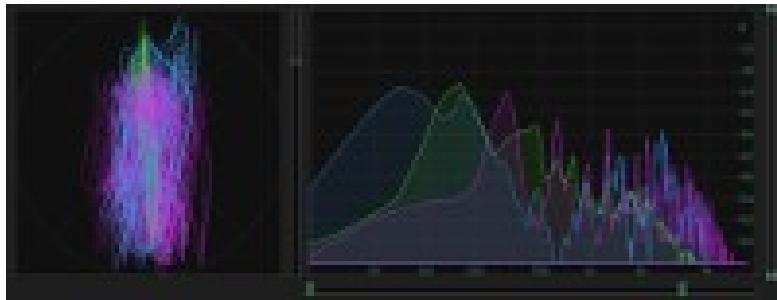


## dRowAudio :

Professional grade audio plugin suite from dRowAudio, now available for Linux.



# DISTRHO - 2/7



## EasySSP :

Easy Sound Space Perception is a small and lightweight audio visualization tool, which currently provides spectrometer and goniometer views.

## Juced :

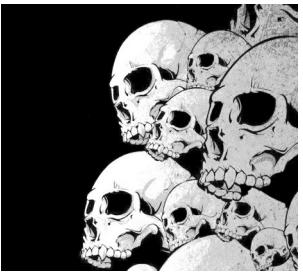
Plugins originally in the Jucetice project, then moved to Juced.

We took DrumSynth and EQinox and made them work better and in LV2 format.

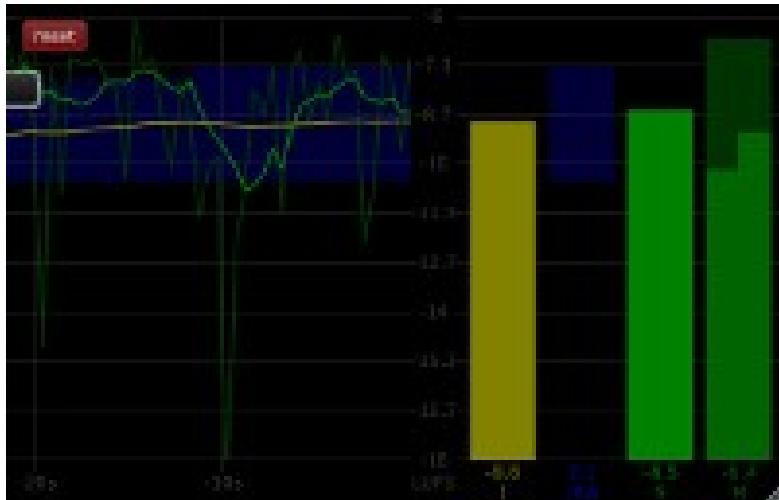


## KlangFalter :

KlangFalter is a convolution audio plugin.



# DISTRHO – 3/7



## LUFS Meter :

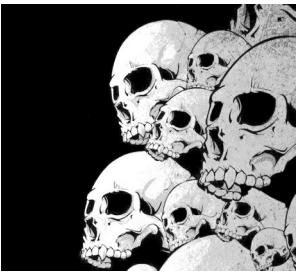
The LUFS Meter plugin measures loudness similar to the human perception of loudness.

## Luftikus :

Luftikus is a digital adaptation of an analog EQ with fixed half-octave bands and additional high frequency boost.

As an improvement to the hardware it allows deeper cuts and supports a keep-gain mode where overall gain changes are avoided.





# DISTRHO - 4/7

## Mverb :



MVerb is a studio quality, open-source reverb.

Its release was intended to provide a practical demonstration of Dattorro's figure-of-eight reverb structure and provide the open source community with a high quality reverb.

## Nekobi :

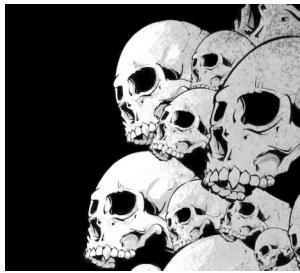
Nekobi is a simple single-oscillator synth based on the Roland TB-303.



## Obxd :

Obxd is emulation of famous ob-x, ob-xa and ob8 synths.

While not copying originals, some of the features were taken to a better point.



# DISTRHO – 5/7

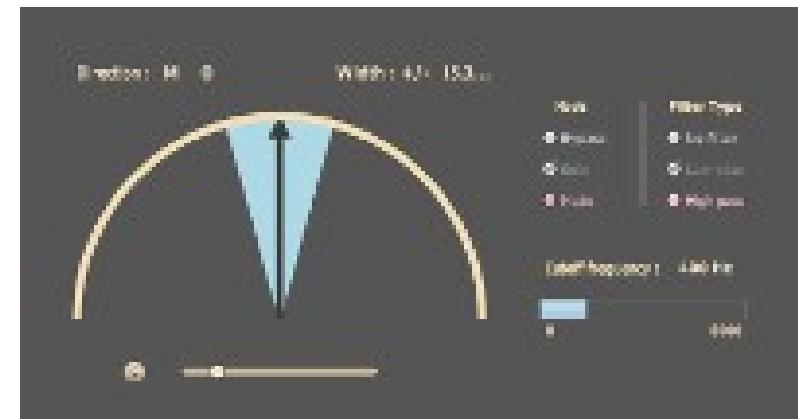


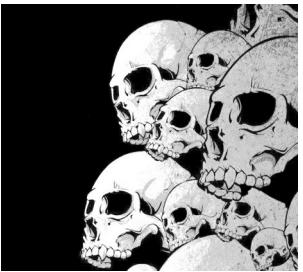
## Pitched Delay :

PitchedDelay is a delay that allows the pitching the delayed signal, within or outside the feedback loop.

## Stereo Source Separator :

This is a plugin that uses the spatial information hidden in the stereo signal to accomplish source separation.





# DISTRHO – 6/7

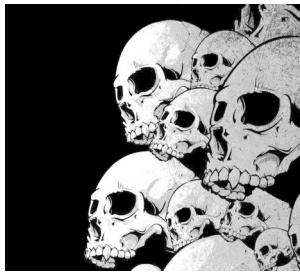


**TAL :**

This is a plugin pack from TAL (Togu Audio Line), now available for Linux.

In this pack you will find TAL Dub-3, Filter, NoiseMaker, Reverb and Vocoder.

A Special thanks goes to Patrick Kunz for making these awesome plugins!



# DISTRHO - 7/7



Vex :

Vex is a 3 oscillator subtractive wavetable synth

Wolpertinger :

Wolpertinger is a subtractive, antialiased polyphonic software synthesizer, now working as a LV2 plugin.

