

OT SIMIAN

User Guide



VERSION 1.1.0

Created by Punk Labs

<https://punklabs.com/ot-simian>



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Introduction

What is OneTrick SIMIAN

OneTrick SIMIAN is an open source, cross-platform drum synthesizer audio plugin inspired by hexagonal 80s classics.

Features

- 10 configurable voices
- 33 factory preset kits
- Velocity sensitive pitch, filter, and amp dynamics
- Lofi EPROM for classic cymbal sounds
- Gated Reverb bus
- Selectable voice icons and colors
- Saturation (per-voice and global)
- 1176-style limiter with drive control
- All parameters are automatable
- No telemetry or analytics
- DRM free
- Open source to inspect, learn from, adapt, and improve

Available Plugin Formats

VST3, AU (macOS only)

Supported Platforms

Linux (x86_64), Windows (x64), and macOS (64bit, M1/M2)

About Open Source

OneTrick SIMIAN's source code is available under a GPLv3 (or later) license for anyone to inspect, adapt, learn from, and improve. We've all had an app we rely on become outdated, incompatible, or move in a direction we don't like; by releasing the source code, we hope to protect users from these types of situations, and provide a guaranteed availability long after regular development has ceased. We believe that everyone benefits when users have control over their software.

Who is Punk Labs

Punk Labs is run entirely by just two people, Oren Kurtz and Tara Bellafiore. We've been designing software, web projects, video games, and writing music professionally since 2005. Our journey has been long, and we've managed to remain independent. We sincerely hope you enjoy our creation and find it useful.

Windows

You can copy the location into File Explorer's address bar.

For VST3 move "Punk Labs LLC OneTrick SIMIAN.vst3" to one of the following folders:

Current User: %LOCALAPPDATA%\Programs\Common\VST3\
System Wide: \Program Files\Common Files\VST3\

macOS

You can copy the location and past it into "Go to Folder..." located in the Finder, "Go" menu.

For Audio Units (AU) move "Punk Labs LLC OneTrick SIMIAN.component" to one of the following folders:

Current User: ~/Library/Audio/Plug-ins/Components/
System Wide: /Library/Audio/Plug-ins/Components/

For VST3 move "Punk Labs LLC OneTrick SIMIAN.vst3" to one of the following folders:

Current User: ~/Library/Audio/Plug-ins/VST3/
System Wide: /Library/Audio/Plug-ins/VST3/

Using OneTrick SIMIAN

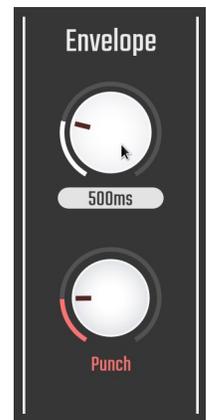
Overview



To modify each control using your mouse, click and drag vertically. For more fine control you can hold the Control key or Shift key on your keyboard while dragging.

When hovering the mouse over a control the parameter value will be displayed and will update while being modified.

To reset a control to its default value you can hold Alt on your keyboard and single click, or on the Voice and Global Controls you can also double click.



Preset Selector



The left and right arrow buttons cycle through the 34 factory presets. To create a sound from scratch select the “Init” preset to set all values to default.

Voice Selector



Click on any of the 10 voice icons to select it for editing in the Voice Controls section. When a voice is triggered, its icon will animate.

Voice Controls



This area allows you to configure the currently selected voice. Each control in this area only applies to the selected voice.

Visual Controls

Each voice can have its own icon and theme color.



Voice Color: Selects the voice's theme color.

Voice Icon: Selects the voice's icon.

Tone

Controls for the *triangle wave oscillator* and *cymbal sample*.



Pitch: Adjusts the frequency (in Hz) of the *triangle wave oscillator* as well as the playback speed of the *cymbal sample*.

Bend: The maximum amount to bend **Pitch** (in semitones) when triggering the voice.

Waveform: Blends between the *triangle wave oscillator*, and the *cymbal sample*.

Velocity: The amount of velocity sensitivity to apply to **Bend**(Tone).

Filter

Controls the *lowpass* filter applied to *noise* and the *cymbal sample*.



Cutoff: The frequency of a 1-pole *lowpass* filter applied to the *noise* and/or *cymbal sample*.

Bend: The maximum amount to bend **Cutoff** (in semitones) when triggering the voice.

Resonance: the amount of resonance of the *lowpass* filter.

Velocity: The amount of velocity sensitivity to apply to **Bend**(Filter).

Envelope

Controls a simple 1-shot decay envelope.



Decay: The maximum time it takes (in milliseconds) for the voice to fade out. Each note will vary based on velocity.

Punch: How punchy (nonlinear) the envelope is.

Mix

Controls how oscillators are mixed, as well as the **Room Reverb** send.



Pan: Pans the voice left / right.

Room: Sends the voice to the **Room Reverb** bus.

Tone/Noise: Fades between the *tone oscillators* and *noise*.

Transient: Adds a short click when the voice is triggered.

Amp

Controls the voice's individual preamp



Gain: The relative volume of the voice.

Saturation: Introduces harmonic distortion to the *tone oscillators* using a waveshaper.

Velocity: The amount of velocity sensitivity to apply to **Gain**.

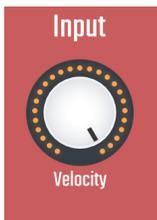
Global Controls



This area allows you to configure the global settings
Each control in this area affects all voices.

Input

Controls incoming midi triggers



Velocity: Adjusts the global amount of velocity sensitivity allowed before any processing.

Room Reverb

Controls the **Room Reverb**, which comes in the form of a vintage “satrev”-style reverb circa 1971.

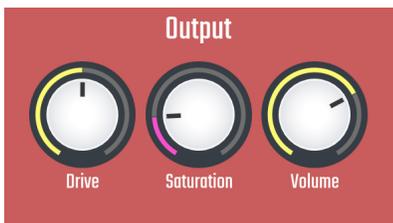


Decay: The duration of the reverb (in relative %)

Gate: The cutoff (in dB) for gated reverb.

Output

Final processing controls



Drive: Controls how much to drive **Saturation** by applying a preamp gain.

Saturation: Introduces harmonic distortion to the final output using a waveshaper.

Volume: Adjusts final output volume without introducing any additional signal color.

MIDI Map

Voice Number	MIDI Note	Common Use
Voice 1	C2	Kick
Voice 2	D2	Snare
Voice 3	C#2	Rimshot / Cowbell
Voice 4	D#2	Clap
Voice 5	E2 + F2	Tom Low
Voice 6	G2 + A2	Tom Mid
Voice 7	B2 + C3	Tom High
Voice 8	F#2	Hi-hat Closed / Pedal
Choke Voice 8 & 9	G#2	Hi-hat Choke
Voice 9	A#2	Hi-hat Open
Voice 10	C#3	Cymbal / Crash / Ride
Choke Voice 10	D#3	Cymbal Choke

Special Considerations

Voice 8 will choke **Voice 9** to act in a Hi-hat Closed/Open configuration.

This is hard-coded functionality, and is not configurable.

Keep this in mind if you use these voices for non-cymbal sounds.

Changelog

1.1.0 (November 17, 2022)

- Change: UI refinements to reduce clutter.
- Change: Alt-clicking Color and Icon buttons now resets to default.
- Fixed: Panning hard-right causes voice to sleep.
- Fixed: Knob label inconsistency for Tone/Noise across voices.
- Fixed: Multithread buffer issue causing garbled audio.
- Fixed: Increasing memory consumption from flooding the glyph cache.
- Source: Refactored to use our new OneTrick shared core.
- License: Changed OneTrickIcons font license to SIL Open Font License, Version 1.1
- Updated Dplug to version 13.0.5
- Updated Documentation:
 - Added a paragraph in “Overview” on how to modify and reset controls.
 - Fixed Windows install paths using “/” instead of “\” under “Using the Archive”.

1.0.2 (October 18, 2022)

- Optimized: DSP is now multithreaded with each voice running in parallel.
- Changed: DSP now uses FastMath without hand-editing. This should help with custom builds.
- Updated Dplug to version 12.8.3

1.0.1 (October 3, 2022)

- Changed: Reduced glibc requirement for broader compatibility
- Fixed: Bitwig faded notes after momentary silence
- Fixed: Faded first note after plugin load
- Fixed: Dull sound above 48kHz samplerate
- Fixed: Potential crash when clicking elements (Dplug 12.7.21)
- Updated Dplug to version 12.7.21
- Updated Documentation:
 - Added Windows Uninstaller details
 - Added Changelog section

1.0.0 (September 20, 2022)

- Initial Release

Notices

OneTrick SIMIAN:



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Dplug:

An audio plugin framework using the D language.
Copyright: (c) Guillaume Piolat (2022)

Dplug is available under a mix of Boost 1.0 and other licenses.
Source: <https://github.com/AuburnSounds/Dplug>

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AE.Utils.Graphics:

Copyright: Vladimir Panteleev <vladimir@thecybershadow.net>

This package's source is freely available under the Mozilla Public License 2.0 (MPL-2.0)

Source: <https://github.com/AuburnSounds/Dplug>
License: <http://mozilla.org/MPL/2.0/>

STB Image:

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Destroy FX AU Utilities:

Destroy FX AU Utilities is a collection of helpful utility functions for creating and hosting Audio Unit plugins.

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