Wire Grind

UNAGATED

v1.1 User Manual

Table of Contents

Overview

UNAGATED is a VST effect plugin for gating and envelope shaping. It includes multiple special features not found in products made by other companies.

Features

Different Ways to Gate

UNAGATED can gate in ways that other plugins can't. Gating is based not just on signal level, but also time, probability, and a complex set of rules. For example, the onset of the attack envelope can be delayed with *Delay Attack*, the time duration of notes can be shortened with *Force Release*, sections of audio can be silenced with *Hold Closed*, and entire beats can be silenced probabilistically using the *Skip Beats* feature. These features can all be used in combination with each other, and their functionalities are inverted when duck mode is enabled.

Transient Processing and Envelope Shaping

Gating isn't just about silencing a signal. Setting the *Range* to -3dB will cause just a dip in the signal. Used in combination with *Attack*, *Release*, *Delay Attack*, and *Force Release* can subtly change note dynamics. For more possibilities, enable *Duck* so that signal is increased by 3dB instead of decreased.

Click Suppression Technology

Noise gates can create a clicking noises when either the attack time or the release time is very short. By enabling the *Suppress* Clicking feature, UNAGATED dramatically reduces clicking. This is made possible by a special proprietary algorithm.

Carefully Tuned Envelopes

UNAGATED uses envelopes specially sculpted to have a pleasant musical sound. The attack envelope models the envelope of an analog synthesizer, and the release envelope mimics the decay of a real instrument. Optionally, if the synthesizer envelope is turned off, the attack is a smooth gradual volume swell, which is sometimes more perceptually pleasing.

Other Features

 Arbitrary channel configurations (mono, stereo, 5.1, 7.1, etc.)
 Click suppression technology
 Look-ahead

Attack envelope delay
Note length truncation
Hold Closed
Probabilistic gating

Independent/linked channel processing
Two attack envelope shapes
Ducking
Range control
Hysteresis control
Trigger signal scope
Gate level visualization

Specifications

Supported Sample Rates

44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192.0kHz. Other sample rates, mostly within the range of 44.1KHz to 192.0kHz are expected to work as well. However, be aware that unlisted sample rates are essentially untested. If in doubt, please try the free demo version.

Supported Channel Formats

UNAGATED supports all channel configurations. This means that the input, output, and sidechain can each have any number of channels, and they can be in any combination. Note that your computer system and host program may limit which configurations are usable.

Plug-in Format

VST3, 64-bit

System Requirements

Operating System

Windows versions 7 through 11.

Supported Host Programs

A program supporting 64-bit VST3 effects plugins is required.

Internet Access (recommended)

Access to the world wide web is required during installation. If the plugin is being installed on an offline computer, a small amount of data will need to be copied from one computer to the other.

Demo Version Limitations

There are two differences between the demo versions the full versions:
- The demo version is unable to save settings.
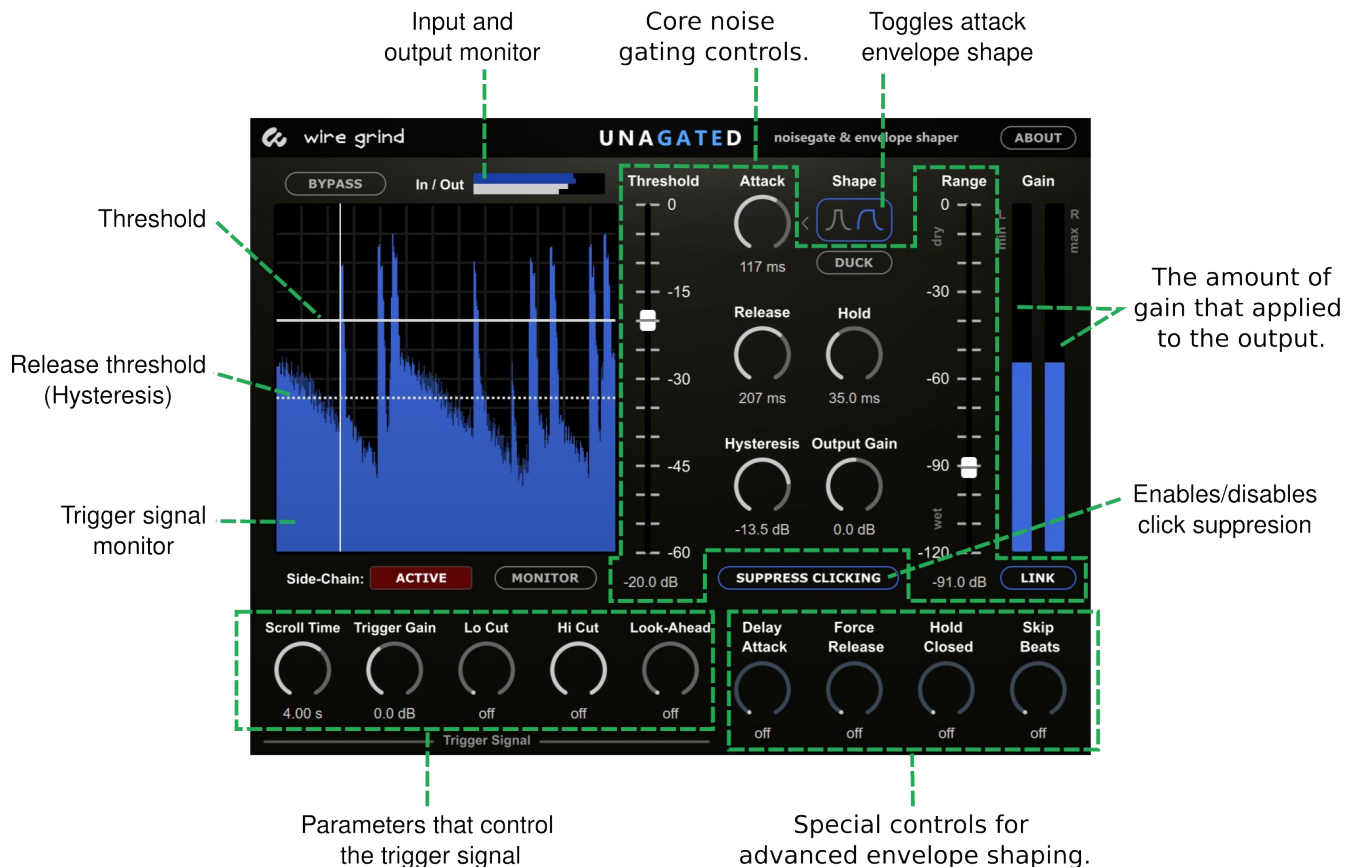- The demo version periodically adds a tone the output.

Installation

This program comes with a set up application that will guide you through the process. You will likely need to unzip or extract the download package before running. With some computer setups, you will also need to close any running audio applications.

Uninstall

The program can be removed using Windows' add/remove utility.

Software Interface at a Glance

Input and output monitor

Core noise gating controls.

Toggles attack envelope shape

Threshold

Release threshold (Hysteresis)

Trigger signal monitor

The amount of gain that applied to the output.

Enables/disables click suppresion

Parameters that control the trigger signal

Special controls for advanced envelope shaping.

Software Interface Details

Attack

Sets the amount of time taken for the gates to open.

Delay Attack

Delays the onset of the attack.

Duck

This option provides a choice of two gating modes.

In standard operation, the gates open when the input level is above the threshold, and they close when the input level is below the threshold.

In Duck mode, this operation is reversed. In other words, the gates close when the input level is above the threshold, and they open when the input level is below the threshold.

Duck mode also causes the functionality of five parameters (*Hold, Hold Closed, Attack Delay, Forced Release, Skip Beats*) to be reversed. These parameters are also relabeled in the user interface as shown below.

The following describes the functionality of these parameters.

Hold Duck

Like the regular hold parameter except that the gate is held closed instead of open.

Delay Release

Delays the onset of the release.

Force Attack

This truncates ducks. In other words, it causes the gate to attack after a certain amount of time has been spent ducking.

Hold Open

This forces the open gates to remain open. In other words, when the gate opens, it remains that way for a given amount of time.

Skip Ducks

This feature causes the gate to randomly skips ducks in their entirety. It is set as a percentage of the ducks which will be skipped. Consider using *Skip Ducks* with the *Link* channels option inactive.

Forced Release

This truncates notes, or shortens them. This control causes the gate to release after a certain amount of time, and thus close sooner that it would otherwise.

Gain Meters

The two meters on the right of the user interface are used for monitoring the gain of the gates. When there are two channels, the meters will show the gain of both gates (labeled "L" and "R"). When there are more than two channels, the meters will show the lowest and highest gains of all the gates.

Hi Cut

When a frequency is set, the trigger signal passed through a hi-cut filter. When used in conjunction with *Lo Cut*, it becomes a band-pass filter.

Hold Closed

This forces closed gates to remain closed. In other words, when the gate closes, it remains that way for a given amount of time.

Hold

This parameter sets a minimum time that an open gates must remain open. An effect known as "chatter" can be produced when a noise gate rapidly opens and closes. The primary purpose of *Hold* is to prevent chatter. The longer the hold time, the less chatter. A secondary purpose is simply to keep the gate open longer. Decrease *Hold* if you would like slightly faster response times on the release.

Hysteresis

The signal level at which the gate closes may set lower than the level at which it opens. *Hysteresis* is set as the number of dBs below the threshold. The hysteresis will auto-adjust when the threshold is changed.

In / Out

These are signal level meters showing the input level on the top and the output level on the bottom.

Link

This option provides a choice of two processing modes.

When active, all trigger signal channels are analyzed together, and the same operations are performed on each output channel.

When inactive, all trigger signal channels are analyzed independently, and operations are performed on each output channel independently.

Lo Cut

When a frequency is set, the trigger signal is passed through a lo-cut filter. When used in conjunction with *Hi Cut*, it becomes a band-pass filter.

Look-Ahead

This parameter will cause the effect to "look into the future" to detect level changes. This information is then used to apply an envelope to the present.

Monitor

When engaged, the output becomes the trigger signal after the trigger signal has been processed. Trigger signal processing is controlled by the parameters *Trigger Gain, Lo Cut, Hi Cut,* and *Look-Ahead.* When not engaged, the output is the processed input signal. This parameter is overridden by *Bypass*.

Output Gain

The amount of gain applied to the output signal.

Range

When the gate closes, the signal level falls to the level set by this control. The minimum value is -120 dB, but sometimes a more-natural sound is achieved by using a smaller range.

Release

Sets the amount of time needed for the gates to close.

Scope

This feature monitors the levels of the trigger signals. The scope shows the maximum signal levels over time. The highest signal maximum is shown in dark blue, and the lowest signal maximum is

shown in bright blue. If the scope shows only bright blue, then the highest and the lowest signal maximums are very close to each other.

The two red horizontal lines show thresholds for attacking and releasing. The release threshold is controlled by the *Hysteresis* parameter. If only one red line is showing, then the *Hysteresis* is zero.

Scroll Time

This parameter sets the scope's scroll speed.

Side-Chain

The item labeled "Side-Chain" in the GUI indicates the status of the side chain. The box turns blue when the side chain is active (i.e. the external side-chain is used), and gray when the side chain is inactive (i.e. the internal side-chain is used). Side chaining is enabled automatically whenever the auxiliary input is active. Likewise, when the auxiliary input becomes inactive, UNAGATED automatically resumes normal operation.

Skip Beats

This feature causes notes to be muting out entirely. It is set as a percentage of the envelopes which will be muted. It is triggered in a statistically random fashion. Consider using *Skip Beats* with *Link* option inactive.

Shape

This option toggles the shape of the attack envelope.

The left-side option is a perceptually linear envelope. This results in smooth-sounding volume swell.

The right-side option is a synthesizer-style attack envelope. This starts off by opening faster, but it slows down before the gates are fully open.

Suppress Clicking

This parameter suppresses clicking noises that are caused by the gate opening or closing very quickly. Unlike look-ahead, it will not introduce latency.

Threshold

When the trigger signal level is above the threshold, the gates will open. When the trigger signal level is below the threshold, the gate will closes. Enabling Duck reverses this behavior. Changing the threshold will cause the *Hysteresis* to auto-adjust.

Trigger Gain

This parameters adjusts the gain of the trigger signal. While it will impact envelope detection, *Trigger Gain* is never applied to the signal that becomes the output.