

# Master Plan

v1.5.5



# TECHNIQUE (QUICK START)

<b>Setup</b>	Remove all plugins from your master bus/2-track and insert <b>Master Plan</b> . Select a <b>Quick Master</b> preset.
<b>Amplify</b>	Adjust <b>Loud</b> until the <b>LUFS-S</b> & <b>LUFS-I</b> are mostly green and white. Click the meters to reset them.
<b>Tune</b>	Adjust the <b>Low</b> & <b>High</b> tone controls to your preference.
<b>Expand</b>	Turn up <b>Wide</b> until it feels like your track comes alive. Turn back if things get too spacey.
<b>Fix</b>	Muddy? Flip on <b>Clean</b> . Harsh? Flip on <b>Calm</b> . Thin? Flip on <b>Thick</b> . Adjust sliders under each control to dial it in.
<b>Style</b>	To add some glue, reach for <b>Smooth</b> and <b>Tape</b> .
<b>Tweak</b>	Have problems with resonance in loud spots, or distortion on long notes? Turn on the <b>Multi</b> control and dial back the frequency range that's causing you trouble.
<b>Audition</b>	When you're happy, test your track through different systems using the filter controls on the right.

## Learn some moves

- To **type** a value for a control, **double-click** it.
- To set a **precise value** when moving a dial or slider, hold the **shift** key.
- To **reset a control**, hold the **option** (Mac) or **alt** (PC) key, and **click** it.
- To reset meters, click anywhere in the metering area.
- **Presets preserve loudness**, so don't be afraid to explore after dialing in.
- To check for **updates**, click the **gear** (⚙️) to open the **settings screen**.

# CONTROLS

<b>Loud</b>	A special limiter/clipper circuit designed to maximize loudness while maintaining clarity. Click the <b>Loud</b> label to enable or bypass this control. Moving this control resets the meters.
<b>Wide</b>	Phase coherent stereo depth. Click the <b>Wide</b> label to enable or bypass this control.
<b>Low, Mid, High</b>	Tone controls, buttery and open. Click the <b>Low, High, or Mid</b> label to enable or bypass each control. Click the <b>L, M, or H</b> buttons to select the frequency of the mid-range EQ.
<b>Thick</b>	Fine-tuned, analog-inspired saturation. When enabled, use its slider to control additional saturation.
<b>Clean</b>	Remove mud in the lows. When enabled, use its slider to increase the effect.
<b>Smooth</b>	Gently tame dynamics very slightly and add subtle glue to the sound of your mix.
<b>Multi</b>	No-nonsense multipressor. When enabled, use the <b>L, M, and H</b> sliders to control the amount of gain reduction in the low, medium, and high bands of your mix.
<b>Calm</b>	Tame harsh high frequency buildup that tends to make its way into modern music production. When enabled, use its slider to control the amount of the effect.
<b>Tape</b>	True analog tape glow. At low levels, tightens up the bass. As you push it higher, hysteresis (the physical effect of using magnets to record sound) adds subtle saturation and tames the high end.

<b>In/Out</b>	Control the level into and out of the plugin. Raising input pushes harder into the saturation. If you peak on the way in, the LED next to the input control will flash. Moving these controls resets the meters.
<b>Input Indicator Light</b>	Lights up when the peak value of the signal is above 1.0 or below -1.0 after all the EQ and saturation processing, before the limiter. When the Loud dial is at 0, this means that unless the indicator light is flashing, the limiter does not change your signal at all; it only increases the volume. If this light starts flashing, try lowering the <b>In</b> knob until it stops.
<b>Bypass</b>	Delay-compensated bypass circuit. Toggling this control resets the meters.
<b>Unity</b>	Compensates for the volume increase in processing, so you can hear what you are doing without taking loudness into account. That's important! We react strongly to loudness, and sometimes let it fool us into thinking something sounds better, when it is simply louder. Turn unity on when working for a fair comparison, then turn it off to hear how much Master Plan boosts your track. Always disable <b>Unity</b> before bouncing! Toggling this control resets the meters.



Enables and disables true peak processing. When **disabled**, the peak meter displays regular peaks and no additional processing is performed to lessen the effects of true peaks. Use this setting if you don't care about true peaks, or if you want to use a different true peak limiter as the very last plugin on your chain.

## True Peak

When **enabled**, the peak meter displays true peaks (also known as inter-sample peaks), measured with 4x low-ripple FIR oversampling. In this mode, the limiter does extra work to tame true peaks, but it is **not** a classic true-peak limiter, because such a limiter tends to tame percussive hits in a way we don't like. When pushed extremely hard, the true peaks will still read above your specified output level in the meter.


The filter section on the far right of the interface emulates different playback systems, so you can hear what your mix will sound like in different environments.

## Filters

- **N-10** — Emulates a typical mediocre bookshelf speaker
- **Phone** — Emulates a phone speaker
- **Band** — A bandpass filter to monitor the midrange
- **Mono** — Monitor for mix issues in mono
- **Dim** — Reduce by 6 dB, removing the limiter first
- **Off** — (default) no filter applied

# METERS & EXTRAS

Located at the bottom of the interface for convenience, the following controls and settings help you see what Master Plan is doing and

<b>LUFS-I</b>	Integrated loudness. Averages loudness since the last time the meters were reset. Click to reset. Keep this meter white or green. If it turns red, consider easing up!
<b>LUFS-S</b>	Short-term loudness. Averages loudness over the last three seconds. Click to reset. See the note about colors in <b>LUFS-I</b> .
<b>Peak/T.Peak</b>	The loudest peak or true (inter-sample) peak since the last reset, depending on the <b>True Peak</b> setting. Click to reset.
<b>Crest</b>	The difference between <b>LUFS-S</b> and <b>Peak</b> . It's a rough measure of the dynamics in your music. More is better!
<b>Presets</b>	Select a preset to get started, keeping loudness constant. For more information, see the <b>Presets</b> section.
	Settings and updates (see the next section).
<b>Prev/Next</b>	Quickly toggle through presets. Located on the far right of the presets drop down.
<b>Undo/Redo</b>	Undo your last action or redo the last action you undid. Located to the right of the previous/next preset buttons.

# SETTINGS

Click the gear (⚙️) in the lower-right of the interface to access the following settings. In addition, this screen provides a download button if an update is available, and reminds you of your login email. To close the settings screen, click the **X** in the upper-right corner.

<b>GUI Size</b>	Interface size as S, M, L, XL
<b>Faceplate</b>	Dark or light.
<b>Visual FX</b>	When <b>on</b> , the lights change colors over time and glow to peak changes in audio. However, the plugin's interface uses more processing power when open. When <b>off</b> , the color stays constant and does not change with the audio, but uses less resources.
<b>LED Color</b>	Set the central color of the LED display.
<b>Color Mode</b>	Set the way the colors change over time.
<b>Meter Targets</b>	When off, meters are always a neutral color. When on, meters turn <b>green</b> as you approach the selected LUFS value, then <b>yellow</b> as you push harder, and <b>red</b> when you are pushing your track too hard. Always use your ears, but these target colors can help you stay in the boundaries!
<b>Meter Display</b>	Hide or show the volume meter. In <b>detail</b> mode, the meter also displays extra information about how much clipping is being performed.
<b>Meter Mode</b>	The meter moves according to <b>Peak</b> values or <b>LUFS-M</b> values, where the top of the meter is 0 dB. In <b>LUFS-M Targeted</b> mode, the top of the meter is adjusted to reflect the selected LUFS target, rather than 0.

<b>Oversampling</b>	Select the oversampling factor ( <b>off</b> , <b>2x</b> , <b>4x</b> , or <b>8x</b> ). The higher the factor, the less aliasing distortion Master Plan will produce. However, higher oversampling takes more processing power, and some people feel too much oversampling can soften the sound. Master Plan uses linear phase (FIR) oversampling with a flat response up to Nyquist and very low overshoot. Some special DSP in Master Plan requires a minimum sample rate of 88.2 kHz, so you cannot select the <b>off</b> setting unless your project is running at that sample rate or higher.
<b>Make Settings Default</b>	Makes the current settings default for new instances of Master Plan. Any change you make to your settings after instantiating the plugin are saved with that instance and override the default.
<b>Log out/deauthorize</b>	Logs out of Master Plan and any other other Musik Hack plugin, deauthorizing your current machine. This will also stop playback and block the interface with a login screen. You can log in again immediately. It's not necessary to use this button unless you know what you are doing or are instructed to click it by support!

# PRESETS

**Master Plan** has some presets in the lower right of the interface. To get started quickly, choose one of the **Quick Master** presets and go from there. Presets maintain your selected loudness when you choose them. To save your current settings as a preset, select **Save Preset** from the menu. To delete, import, or export presets, choose **Manage Presets**. When selecting presets, the **Loud**, **Unity**, and **In** settings do not change (unless they are zeroed), so that you can compare presets easily.

# DETAILS, TIPS, TRICKS

## Push, don't shove

**Master Plan** has an excellent loudness circuit that can often add +4dB or more into a track without flattening your drums or audibly distorting.

That's *much louder* than other limiters, compressors, and clippers, which deaden your drums or start to snap and growl too early unless you do a lot of hand holding. When **Master Plan** is shoved too hard, it behaves like a clipper taking too much heat; if you start to hear the bass growl or a pop in front of your kick, ease up!

## Less is more

You don't need to use every control to get an incredibly polished sound! Start by focusing on the four main knobs: **Loud**, **Wide**, **Low**, and **High**. The buttons below the knobs are for tackling specific problems your track may not have.

## Broad strokes before the finer points

Dial in the important bits so that they're "close enough" and move through the plugin until everything sounds right. Then go through again with a fine-toothed comb to amp things up. Think of it like building a desk from a box: get all the screws in loose, then tighten them up. If you try to get one control "perfect", adjusting the others may shift the sound, so don't get too precious too soon!

## True Peak Mode

There's a lot of discussion in the mastering world about loudness wars, LUFS, streaming platforms, encoding, true peaks, etc. At the end of the day, we can boil all this down into two perspectives:

- 1) **Loud:** I want maximum loudness for myself and my audience. There are standards to normalize loudness across tracks, but many people never enable them, and people who listen to downloaded, uncompressed music aren't affected. True peaks might pop up when

my music is encoded into MP3 or AAC, but they are not always audible. I want to stand out whenever possible!

- 2) **True Peak:** Standards created by AES will get me the highest quality music across all platforms, because they will help me eliminate nearly all true peaks, even after conversion to AAC or MP3. Do whatever possible to keep my master below -1.0 dB TP.

Both of these perspectives are reasonable for different people making different music. Choose what speaks to you by enabling or disabling **True Peak** mode in the upper right corner of the interface.

## Give the coders some

**Credits** and software licensing information (we couldn't do this without you!) is on the **settings screen**. Get there by clicking on the **gear** (⚙️).

## Help! I need somebody!

If you need help with your licenses or technical support, contact [support@musikhack.com](mailto:support@musikhack.com) and we will get back to you as soon as we can. You can also click on the Discord icon in the settings screen to chat with us!