KAZROG

Synth Warmer

Kazrog

User guide - version 1.1.3
Feburary 10, 2021
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https://kazrog.com

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Synth Warmer was developed to accurately emulate the ladder filter and overload stages of the legendary "model D" monophonic analog synth of the 1970s. This is an iconic sound, and having it in the convenience of a DAW, to use on any track without having to patch out to hardware brings a level of flexibility beyond the original - in addition to the extra filter modes the original didn't offer (high pass filter, and 12dB per octave switchable topology.)

- Shane McFee
CEO/CTO, Kazrog Inc

2. Using Synth Warmer

Synth Warmer is an emulation of the analog ladder filter from a famous monosynth of the 1970s, designed for use on tracks, buses, and masters, across all genres of music. Every effort has been made to make the interface as simple as possible, so you can focus on making music.

2.1. Main Controls

Drive / Overload

Emulates the classic "Model D" external input jack overload distortion. The bulb lights when the signal clips the virtual input stage. Up to +48dB of gain on tap, to go from subtle warmth to absolutely insane distortion.

Cutoff

Every DJ's favorite knob - use this to adjust the specific frequency at which the filter is centered. We made this one bigger so you don't grab the wrong one by accident. ;)

Emphasis (Resonance)

Adjusts the resonance of the filter. While most synthesizer filters refer to this control as "Resonance," the name "Emphasis" is what was used on the classic Minimoog Model D, so this is an homage to the original. **SAFETY NOTE:** As with *any* resonant filter - be careful with higher settings, as sweeps can cause sudden dramatic volume level increases. We are **not** responsible for damage to your speakers and/or hearing do to misuse of the plugin - use a clipper (such as KClip) or limiter on your master bus and stay safe!

LPF/HPF

Toggles between low pass filter and high pass filter mode. The low pass filter is the default behavior, and filters out frequencies above the Cutoff control setting. The high pass filter, by contrast, filters out frequencies below the Cutoff control setting.

24 dB / 12 dB per octave

Toggles between 24 dB per octave and 12 dB per octave filter topology.

Mix

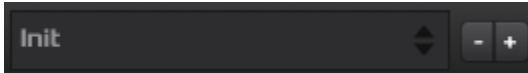The Mix control adjusts the final ratio of wet (processed) to dry (unprocessed) signal.

Out Gain

6

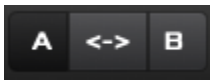Adjusts the final output gain level of the plugin, post-processing.

Preset Browser

Browse presets, for fun and (hopefully) profit!

A/B Compare

Every instance of Synth Warmer has two slots for a currently loaded preset. Click on the inactive slot to try different settings out, then compare to the other slot by clicking on its button. Use the copy button (in between A and B) to copy the currently active slot's settings to the inactive slot.

Save

Saves the current preset to the presets folder, using a standard system file requester. All presets are stored as cross platform XML files, so they can be exchanged between users on any platform.

Internal Bypass

Just in case your DAW lacks a plugin delay compensation (PDC) aware bypass feature, this internal bypass is provided so you can quickly A/B your processed and unprocessed audio.
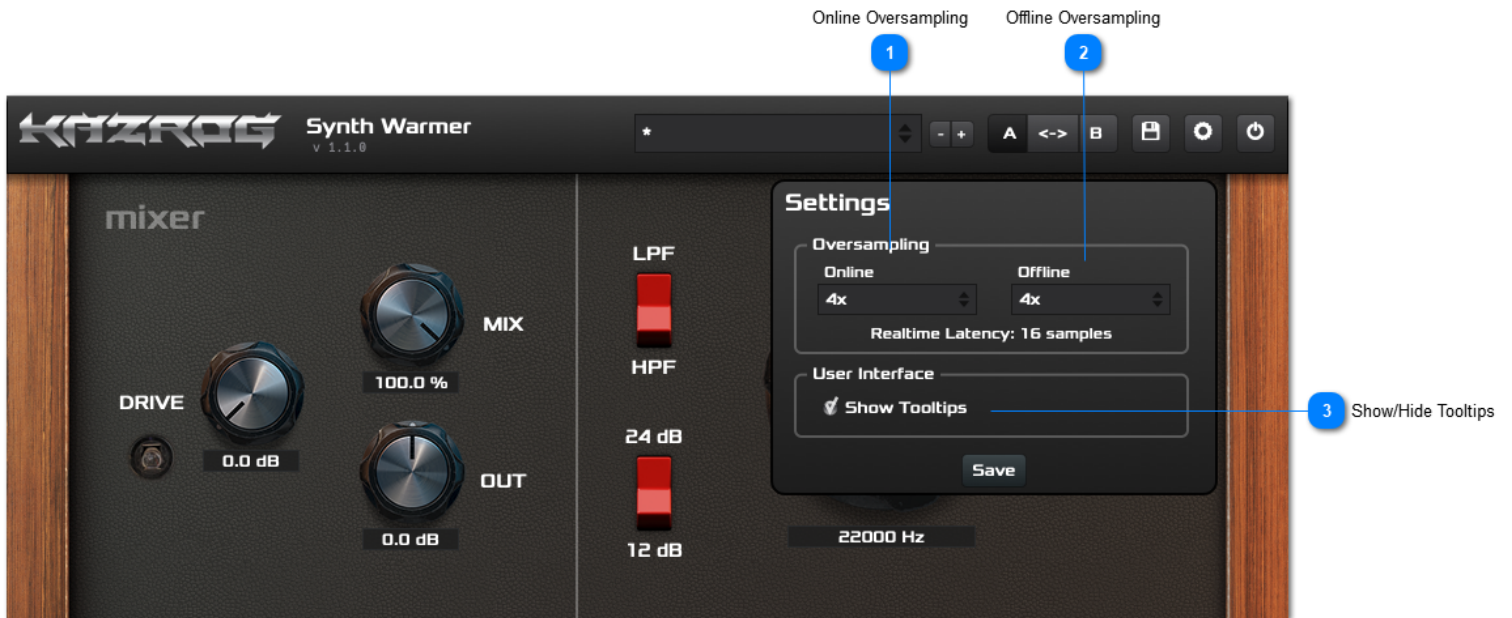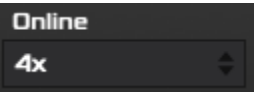
Settings

Opens the Settings panel.

2.2. Settings
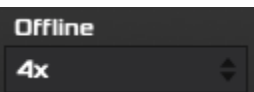

Online Oversampling

Adjusts the amount of times oversampling for realtime performance. This is multiplied by the session sample rate, e.g. 2x 44.1 kHz = 88.2 kHz.

IMPORTANT: This setting is global across all instances of the plugin - you must close and re-open your session after saving for this to take effect!

Offline Oversampling

Adjusts the amount of times oversampling for rendered plugin output during non-realtime bounce (in supported hosts.) This is multiplied by the session sample rate, e.g. 32x 44.1 kHz = 1.41 MHz.

IMPORTANT: This setting is global across all instances of the plugin - you must close and re-open your session after saving for this to take effect!

Show/Hide Tooltips

Shows or hides the quick help popups when hovering the mouse over the plugin controls. Some people find these helpful, some find them annoying - be happy!

3. Version History

Synth Warmer - Version 1.1.3 - February 10, 2021

Changes

• Apple Silicon support (VST, VST3, and AU)
• Updated SDKs and frameworks
• Updated platform specific configs

Synth Warmer - Version 1.1.2 - August 10, 2020

Changes

• Resolved an edge case issue where the wrong block size could be reported to some code modules, resulting in wrong processing and/or automation
• Updated SDKs and frameworks

Synth Warmer - Version 1.1.1 - July 6, 2020

Changes

• New and improved installers on Mac and Windows
• Apple Silicon-ready, cross platform optimized DSP replaces older Intel proprietary DSP. Users on both Mac **and** Windows should experience greater stability and compatibility as a bonus.

Synth Warmer - Version 1.1.0 - June 17, 2020

Maintenance update - recommended for all users.

Changes

• Updated to the new and improved Kazrog oversampling engine introduced with the release of the True Dynamics plugin
• Adds a handy option to disable tooltips
• New vectorized top toolbar for greater resolution independence

Fixes

• Fixed a bug where the presets menu was not alphabetized on newer macOS versions

Synth Warmer - Version 1.0.7 - October 10, 2019

Maintenance update - recommended for all users.

Changes

• Automation improvements affecting Latch and Touch mode in multiple hosts.

Synth Warmer - Version 1.0.6 - March 14, 2019

Changes

• Fixed drive control range bug that limited range significantly in 1.0.5 compared to prior versions.

• Plugin bypass bug fixed - DC filter was not bypassed when internal bypass was used in prior versions.
• Updated frameworks

Synth Warmer - Version 1.0.5 - January 30, 2019

Changes

• New demo versions added
• Fixed crackling automation issue with Drive control in Bitwig.
• Frameworks updated
• Wet/dry control bug fix has been brought to all versions of the plugin (installer human error fix.)

Synth Warmer - Version 1.0.4 - November 9, 2018

Changes

• Fixed wet/dry control bug, so that dry signal passes completely unfiltered.

Synth Warmer - Version 1.0.3 - October 24, 2018

Changes

• Internal maintenance - prepared for delivery via new e-commerce platform.

Synth Warmer - Version 1.0.2 - October 17, 2018

Changes

• Fixed filter sweep stepping at higher sample rates / lower buffer settings.
• Expanded range of Cutoff control down to 0 Hz while maintaining compatibility with older presets and sessions.
• Lowered CPU usage for realtime operation. Always renders at max quality offline.
• Resolved DC issues at higher sample rates.

Synth Warmer - Version 1.0.1 - October 8, 2018

• Initial release

4. Troubleshooting

Synth Warmer is designed for efficiency and stability, and shouldn't present you with issues in general, even on older hardware.

General

• Sample rates of 96 kHz or above are more taxing for your CPU. Consider a lower sample rate, unless the project requires it for some reason.
• Buffer sizes lower than 256 samples/buffer are more taxing for your CPU. Consider a higher buffer size, unless you need realtime monitoring of live instruments through plugins in your DAW.

FL Studio Specific

Synth Warmer utilizes internal oversampling, and needs a fixed buffer size for correct sonic behavior. In FL Studio, this requires custom settings to work properly.

Use the following settings:

1. Enable "Use fixed size buffers"
2. Uncheck "Allow threaded processing"
3. For **FL Studio 11** - in "Options" menu
- Uncheck "Use block size as buffer size"
- Check "Use host block size"
3. For **FL Studio 12** - in "More" menu
- Uncheck "Process maximum size buffers"
- Check "Use maximum buffer size from host"

FL Studio 20: Use the settings shown below in the plugin settings window (enable "Use fixed size buffers"):

KClip3 (Master)

ON   MIX LEVEL

Settings Processing   version 2.6.3.795

Compatibility options

○ Allow threaded processing   ○ Send loop position
○ Make bridged   ○ External window   ○ Process inactive inputs and outputs
○ Ensure processor state in callbacks ○ Reset plugin when FL Studio resets
○ Notify about rendering mode   ○ Use fixed size buffers (for buggy plugins) More ▶

Connections

Auto map inputs   Reset   Auto map outputs

--- ⬍ 1. Input   ○   ○ 1. Output   --- ⬍

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