

SLM2 V2

Manual



TBProAudio 2022

1 Introduction

Welcome to **SLM2**, a smart stereo loudness maximizer including “analog spice” and 16x over-sampling.

The goal of the design was to maximize the loudness of the audio signal while maintaining transparency.

2 Features

SLM2 offers following features:

- highly transparent brick-wall-limiter
- saturation of input signal
- fully control of attack and release
- switchable look ahead
- switchable saturation
- 2 limiter modes
- 2 ceiling modes
- additional drive/clip stage
- stereo link
- over-sampling, up to 16x
- preset manager
- large and accurate live meters
- supports all sample rates
- easy to use GUI
- GUI scale

Note: This plugin adds latency to the audio path, which is usually compensated by the DAW (PDC).

3 Design

SLM2 lets you reach the maximum possible volume with minimal sound degradation.

The **SLM2** DSP analyses every sample of the incoming stereo signal within a defined time frame and calculates the optimal volume increase. This guarantees maximum possible transparency.

The overall loudness can be further increased by the following, optional clipper stage. Signal aliasing can be reduced by enabling over-sampling.

SLM2 is used in all limiting situation like track/bus and master limiting.

4 Minimum System Requirements

- Windows 7, OpenGL 2 GFX card
- Mac OS X 10.11, Metal GFX card
- SSE2 CPU
- Win: 32/64 Bit VST, 32/64 Bit VST3, 32/64 Bit AAX
- OS X: 64 Bit VST, 64 Bit VST3, 64 Bit AU, 64 Bit AAX
- Tested with: Cockos Reaper, Steinberg Cubase/Nuendo/Wavelab 6+, FL Studio 12+, PT2018+, Reason 9.5+, Studio One, Ableton Live
- For latest information please visit www.tbproaudio.de

5 Plugin Controls



Mouse usage:

Click and drag horizontally changes parameter value
Shift click and drag changes parameter value slower
Ctrl click rests to default value
Double click opens value edit box, finish with enter.

5.1 Preset Management

Preset menu loads and saves user presets. Presets stored to %localappdata%/SML2 (Windows) or /Users/xxx/Library/Application Support/SML2 (Mac OSX) are imported as user presets. Prev and next button step through all presets. Preset menu lets you store default settings.

5.2 Gain

"Gain" controls the input stage of the brick-wall limiter. Please to note that the input stage adds a small amount of saturation for "analog spice".
0 – 24dB, default 0dB.

5.3 Attack

"Attack" controls how much of the transients are passed to the internal clipping stage. Higher values make the signal more clipping.
0 – 1000ms, default 0 ms.

5.4 Release

Release time controls how fast the limiter recovers to the constant gain after a peak is detected. Depending on application different release times can be used.
0 - 1000 ms, default 0.0 ms.

5.5 Saturation

Enables gain depended saturation.

5.6 Auto Release

“Auto Release” calculates constantly the release curve depending on the audio material.

5.7 Over-sampling

Incoming signal could be over-sampled up to 16 times. As **SLM2** uses highest quality up/down-sampling algorithms for *low aliasing* operation significantly more CPU resources are used.

5.8 Look-Ahead

"Look-Ahead" controls the length of the time window of the signal analysis. Longer time window ensures less sound degradation.

Short/long, default short.

5.9 Limiter Mode

"Norm" is the standard limiter mode, while “Smooth” enables extra anti-clipping function.

Norm/smooth, default norm.

5.10 Drive Clipper

SLM2 has a second gain stage with a clipper. It can be used to increase loudness even further.

0 - +24 dB, default 0.0 dB

5.11 Channel Link

If set to 100 % the gain reduction is calculated from highest peak of both stereo channels, set to 0 % both channels are processed fully independent.

0 - 100 %, default 100 %

5.12 Ceiling mode

By clicking on the text “Ceiling/Volume” 2 different ceiling modes can be activated:

Ceiling: SLM2 limits at the given ceiling value.

Volume: SLM2 limits at 0 dBFS and reduces then the output level by the volume value.

5.13 Ceiling/Volume

This control changes the ceiling/volume value. -24 - 0 dBFS, default 0.0 dB

5.14 Meters

Meters for input signal (L/R Input), output signal (L/R Output) and gain reduction (L/R GR).

5.15 Plugin info




Click here for more information about the plugin, online version check, open online manual and open online changelog.

6 Demo mode versus Registered Mode

In demo mode (without activation) the plug-in mutes audio every 90 seconds for a short period. This could be circumvented by clicking on the "TBProAudio" logo within 90 seconds.

7 Plugin activation

The plugins needs to be registered/activated to remove demo restrictions. Please go to  www.tb-proaudio.de to purchase the activation key. After purchase you will receive an email from TBProAudio with either the (zipped) activation key file or the activation key in text form. Go to the plugin menu->Activate plugin. Please follow the steps described here: <https://www.tbproaudio.de/support/productactivation>. After successful activation the key symbol shown in the GUI appears in golden colour.

8 Conclusion

So finally if you have any questions or suggestions just let us know. And have fun with our tools.

Your team from TBProAudio :-)