

Maximal 3 CM

v3.0.1



Maximal 3 CM is a loudness maximiser specially created for Computer Music, based on Maximal 3 by Venomode. It offers true-peak brickwall limiting and loudness metering, perfect for mixing and mastering.

Installing Maximal 3 CM

To install Maximal 3 CM on **Mac** or **Windows**, simply run the installer and follow the instructions. Once installed, Maximal 3 CM will be ready to use the next time you open your DAW.

To install the plugin on **Linux**, simply extract the files and run the install.sh script. In your Terminal app, run the following commands:

```
cd ~/Downloads Change to your Downloads folder
mkdir tempinstaller Create a temporary folder to extract to
tar -C tempinstaller -zxvf PLUGIN.tar.gz Extract the bundle
bash tempinstaller/install.sh Run the installer script
rm -R tempinstaller/ Clean up the temp folder
```

Maximal 3 CM requires the following system specifications:

Windows

- Windows 8/10
- 64-bit VST/VST3/AAX
- Compatible DAW

Mac OSX

- MacOS 10.9+
- 64-bit VST/VST3/AAX/AU
- Compatible DAW
- Intel or M1 Processor

Ubuntu

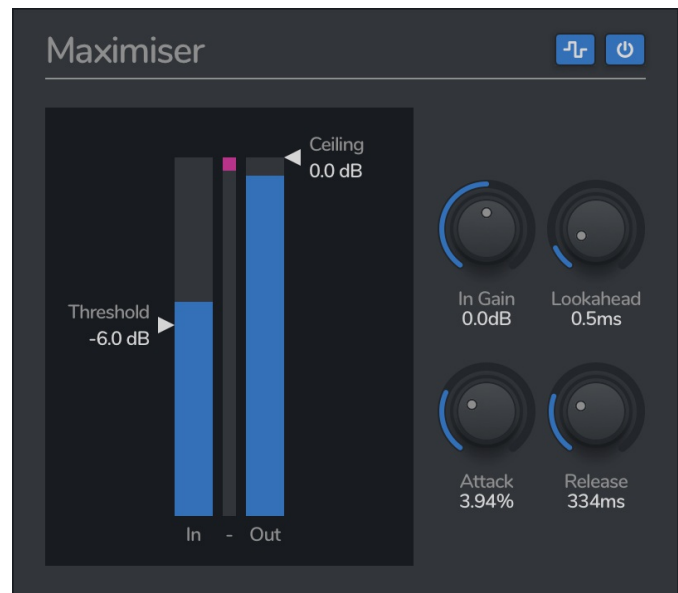
- Ubuntu 18.04+
- 64-bit VST/VST3
- Compatible DAW

Using Maximal 3 CM

1. Maximiser

At the heart of Maximal 3 CM is the Maximiser - a true-peak brickwall limiter.

A limiter works by automatically adjusting the output gain to make sure that the signal never exceeds the **Threshold**. The Maximiser then applies a gain boost so that the maximum level is the **Ceiling**. For example, with a threshold of -3dB, and a ceiling of 0dB, the input will be limited so that no signal reaches above -3dB, and then a boost of 3dB is applied so the peak value reaches 0dB. This increases the overall level by 3dB.



You can hold the CTRL/CMD key to link the two sliders, so that adjusting the level of one affects the other by the same amount. This lets you use the maximiser as limiter, adjusting the threshold without affecting the overall level.

The **Lookahead** slider sets how far ahead in time the maximiser should look when calculating gain reduction. If there is no lookahead, then the limiter will react immediately to transients. This can cause distortion as the limiter almost acts like a clipper in this early stage. Increasing the lookahead allows the limiter some time to ramp to the desired gain reduction value.

Longer lookahead times will reduce the chances of aliasing and distortion, but the result may not be as loud, and transients may get smeared into the background a little. This is dependant on the other settings of the maximiser, but a small amount of lookahead generally has the best results.

The **In Gain** slider applies an increase or decrease gain to the input before any processing.

Attack and Release

The **Attack** and **Release** knobs affect how the gain reduction is applied over time, and define the overall shape and response of the limiter.

You can think of Maximal's limiter as having two stages - a fast stage, followed by a slow stage. The fast stage is always active, and catches the peaks and transients. The slower release stage is affected by the attack and release knobs, and smooths out the gain reduction.

The release parameter is the time it takes for the gain reduction to return to zero after the signal has dropped back below the threshold. It is labelled in milliseconds, however this is only a guide as the source material will affect the overall release time.

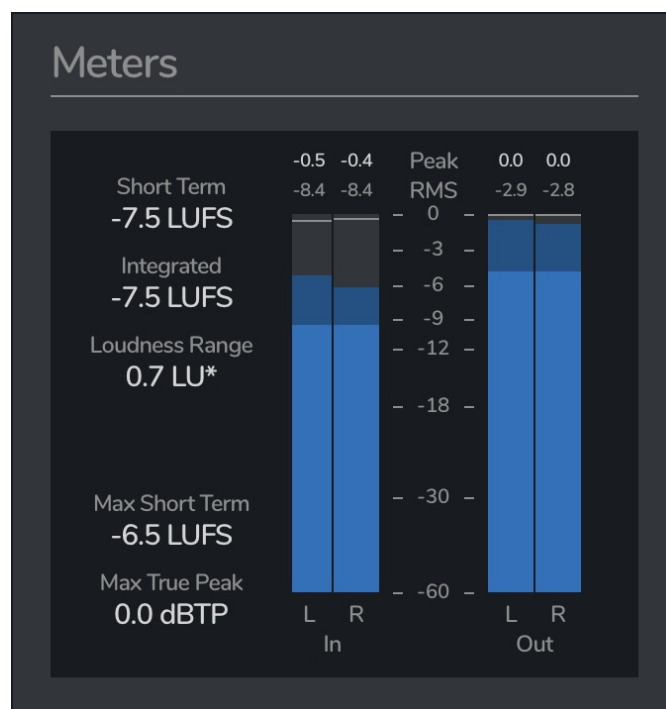
The attack parameter controls how long it takes for the 'release' stage to set in. When the attack is set to zero, the release stage starts straight away. When the attack is increased, it takes a little while for the release stage to kick in.

With a zero or very short attack there is less chance of distortion, however the limiting is more noticeable as the release stage holds onto the gain reduction after the initial transient. With a longer attack, the sound will be louder and clearer, but with more chance of distortion.

2. Meters

The metering section shows information about the overall loudness of your track. If you're targeting a broadcast standard such as EBU R128, you'll find this section invaluable to making your mixes the correct level, but for general music production, these are really only for reference.

You can see various LUFS values (short term, integrated, and maximum short term), the loudness range, and true peak values. There are also peak and RMS level meters, with the lighter bar showing RMS, the darker bar showing peak, and the line showing a peak hold. Above the meters are the maximum peak and RMS values. Clicking any of the values will reset all the meters.



3. Top Bar

The top bar is where you can manage the plugin. The middle section shows the currently selected preset, and if you open this list you can choose from all the factory and user presets. Clicking on the left and right arrow icons manually cycles to the previous or next preset. The save icon will open a window where you can save the current state of the plugin as a custom preset. Enter your preset name in this window and click save.

You can view this manual at any time by clicking the question mark button.

The cog icon will open a settings window where you can alter the GPU acceleration settings, GUI scale and theme. The update icon is two arrows in a circle. This button will activate when a new version is available for download.

The top right icon with a power button symbol will enable or disable the plugin.

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