

Gamble Kid

User Manual (V1.0)

Gamble Kid is a virtual instrument for Native Instruments Kontakt, giving you the classic sound of a famous 8-bit handheld console. It is built on 4,576 samples (@44.1 kHz/24 bit, mono) recorded from an original GB DMG-01 from 1989.

To enable MIDI support a self-built “Arduinoboy”¹ MIDI interface was used in addition to the software mGB V1.3.3² running on the GB. To reduce audio noise the GB was modified with an additional audio output which bypasses the internal speaker (“Pro Sound Mod”). The audio was recorded using an A-Designs P-1 microphone preamp.



© 2017 borth audio

1 <https://github.com/trash80/arduinoboy>

2 <https://github.com/trash80/mGB>

System Requirements

- Full version of Native Instruments Kontakt 5.4 or above (does NOT work with free Kontakt Player!)
- 1.5 GB of free hard drive space

Installation

Unzip the file “Gamble Kid.zip” and copy the containing folder to your desired sample location on your hard drive.

How to load *Gamble Kid* into Kontakt

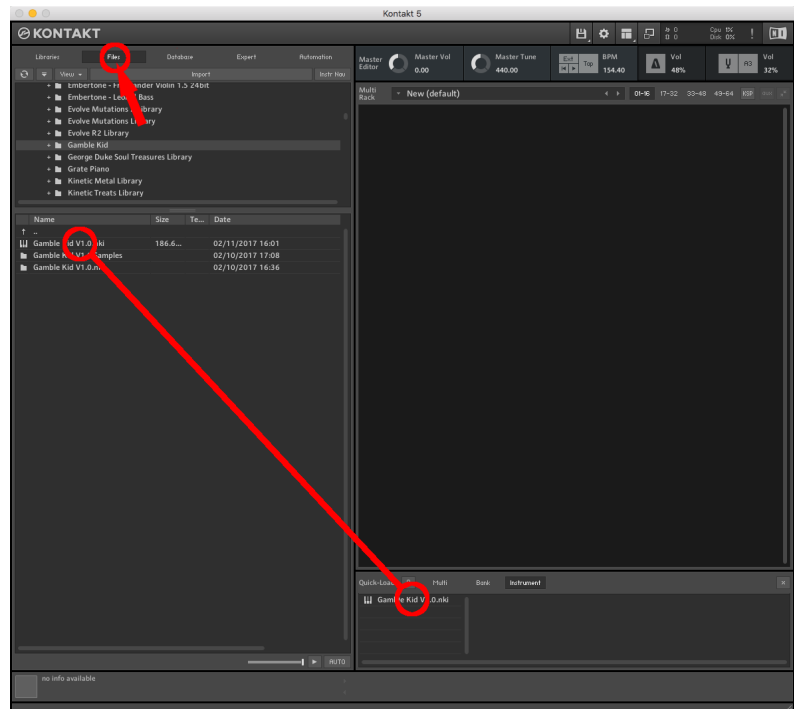
Open Kontakt and go to the “Files” tab and navigate to the *Gamble Kid* folder on your hard drive. Double-click “Gamble Kid V1.0.nki” or drag the file to an empty area in the Rack view.

Tip: Add Gamble Kid to Quick-Load menu:

To open the Quick-Load menu, right-click anywhere in the rack view or press **CMD + F** (CTRL + F on Windows).

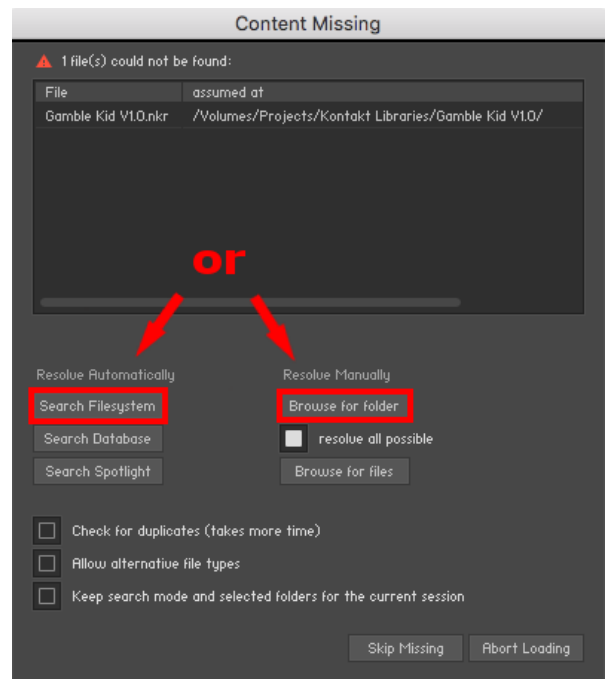
Click on the “Files” tab, navigate to the *Gamble Kid* folder and drag the file “Gamble Kid V1.0.nki” in the Quick-Load area in the bottom right.

To load an instrument from Quick-Load, double-click the *.nki file or drag it into an empty area in the Rack view.



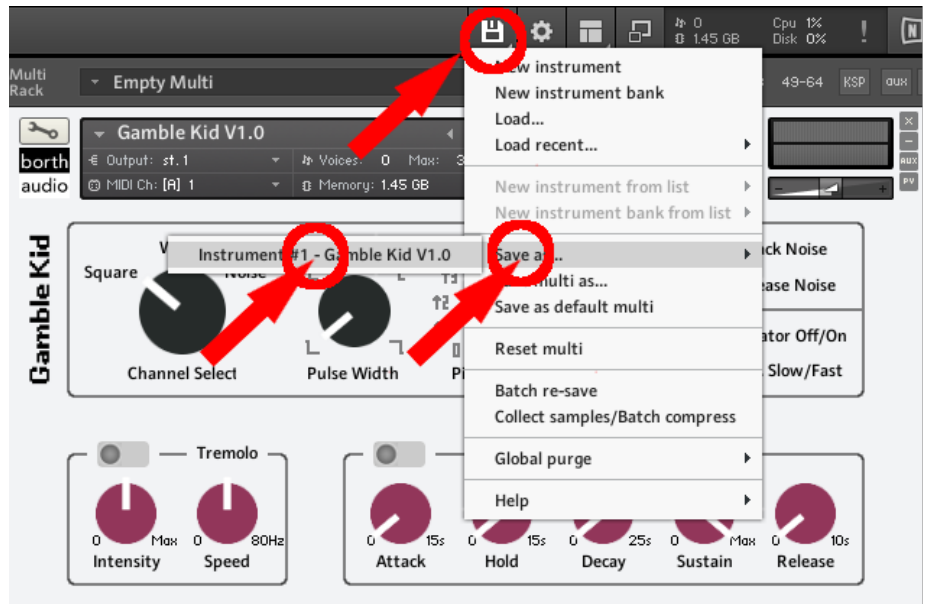
Content Missing Error:

You might get a “Content Missing” error message while loading Gamble Kid for the first time. To solve this issue, Kontakt can automatically search for the missing file(s) or you can manually browse to the instrument folder.

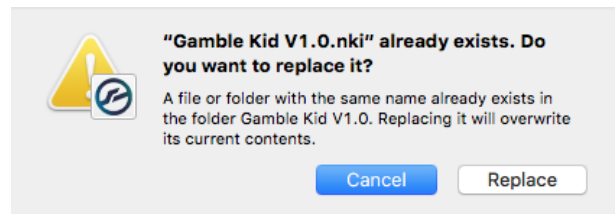


After the instrument is loaded re-save the instrument:

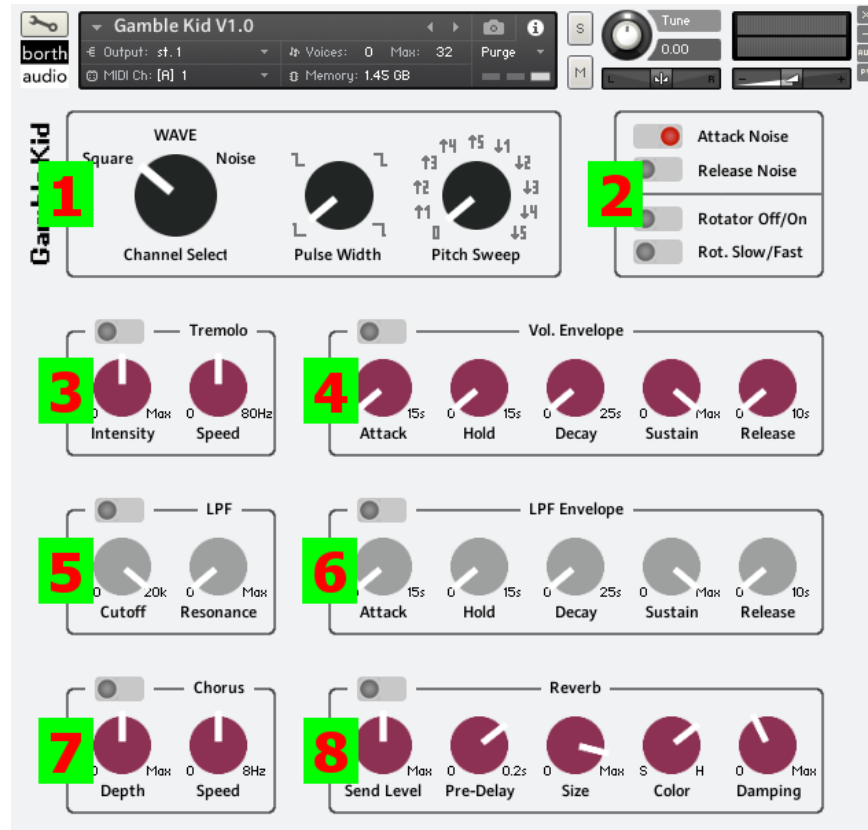
Click on the “Open/Save” menu icon, then on “Save as...” and “Instrument #1 - Gamble Kid V1.0”.



A dialog box will appear. Click “Replace” to replace the file (“Yes” on Windows).



GUI



(1) Sound controls

The original GB DMG-01 has 4 sound channels. Channel 1 and 2 feature square waves, only channel 1 has an automatic frequency sweep (pitch sweep). Channel 3 is a programmable wave table, channel 4 a noise generator. Originally only channel 1, 2 and 4 have a simple volume envelope.

Channel Select

Square (Range: C1 - F6)

- **Pulse Width**
 - 4 different pulse widths (positions 2 and 4 sound the same but have inverted polarity)
- **Pitch Sweep**
 - 0: no pitch sweep
 - ↑1 - ↑5: pitch sweep up, fast to slow
 - ↓1 - ↓5: pitch sweep down, fast to slow

WAVE (Range: C0 - F5)

- **Shape Select**
 - 16 different shapes

Noise (Range: C0 - G6)

Tip: Enable the volume envelope for drum sounds (fast decay, no sustain)

General tips:

- Holding down the shift key while turning a knob will make the mouse movement more precise
- CMD (Mac) / Ctrl. (Win) + Leftclick on a knob will reset it to its default value

(2) Attack and Release Noise & Rotator Effect

Attack Noise: When switched off (grey) the sample start of all samples will be shifted by 5 ms.

Release Noise: When switched on (red) a click noise will be added on note release

Depending on the selected sound source in (1) the attack noise is more or less distinctive.

Tip: Disabling the “Attack Noise” while enabling the Volume Envelope (3) and adding a very fast attack will eliminate all potential “hard” attack noises completely.

Rotator Off/On: Switches rotator effect off or on

Rotator Slow/Fast: Switches between fast and slow rotator speed

(3) Tremolo

To enable, flick the switch in the top left corner.

Intensity: 0 - 100 % (Amount of LFO modulation)

Speed: 0.01 Hz - 78.6 Hz (LFO Rate)

(4) Volume Envelope (AHDSR)

To enable, flick the switch in the top left corner.



Attack: 0 - 15 s

Hold: 0 - 15 s

Decay: 0 - 25 s

Sustain: ($-\infty$) - 0 dB

Release: 0 - 9.7 s

(5) Low Pass Filter (LPF)

To enable, flick the switch in the top left corner.

Cutoff: Changes the cutoff frequency (26 Hz - 19.9 kHz)

Resonance: Boosts a small frequency range around the cutoff frequency

(6) Low Pass Filter (LPF) Envelope (AHDSR)

To enable, flick the switch in the top left corner. Only works if LPF (4) is also enabled.



Attack: 0 - 15 s

Hold: 0 - 15 s

Decay: 0 - 25 s

Sustain: ($-\infty$) - 0 dB

Release: 0 - 9.7 s

(7) Chorus

To enable, flick the switch in the top left corner.

Depth: 0 - 100 (amount of LFO modulation)

Speed: 0.05 Hz - 8 Hz (speed of LFO modulating the signal)

(8) Reverb

To enable, flick the switch in the top left corner.

Send Level: $-\infty$ - 12 dB (how much of the original signal is being sent to reverb)

Pre-Delay: 0 - 180 ms (time before reverb takes effect)

Size: 0 - 100 (size of the reverb room)

Color: 0 - 100 (material of room: lower values = Softer surfaces, higher values = Harder surfaces)

Damping: 0 - 100 (amount of absorption: higher values = higher absorption)

Additional features

Pitch Bend Wheel: +/- 2 semitones

Modulation Wheel: Adds vibrato effect; is switched off when in down position (CC1 = 0)

Polyphony: By default *Gamble Kid* is a polyphonic instrument. To accurately simulate the original GB (each of the four channels are monophonic) you can limit the maximum number of voices from the default value of 32 to 1 (see picture below).

