

sidbang

- *SPACE* starts/stops playing
- *ENTER* sets playhead to start
- all interaction with mouse on the buttons sliders, number dialers, dropdown lists, etc.

project

- files are stored in the bng subfolder

- export is still experimental, will print the tables to stdout

patch select

- each instrument has 16 independant patches

- the selected patch is set in the pattern editor on click

ADSRH setting

- H > 0 set gate release time in ticks instead of 1/16 note trigger from the sequencer

- 2nd row sets the osc-patch for each phase of the ADSR

osc-patch select

- each instrument patch has 4 independant osc-patches

osc-patch settings

osc-waveform / frequency / ticks / ratio / sound parameter

- **osc-waveform** : triangle / rect / saw / inverse saw / sinus

- **frequency** : in Hz -> maps to ticks

- **ticks** : 1 tick happens 16 times per 50 Hz frame -> maps to frequency

- **ratio** : effective for rect and triangle

sound parameter

oscillation happens between the left and right parameter

- **base-frequency** : transpose or replace input note

- **vibrato** : 0 - 100 %

- **sid-waveform** : bits 3-0

- **pulsewidth** : for the sid-rect waveform (0100)

song settings

- bpm mapped to player ticks per 1/16th note

- loop- / song-mode

pattern select

- each pattern (0-63) carries the sequence setting below

- in song-mode selected patterns are played sequentially

The image shows the sidbang software interface, a dark-themed digital audio workstation for the Commodore 64 SID chip. At the top, there's a header bar with the name 'sh4ke', 'LOAD', 'SAVE', and 'EXPORT' buttons, and a version string 'sidbang v0.5 (alpha 1) / (c) goarana 2020'. Below this, a 'Patch:' section shows a 16-slot patch bank and a table of parameters (A, D, S, R, H) with numeric values. To the right is a 'waveform preview' window showing a blue waveform. The main area is the 'Pattern:' editor, which includes a 16-tick pattern bar, a 32-note piano roll with various note names (e.g., C-0, F#3, H#6), and a keyboard at the bottom. A 'Note: C-0' label is above the keyboard. On the left, several text boxes with blue borders and lines pointing to specific UI elements provide detailed explanations of the project, patch, ADSRH, osc-patch, and song settings.

pattern sequence editor

- 3 channels with independant instrument per channel

- 32 patterns each for notes and patches

- gate is triggered on a set 1/16 note and released on empty 1/16 note (for instruments with H == 0)

- instrument patch is toggled by patch pattern, default patch is 0

- use *SHIFT* + *click* to set or clear all equal cells left from the selected cell at once

instrument note select

- the note is feed into the instrument input

- the selected note is set in the pattern editor on click

waveform preview

- displays the sid output of the instrument for 4/16 note length