

# Maximal 2

v2.2.7



Maximal 2 is the second version of our Loudness Maximiser plugin. The main algorithm centres around a multi-stage look-ahead peak limiter, with automatic makeup gain and an intelligent variable release. Maximal works similarly to other peak limiters, but can look ahead to detect peaks, and react accordingly to prevent overshoot. Maximal 2 also features 3 new modes: loud, tape and tube, designed to make your tracks louder and fatter.

## venomode

# Installing Maximal 2

To install Maximal 2 on Mac or Windows, simply run the installer and follow the instructions. Once installed, Maximal 2 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 2 requires the following system specifications:

## Windows

- Windows 7/8/10
- 32/64-bit VST/VST3 Compatible DAW

## Mac OSX

- OSX 10.7+
- 64-bit VST/VST3/AU Compatible DAW

## Ubuntu

- 18.04+
- 64-bit VST Compatible DAW

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## Registering Maximal 2

The plugin will run in demo mode until a licence is entered and the software is restarted. In demo mode the plugin will not recall the state from a saved track, it will timeout after 30 minutes, and the saving of presets is unavailable. After you have purchased a licence, you will need to register the plugin, which will unlock the full, unrestricted version of the software. Any tracks you have saved with the demo version will now recall correctly.

Click the padlock icon in the top bar area of the plugin window. A window will display where you can enter your licence from the Venomode website user area. After you have entered your licence, the full version will unlock the next time you open your DAW. Ensure your licence exactly matches what is shown in the website. For convenience, you can click your licence in the website to copy it to your clipboard, and then paste it into the plugin. Your licence is the long string of text containing your name, email, and unique code, separated by three colons (:::).

# Using Maximal 2



## 1. Drive Parameter

The 'drive' parameter is the main knob to use to make your tracks loud. The numbers correspond to the decibels below unity gain that the limiter kicks in, and the make-up gain that is applied in decibels. For example, at a drive of 2, the limiter will not allow the signal to reach above -2dB, and will also add a makeup gain of 2dB.

When in 'Loud', 'Tape', or 'Tube' modes, the drive parameter also adjusts the amount of pre-processing that is applied before limiting (see section 'Mode').

## 2. Ceiling

The 'ceiling' parameter sets the maximum level that Maximal 2 will output. If the parameter is set to -2, the loudest peak will be -2dB.

## 3. Response

The 'response' knob allows you to adjust the overall speed of the limiter. 'Fast' brings down the average release time to make quick changes to the signal. This is useful if you want to tame infrequent peaks that are taking up headroom, or smash your track for maximum volume. The 'slow' side of the scale makes the limiter run more transparently, making slower changes to the sound. The best value depends on the source material, but for most cases, the fast-to-mid range of the scale will provide the best results.

## 4. Mode

There are 4 modes to select from in Maximal 2: Clean, Loud, Tape, and Tube. The tape and tube models take all the best parts of the analogue world, but omit the bad; there's no high frequency roll-off, hiss, wow or flutter - just analogue warmth.

**Clean:** The clean mode uses a multi-stage peak limiter, with advanced lookahead. The release is intelligently controlled, and can be fine tuned using the 'Response' knob. Automatic makeup gain brings the output level up to a maximum of the 'Ceiling' parameter.

**Loud:** The loud mode takes the clean limiter, and adds a variable state soft-clip and peak compressor stage before the final limiting. This mode can shave off some of the louder, more unnoticeable peaks, giving a few extra precious dBs of headroom. This stage automatically makes up the gain before running it into the limiter stage.

**Tape:** The tape mode extends the 'Loud' mode, adding an analogue modelled tape saturation stage before clipping and limiting. Tape saturation creates odd (3rd order) harmonics, and is suitable for most material. As the harmonics create overtones a 5th above the fundamental, it creates a warm and thick sound. You can use this on everything from single tracks, to whole mixes. In fact it's perfect to use as the last stage in the master to get a warm and loud sound.

**Tube:** The tube mode extends the 'Loud' mode, adding an analogue modelled tube saturation stage before clipping and limiting. Tube saturation creates even (2nd order) harmonics, emphasizing the root frequency, and octaves above it. The saturation is asymmetrical, and is perfect for single tracks such as bass and drums, to add a bit of warmth to a track.

## 5. Quality

The 'quality' parameter adjusts the oversampling factor of the plugin. At 1x, oversampling is off. 2x doubles the sample rate, 4x quadruples the sample rate and 8x runs Maximal 2 at 8 times the original sample rate. Oversampling helps reduce aliasing when pushed hard, and also helps catch inter-sample peaks. Oversampling up to 2x should be sufficient in all but the hardest use-cases. Running in super high quality increases the demand on the CPU, so watch out for running multiple instances at 8x!

## 6. Level Meters

The level meters show you the incoming signal; the output signal and the limiter's gain reduction. The 2 meters marked 'I' are the left and right input channels. The higher meter is the left channel, and the lower is the right (unless in mono, then they both show the same channel). The meters marked 'O' are the output channels. The dark green part of the bar shows the peak level of the signal, the light green part shows the RMS of the signal, and the white line shows the peak hold. The orange bar in the centre shows the amount of gain reduction the limiter is applying, not including clipping and tape/tube saturation.

## 7. 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 the registration window. Enter your name, email and serial number exactly as shown in your confirmation email and click "Register", or copy the keyfile to your clipboard from the user area of the Venomode website and click "Paste Keyfile". See the registering Maximal 2 section for more info.

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