Hydrogen

Hydrogen

advanced drum machine for GNU/Linux

https://www.hydrogen-music.org

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https://audinux.github.io

Installation
Ressources

`$ dnf install hydrogen`

3355606kit
AVL-BlackPearl-4A-1.1
AVL-BlackPearl-4B-1.1
AVL-BlackPearl-5-1.1
AVL-RedZep-4-1.0
AVL-RedZep-5-1.1
Ace-Tone_Rhythm_Ace
Ace-Tone_Rhythm_Plus
Akai_MPC-X
Akai_XE8
Akai_XR10
Akai_XR10_Latiny
Alesis_D4FX_full
Alesis_DM5_circle_full
Alesis_DM5_eclectic
Alesis_DM5_future_full
Alesis_DM5_ghazal_full
Alesis_DM5_space_full
Alesis_HR16_chaser
Alesis_HR16_power_full
Alesis_HR16_skins_full
Alesis_HR16_wimpy
Alesis_SR16
Altemark_gameboy-lsdj
BJAPacific
Bdu_Roland_TR606
Blackie666_8bit

Boss_DR-110
Boss_DR-660_taxman_full
Boss_DR-660_zapman_full
Boss_DR110_full
Boss_DR202_altaira_full
Boss_DR202_sainthood
Boss_DR202_zaphod_full
Boss_DR220C
Boss_DR550_cymbale
Boss_DR550_dj
Casio_MT500
Casio_MT800
Casio_PT30
Casio_PT80
Casio_RAP1
Casio_RZ3
Cheetah_MD16_full
Classic-626
Classic-808
ColomboAcousticDrumkit
DeathMetal
EKO_Rhythmbox
EasternHop-1
ElectricEmpireKit
Electro_Harmonix_Drm15-32
Emu_Drumulator
Emu_Drumulator-alt

Emu_E-drum
Emu_Sp12
Ensoniq_ASRX_Acoustic_full
Ensoniq_ASRX_Electro_full
ErnysPercussion
Fairlight_CMI-iix_full
Farfisa
ForzeeStereo
Fricke_MFB5x2
Hammond_Autovari22
Hammond_DPM48
HardElectro1
HipHop-1
HipHop-2
Ianhall_SampleSet
Jovica_Tonic_full
K-27_Trash_Kit
KawaiXD-5Kit
Kawai_R100
Kawai_R50_full
Kawai_XD5
Korg_DDD1
Korg_DDD5
Korg_DDM110
Korg_KPR77
Korg_KR55
Korg_M1

Korg_MS20+EMS_VCS3
Korg_Minipops35
Korg_Minipops7
Korg_SR120
Korg_TX
Korg_Wavestation
Korg_x5_full
Lightning1024
Linn_LM1
Linn_LM2
Linn_Linn-9000
Linn_Linndrum
Ltibbits_Rock
Lugenfalscher_BeguinesAndBeghards
Lugenfalscher_Blitzbox
Lugenfalscher_SG1
Lugenfalscher_Teatime
MXR_M185
MatiasReccius_heavyMetal
Millo-Drums_v.1
Millo_MultiLayered2
Millo_MultiLayered3
Moogish_full
Oberheim_Dmx
Quasimidi_309
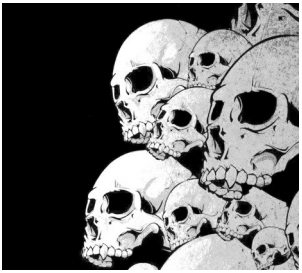RolandJD-990Kit
Roland_CR-1000

Installation
Ressources

```
$ dnf install hydrogen-drumkit-TD-7kit
```

Roland_CR79
Roland_D-10_withMOD_full
Roland_D-70
Roland_JD-990_full
Roland_JD800
Roland_MC303
Roland_TB909
Roland_Tr-808_full
SF3007-2011-Set-03
Serge_Modular
Suonho_deconstruction
Synthie-1
TD-7kit
TR808909
Techno-1
Thanvannispen_industrisplode
TicTacShutUp_studio_17-29
VariBreaks
YamahaRX15Kit
YamahaTG-55Kit
YamahaVintageKit
Yamaha_SY22_full
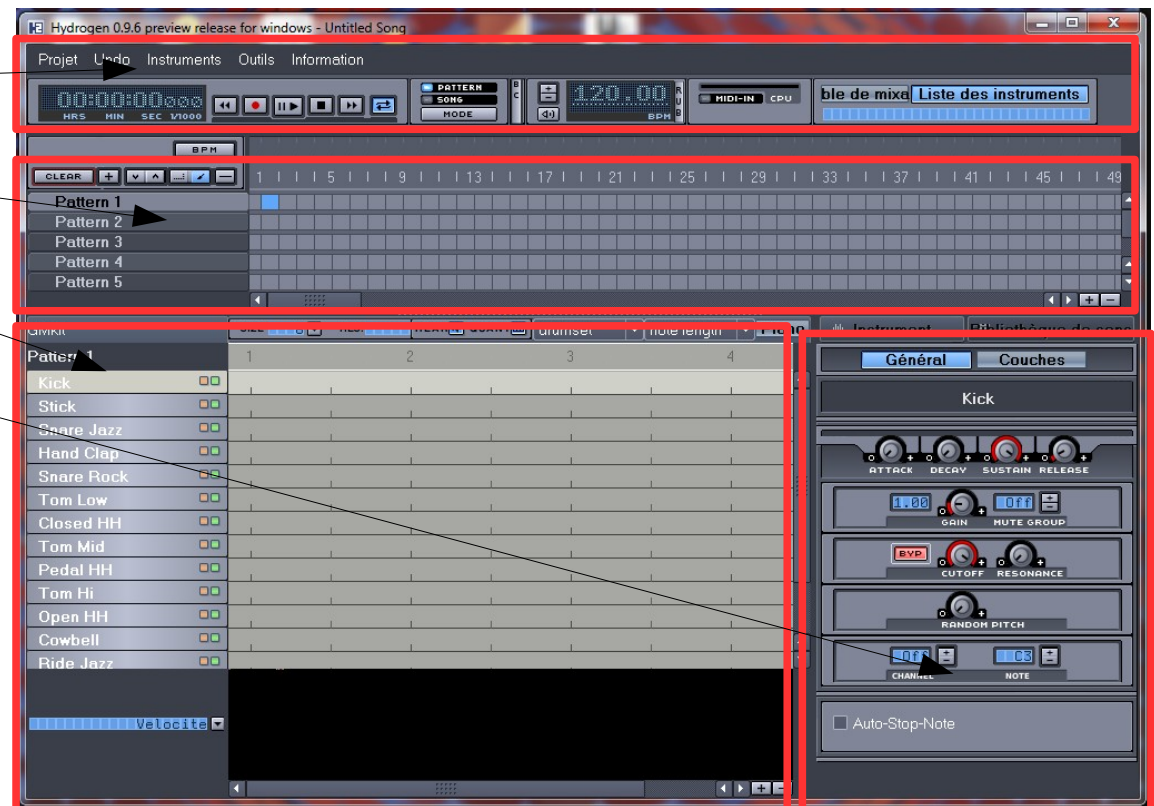Yamaha_Sy35
Yamaha_TX16W
Yamaha_Tg33_full
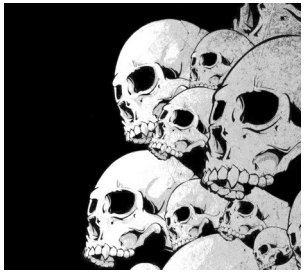Yoursck+Vitriolix_Texturizer

Apparence générale

Barre de menus

Séquenceur de patterns

Editeur de patterns

Réglages des sons

Réglage des sons 1/2
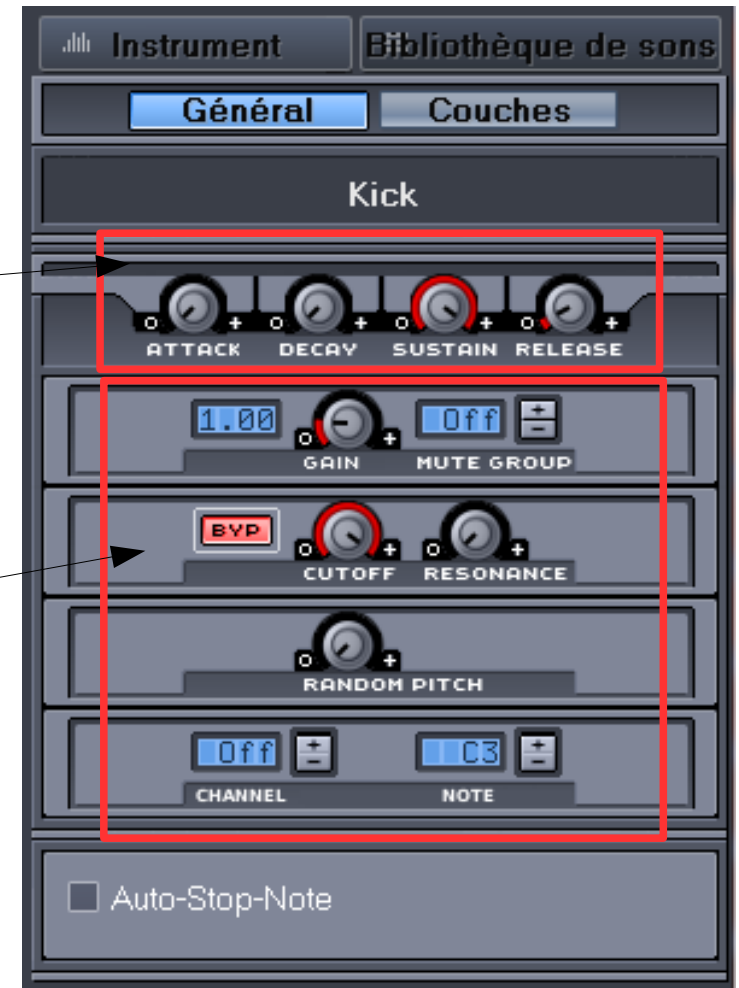
Filtre ADSR associé à chaque son de batterie
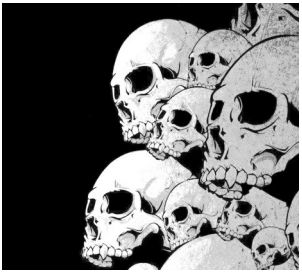**A**ttack : Attaque
Decay : Décroissance
Sustain : Maintient
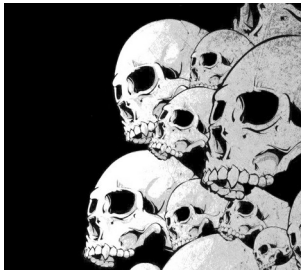**R**elease : Relâchement

Effets divers pour le son

Réglage des sons 2/2

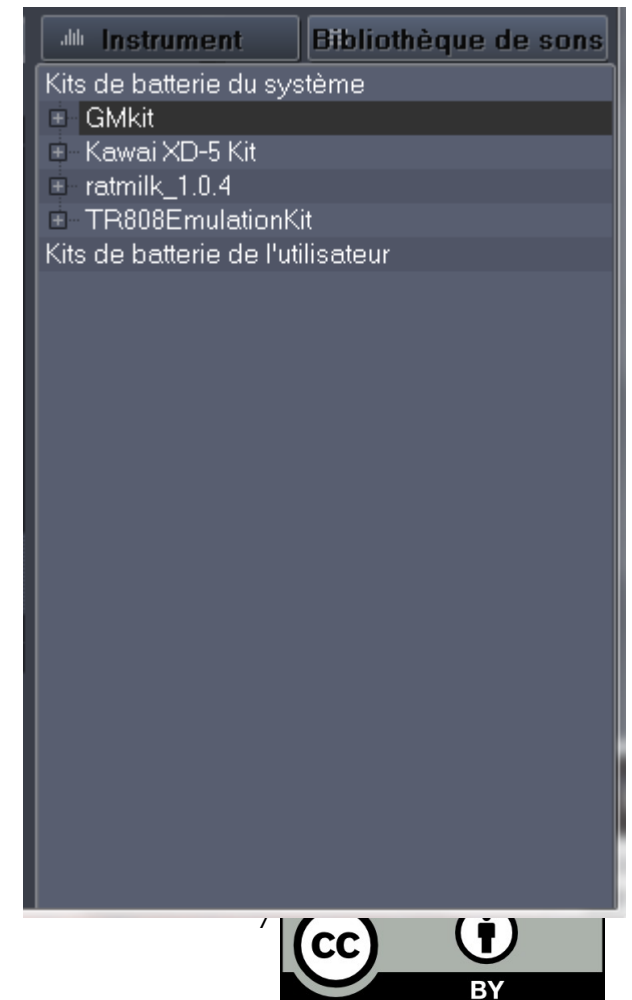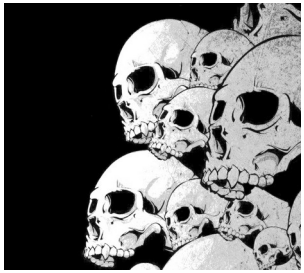Chaque son de batterie peut être une superposition de différents sons.

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Sélection des bibliothèques

Plusieurs sets de batterie existent. Certains sont téléchargeables sur le site :

http://sourceforge.net/projects/hydrogen/files/Sound%20Libraries/

La version 0.9.7 permet de télécharger automatiquement et d'installer des nouveaux sons de batterie.

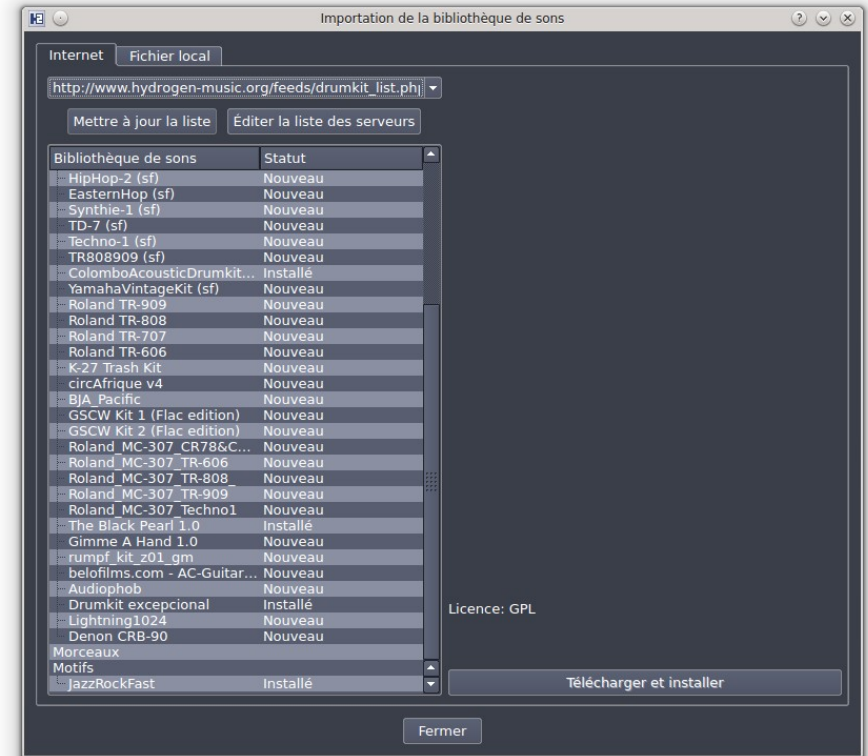Y. Collette

Importation de bibliothèques

Pour installer une nouvelle bibliothèque, le plus simple reste de passer par le menu instrument :

Instruments → Import Library

Cliquer sur 'Update list', puis sélectionner la bibliothèque que vous voulez installer puis cliquez sur le bouton 'Télécharger et installer'.
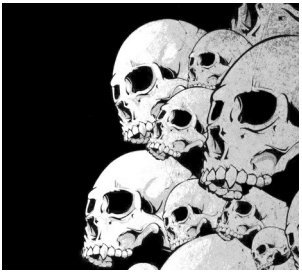
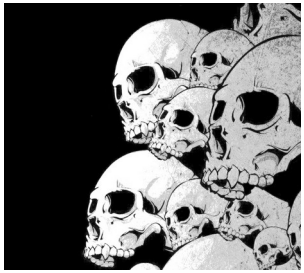Quelques autres bibliothèques sont accessibles ici :

http://www.hydrogen-music.org/hcms/node/16

Table de mixage

Piste de mixage pour chacun des sons de la batterie

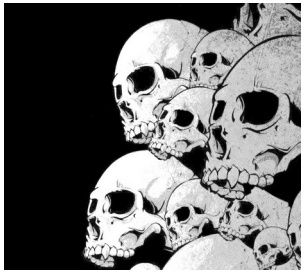Zone d'application de plugins d'effets

Niveau général

La gestion du Midi

La version 0.9.5 gère le Midi Alsa (l'entrée hydrogen apparaît dans la section Alsa Midi de QJackCtl.

La version 0.9.6 beta gère le Midi Alsa et Jack (l'entrée hydrogen peut apparaître au choix dans la section Alsa ou Jack de QjackCtl.

```
$ git clone https://github.com/hydrogen-music/hydrogen.git
$ cd hydrogen
$ mkdir build_tmp
$ cd build_tmp
$ cmake -DCMAKE_INSTALL_PREFIX=/opt/hydrogen-devel -
DCMAKE_BUILD_TYPE=RELEASE ..
$ # On installe les applications manquante, puis on relance la commande ci-dessus
$ make
$ sudo make install
```
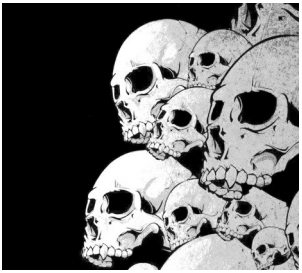
Connecter un instrument

Hydrogen n'utilise qu'une partie des évènements MIDI pour contrôler les sons.
Les évènements gérés vont de 36 à 59.

Pour savoir qu'elles évènements MIDI votre instrument génère, il faut connecter sa sortie à **kmidimon**. Cette application permet d'afficher tous les évènements MIDI qui passent par une connexion données.

Ensuite, il faut réordonner les instruments **Hydrogen** en fonction des évènements MIDI de l'instrument.
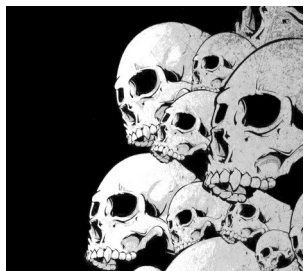
Par exemple, si mon instrument génère un évènement 36 et qu'on veut associer une caisse claire, alors il faudra déplacer le caisse claire en position 1 (pour qu'elle soit déclenchée par notre évènement MIDI 36) dans le drumkit chargé dans **Hydrogen**.

La table suivante liste les positions d'instruments avec les évènements MIDI associés.
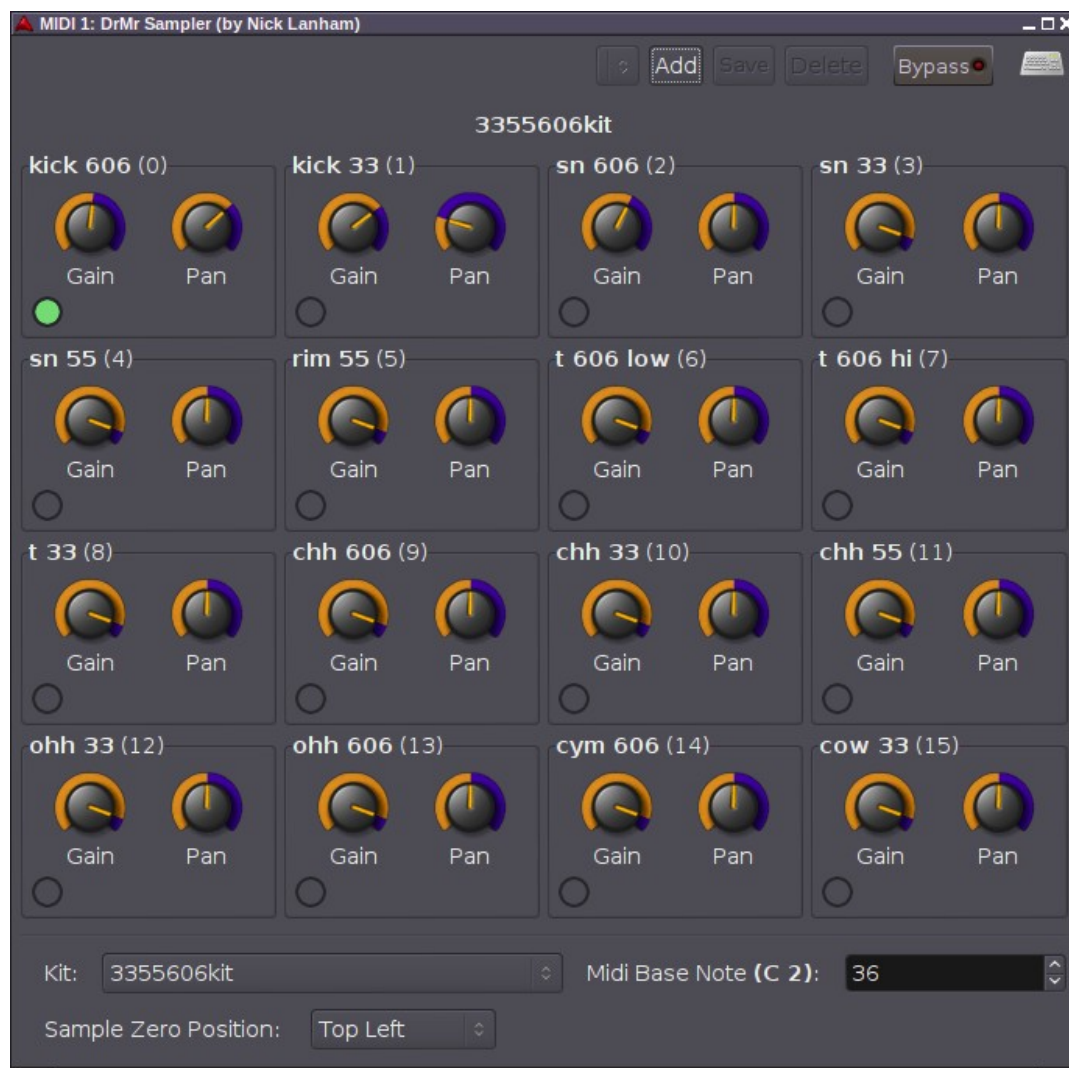
Connecter un instrument

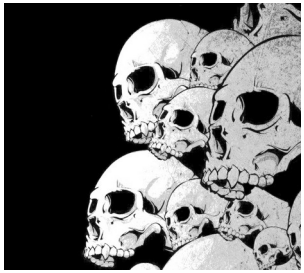| Instrument position	MIDI note	PC Keyboard Key	Instrument name (Gmkit)
1	36	Z	Kick
2	37	X	Snare Jazz
3	38	C	Snare Rock
4	39	V	Tom Low
5	40	B	Tom Mid
6	41	N	Tom Hi
7	42	M	Cowbell
8	43	Q	Ride Jazz
9	44	W	Ride Rock
10	45	E	instrument N0. 17 (not assigned yet)
11	46	R	instrument N0. 18 (not assigned yet)
12	47	T	instrument N0. 20 (not assigned yet)
13	48	Y	instrument N0. 22 (not assigned yet)
14	49	U	instrument N0. 24 (not assigned yet)
15	50	S	Stick
16	51	D	Hand Clap
17	52	G	Closed HH
18	53	H	Pedal HH
19	54	J	Popen HH
20	55	2	Crash
21	56	3	Crash Jazz
22	57	5	instrument N0. 19 (not assigned yet)
23	58	6	instrument N0. 21 (not assigned yet)
24	59	7	instrument N0. 23 (not assigned yet)

DrMr
Plugin LV2 pour Hydrogen

DrMr est un plugin LV2 qui permet de lire des fichiers Hydrogen et de générer un rendu sonore via des évènements MIDI

https://github.com/nicklan/drmr

D'autres puglins sont disponibles :
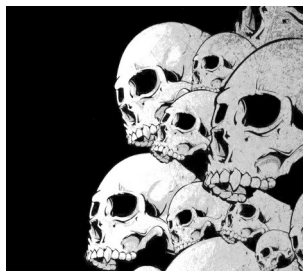- drumrox
- drumlabooh

Y. Collette

Une alternative : DrumGizmo

Un plugin / exécutable pour simuler une batterie.
Les drumkits actuels sont plutôt orientés métal :
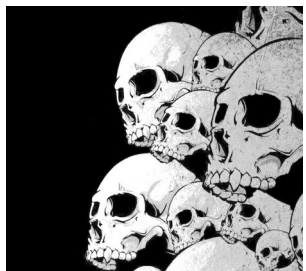- DRSKit
- MuldjordKit
- Aasimonster

https://www.drumgizmo.org/wiki/doku.php?id=start

DrumGizmo
aasimonster

$ drumgizmo -i jackmidi -I midimap=midimap.xml -o jackaudio aasimonster.xml

DrumGizmo
aasimonster - micros

This drumkit was recorded using 14 microphones a trigger and the output from a trigger module:

Snare drum was close-mic recorded using two Shure SM57 micrphones. One at the top sof the snare and one at the bottom. Furthermore the analog output of a DDrum trigger was recorded.
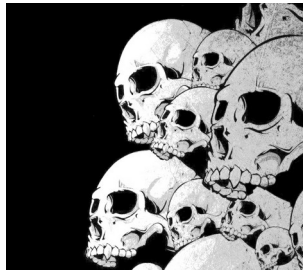
Each of the four toms were close-mic recorded using AKG C518M swaneneck microphones.

The kickdrums were recorded using AKG D112 microhpones mounted in the hole. Furthermore the output of a Alesis DM5 drummodule were stored set up with the "Speed Metal" sample. The trigger module were activated using the Axis E-Kit trigger system.

The hihat and ride cymbal were close-mic recorded using cardioid condenser microphones.

The crash cymbals were recorded using RØDE NT5 over head microphones.

The ambiance of the entire kit were recorded using cardioid condenser microphones.
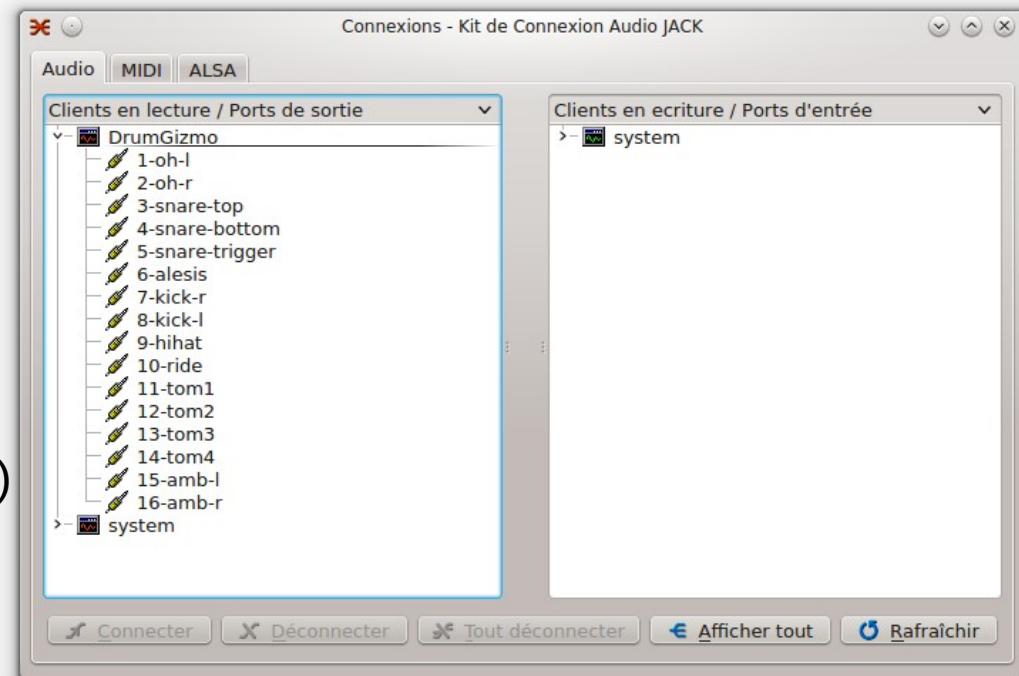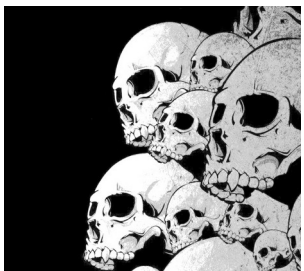
DrumGizmo
aasimonster - canaux

Each of the microphones are mapped to an output channel when the plugin is assigned to the midi track. The tracks are as follows:

Midi Ch 1: Overhead left (RØDE-NT5)
Midi Ch 2: Overhead right (RØDE-NT5)
Midi Ch 3: Snare top (Shure SM57)
Midi Ch 4: Snare bottom (Shure SM57)
Midi Ch 5: Snare trigger (DDrum)
Midi Ch 6: Alesis DM5
Midi Ch 7: Kick right (AKG D112)
Midi Ch 8: Kick left (AKG D112)
Midi Ch 9: Hihat (Cardioid condenser)
Midi Ch 10: Rise cymbal (Cardioid condenser)
Midi Ch 11: Tom 1 (AKG C518M)
Midi Ch 12: Tom 2 (AKG C518M)
Midi Ch 13: Tom 3 (AKG C518M)
Midi Ch 14: Tom 4 / floor tom (AKG C518M)
Midi Ch 15: Ambience left (Cardioid condenser)
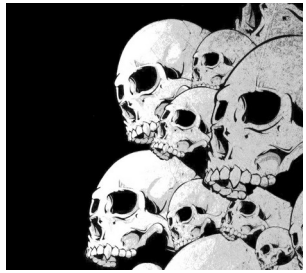**Midi Ch 16:** Ambience right (Cardioid condenser)

DrumGizmo
DRSKit

`drumgizmo -i jackmidi -I midimap=Midimap_minimal.xml -o jackaudio  DRSKit_minimal.xml`

Close mic: Snare top: Shure Sm57
Close mic: Snare bottom: Shure Sm57
Close mic: Tom1: Shure Sm57
Close mic: Tom2: Shure Sm57
Close mic: Tom3: Shure Sm57
Close mic: Kick drum back: AKG D112
Close mic: Kick drum front: Shure Sm57
Close mic: Ride cymbal: Beyerdynamic MCE 86 II
Close mic: Hihat: Beyerdynamic MCE 86 II
Overhead: Focusing on left crash and hihat: Røde Nt5
Overhead: Focusing on right crash and ride: Røde Nt5
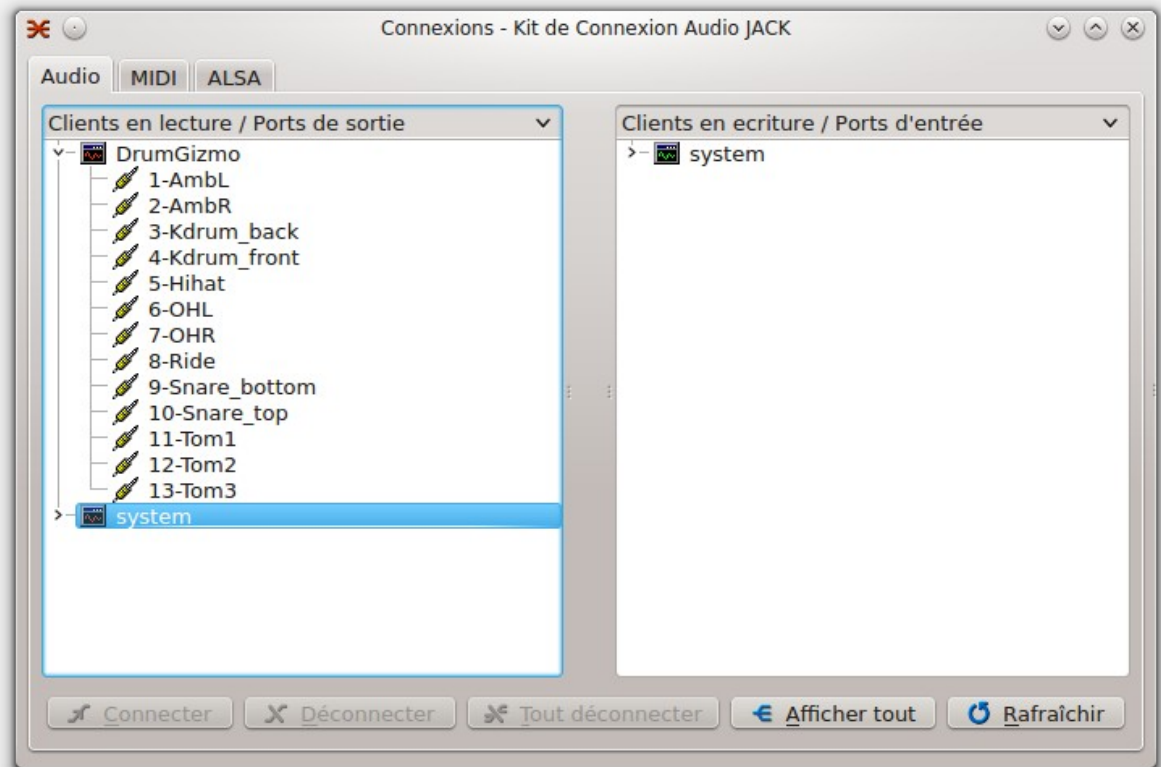**Ambience:** Focusing on entire kit placed further back in the room to the left: t.bone Rb500
Ambience: Focusing on entire kit placed further back in the room to the right: t.bone Rb500
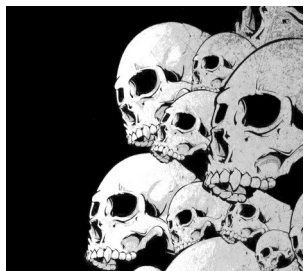
DrumGizmo
DRSKit - canaux

All microphones are connected to its own channel when loading the kit in DrumGizmo. 13 channels total. Remember to pan the relevant channels to give you a better stereo effect.

Midi Ch 1: Ambience left
Midi Ch 2: Ambience right
Midi Ch 3: Kickdrum back
Midi Ch 4: Kickdrum front
Midi Ch 5: Hihat
Midi Ch 6: Overhead left
Midi Ch 7: Overhead right
Midi Ch 8: Ride cymbal
Midi Ch 9: Snaredrum bottom
Midi Ch 10: Snaredrum top
Midi Ch 11: Tom1
Midi Ch 12: Tom2 (Floor tom)
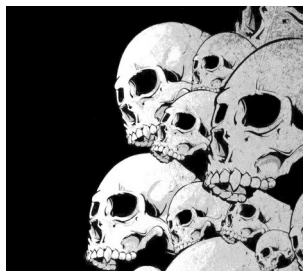**Midi Ch 13:** Tom3 (Floor tom)

DrumGizmo
MuldJordKit

drumgizmo -i jackmidi -I midimap=Midimap.xml -o jackaudio MuldjordKit.xml

Close mic: Snare top: Shure Sm57
Close mic: Snare bottom: Shure Sm57
Close mic: Tom1: AKG C516 ML
Close mic: Tom2: AKG C516 ML
Close mic: Tom3: AKG C516 ML
Close mic: FTom4: AKG C516 ML
Close mic: Kick drum left inside barrel: AKG D112 + DDrum trigger
Close mic: Kick drum right inside barrel: AKG D112 + DDrum trigger
Close mic: Ride cymbal left: Shure Sm57
Close mic: Ride cymbal right: Shure Sm57
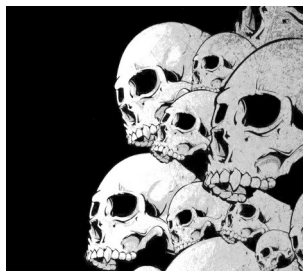**Close mic:** Hihat: Shure Sm57
Overhead left: Røde Nt5
Overhead right: Røde Nt5
Ambience: Focusing on entire kit placed a little further back in the room to the left:
              t.bone Rb500
Ambience: Focusing on entire kit placed a little further back in the room to the right:
              t.bone Rb500
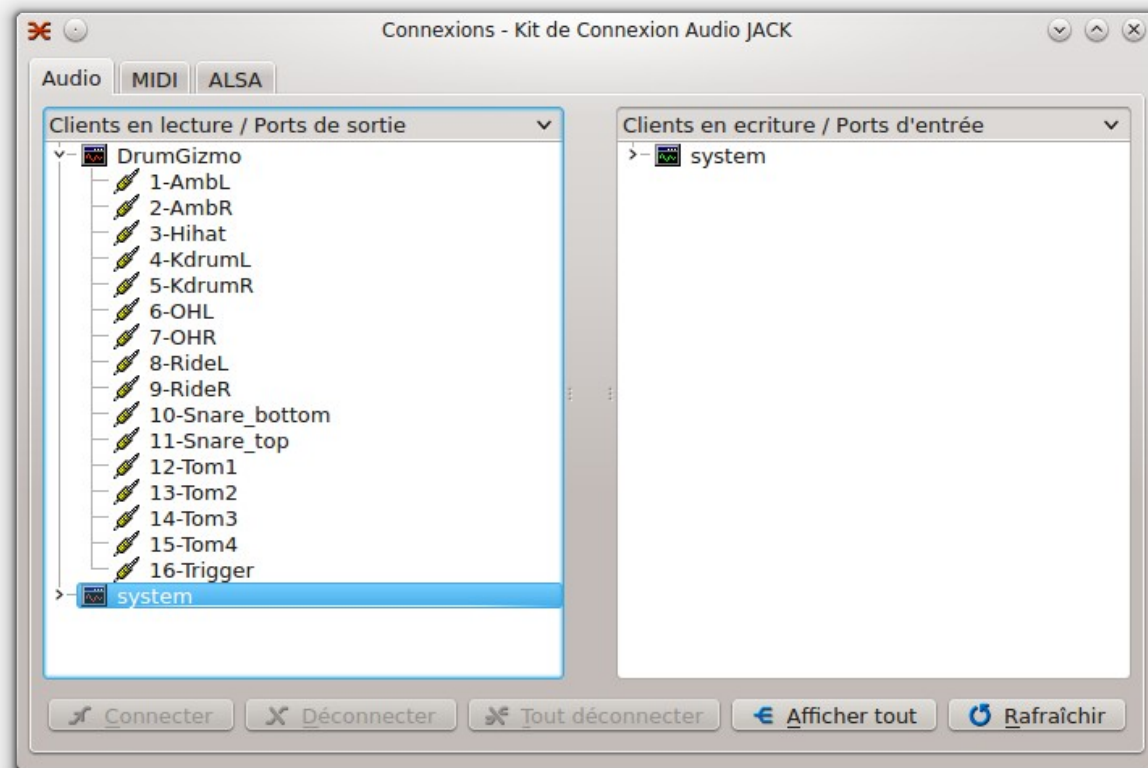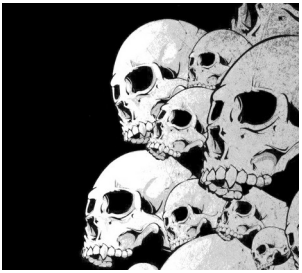Also DDrum triggers on both kick drums mixed onto one mono channel

DrumGizmo
MuldJordKit - canaux

All microphones are connected to its own channel when loading the kit in DrumGizmo. 16 channels total. Remember to pan the relevant channels to give you a better stereo effect.

Midi Ch 1: Ambience left
Midi Ch 2: Ambience right
Midi Ch 3: Hihat
Midi Ch 4: Kickdrum left
Midi Ch 5: Kickdrum right
Midi Ch 6: Overhead left
Midi Ch 7: Overhead right
Midi Ch 8: Ride left
Midi Ch 9: Ride right
Midi Ch 10: Snare bottom
Midi Ch 11: Snare top
Midi Ch 12: Rack tom 1
Midi Ch 13: Rack tom 2
Midi Ch 14: Rack tom 3
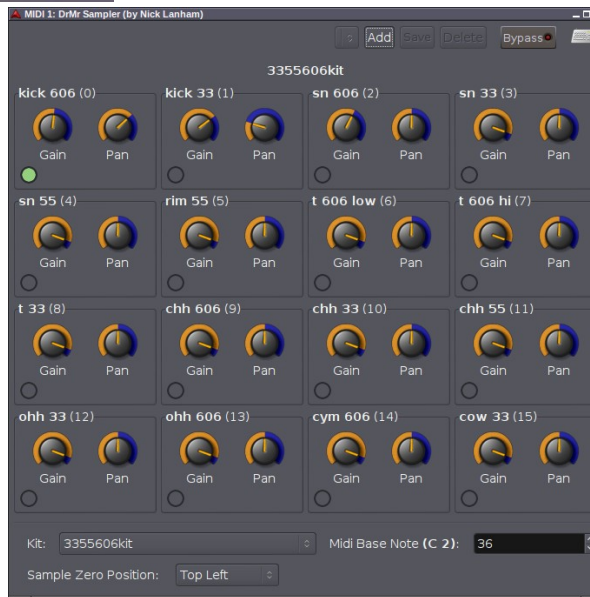**Midi Ch 15:** Floor tom
Midi Ch 16: Kick drum trigger signals

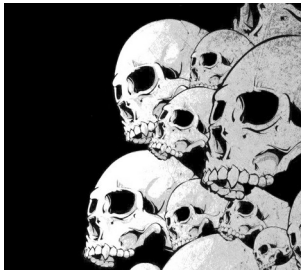24/08/2013   Y. Collette   23

Hydrogen plugins

drumlabooh

drmr

drumrox

drumgizmo : Software Synthesizer
ChowKick : Kick synthesizer based on old-school drum machine circuits
boomer : A drum synth
geonkick : Drum Software Synthesizer
kickmess : A kick drum synthesizer plugin
lv2-fabla : An LV2 drum sequencer
onetrick-cryptid : An FM drum synth with the cold clanging heart of a DX7 in the fearsome frame of an 808.
onetrick-urchin : A hybrid drum synth that models the gritty lo-fi sound of beats from vintage records without sampling.
sickbeatbetty : An open source MIDI drum machine / generator VST and standalone application
AVLDrumkits-BlackPearl-H2-repack : Hydrogen drumkit
AVLDrumkits-BlondeBop-HotRod.h2d : Hydrogen drumkit
AVLDrumkits-BlondeBop.h2d : Hydrogen drumkit
AVLDrumkits-BuskmansHoliday : Hydrogen drumkit
AVLDrumkits-RedZeppelin-H2-repack.h2d : Hydrogen drumkit
bandshed-drumkits : Bandshed DrumKits for Hydrogen
drumkv1 : An old-school drum-kit sampler
lv2-avldrums-x42-plugin : Simple Drum Sample Player LV2 Plugin