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<https://audinux.github.io>





The Live Coding 1/5

SuperCollider : <https://supercollider.github.io>

```
Play {sinosc.ar (onepole.ar (mix (lfsaw.ar ([1,0.99], [0,0.6],  
2000,2000) .trun ([400,600])*[1, -1]), 0.98).
```

<https://www.youtube.com/watch?v=wNWFSIadAH8>

CSound : <http://www.csounds.com>

```
sr = 44100  
ksmps = 32  
nchnls = 2  
0dbfs = 1  
  
instr 1  
  
iflg = p4  
asig oscils .7, 220, 0, iflg  
outs asig, asig
```

QuteCsound

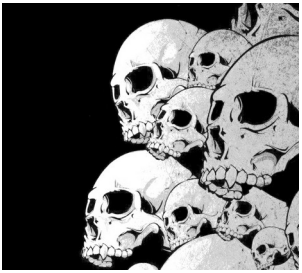
Chuck : <http://chuck.cs.princeton.edu>

```
// set the global gain  
.1 => dac.gain;
```

```
// connect  
SinOsc a => dac;  
110.0 => a.freq;  
1::second => now;  
SinOsc b => dac;  
220.0 => b.freq;
```

miniAudicle

<https://www.youtube.com/watch?v=BHooZu5xzAs>
<https://www.youtube.com/watch?v=vNrRdyDIniQ>



The Live Coding 2/5

<https://sonic-pi.net>

The screenshot displays the Sonic Pi application window. The top toolbar includes buttons for Run, Stop, Rec, Save, Load, Size, Align, Info, Help, and Prefs. The main code editor contains the following Ruby code:

```
1 # Rerezzed
2
3 # Coded by Sam Aaron
4
5 use_debug false
6 use_random_seed 103
7 notes = (scale :e1, :minor_pentatonic, num_octaves: 2).shuffle
8
9 live_loop :rerezzed do
10   tick_reset
11   t = 0.02
12   sleep -t
13   with_fx :bitcrusher do
14     s = synth :mod_dsaw, note: :e2, sustain: 8, note_slide: t, release: 0
15     64.times do
16       sleep 0.125
17       control s, note: notes.tick
18     end
19   end
20 end
```

Below the code editor is a buffer bar with 10 buffers, with Buffer 0 selected. To the right, the 'Préférences' (Preferences) window is open, showing the 'Éditeur' (Editor) tab. The 'Montre et cache' (Show and hide) section has all options checked: 'Affichage des numéros de ligne' (Show line numbers), 'Affichage de la trace' (Show trace), 'Affichage des boutons' (Show buttons), and 'Affichage des onglets' (Show tabs). The 'Look and Feel' section has 'Mode sombre' (Dark mode) and 'Plein écran' (Full screen) unchecked. The 'Automatisation' (Automation) section has 'Alignement automatique' (Automatic alignment) checked. Below the preferences, the 'Trace' window shows the message '=> Welcome to Sonic Pi'. At the bottom, the 'Aide' (Help) window is open, displaying a table of contents with sections like 'Bienvenue à Sonic Pi', 'Codage en live', 'Exploration de l'interface', 'Apprendre en jouant', 'Synthés', and 'Vos premiers Beeps'. The bottom status bar shows 'v2.10-dev' and 'Sonic Pi v2.10.0-dev-24344 on Linux'.



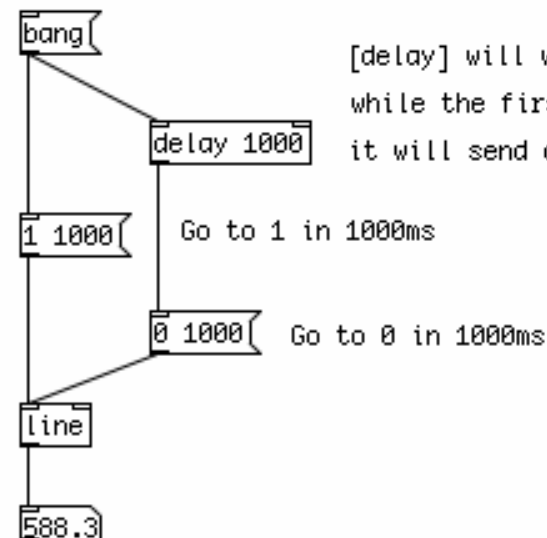
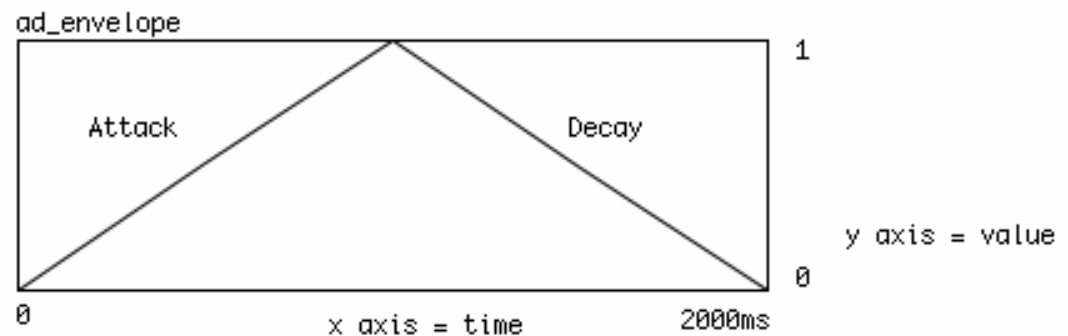
The Live Coding – 3/5

Pure Data : <https://puredata.info>

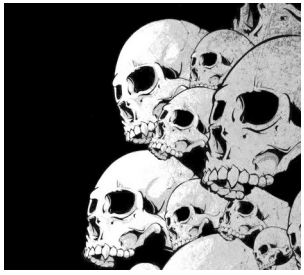
A visual programming tool
dedicated to audio and
video.

eg2.pd

Graphical representation of a simple up/down, or
Attack/Decay (AD) envelope.



[delay] will wait 1000ms after the input "bang",
while the first ramp is being executed, and then
it will send a "bang" to trigger the second ramp.



The Live Coding – 4/5

ProjectM: a video diffuser synchronized at the audio

<https://github.com/projectm-visualizer/projectm>

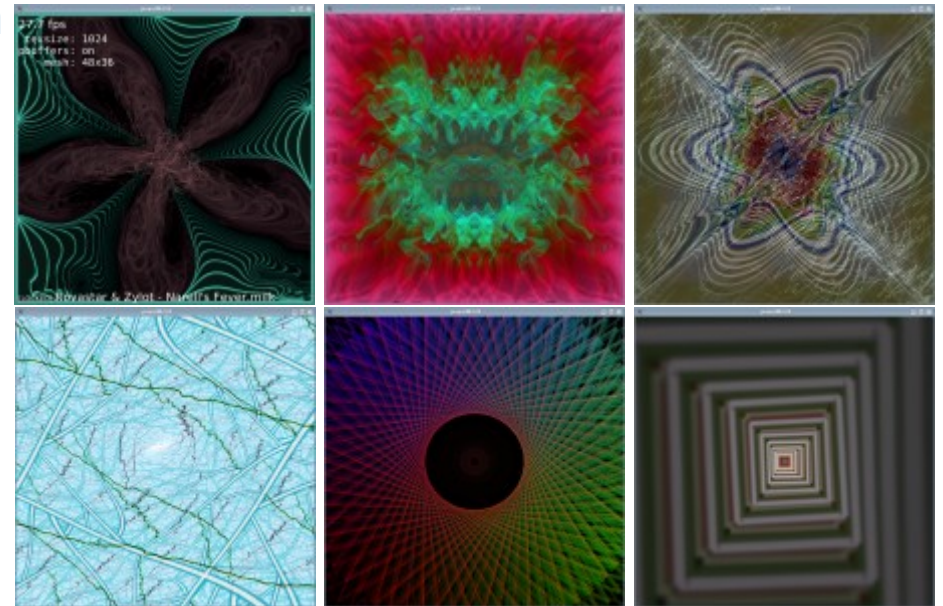
ProjectM code from Winamp.

To launch the Jack version of Projectm

```
$ projectM-jack
```

To launch the Pulseaudio version of Projectm

```
$ projectM-pulseaudio
```



F1: Help

F2: song title

F3: Preset name

F4: Rendering configuration

F5: FPS

F11: Full screen

L: Ventu / delay the preset

M: displays the menu

A: random preset

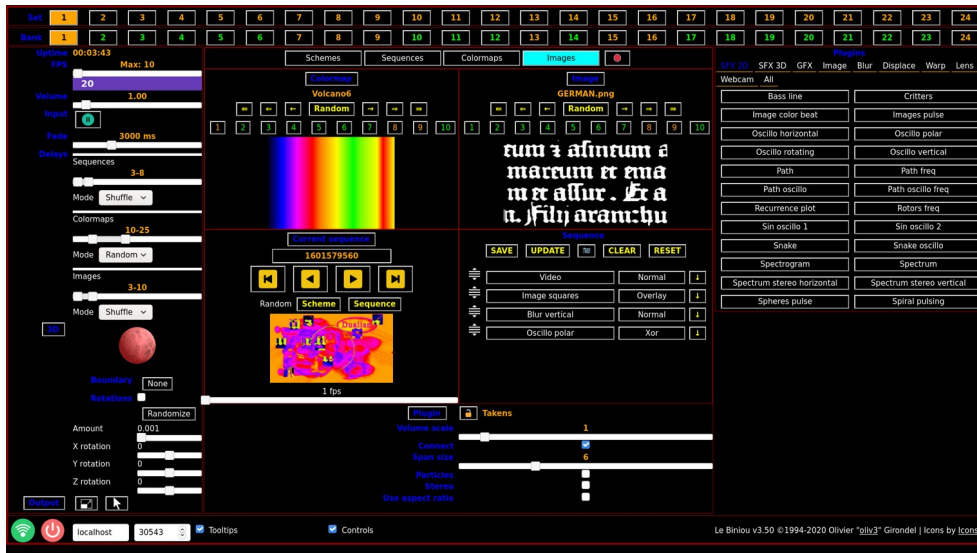
N: Next preset

P: Previous preset



The Live Coding – 5/5

<https://biniou.net>



To start Lebiniou:

\$ lebiniou -Input Jackaudio

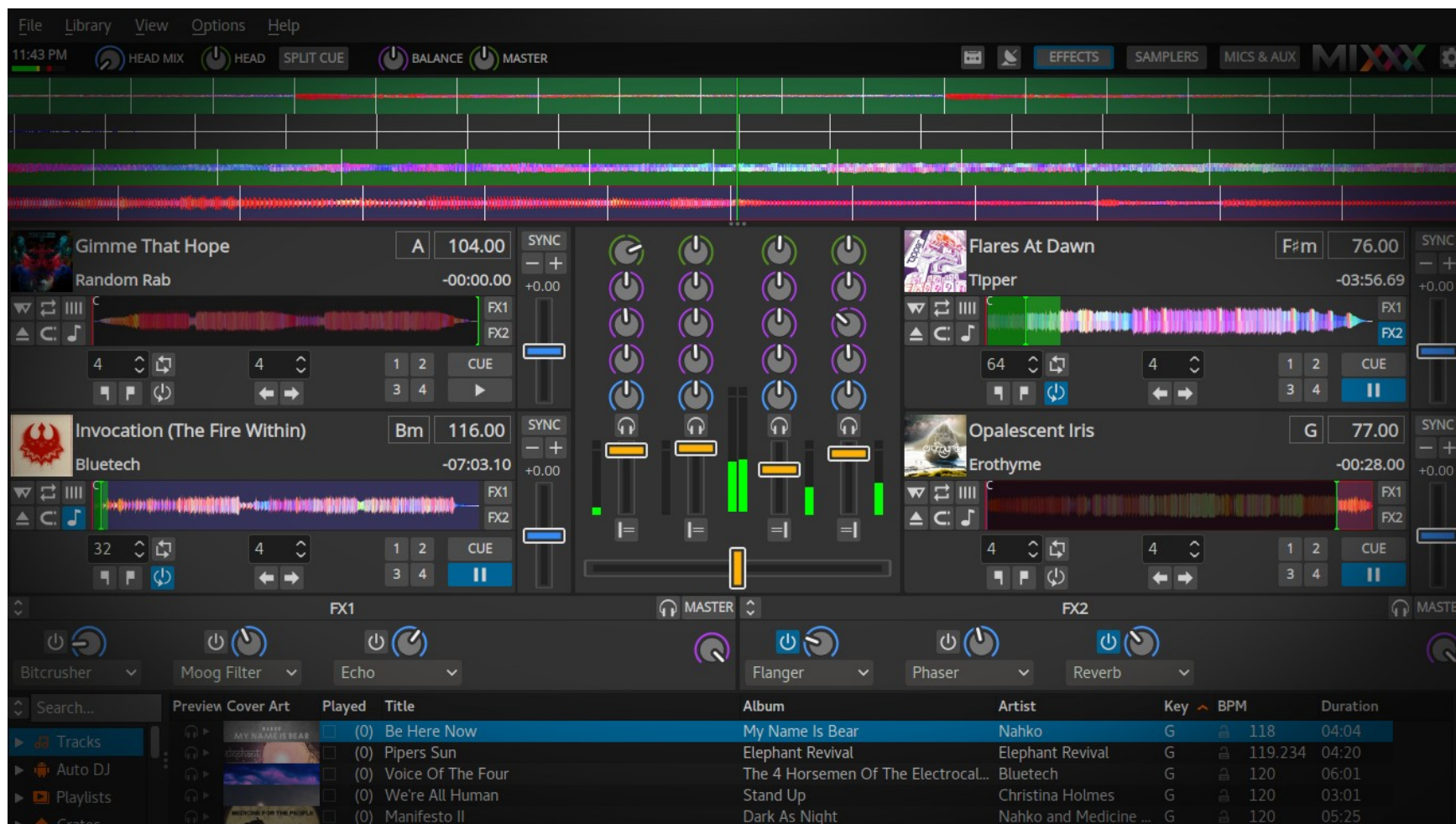
And in the event of a conflict on access to the webcam:

\$ lebiniou -Input Jackaudio -Webcams 0

Lebiniou starts a control window (left) and an animation window (right). You must then connect the lebiniou input to an audio output.



Mixxx For the Djing



<https://www.mixxx.org>

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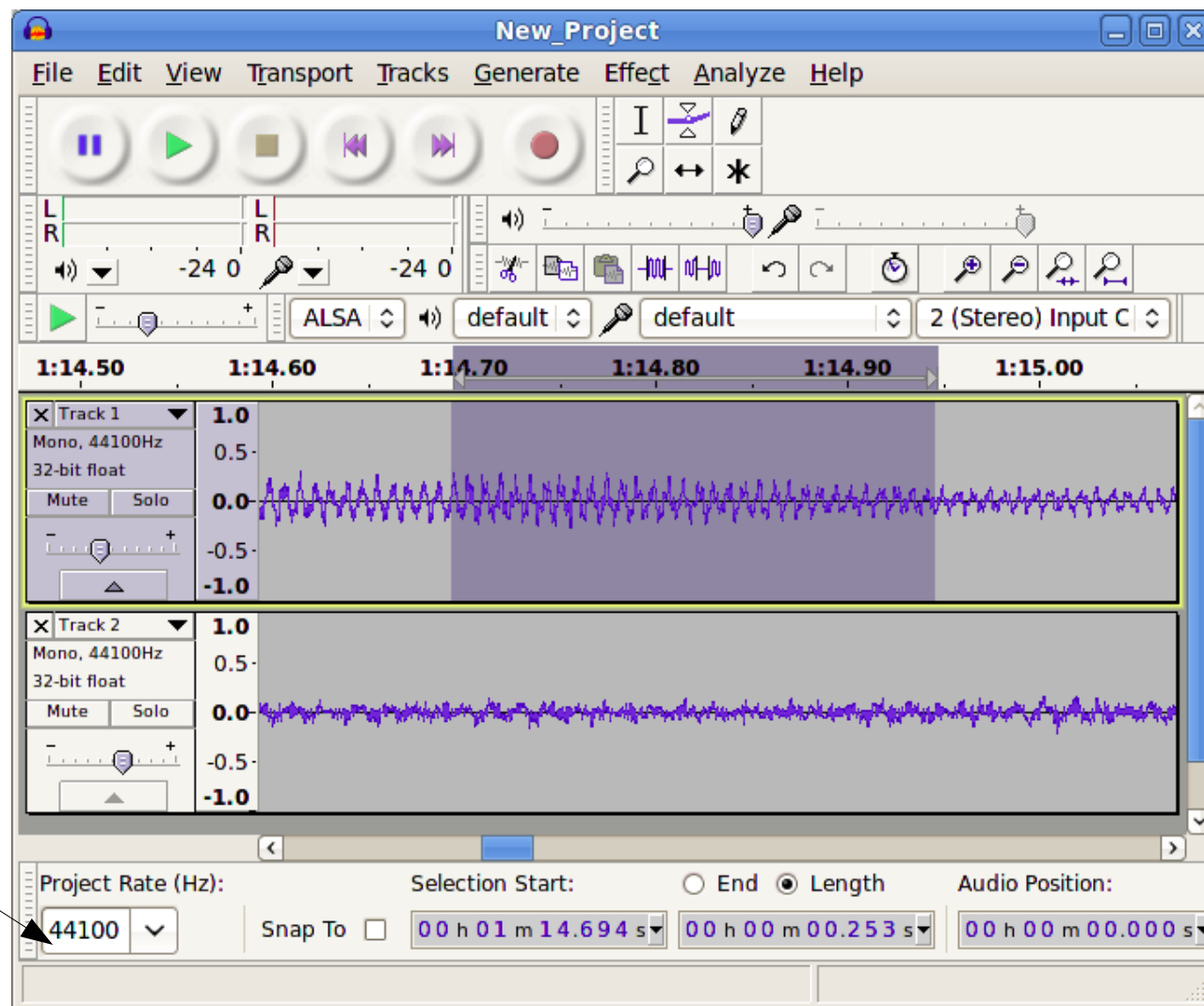
Audacity

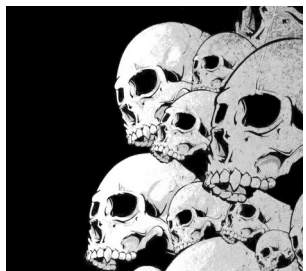
The audio editor

When we use Audacity with Jack, take care to adjust the sampling frequency:

Edition → Preferences → Quality

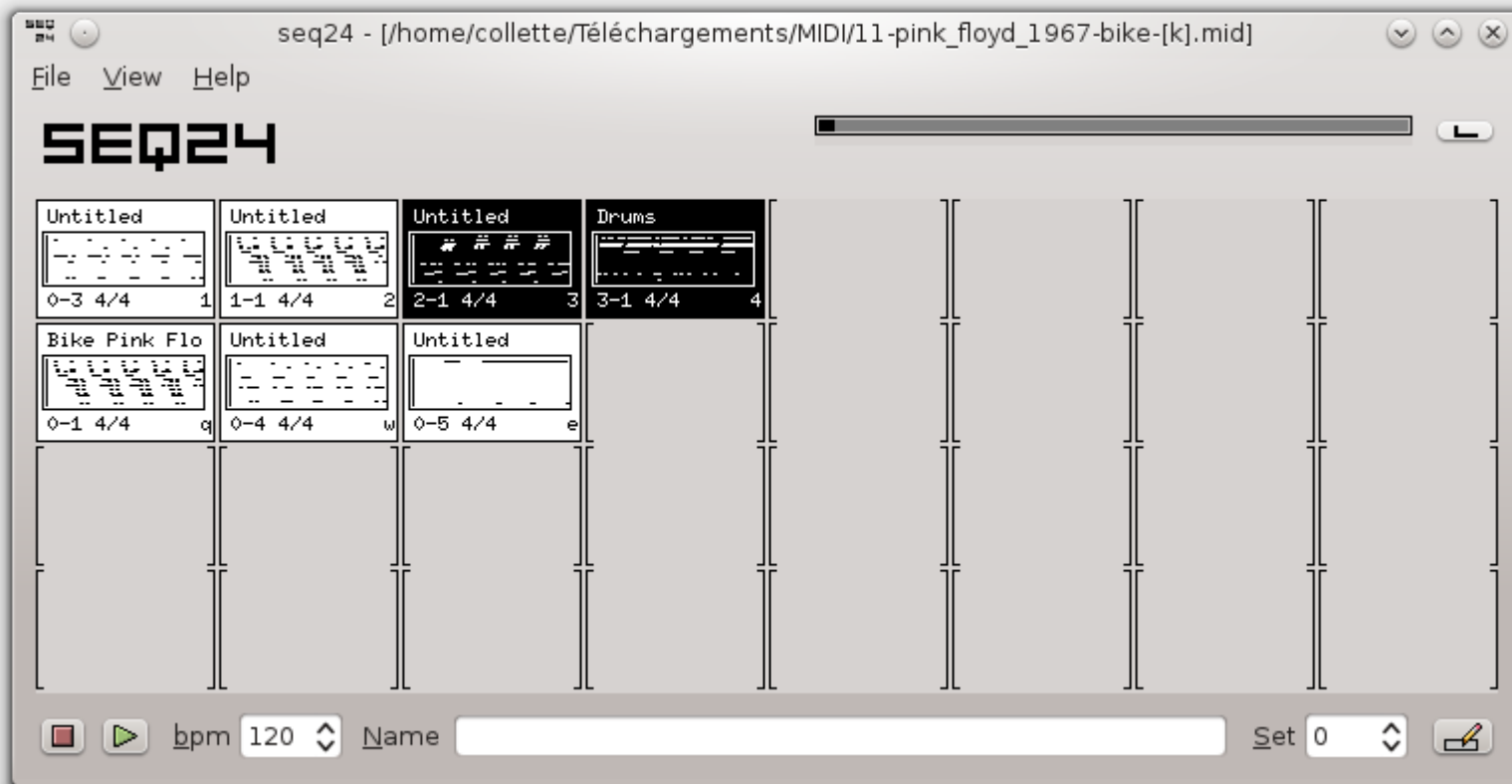
It will be necessary to match this sampling frequency with that of Jack.



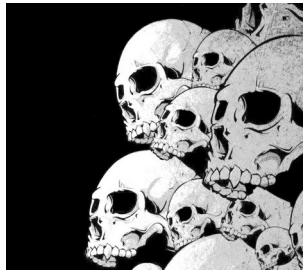


SEQ24

A matrix sequencer



<https://launchpad.net/seq24>
<https://github.com/ahlstromcj/sequencer64>

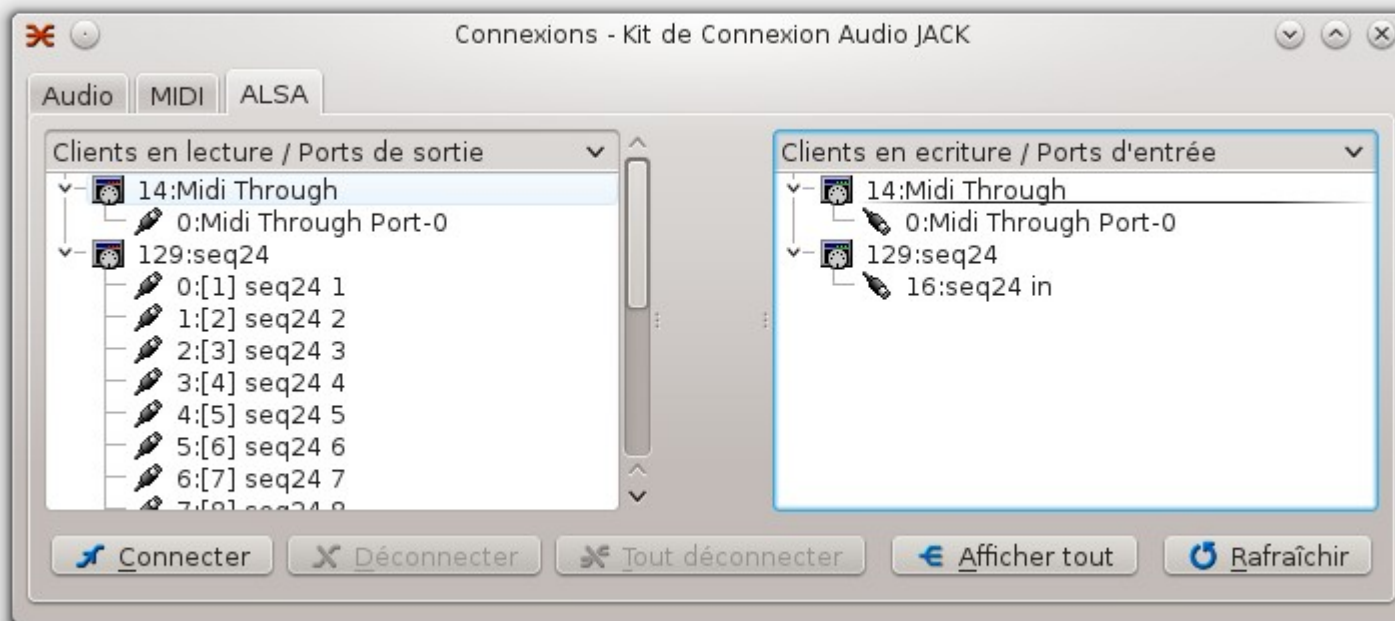


SEQ24 Jack side

Recommended command line start:

```
$ seq24 -m
```

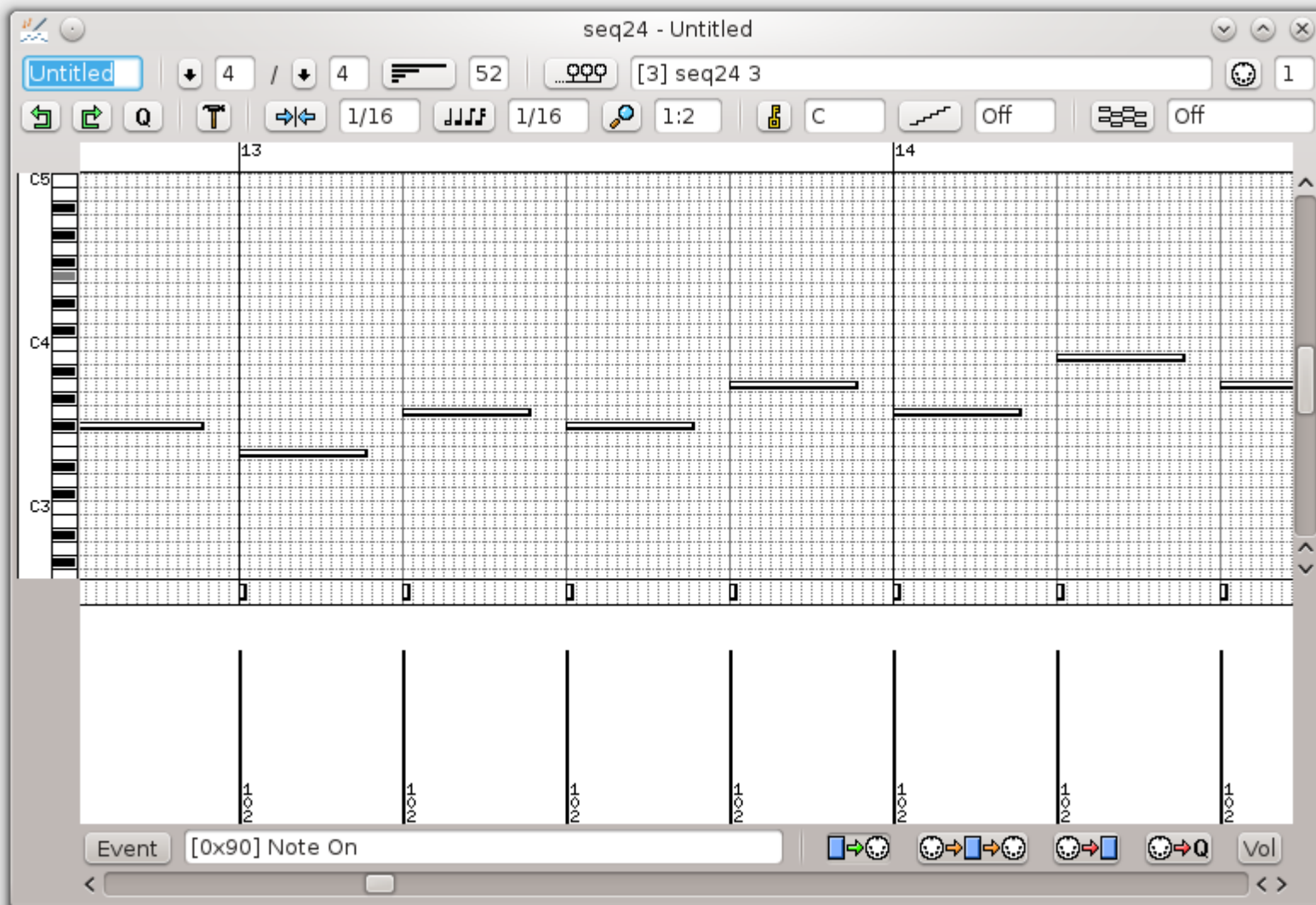
-M, - -Manual_alsa_ports: SEQ24 will not reserve Alsa ports





SEQ24

The MIDI editor

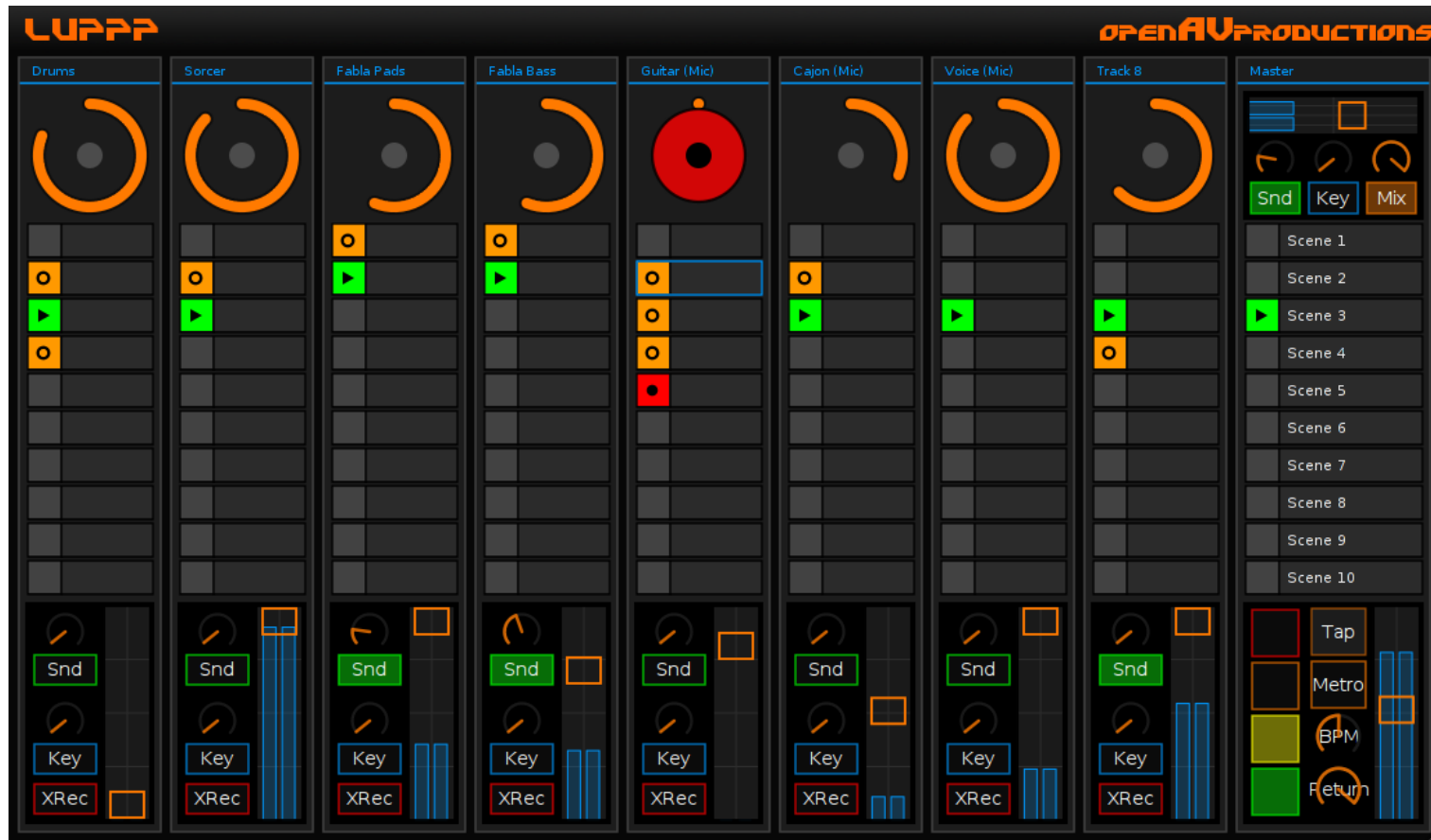


seq192
seq24
seq42
seq66



OPENAV / LUPPP

A matrix sequencer



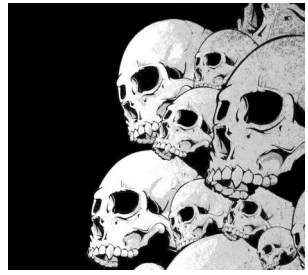
<http://openavproductions.com/luppp>

Improvisor For jazz

The screenshot displays the Impro-Visor software interface. At the top, there's a menu bar with options like File, Edit, Transpose, View, Play, Utilities, Window, Grammar: My, Preferences, and Help. Below the menu is a toolbar with various icons for file operations and playback. A 'Program Status' section on the right indicates 'Click in notes, or type in textual entry field'. The main interface features a 'Textual Entry' field and a 'Clear' button. Below this is a list of jazz musicians: Clifford Brown, Dizzy Gillespie, Freddie Hubbard, Lee Morgan, Miles Davis, Tom Harrell, Bill Evans, Red Garland, and Charlie Parker. The selected musician is Clifford Brown, and the title is '12-Bar Blues'. The subtitle reads 'Generated from grammars learned from solos of different players'. The main area shows a musical score for a 12-bar blues progression in B-flat major. The notes are color-coded: red for the first bar, green for the second, blue for the third, and purple for the fourth. The chords are labeled above the notes: F13, Bb13, Bo7, F13, Cm9, F13b9, Bb13, Bo7, F13, D7#5#9, Gm9, C13b9, F13, D7#5#9, Gm9, and C13b9. The style is set to 'swing'.

\$ dnf install Impro-Visor

<https://www.cs.hmc.edu/~keller/jazz/improvisor/>



Improvisor For jazz

To connect improvisor to Qsynth, you must launch the MIDI virtual interface of Alsa:

```
$ sudo modprobe snd-virmidi
```

We obtain 4 Virtual Raw Midi as shown the following image:
In Alsa Out, we have:

- 14: Midi Through
- 20: Virtual RAW MIDI 1-0
- 21: Virtual RAW MIDI 1-1
- 22: Virtual RAW MIDI 1-2
- 23: Virtual RAW MIDI 1-3

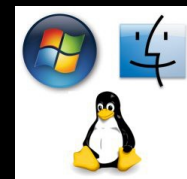
After that, just connect improvisor to a virtual Rawmidi and Qsynth input to a virtual Rawmidi output.

In Alsa in, we have:

- 14: Midi Through
- 20: Virtual RAW MIDI 1-0
- 21: Virtual RAW MIDI 1-1
- 22: Virtual RAW MIDI 1-2
- 23: Virtual RAW MIDI 1-3
- 128: Timidity



Milkytracker



<https://milkytracker.org/>



Historical

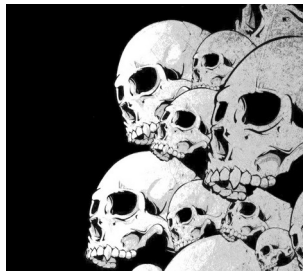
Soundtracker – 1987 (Amiga)
 Protracker – 1990 (Amiga)
 Octamed – 1991 (Amiga)
 Scream Tracker 3 – 1993 (PC)
 Fast Tracker 2 – 1995 (PC)
 Impulse Tracker 2 – 1996 (PC)
 Renoise – 2000 (PC & Mac)
 Skalettracker – 2003 (PC)

File type :

XM - MOD - IT - S3M

See Wikipedia article

Exemple YouTube

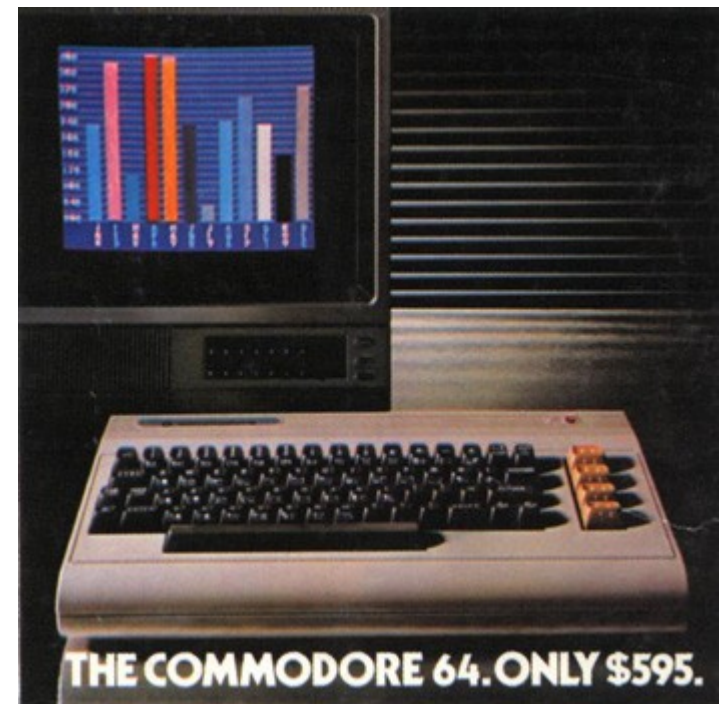


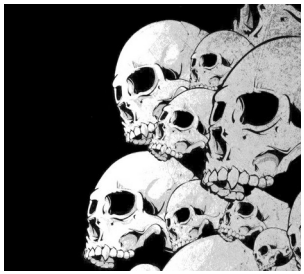
Milkytracker

Amiga - 1987



Commodore - 1982



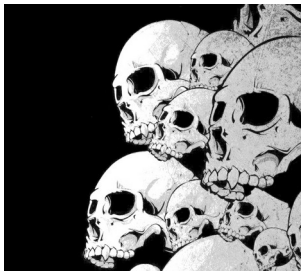


Klystrack



Example on YouTube

<https://kometbomb.github.io/klystrack/>



Protrekkr

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

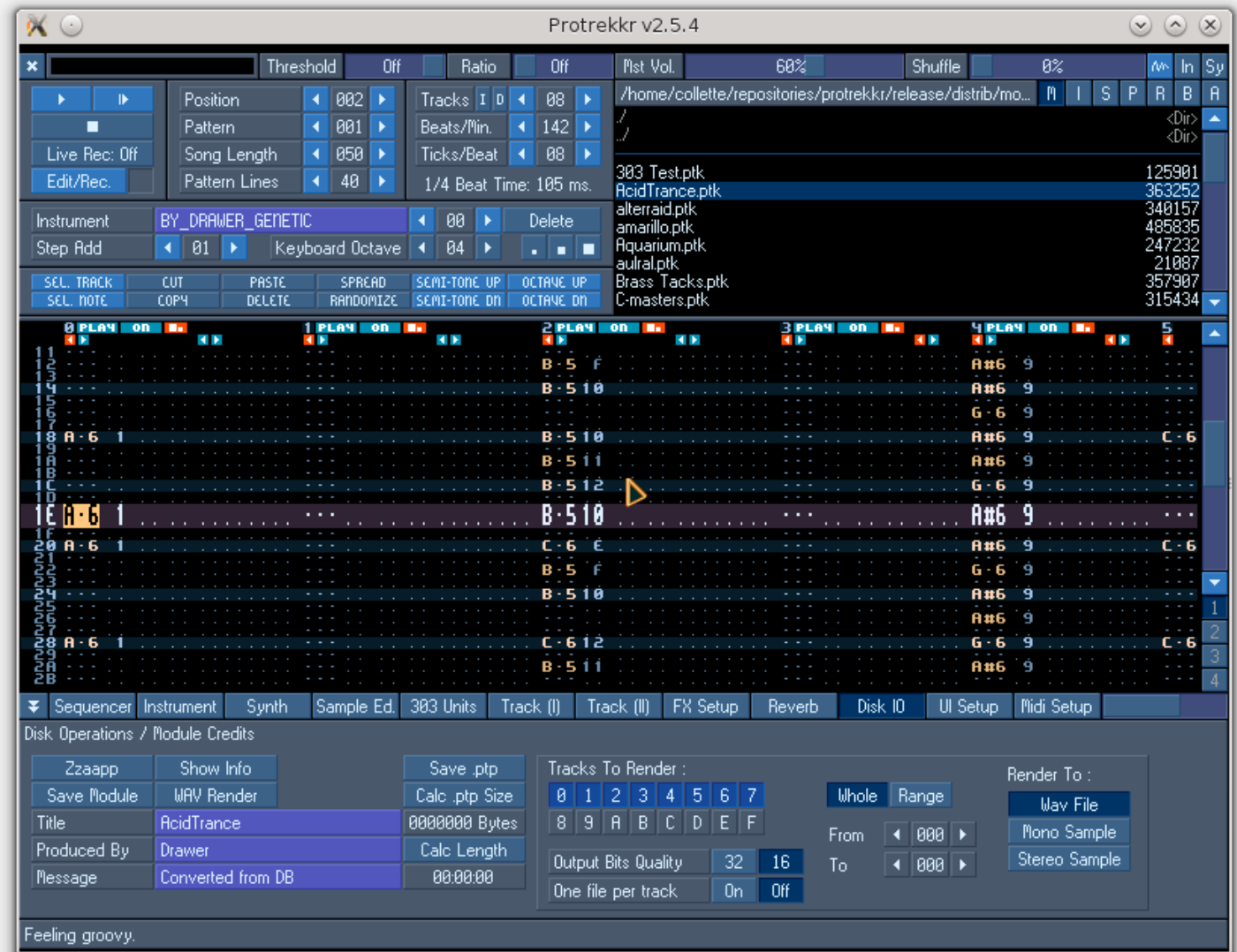
Two versions of Protrekkr exist:

- an OSS version
- a jack version

The version hosted on Github is Jack compatible.

Example on YouTube

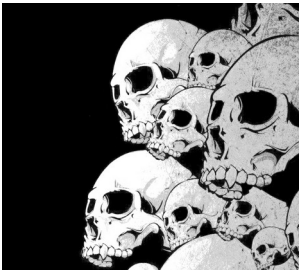
24/08/2013





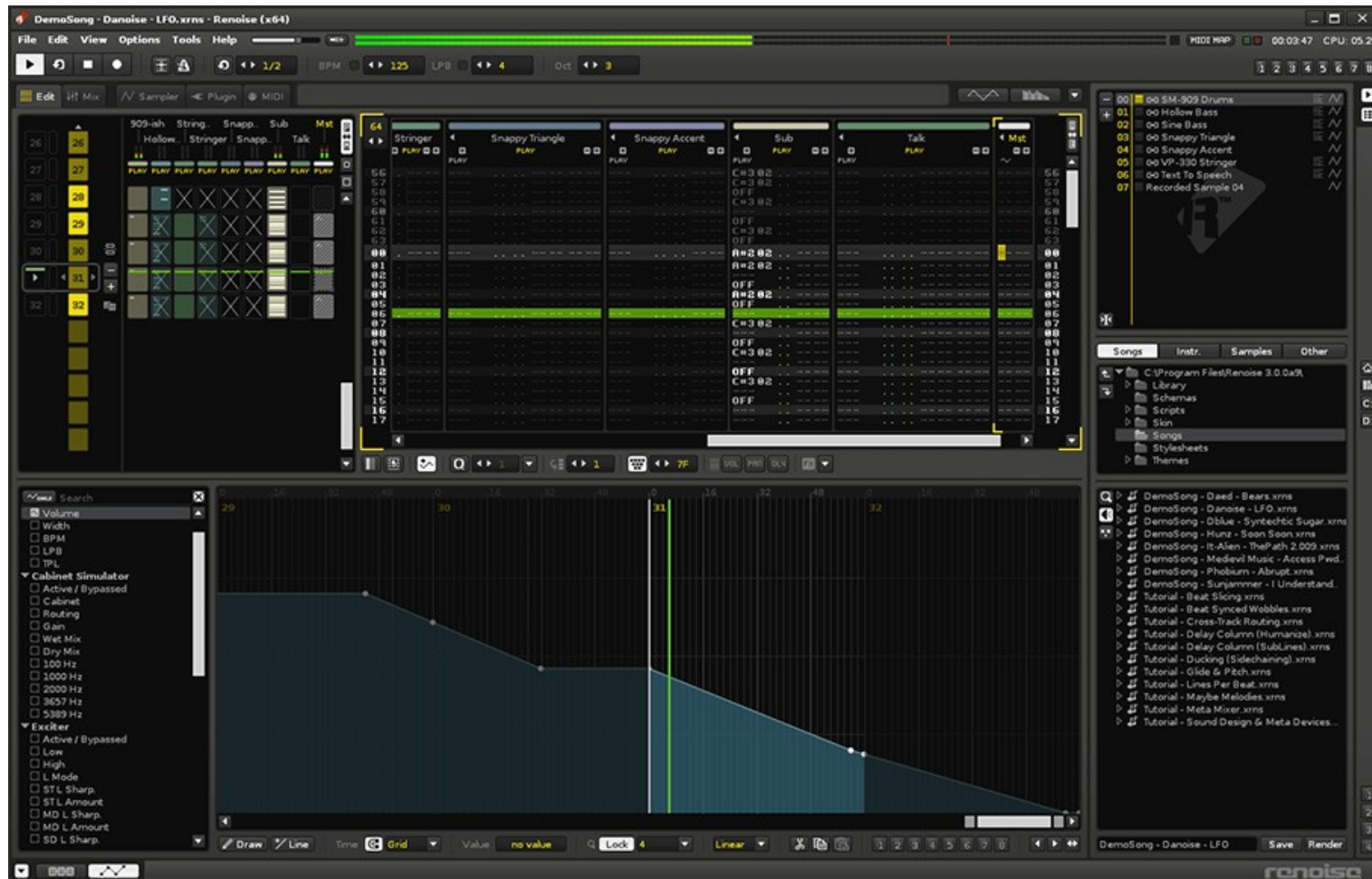
Trackers

```
$ dnf install BambooTracker  
$ dnf install famitracker  
$ dnf install fasttracker2  
$ dnf install goatracker  
$ dnf install hivelytracker  
$ dnf install plebtracker  
$ dnf install protracker2  
$ dnf install schismtracker  
$ dnf install tiatracker  
$ dnf install soundtracker  
$ dnf install furnace  
$ dnf install protrekkr  
$ dnf install protrekkr2  
$ dnf install tutka  
$ dnf install zytrax
```



Renoise

<https://www.renoise.com>





Various

Files for Protrekkr and Milkytracker:

<https://modarchive.org>

Rivendell - Open Source radio

<https://www.rivendellaudio.org>

Jack Net / Jamulus / Ninjam

Music via Internet

<https://jamulus.io>

<https://www.cockos.com/ninjam>



Webography

Presets of all kinds for Linux tools:

<https://musical-artifacts.com>

Sources of samples:

<https://freesound.org>

<https://archive.org>

https://wiki.laptop.org/go/free_sound_samples

Documentations of various tools:

<https://en.flossmanuals.net>

Community site:

<http://linuxmao.org/accueil>

<https://librearts.org/>

<https://www.linuxaudio.org>

<https://linuxmusicians.com>

<https://linuxdaw.org/>

Files for mixing:

Nine Inch Nails songs:

<https://nindestruct.com/remix.html>

Different songs:

<https://www.cambridge-mt.com/ms/mtk>

Live Coding resources:

<https://sccode.org/>