

## Darkpalace Studio SLOTH

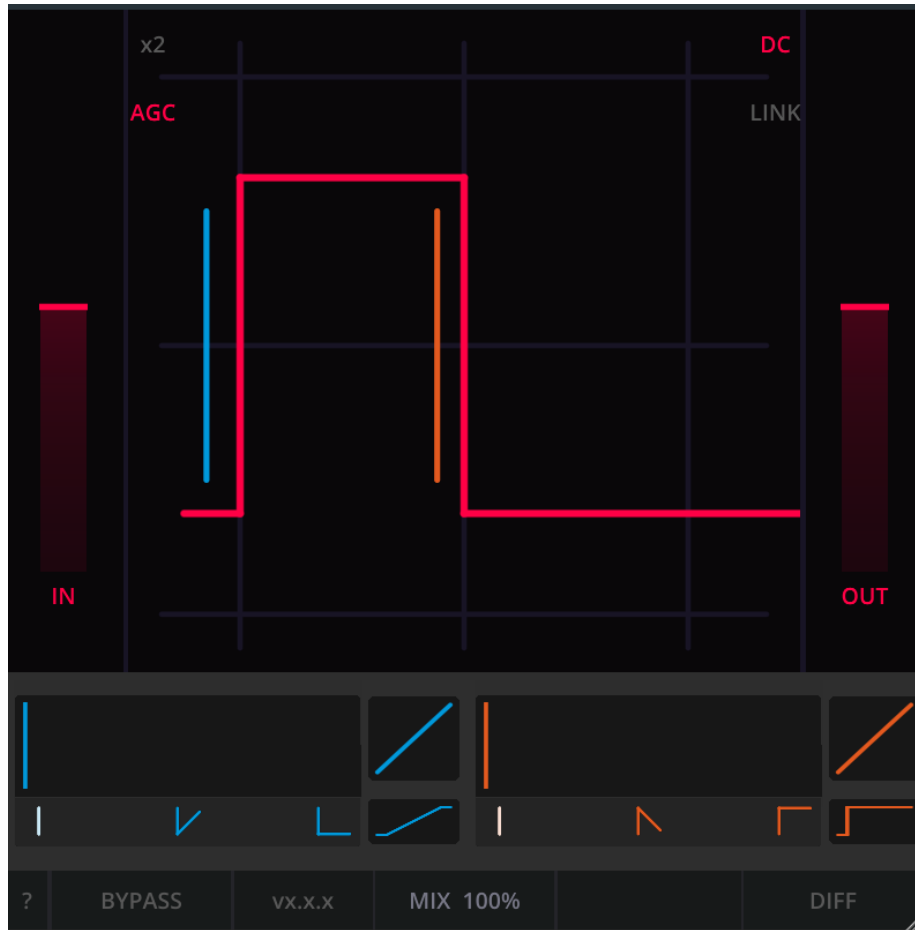


Figure 1: SLOTH

## Introduction

SLOTH is a slew rate limiter plugin. In electronics “slew rate” is the change of voltage over time. When the input signal at an amplifier switches instantly, the output will not immediately change, but “slew” to the new value at a certain rate.

While in modern electronics slew rates are no concern, some valued older designs feature a limited slew rate. This in itself imposes a characteristic sound. Applying slew rate limiting can result in a variety of effects, including in denser signals, subtle darkening of the tone, enhanced texture of sounds up to massively mangled and crushed effects.

SLOTH brings the concept of a slew rate limiter to the digital domain as a unique tool for artists, mixers and sound designers.

## Installation

- Download the zip file for your operating system
- Select the plugin format you want to use and extract it to the respective folder
  - VST3
    - \* Win: C:\Program Files\Common Files\VST3\
    - \* Linux: ~/.vst3/
  - CLAP
    - \* WIN: C:\Program Files\Common Files\CLAP\
    - \* Linux: ~/.clap/

## Troubleshooting

### MacOS Plugins from non-trusted developers

Apple is rather overprotective of it's users, effectively prohibiting the use of downloaded plugins from non-trusted sources. You will need to execute the following command to allow loading the respective plugin

```
sudo xattr -rd com.apple.quarantine <path-to-vst>
```

## Controls

### Slew Rate

Maximum slew rate. Higher values result in a shallower maximum slew rate. This control is available for both rise and fall.

### Slew Curve

Curvature of limited slopes. This control allows to transform the shape of limited slopes from square root over linear to quadratic. This only changes slopes that are affected by slew rate limiting.

- By default, a constant slew rate is used, which results in a linear slope.
- For positive values, slew rate increases with time, which results in a quadratic slopes.
- For negative values slew rate decreases with time, which results in a square root shapes.

This control is available for both rise and fall.

### Slew Time

Time factor of the slew curve. Allows to control how fast the square root or quadratic behavior is applied. This is only active for Slew Curve setting not zero. This control is available for both rise and fall.

### In/Drive

Boost the input of the plugin. With increased input, slopes become steeper, thus slew rate limiting will apply more aggressively and the effect of slew rate limiting becomes more obvious.

- When AGC is on, this acts as a Drive control as the increase in volume is automatically compensated for.
- When AGC is off, this acts as an IN control, boosting the input.

### Out

Adjust the output volume of the plugin. Some settings of slew rate limiting lead to loss in overall volume. This can be compensated for with this slider.

### AGC

Automatic gain compensation. Compensate for the input gain. AGC will not take output gain or any change in volume from the slew rate limitinggg into account.

Note that when AGC is on and In/Drive is increased, this can lead to steeper slopes, resulting in stronger slew rate limiting and effectively lower output.

**x2**

Increase input gain by a factor of 2. The increase in volume will always be compensated, independently of AGC.

**DC**

Apply a 10Hz first order high pass filter to the output. This will remove any dc offset introduced by slew rate limiting.

**Link**

Link the slew controls for Rise and Fall. This allows to easily dial in “symmetric” slew rate limiting. In symmetric slew rate limiting, rising slopes are treated similarly to falling slopes.

**Bypass**

Directly route the input to the output, effectively bypassing the plugin completely.

**Mix**

Allows to continuously blend between the processed and unprocessed signal. This can be used to dial in slew rate limiting quite hard and then blend the processed signal with the original input.

**Diff**

Allows listening to the difference between the input and output.

**Usage examples**

- The audible effect of slew rate limiting can vary drastically between symmetric slew rate limiting (same slew rate for rise and fall) and asymmetric slew rate limiting (different slew rates for rise and fall).