

# Le 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).trunc([400,600])*[1,-1] ),0.98)).dup*0.1}
```

<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
```

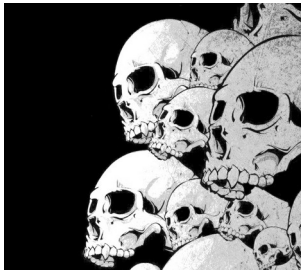
QuiteCsound

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>



# Le Live Coding 2/5

<https://sonic-pi.net>

```
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
```

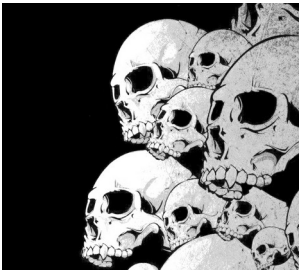
Buffer 0 Buffer 1 Buffer 2 Buffer 3 Buffer 4 Buffer 5 Buffer 6 Buffer 7 Buffer 8 Buffer 9

1 Bienvenue à Sonic Pi  
1.1 Codage en 'live'  
1.2 Exploration de l'interface  
1.3 Apprendre en jouant  
2 Synthés  
2.1 Vos premiers Beeps

music\_as :code  
code\_as :art

v2.10-dev

Sonic Pi v2.10.0-dev-24344 on Linux



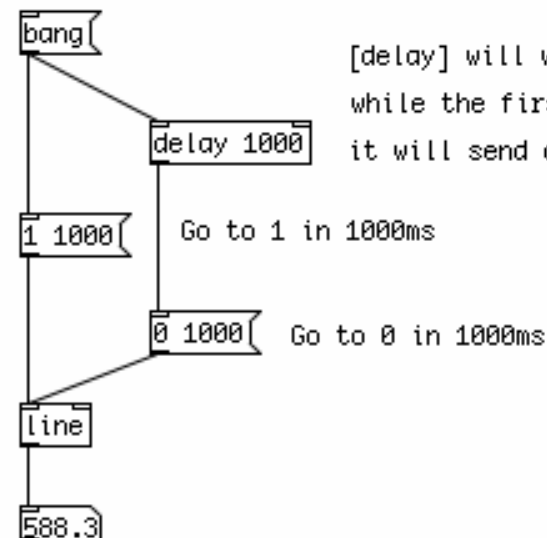
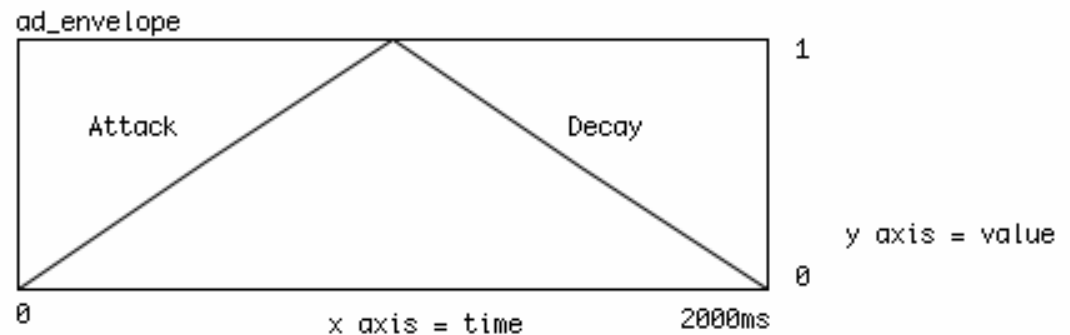
# Le Live Coding – 3/5

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

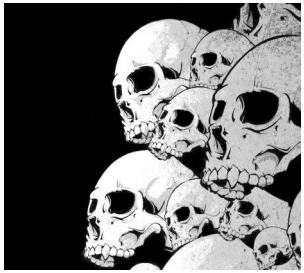
Un outil de programmation visuel dédié à l'audio et à la vidéo.

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.



# Le Live Coding – 4/5

ProjectM : un diffuseur de vidéo synchronisé à l'audio

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

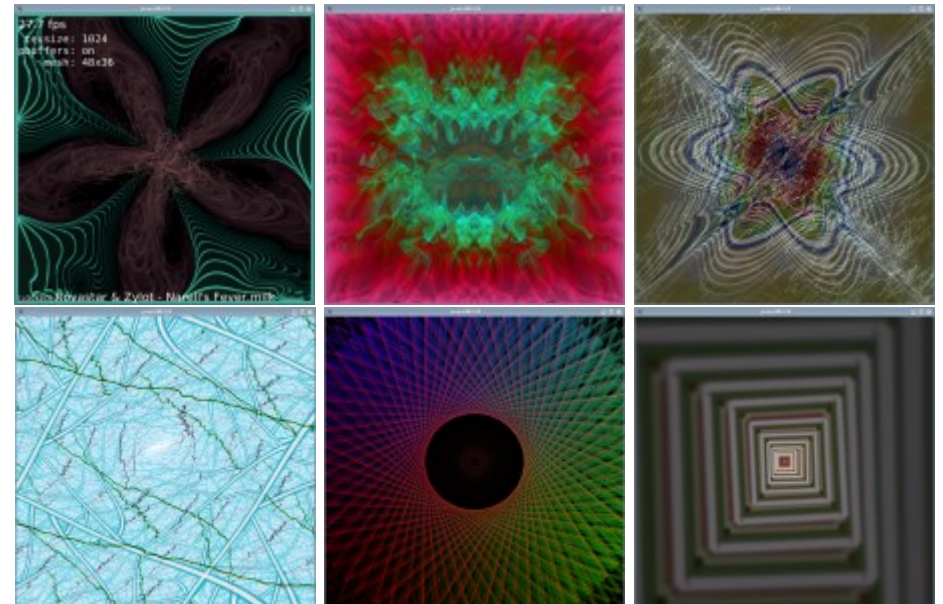
Code issu de WinAmp.

Pour lancer la version Jack de ProjectM

```
$ projectM-jack
```

Pour lancer la version PulseAudio de ProjectM

```
$ projectM-pulseaudio
```



F1 : Aide

F2 : Titre de la chanson

F3 : Nom du preset

F4 : Paramétrage du rendu

F5 : FPS

F : Plein écran

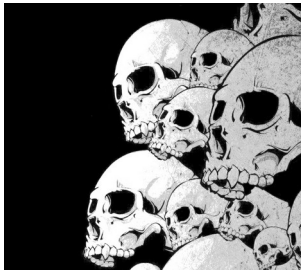
L : Verrouiller / Déverrouiller le preset

M : Affiche le menu

R : Preset aléatoire

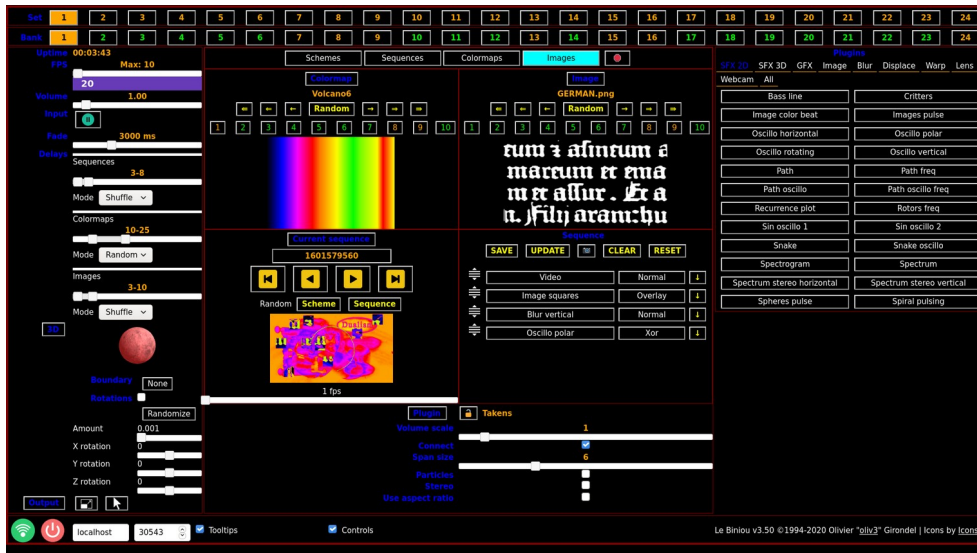
N : Preset suivant

P : Preset précédent



# Le Live Coding – 5/5

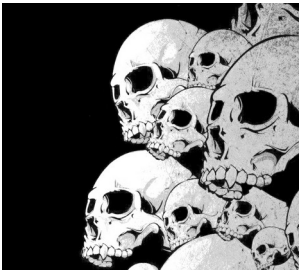
<https://biniou.net/>



Pour démarrer lebiniou :  
\$ lebiniou --input jackaudio

Et en cas de conflit sur l'accès à la webcam :  
\$ lebiniou --input jackaudio --webcams 0

Lebiniou démarre une fenêtre de contrôle (à gauche) et une fenêtre d'animation (à droite). Il faut ensuite connecter l'entrée de lebiniou à une sortie audio.



# Mixxx

## Pour le DJing

File Library View Options Help  
11:43 PM HEAD MIX HEAD SPLIT CUE BALANCE MASTER EFFECTS SAMPLERS MICS & AUX MIXXX

Gimme That Hope Random Rab 104.00 SYNC -00:00.00 +0.00  
Flares At Dawn Tipper 76.00 SYNC -03:56.69 +0.00  
Invocation (The Fire Within) Bluetech 116.00 SYNC -07:03.10 +0.00  
Opalescent Iris Erothyme 77.00 SYNC -00:28.00 +0.00

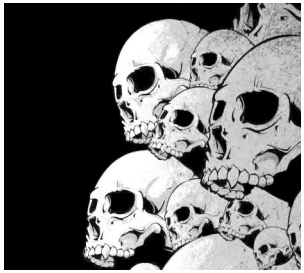
FX1 MASTER FX2 MASTER  
Bitcrusher Moog Filter Echo Flanger Phaser Reverb

Preview	Cover Art	Played	Title	Album	Artist	Key	BPM	Duration
<input type="checkbox"/>		(0)	Be Here Now	My Name Is Bear	Nahko	G	118	04:04
<input type="checkbox"/>		(0)	Pipers Sun	Elephant Revival	Elephant Revival	G	119.234	04:20
<input type="checkbox"/>		(0)	Voice Of The Four	The 4 Horsemen Of The Electrocal...	Bluetech	G	120	06:01
<input type="checkbox"/>		(0)	We're All Human	Stand Up	Christina Holmes	G	120	03:01
<input type="checkbox"/>		(0)	Manifesto II	Dark As Night	Nahko and Medicine ...	G	120	05:25

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<http://www.mixxx.org>  
Y. Collette



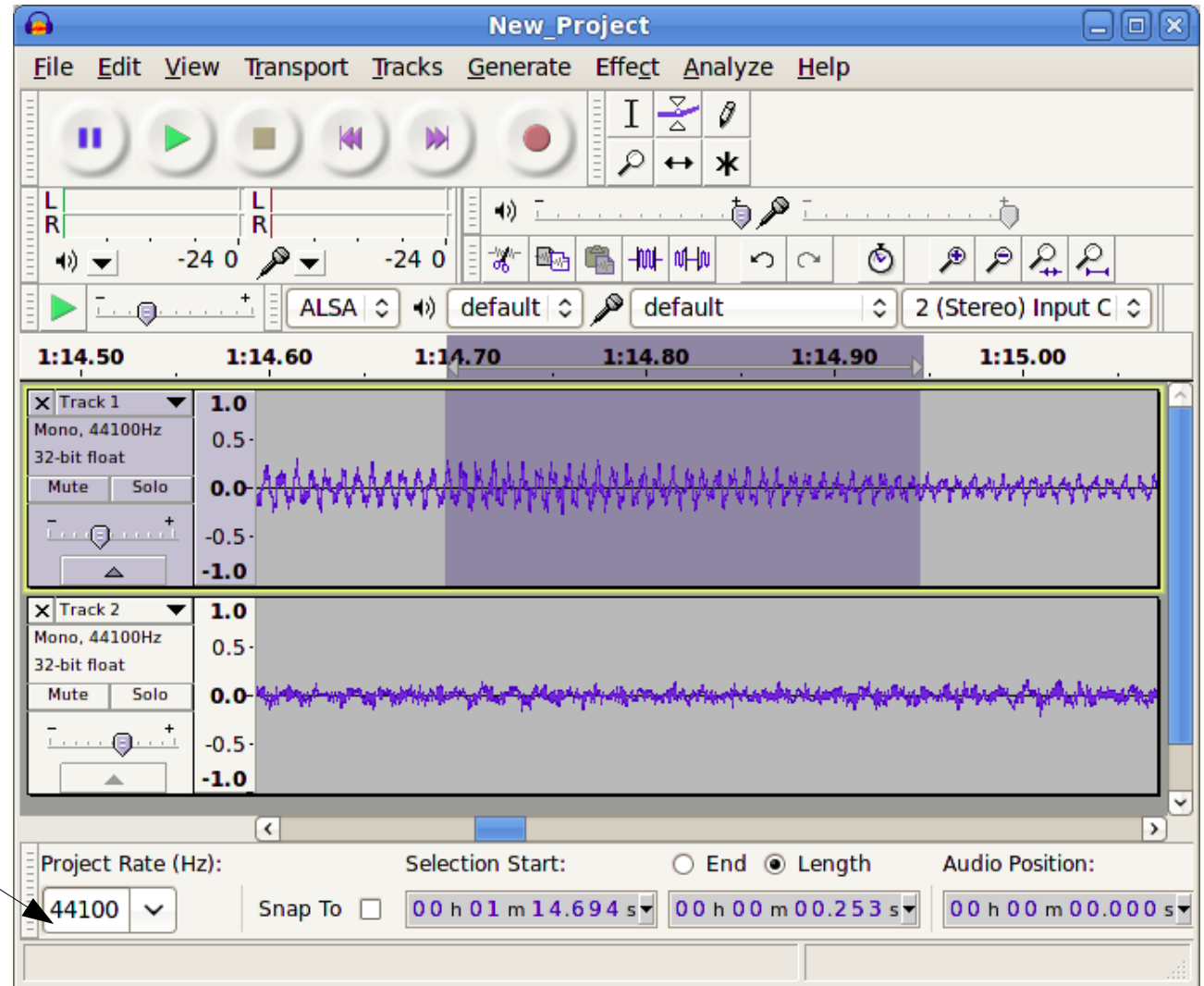


# Audacity

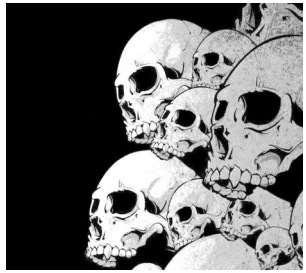
## L'éditeur audio

Lorsqu'on utilise Audacity avec Jack, il faut bien prendre garde de régler la fréquence d'échantillonnage :  
Edition → Préférences  
→ Qualité

Il faudra faire correspondre cette fréquence d'échantillonnage avec celle de Jack.

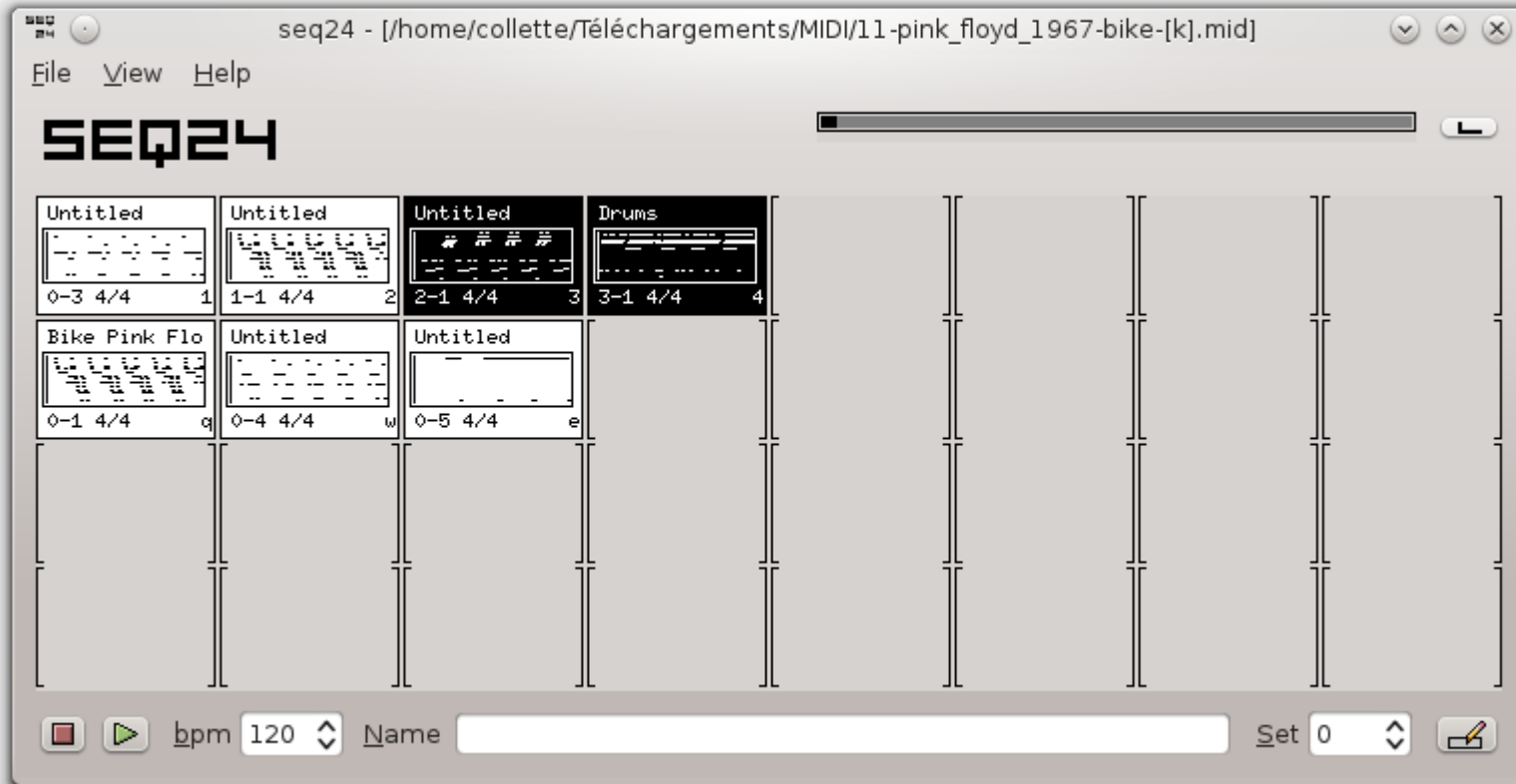






# Seq24

## Un séquenceur matriciel



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

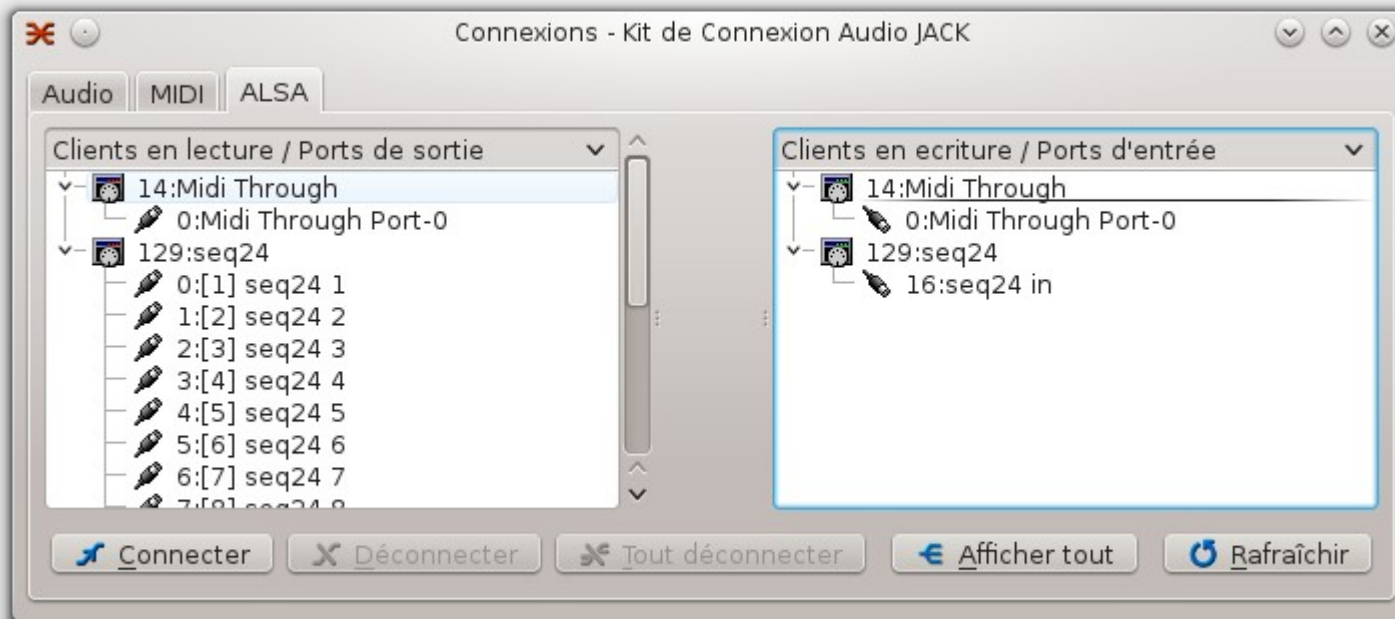
# Seq24

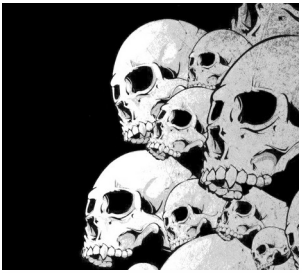
## Coté Jack

Démarrage en ligne de commande recommandé :

```
$ seq24 -m
```

-m, --manual\_alsa\_ports: seq24 ne réquisitionnera pas de ports ALSA





# Seq24

## L'éditeur MIDI

seq24 - Untitled

Untitled 4 / 4 52 [3] seq24 3 1

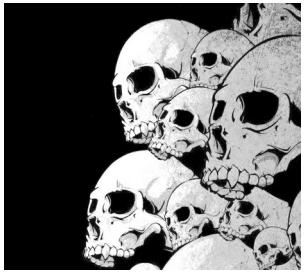
1/16 1/16 1:2 C Off Off

C5  
C4  
C3

13 14

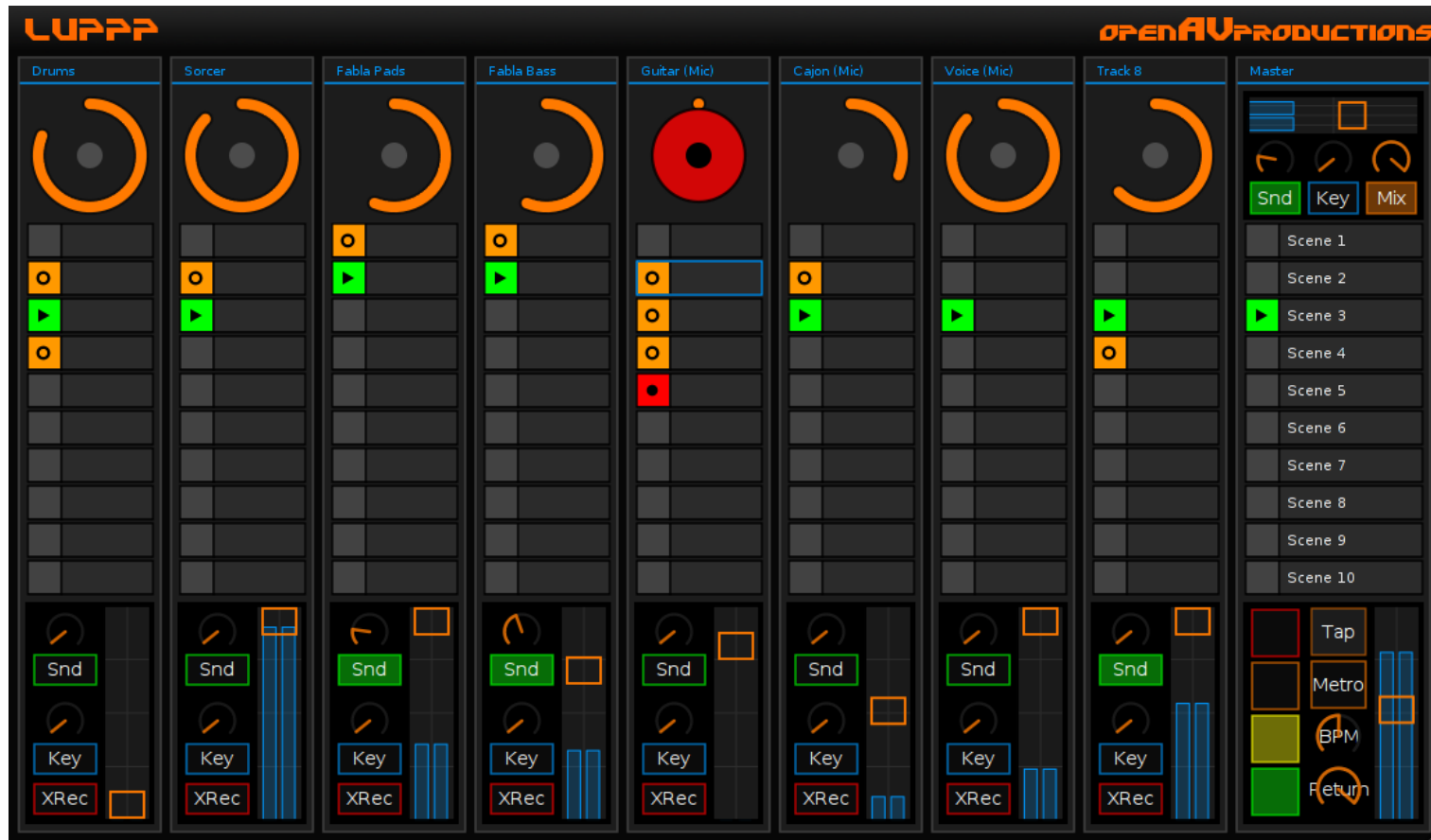
Event [0x90] Note On

seq192  
seq24  
seq42  
seq66

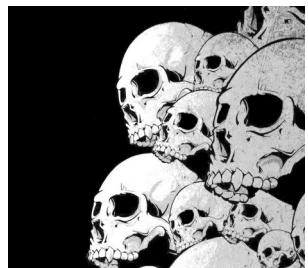


# OpenAV / Luppp

## Un séquenceur matriciel



<http://openavproductions.com/luppp/>



# Impro-visor Pour le Jazz

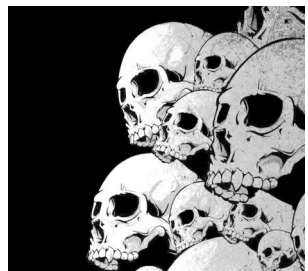
The screenshot shows the 'Impro-visor: 12-Bar Blues' application window. The title bar reads 'Impro-visor: 12-Bar Blues'. The menu bar includes 'File', 'Edit', 'Transpose', 'View', 'Play', 'Utilities', 'Window', 'Grammar: My', 'Preferences', and 'Help'. The toolbar contains icons for file operations, playback, and generation. A 'Program Status' section indicates 'Click in notes, or type in textual entry field'. Playback controls show '0:00' at 180.0 BPM. A 'Textual Entry' field is empty. A list of composers includes Clifford Brown, Dizzy Gillespie, Freddie Hubbard, Lee Morgan, Miles Davis, Tom Harrell, Bill Evans, Red Garland, and Charlie Parker. The main display shows a 12-bar blues progression for Clifford Brown, generated from grammars learned from solos of different players. The style is set to 'swing'. The progression is as follows:

Bar	Chord
1	F13
2	Bb13
3	F13
4	Cm9
5	Bb13
6	Bo7
7	F13
8	D7#5#9
9	Gm9
10	C13b9
11	F13
12	C13b9

\$ dnf install Impro-Visor

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





# Impro-visor

## Pour le Jazz

Pour connecter Impro-visor à QSynth, il faut lancer l'interface virtuelle MIDI de ALSA :

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

On obtient 4 Virtual Raw MIDI comme le montre l'image suivante:  
En Alsa Out, on a :

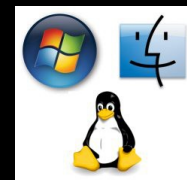
- 14: MIDI Through
- 20: Virtual Raw MIDI 1-0
- 21: Virtual Raw MIDI 1-1
- 22: Virtual Raw MIDI 1-2
- 23: Virtual Raw MIDI 1-3

Après cela, il suffit de connecter Impro-visor à une entrée Virtual RawMIDI et Qsynth à une sortie Virtual RawMIDI.

En Alsa In, on a :

- 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



<http://www.milkytracker.org/>



## Historique

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)

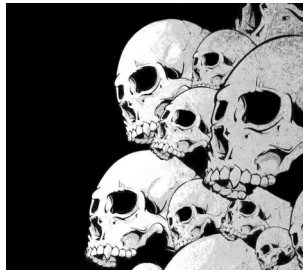
## Type de fichiers

XM – MOD – IT – S3M

Voir l'article de [wikipedia](#)

[Exemple YouTube](#)



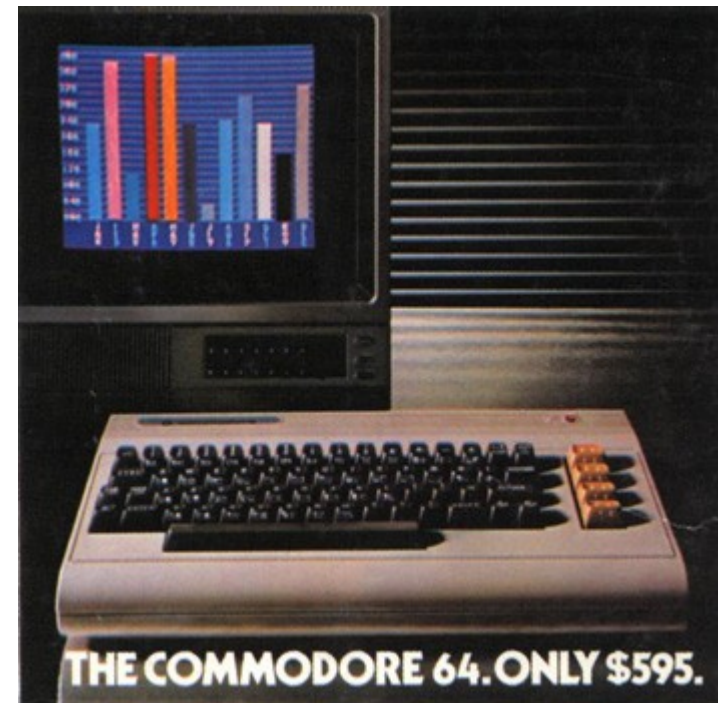


# Milkytracker

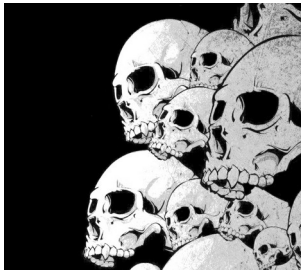
Amiga - 1987



Commodore - 1982







# Klystrack

MENU

LEN 0340  
LOOP 0000  
STEP 0020

SPD 9  
RATE 47  
TIME 4/4

OCTAVE 04  
CHANLS 09

SONG -= [Diver 00:00  
INST 00 -= [Divert

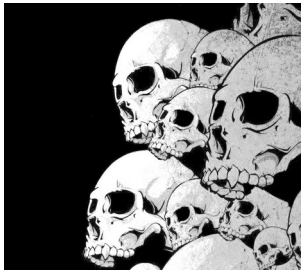
PLAY STOP  
OVOL 00

	00	01	02	03	04
FF9					
FFA					
FFB					
FFC					
FFD					
FFE					
FFF					
000	01	--	--	07	--
001	01			01	
002	02			02	
003	03			03	
004	04	A#4	0B	04	

Note

Exemple YouTube

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



# Protrekkr

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

Deux versions de ProTrekkr existent :  
- une version OSS  
- une version Jack  
La version hébergée sur GitHub est compatible Jack.

Exemple YouTube

Protrekkr v2.5.4

Threshold Off Ratio Off Mst Vol. 60% Shuffle 0%

Position 002 Tracks ID 08  
Pattern 001 Beats/Min. 142  
Song Length 050 Ticks/Beat 08  
Pattern Lines 40 1/4 Beat Time: 105 ms.

Instrument BY\_DRAWER\_GENETIC 00 Delete  
Step Add 01 Keyboard Octave 04

SEL. TRACK CUT PASTE SPREAD SEMI-TONE UP OCTAVE UP  
SEL. NOTE COPY DELETE DELETE SEMI-TONE DN OCTAVE DN

303 Test.ptk 125981  
AcidTrance.ptk 363252  
alteraid.ptk 348157  
amarillo.ptk 485835  
Aquarium.ptk 247232  
aural.ptk 21087  
Brass Tacks.ptk 357987  
C-masters.ptk 315434

Sequencer Instrument Synth Sample Ed 303 Units Track (I) Track (II) FX Setup Reverb Disk IO UI Setup Midi Setup

Disk Operations / Module Credits

Zzaapp	Show Info	Save .ptp
Save Module	WAV Render	Calc .ptp Size
Title	AcidTrance	0000000 Bytes
Produced By	Drawer	Calc Length
Message	Converted from DB	00:00:00

Tracks To Render : 0 1 2 3 4 5 6 7  
8 9 A B C D E F

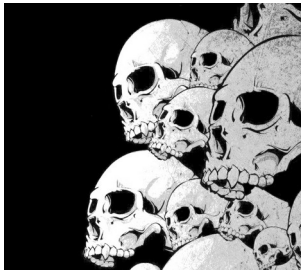
Whole Range  
From 000  
To 000

Output Bits Quality 32 16  
One file per track On Off

Render To :  
Wav File  
Mono Sample  
Stereo Sample

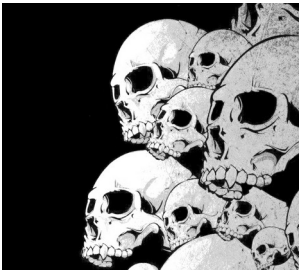
Feeling groovy.

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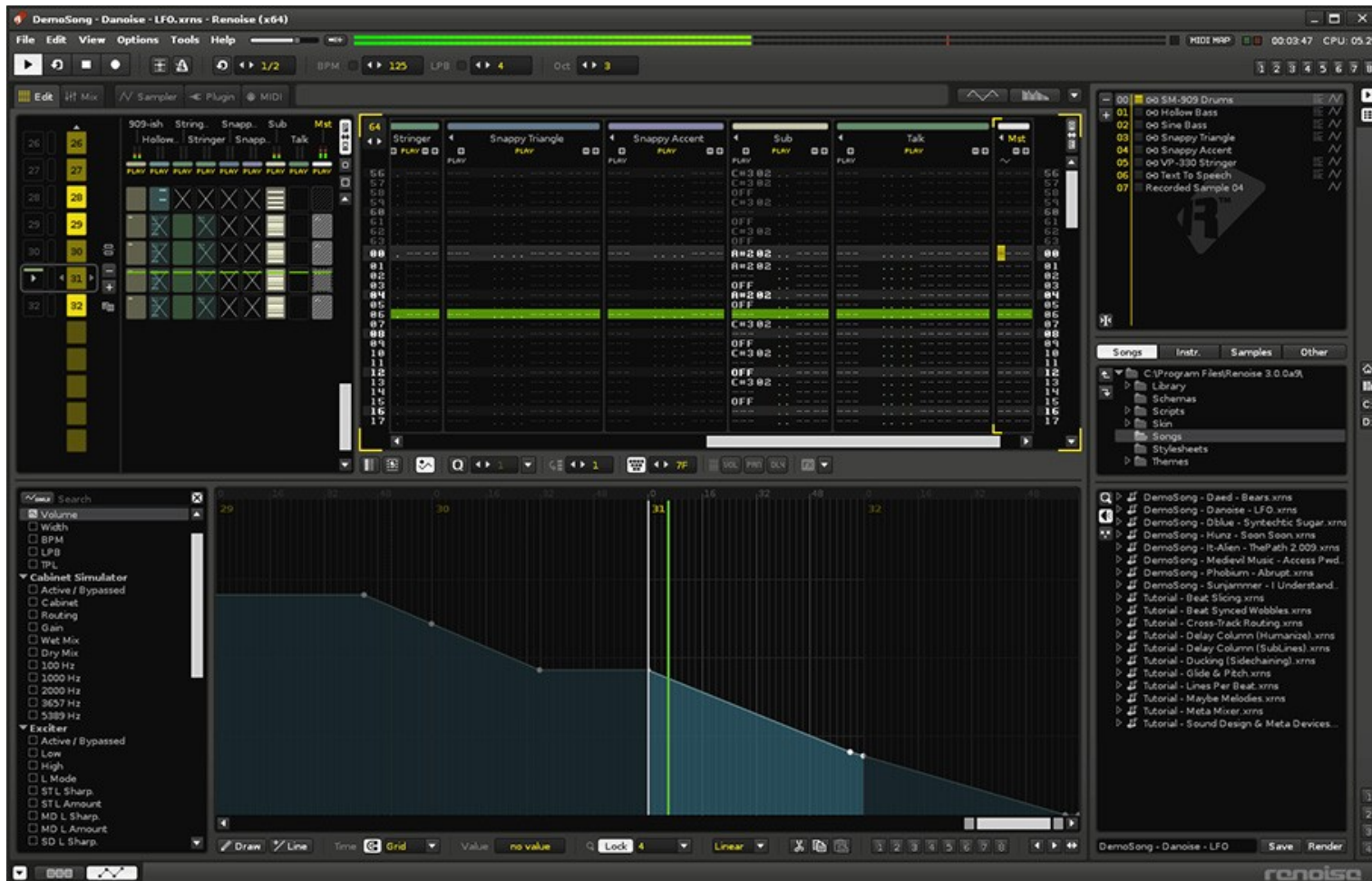
# Trackers

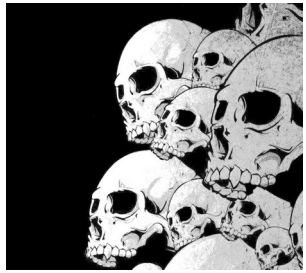
```
$ dnf install BambooTracker  
$ dnf install famitracker  
$ dnf install fasttracker2  
$ dnf install goatracker  
$ dnf install hivelytracker  
$ dnf install plebtracker  
$ dnf install protracker2  
$ dnf install schismtracker  
$ dnf install tiatracker  
$ dnf install soundtracker  
$ dnf install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



# Renoise

<https://www.renoise.com>





# Divers

Des fichiers pour Protrekkr et MilkyTracker :

<https://modarchive.org/>

Rivendell – La radio Open Source

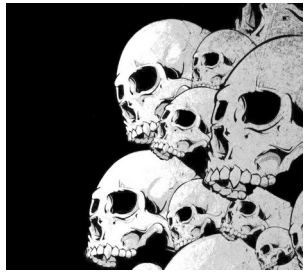
<http://www.rivendellaudio.org/>

Jack Net / Jamulus / Ninjam

La musique via internet

<https://jamulus.io/>

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



# Webographie

Presets en tout genre pour les outils Linux :

<https://musical-artifacts.com/>

Sources de samples :

<http://freesound.org/>

<https://archive.org/>

[https://wiki.laptop.org/go/Free\\_sound\\_samples](https://wiki.laptop.org/go/Free_sound_samples)

Documentations de divers outils :

<https://en.flossmanuals.net/>

Site communautaire :

<http://linuxmao.org/Accueil>

<http://libremusicproduction.com/>

<http://www.linuxaudio.org/>

<https://linuxmusicians.com/>

Fichiers pour le mixage :

Chansons de Nine Inch Nails :

<http://www.ninremixes.com/multitracks.php>

Différentes chansons :

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

Des ressources en live coding :

<http://sccode.org>