



Limitless

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1 Introduction

1.1 System Requirements

1.1.1 Windows

Limitless works with Windows Vista, 7, 8 and 10, 32bit and 64bit. VST, VST3 and AAX are supported in both 32bit and 64bit hosts. RTAS is supported in 32bit ProTools 7 or newer.

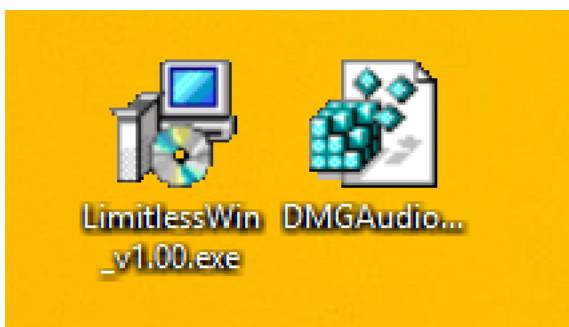
1.1.2 Mac OS

Limitless requires OS X 10.7 or newer on Intel Mac. VST, VST3, AU and AAX are supported in both 32bit and 64bit hosts. RTAS is supported in 32bit ProTools 7 or newer.

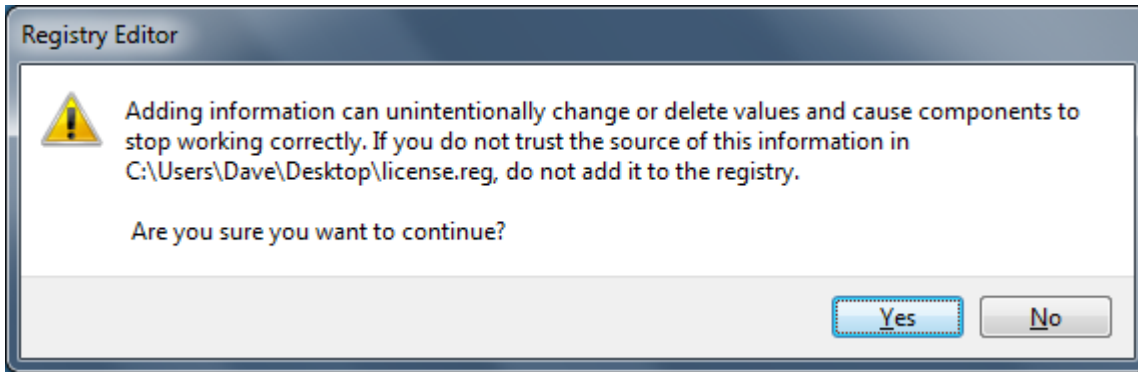
1.2 Installation and Setup

1.2.1 How to Install on Windows

You need two files to install; the plugin installer and the license file. Both are available from the My Stuff area of the DMGAudio site whilst logged in. If you're using a demo, download the installer from the site, and use the form to have your license file emailed to you.



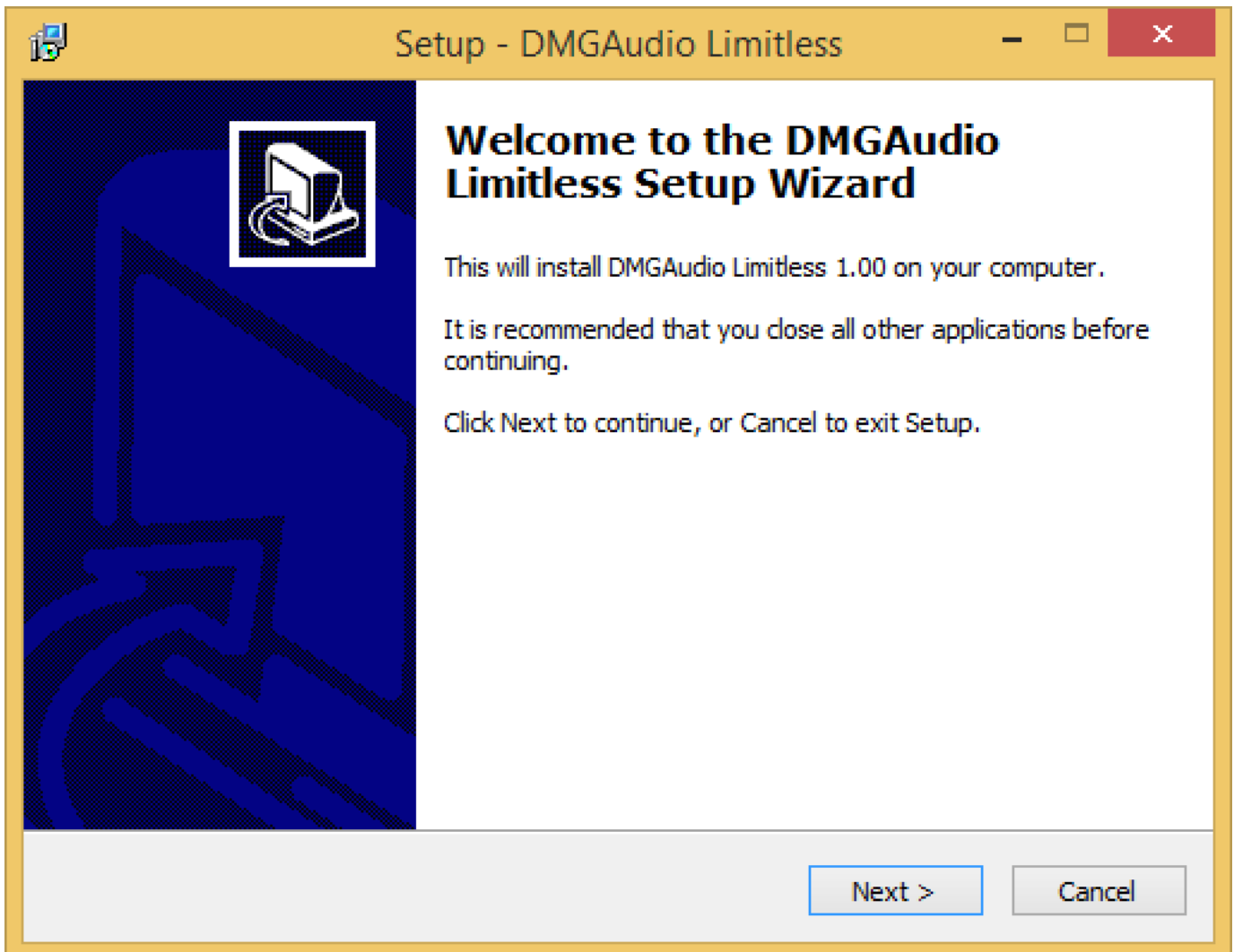
Double-click license.reg, and this box will open:



Click "Yes" and the license is installed.

Now double-click the zip-file which contains the installer.

Double-click the installer; it will look like this:





Click "next" (changing any options if you need to), and Limitless is installed!





Reload your host, and enjoy!

1.2.2 How to Install on OS X

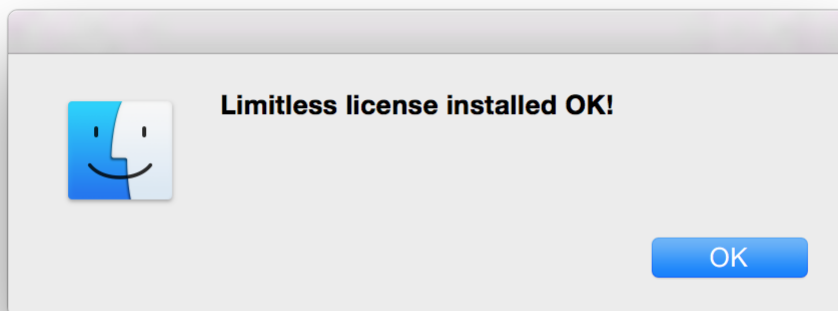
You need two files to install; the plugin installer and the license file. Both are available from the My Stuff area of the DMGAudio site whilst logged in. If you're using a demo, download the installer from the site, and use the form to have your license file emailed to you.

Name	
	DMGAudio_Limitless_license.tar
	LimitlessMac_v1.00.zip

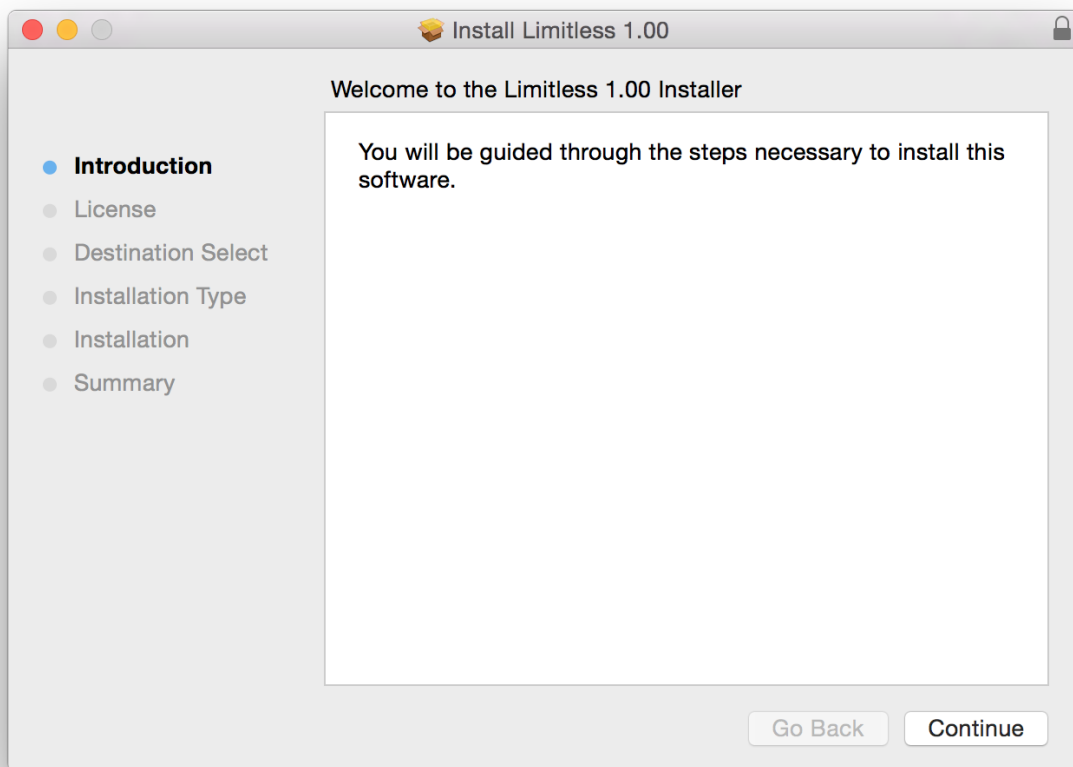
If you are using Safari, one or both of these files may be automatically unzipped for you. If not, double-click them to decompress them, so you get this:

Name	
	DMGAudio_Limitless_license.command
	DMGAudio_Limitless_license.tar
	LimitlessMac_v1.00.pkg
	LimitlessMac_v1.00.zip

Double-click "license.command" to install the license. The license will install, and you'll get the following message to confirm:

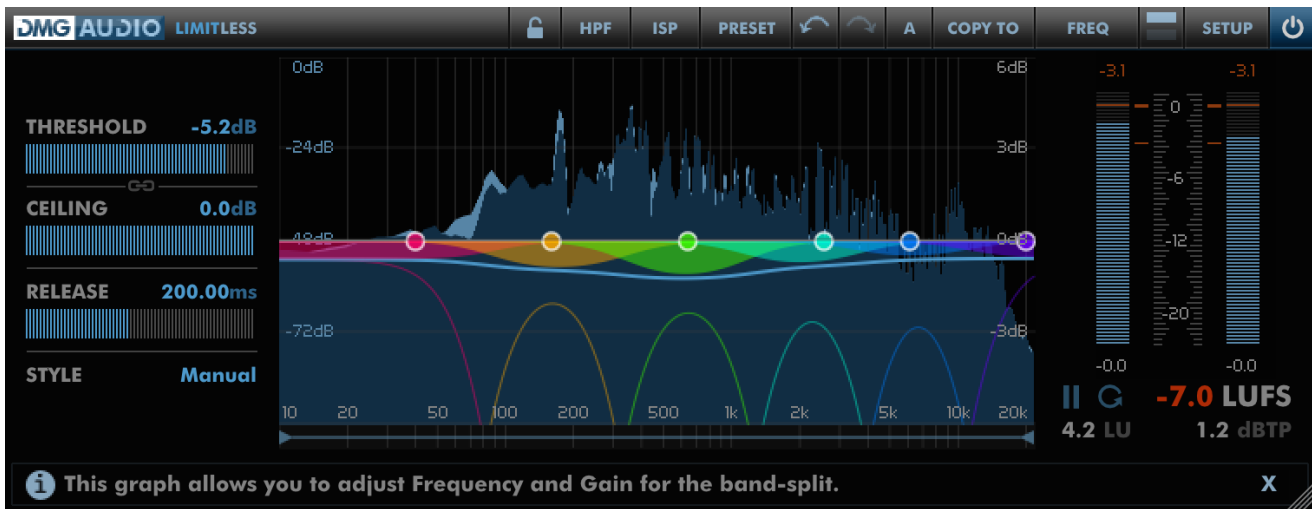


Now double-click the installer, and it will launch. It looks like this:



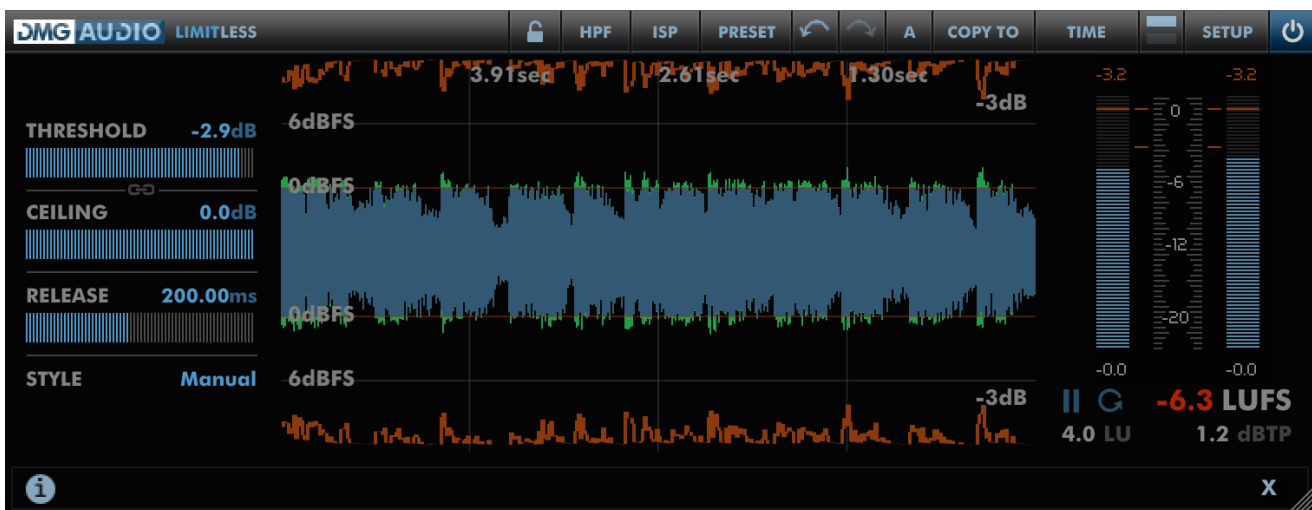
Click through until it installs, and everything is set! Now relaunch your host and enjoy!

2 Getting Started With Limitless



Basic workflow: Reduce Threshold until track reaches desired loudness. Enjoy!

By default Limitless opens in the simplified mode shown above, which includes the essential controls, and a set of Frequency, Time and Loudness graphs so you can easily monitor what Limitless is doing.



If you want to calibrate against peaks, click the Graph Selector in the top-right and change it from **FREQ** to **TIME**.

Drag the graph up/down to adjust the Threshold and left/right to zoom in and out in time.



The HISTORY graph shows the Loudness history of the track, and the Integrated Loudness is shown in the bottom-right along with LRA and True Peak.

The Style menu allows you to quickly pick from a built-in set of program-dependent styles. When not in manual, an icon appears to the right of the style name. Clicking this icon will copy the settings for that style into manual mode, providing a quick starting point for further adjustment.

The Release time allows you to determine how fast Limitless reduces attenuation as the dynamics reduce in level.

The Ceiling control sets the target peak value, which you might set to -0.1 for CD masters.

It's good practice to set the Threshold by first engaging the Link icon (between Threshold and Ceiling) which locks the Ceiling level to the Threshold level, so you can audition the action of the limiter without the overall signal level increasing. Once Threshold is set, unclick Link and you're done!



As you'd expect from a DMGAudio product, if you want to go deeper you can - much deeper. Clicking the Layout symbol (left of Setup) in the top right opens a panel with further controls you can use to fine-tune Limitless, engage Dither, or configure the pre-limiter Clipper.

Presets are accessed using the Preset button, as discussed in the [Presets](#) section of the manual.

A / B for parameter settings is accessed from the bar at the top of the screen and allows A-H banks of settings for quick comparison.

You can drag the bottom-right of the UI to resize the plugin UI.

3 How Limitless works and a guide to Limiting

The Threshold control on a limiter is really an input gain. Limiting at the threshold and then turning the gain up is the same as turning the gain up and then limiting at 0dBFS.

The simplest limiter adds gain and clips. It wouldn't be much of a limiter, but it would make things louder. A more sophisticated limiter will work out how much gain is reduced when clipping and release it gently. More sophisticated still is the technique of delaying the audio (lookahead), to allow a gentle attack time. There's a problem with having one release time though, which is that either you set the release time short, so that it recovers quickly after a peak, and suffer it sounding aggressive on loud sustained material, or you set it long and have dips in level after every transient. In general, a compromise here is a bad compromise.

One solution to this problem is to automatically adapt the release time to the duration of the transient. This improves matters, but it depends on how well the algorithm adapts to your specific material. A better solution, and one that many engineers adopt, is to use a pair of limiters - one to control the dynamics, and another to catch the peaks. This is the strategy that Limitless adopts, but in an integrated way - the dynamics limiter allows transients to pass, configurably, letting the second stage catch the peaks.

Limitless also goes further, with a linear phase crossover of up to 6 bands. By separating out the bands we can prevent the scenario where one loud frequency drags down everything else. Multiband limiters have a reputation for sounding aggressive, when in fact they can achieve much greater transparency (as Limitless will demonstrate). The bad rap appears to be a consequence of the release time issue described above.

To a mathematician, limiting is a delightfully well specified problem. The peaks reach but do not exceed 0dBFS. Given another constraint, it's possible to formulate the problem in such a way that a numerical solver can be built to achieve certain criteria. In Limitless, the operating principle is that the most transparent limiting is a fixed gain reduction - so we strive for maximal smoothness of the gain reduction signals. With the constraints of peak limiting and maximal smoothness, we designed a numerical solver, which per-sample solves to find the gentlest possible adjustments that will prevent clipping.

So here's Limitless. It can be louder than other limiters without audible distortion, but that's not the point. Using Limitless you can achieve pop loudness without losing your dynamics. More importantly, Limitless is designed around modern loudness standards, so it's easy to target a specific Loudness - full metering and history is built in.

Another trick a lot of top-flight engineers use is clipping the signal before the limiter, to reduce the work the limiter has to do to peaks. Limitless features a full-spec clipper with massive oversampling, so you can achieve the "clipped convertor" effect inside the box. And at the output is a simple but thoroughly modern dither.

We're excited to introduce Limitless to the DMGAudio range, because now you can build a pro-grade mastering facility just from DMGAudio processors and a DAW, and you'll have the best gear money can buy whatever your objective.

On the other hand, if you just need to squeeze 6dB out of a render to test it on a big system tonight, Limitless makes it a 1-click affair, and it'll sound better than any alternative.

4 Main Controls

4.1 Controls

Sliders

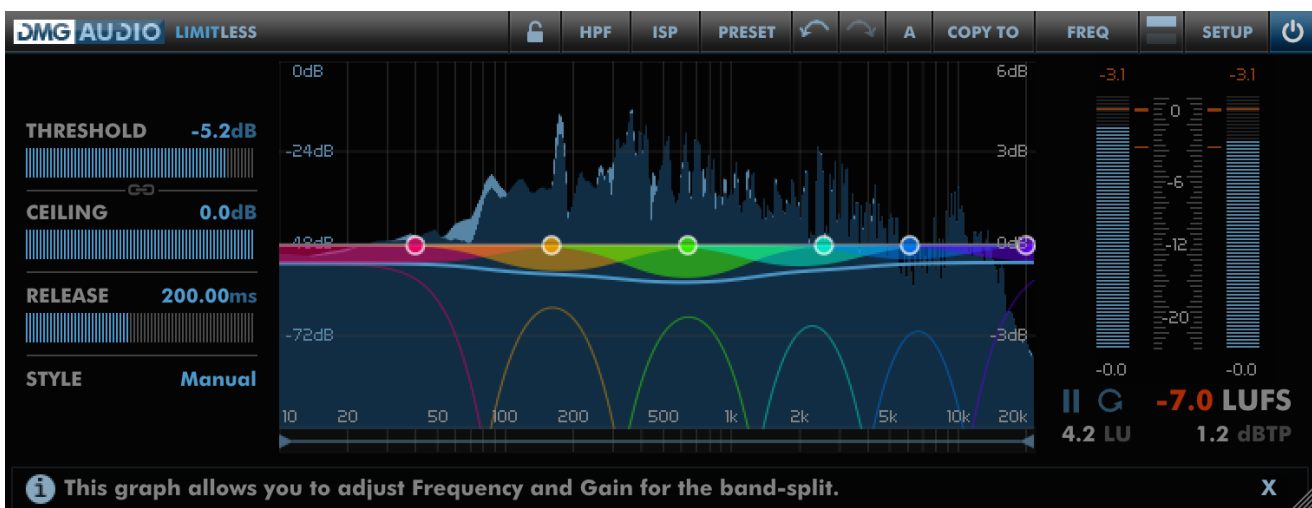
Sliders are used for adjusting the most important settings. They can be dragged to adjust, or shift-dragged for fine-adjust. Double-clicking will jump the slider position to wherever you click. Sliders can be adjusted using the mousewheel.

Text Values

Text values are rendered in blue, and followed by a unit in darker blue. They can be adjusted by dragging with the mouse or shift-dragged for fine-adjust. When double-clicked, you will be able to enter text. Press enter to confirm the new value. Text values can be adjusted using the mousewheel.

Dropdown Menus

The Dropdown menus are Style, Clipping, Clipping Oversampling and Dither. Clicking a Dropdown Menu allows you to select from a discrete list of options. You can cycle through options using the mousewheel.



4.2 Master Controls

4.2.1 Threshold

Threshold is the main control used to control Limitless. It sets the threshold at which Limitless should start clipping. Gain is auto-applied to bring this level up to 0dBFS, so dragging down the Threshold increases level in general.

4.2.2 Ceiling

Ceiling is an output gain after all the limiting has taken place. It sets the output level for the plugin. Traditionally, this is set to -0.1dB for CD masters.

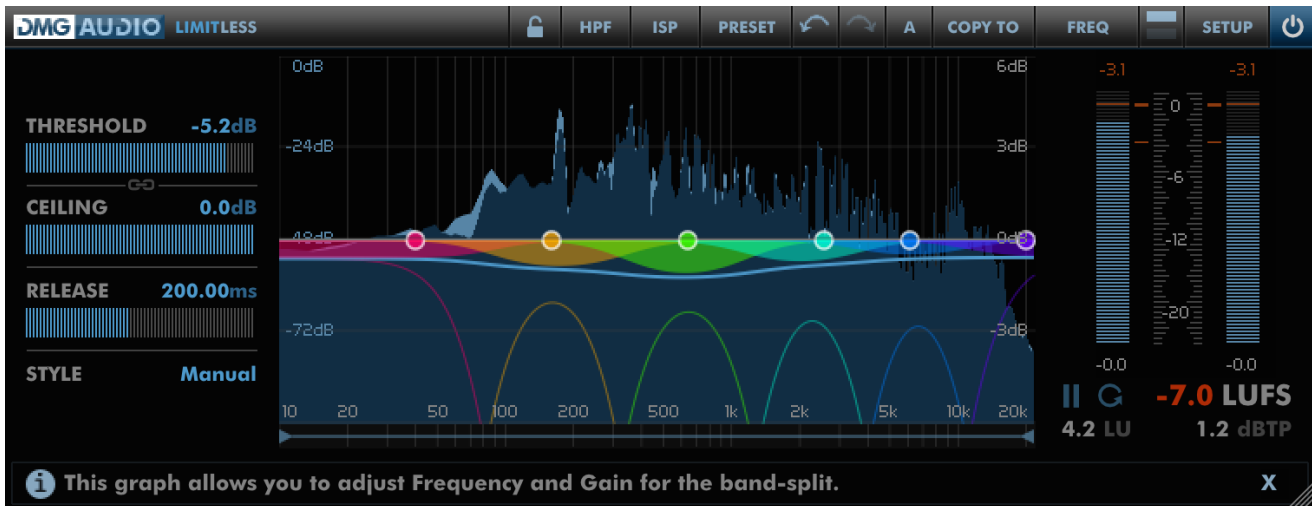
4.2.3 Release

Release sets the release time for Limitless. After a section that requires limiting has passed, the gain is slowly turned up, and the release time sets the rate of gain return. On traditional limiters, setting the release can be a fiddly compromise, since it is influenced by both the transients and the dynamics of the signal. In Limitless, the release time responds only to signal dynamics, while transients are handled in a program-dependent way.

4.2.4 Style

Style opens a menu of stylistic options for the Limiting process. These allow you to jump quickly to an appropriate style of processing for your audio. All settings can be adjusted in Manual mode, and once you've picked a style, you can move it to Manual mode for further adjustment by clicking Copy to Manual. The pre-set styles are: Aggressive, Punchy, Warm, Smooth, Tight, and Transparent.

4.3 Frequency Graph



The Frequency Graph allows configuration of the frequencies of the multiband crossover by dragging left/right, and can be used for EQ work by dragging nodes up/down. Right-click/drag a node to audition its frequency range.

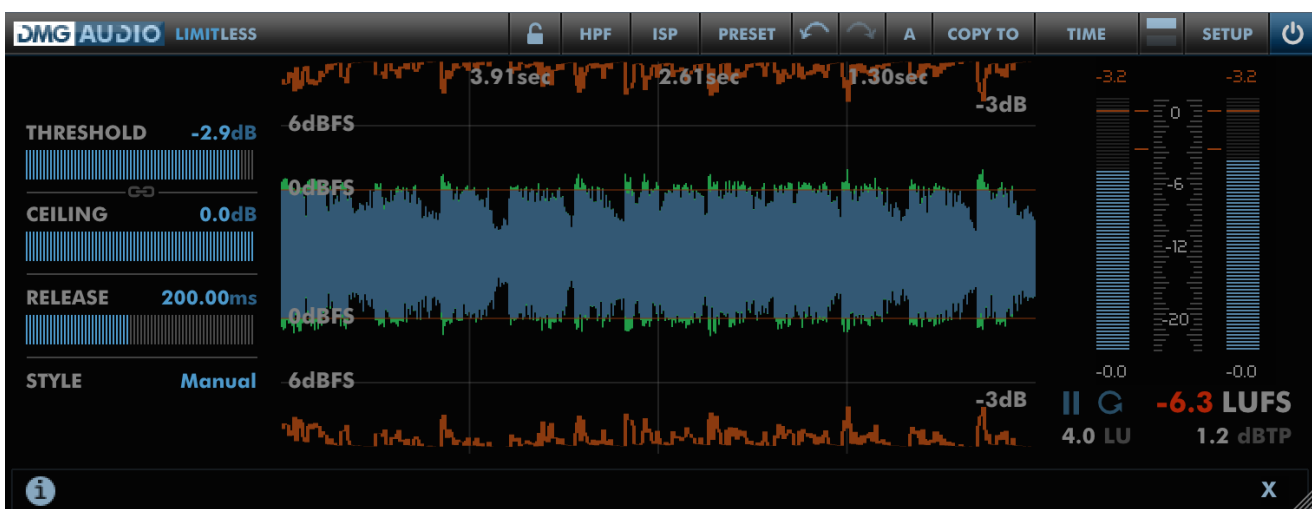
Double-click a node to remove it from the crossover set (to use fewer bands of crossover).

Moving the pointer over a node opens a tooltip which allows fine adjustment of the band frequency and gain. When in Manual mode, the tooltip also allows adjustment of the band's release time.

A spectrum analyser is shown behind the crossover curves, and the instantaneous gain reduction of the limiter engine is displayed as the centre line.

Many aspects of the graph are configurable as described in the Preferences sections below.

4.4 Time Graph



The Time Graph shows the history of processing, combining all bands of the limiter engine. The

signal peaks are displayed in the vertical center of the graph, with the top-half showing the Left channel and the bottom-half showing the Right. Dragging the graph will adjust the threshold. As peaks cross the limiter threshold, they're rendered in a bright green, and you'll see the gain reduction responding to them in red at the top and bottom of the graph. Dragging left/right allows you to zoom in and out in time, and there are options in Setup to allow beat-synched redraw.

4.5 History Graph



The History Graph shows the history of the Short-Term loudness of the signal. The Short-Term LRA is displayed around it to indicate the variance of the dynamics. Dragging left/right allows you to zoom in and out in time. Dragging up/down sets the loudness target calliper at the middle, allowing you to zoom in on a dynamic range of interest.

4.6 PPM / GR Meter

The PPM/GR meter shows the output levels of the Left/Right or Mid/Side signals, alongside the gain reduction per-channel. Labels under and above the meter show current signal/gain reduction peak values.

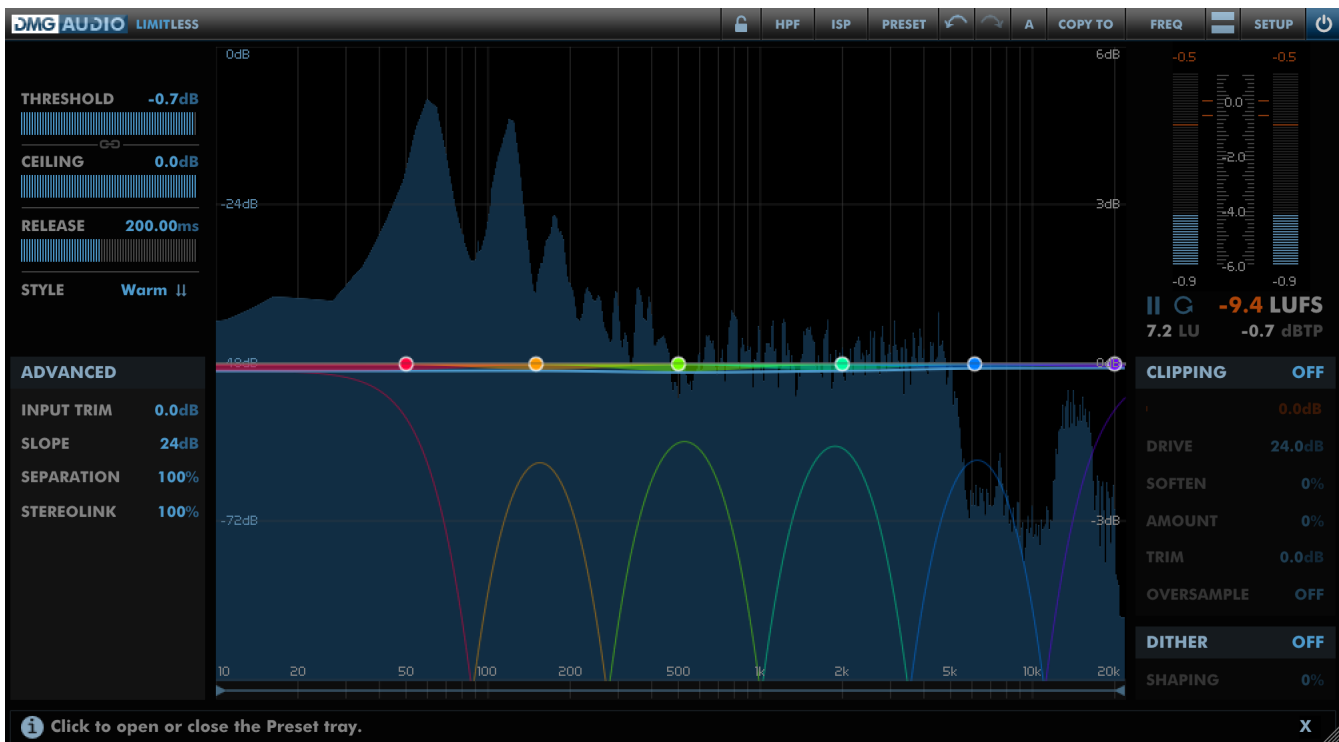
Right/double-clicking the meter switches to a configurable zoomed view, allowing you to zoom in to see fine gain reduction levels.

4.7 Loudness Meters

Below the PPM/GR Meter are the Loudness measurements. Click pause/play to suspend/resume measurement, or reset to restart the measurement process. The metering is fully r128-live compliant, and includes True Peak and LRA measurement. You can toggle between gated (LUFS) and ungated (LKFS) loudness by clicking the display.

5 Advanced Controls

5.1 Controls when not in Manual



5.1.1 Input Trim

The Input Trim is a gain applied before any processing immediately at the input of the plugin. This makes it easy to compensate for excessive input levels.

5.1.2 Slope

Slope defines the slope in dB/oct of the crossover. It applies to all bands. At 24dB/oct, a standard Linkwitz-Riley 4th order crossover is achieved, albeit Linear Phase.

5.1.3 Separation

The Separation determines the degree of independence between the bands. At 0%, Limitless acts like a wide-band limiter, distributing gain reduction equally between all bands. At 100% Limitless is able to adjust bands independently to achieve a more transparent effect. It behaves, in a sense, like a multiband dynamic EQ.

At 200% separation, Limitless will encourage errant bands to work harder, so as to minimise the gain reduction experienced by other bands.

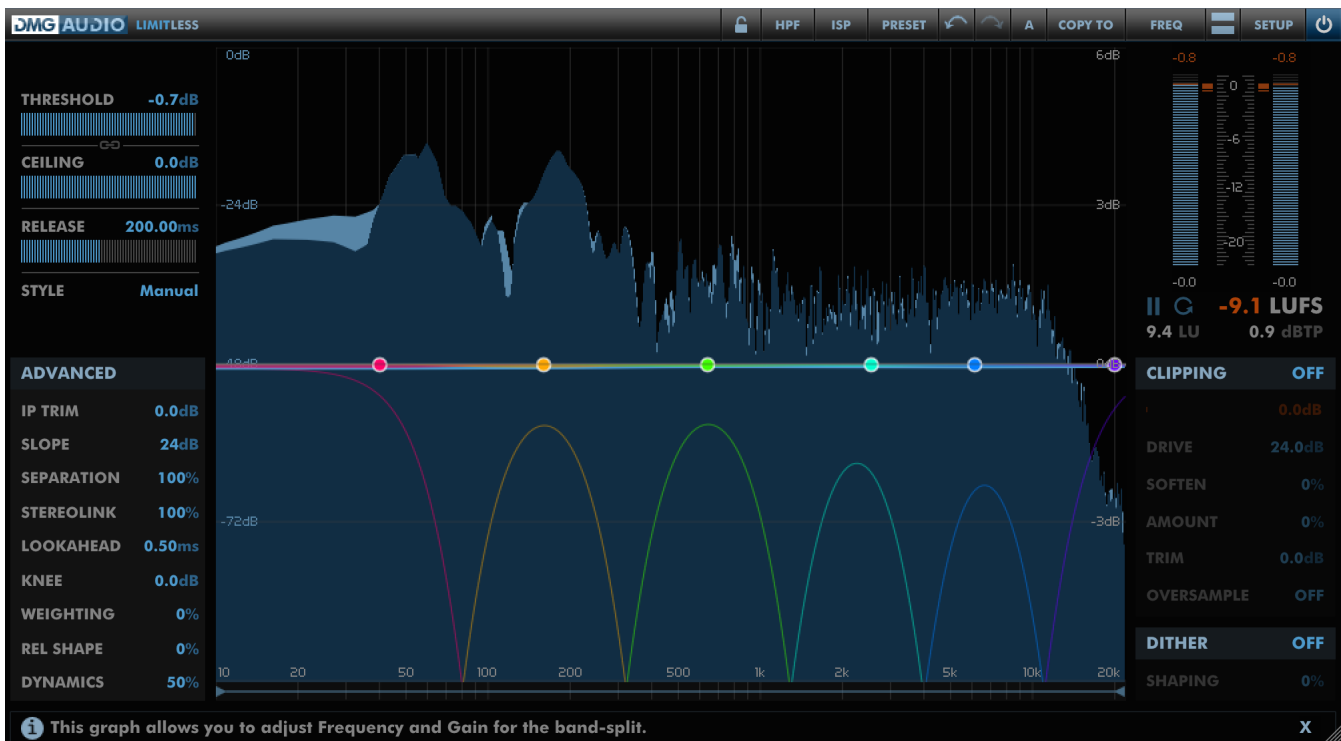
Setting to 100% is the ideal default. If there is a perceptible change in the EQ balance of the track as a result of limiting behaviour, you might consider reducing the setting. On the other hand, if you have an unusual element in the mix which is causing trouble, it might be worthwhile increasing the setting to tame the element, and ease pressure off other bands.

5.1.4 StereoLink

At 100% both Left and Right channels (per-band) will move together. This typically results in more limiting than is absolutely necessary, but does preserve stereo image perfectly. At 0% Left and Right channels operate independently. This results in the minimum limiting but can and will cause movement in the stereo field.

Typically starting at 100% and reducing until stereo movement is detectable will allow you maximal transparency.

5.2 Further Controls in Manual Mode



When in manual mode, a variety of further options are available to you. The non-manual Styles include settings for each of these parameters, and can easily be viewed by choosing a Style and clicking “copy to manual”. Alternatively, browse the “Styles” preset folder, to familiarise yourself with likely settings to achieve specific characters for limiting.

5.2.1 Lookahead

The Lookahead should be considered as the “attack time” of the limiter - except that the audio is automatically delayed to ensure that no peak ever clips. Short times can be aggressive. Longer times make for a quieter signal since the limiter starts reducing gain ahead of time. Ideally, you will set Limitless so that the Lookahead is used only to catch peaks, and the dynamic limiter will handle dynamic matters. This will allow you to use very short lookahead times without perceptible distortion.

5.2.2 Knee

The Knee starts reducing gain a little before the Threshold level, so as to achieve “soft knee” behaviour. This can make the limiting process more transparent, but at the cost of overall loudness, since it specifically sets Limitless to spend more of the time reducing GR.

The parameter determines the width of the knee in dB around the Threshold level. With Threshold at 0dB, and Knee at 3dB, Limitless will enter soft compression at -3dBFS, increasing ratio with signal level, and reach hard limiting at +3dBFS.

5.2.3 Weighting

At its core, Limitless is solving a numerical procedure to distribute gain reduction between bands in such a way that gain-change per band is minimised. The Weighting allows you to encourage Limitless to prefer to reduce gain of low frequency bands (at 100%) or high frequency bands (at -100%). Setting to 100% can achieve an increase in perceptual loudness without needing to adjust the threshold.

The control goes from -400% to 400% so you can evaluate the effect at its extremes.

5.2.4 Release Shape

When processing dynamic material, some material sounds better with a Log release (100%), whilst other material is better with an Inverse Log release (0%). Sadly we have no general theory to guide you on your choice here - it seems to depend very specifically on the audio material. Consequently, we provided both release shapes, and you are able to blend between them.

5.2.5 Dynamics

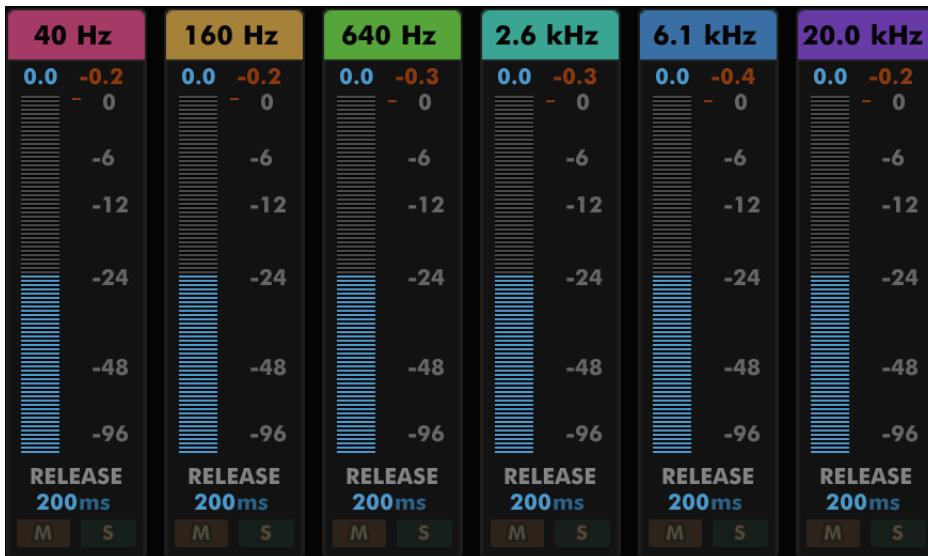
The old adage that it is better to take 1dB off with two limiters than 2dB off with a single limiter is based on a deeper truth. If you have one release time that is triggered by both transients and dynamic content alike, then you end up with “holes” in the audio - dips in level following every transient. Evidently it is necessary to handle transients separately from dynamics somehow, and assign separate release times to each. Previous strategies for this have included program-dependent release methods, whereby the release time is reduced in response to transients. These strategies suffer from the caprice of the release algorithm’s applicability to a specific piece of audio. The solution we present in Limitless is to offer a pair of limiters, one which handles transients and has a very short release time (equal to the lookahead time), and one which handles the dynamic behaviour with a more conventional release time.

The Dynamics control acts to determine the effective attack time of the dynamic limiter - peaks that the dynamic limiter misses are caught by the transient limiter. At 100%, the dynamic limiter does all the work; transients will invoke the full release time. At 0%, the transient limiter does all the work. Between the two, the workload is distributed between both limiter stages. 50% is a good default and can be increased if the action sounds too aggressive, or reduced if greater loudness is desirable.

5.2.6 Per-band release (on Frequency Graph or Band Strips)

When Band Strips are shown, or you hover over a node on the Frequency Graph, you are able to configure the release time per-band for the dynamic limiter. These release times are held relative to the master release time, so adjusting the master release will always alter the per-band timings too. See the Style presets for examples of distribution of release times for the bands.

6 Band Strips



When enabled (Setup->Instance Prefs->Band Strips->Display=Show), the Band Strips reflect the state of each of the crossover bands.

At the top of each strip is the band center frequency. Below is a large fader for adjusting band gain (pre-limiter) next to a gain reduction meter for the band.

The band's release time is shown next, and the base of the channel offers Mute/Solo buttons for auditioning the crossover.

Double-clicking the area around the center frequency will disable the band (to use fewer crossover bands), and double-clicking a disabled band will reinstate it to the crossover set.

7 Clipping

CLIPPING	KNEE
	0.0dB
DRIVE	24.0dB
SOFTEN	0%
AMOUNT	0%
TRIM	0.0dB
OVERSAMPLE	OFF

The Clipping module is pre-limiter. Many engineers like to clip peaks before limiting, and this section allows precisely this.

You can click the Clipping label to quickly enable or disable this section.

To the right of the Clipping label is a dropdown menu, allowing you to select a Clipping algorithm from Swell, Swell2, Swell3, Knee and Knee2.

Each algorithm can be tuned using the **Soften** control.

Swell and Swell2 are simple waveshapers which mostly add 3rd order harmonic distortion to increase perceived level.

Swell3 is a more gentle waveshaper, the harmonics of which depend intricately on the setting of the Soften control.

Knee offers a range of clipping shapes, from hard clipping (ADC clipping) at 0% Soften to smooth softclip at 100% Soften.

Knee2 is a second flexible clipper with adjustable clipping hardness.

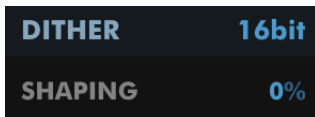
The **Drive** control allows you to drive the input signal into the clipper, and also attenuates the volume afterwards.

The **Amount** control is a wet-dry mix between input and distorted signal. At 0% you hear input, and at 100% just clipped signal.

The **Trim** control offers a gain after the clipping process, allowing you to calibrate level before going to the limiter.

The **Oversample** menu offers up to 64x oversampling.

8 Dither



You can click the Dither label to quickly enable or disable this section.

To the right of the Dither label is a dropdown menu, allowing you to select the bitdepth for your target format.

The **Shaping** determines the intensity of the noise shaping.

At 0% is ideal TPDF dither.

At 100% is a classic psychoacoustic noise-shaping curve, which pushes down noise in the mids and moves it up to the top end.

At 200% is very extreme noise shaping!

To set up the Dither, you should simply pick the correct bitdepth, and then audition the noise shaping at 100%, adjusting to taste.

The level of the noise is always calibrated correctly to ensure textbook-perfect dithering.

9 Other UI

9.1 The Menu Bar



9.1.1 Gain Lock

The Gain Lock can be engaged to lock the Threshold, Ceiling and Input Trim parameters and prevent them from adjustment. This can make auditioning presets much easier.

Right-clicking the Gain Lock opens a menu allowing you to lock the parameters of Limitless by section, including the HPF, ISP, Dither, Clipper and Limiter parameters.

9.1.2 HPF

The HPF button engages a high-pass filter to remove ultra-low-frequency content from your signal. The parameters for the HPF can be configured in the [Advanced DSP](#) section.

9.1.3 ISP

Engage this control to cause Limitless to try to prevent inter-sample peaks.

9.1.4 Preset

Pressing this button will pop out the Preset tray. See [Presets](#).

9.1.5 Undo / Redo

A full undo/redo for any parameter changes on the UI.

9.1.6 A / B and Copy To

Limitless maintains 8 banks of controls at all times, so you can easily A / B (or A / H) through different variants of your settings.

For example, you might create a curve, then use Copy To to copy it to B, then modify that a little and keep going to get as many different settings as you want to evaluate. Then you can use the A / B menu to audition each setting.

If you'd like the auditioning process to happen with one click, simply right-click on the A / B button. You can configure (in Global Prefs, A / B Toggle) whether this toggles between the last two settings you visited, or between all visited.

9.1.7 Graph Button

Clicking the Graph button opens a menu to allow you to select between the Frequency, Time and History graphs.

9.1.8 Layout Button

Clicking the Layout button allows you to hide or show the Advanced controls.

9.1.9 Setup Panel

This opens the Setup Panel, which allows further configuration of Limitless. See [Preferences and Options](#).

9.1.10 Bypass

The Bypass button bypasses all processing within Limitless and routes the input directly to the output.

9.2 Presets



Limitless includes a set of presets, which you can add to, to build up your library of settings.

By default, on OS X they reside at /Library/Application Support/DMGAudio/Limitless/Presets/ and on Windows, at C:\Users\<<you>\Documents and Settings\DMGAudio\Limitless\Presets\.

You can change the location of the presets on Windows by re-running the installer and changing the “DMGAudio Limitless resources folder” path during the install.

Saving presets into these folders will allow you to select them from the Preset menu.

Don't forget to include these files in your backups.

9.2.1 Previous / Next

These buttons allow you to quickly jump back and forward within the list of presets. They grey out to show you when there's no further to go.

9.2.2 Preset Menu / Name

This shows the Preset name which can be modified with a right-click. Clicking here will open the Preset Menu, which is a multi-level menu of all of the presets you currently have saved. You can arrange this folder to suit your needs, but be aware that installing updates will reinstall the factory set.

9.2.3 GUI

The state of the GUI button determines whether loading a preset can alter the UI state. When disabled, any UI configuration in a preset will be ignored.

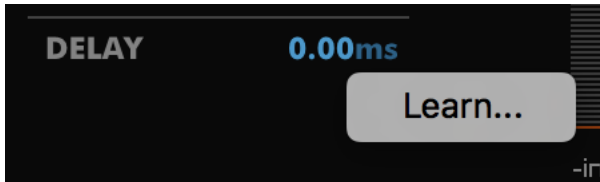
9.2.4 Preset / Bank

Banks contain your full set of A/B settings, whereas a Preset contains only the values displayed onscreen. Using this selector, you can choose whether to save Banks or Presets, and whether to load a Preset into the current A/B bank, or to load a Bank to replace all settings.

9.2.5 Load / Save

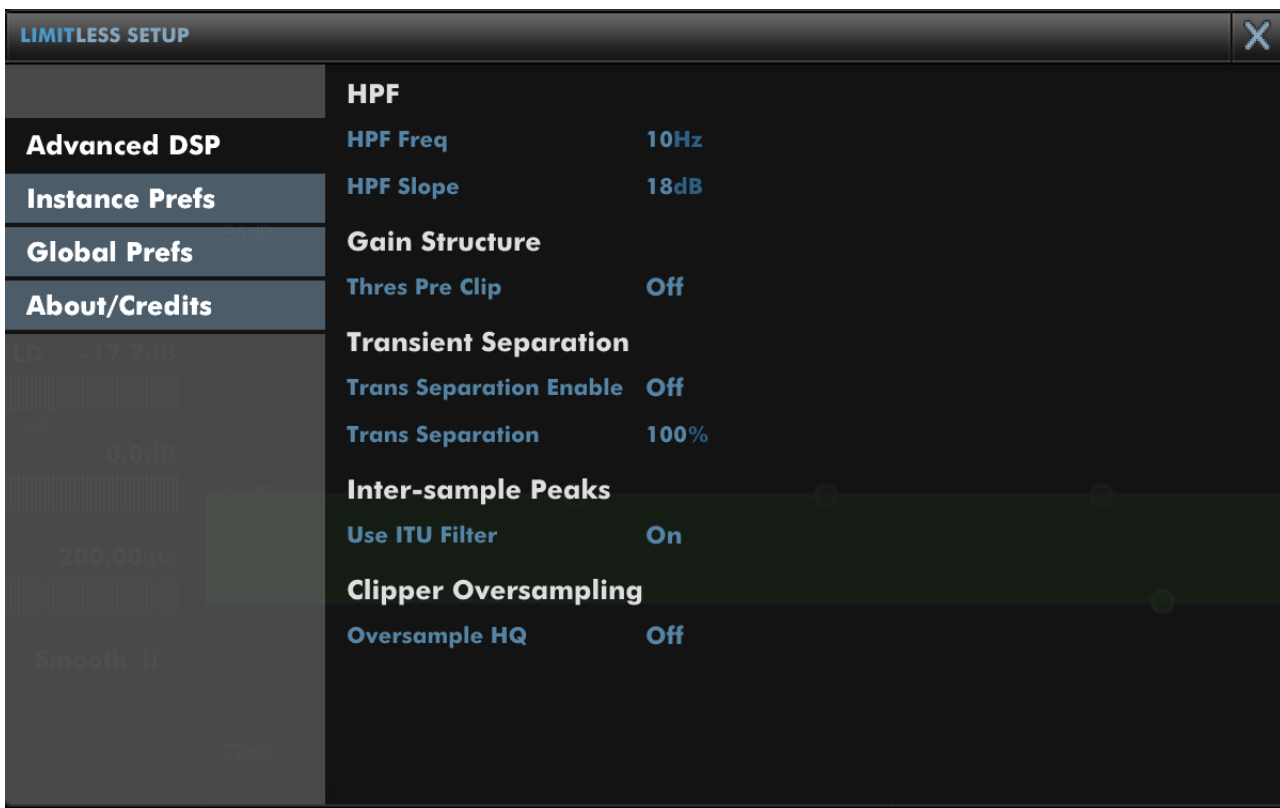
Use these buttons to open a window to save or load presets/banks as selected.

9.3 MIDI Learn



You can right-click (or Ctrl+Click on mac) any control to open the MIDI Learn menu. Selecting “Learn...” will wait for MIDI CC input and bind the control to the first MIDI CC controller received. Parameters are displayed in green to indicate that they have been MIDI Learned. MIDI Learn mappings affect all instances of a plugin and are saved globally, making it easy to map the plugins to your MIDI Controller. Right/Ctrl clicking a Learned parameter displays a menu with information about the mapping and an “Unlearn” option to forget the MIDI mapping.

10 Advanced DSP



10.1 HPF

HPF Freq sets the cutoff frequency for the high-pass filter (when enabled).

HPF Slope sets the slope in dB/oct for the high-pass filter.
The HPF is a regular minimum phase coincident-pole design.

10.2 Gain Structure

Thres Pre Clip allows you to move the Threshold gain stage before the clipper module. This means that when engaged, lowering the threshold will increase the drive to the clipper.

10.3 Transient Separation

By default, the Separation control for Limitless affects both dynamic and transient limiters. In certain cases, you might decide that you prefer the dynamic limiter to be wideband (0% separation), and the transient limiter to be multiband (100% separation), or vice-versa, as it suits the material. Using **Trans Separation Enable** allows you to set the separation for the transient

limiter using **Trans Separation**, and the separation for the dynamic limiter using the main Separation control.

10.4 Inter-sample Peaks

Limitless offers two different algorithms for ISP limiting. Engaging the **Use ITU Filter** (now the default) will use a transparent algorithm designed to guarantee matching the ITU 1770 True Peak measurement specification. Disengaging the setting uses an “oversampling”-style algorithm more reminiscent of other True Peak limiters, which, in some cases, can overshoot a True Peak loudness target.

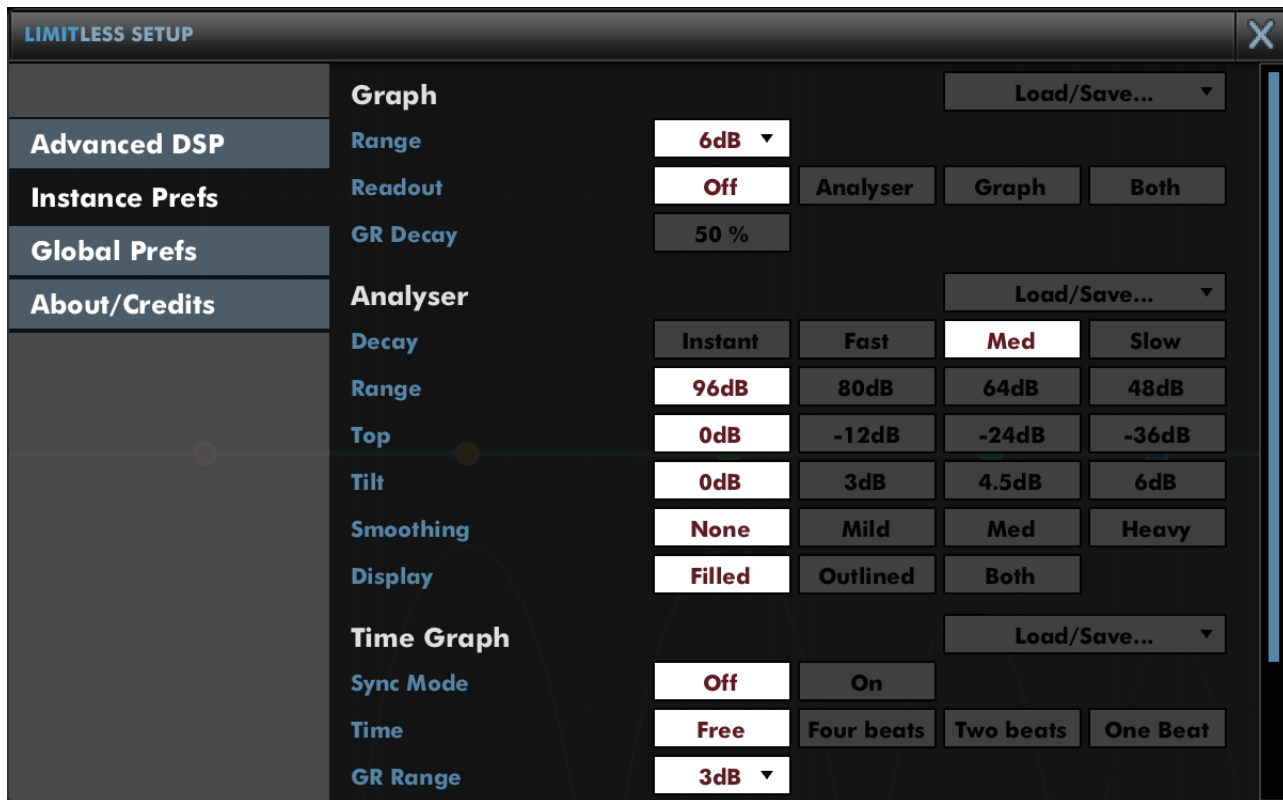
10.5 Clipper Oversampling

HQ mode uses higher specification anti-aliasing filters when using clipper oversampling.

11 Preferences and Options

11.1 Instance Prefs

The settings in Instance Prefs are per-instance and can be saved with a preset.



Graph

Range determines the degree of zoom for the Frequency graph.

The **Readout** values, if selected, are displayed at the top of the Frequency graph.

GR Decay allows you to apply a smoothing to GR values, to ensure you can read the maximal GR values applied to the signal.

Analyser

Decay sets the decay time for the smoothing of the response. The attack characteristic is always an instantaneous peak-type response.

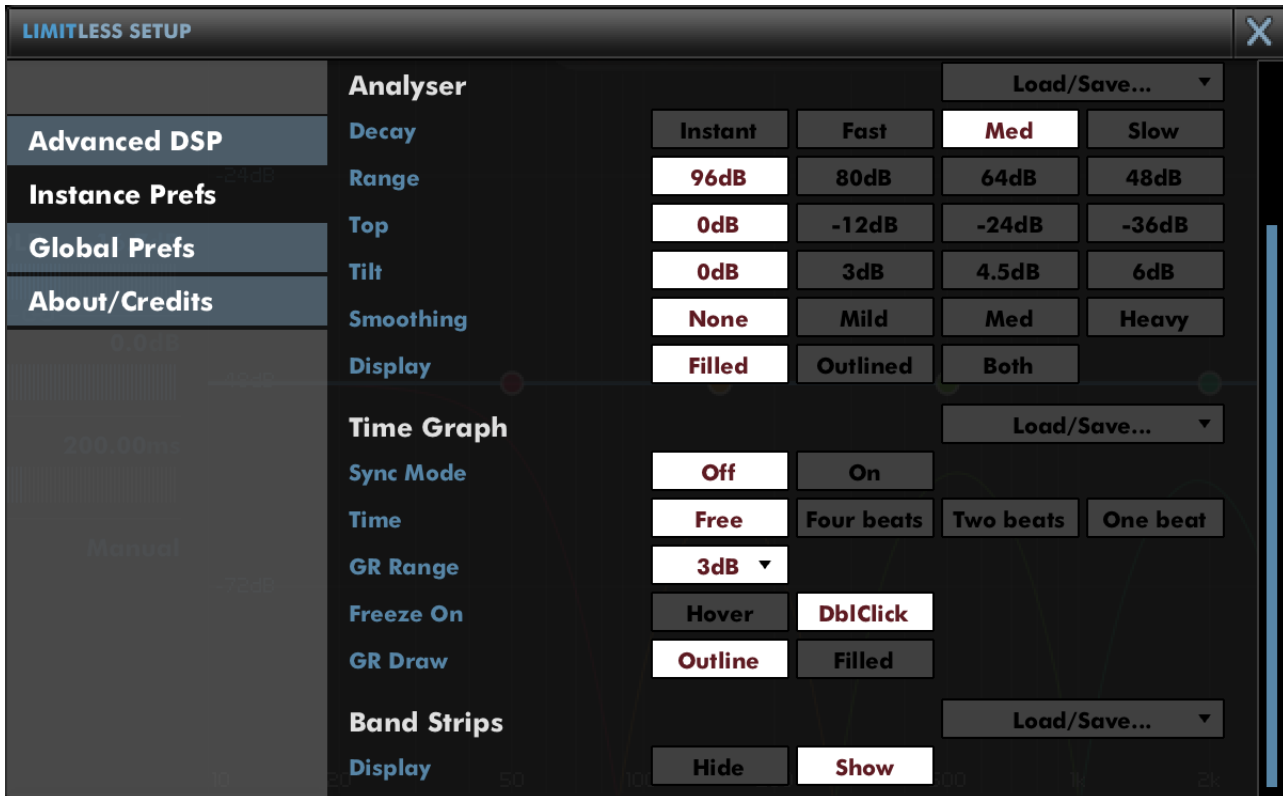
Range sets the range of the graph in dB.

Top allows you to reduce the highest gain level shown on the graph.

Tilt tilts the spectrum readout. With no tilt, white noise is rendered flat.

Smoothing allows you to have the response smoothed for a less detailed view.

Display allows you to configure the standard Analyser mode to be plotted as filled or outlined.



Time Graph

Sync Mode will stop the graph from scrolling, and will instead wrap the playhead from left-to-right. When combined with a synchronised time, this can allow easy comparison bar-by-bar.

Use **Time** to choose between showing freely-zoomable time duration, and locking the time duration to the tempo reported by the DAW.

GR Range determines how many dB of gain reduction should be shown in the margins above and below the graph.

Freeze On allows you to pick whether hovering over the graph will cause it to pause redraw, or whether a double-click is used to pause/resume.

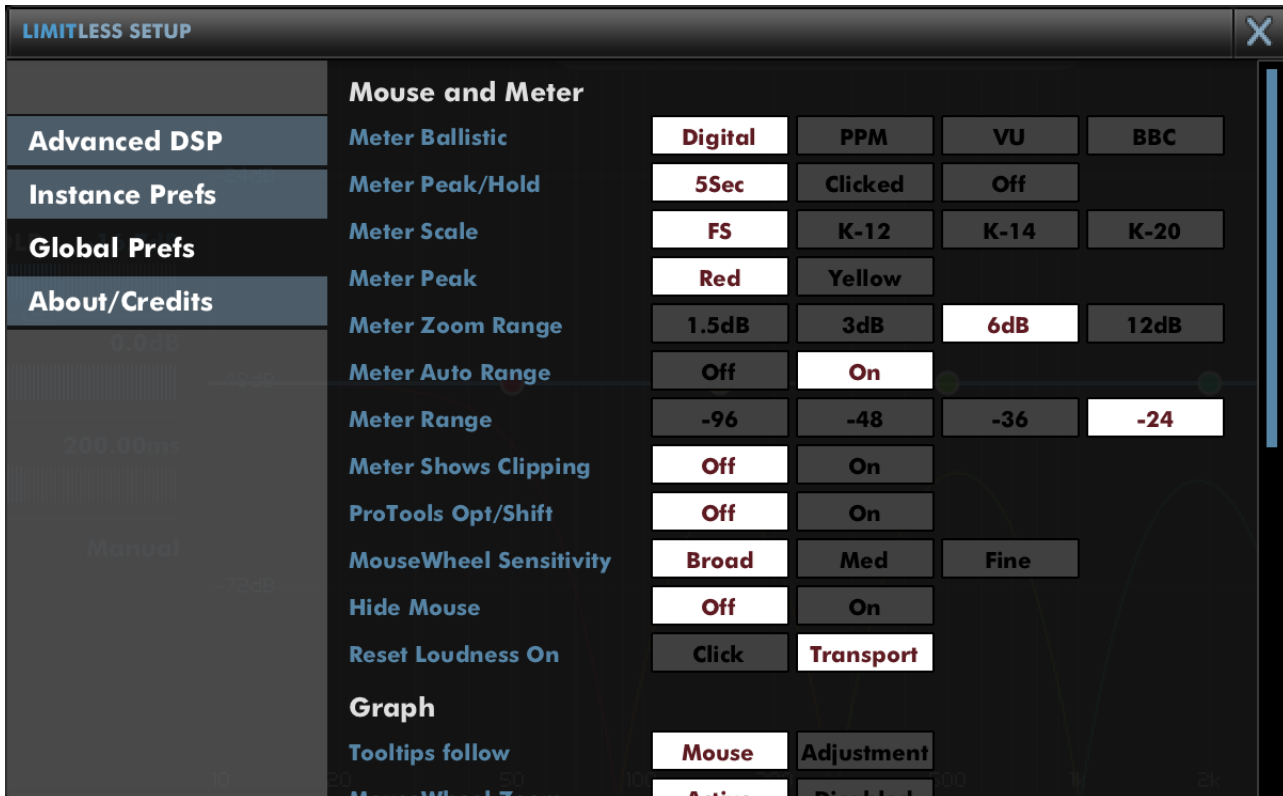
GR Draw allows you to pick filled or outlined gain reduction curves on the time plot.

Band Strips

Display is used to show per-band controls below the Graph section when in Advanced mode.

11.2 Global Prefs

The settings in Global Prefs are shared between all instances.



Meter Ballistic allows you to pick the ballistics used by the meters.

Meter Peak/Hold sets the holding behaviour of peaks.

Meter Scale allows configuration of a K-Meter scale for the PPM meter, between the K-12, K-14 and K-20 standards.

Meter Peak is used to select the colour of the peaks shown on the PPM meter.

Meter Zoom Range configures the range shown in PPM zoomed mode (when the meter is double-clicked or right-clicked).

Meter Auto Range allows the PPM meter to zoom out to ensure that GR values can be displayed when in PPM zoomed mode.

Meter Range sets the range of the main meters in non-zoomed mode.

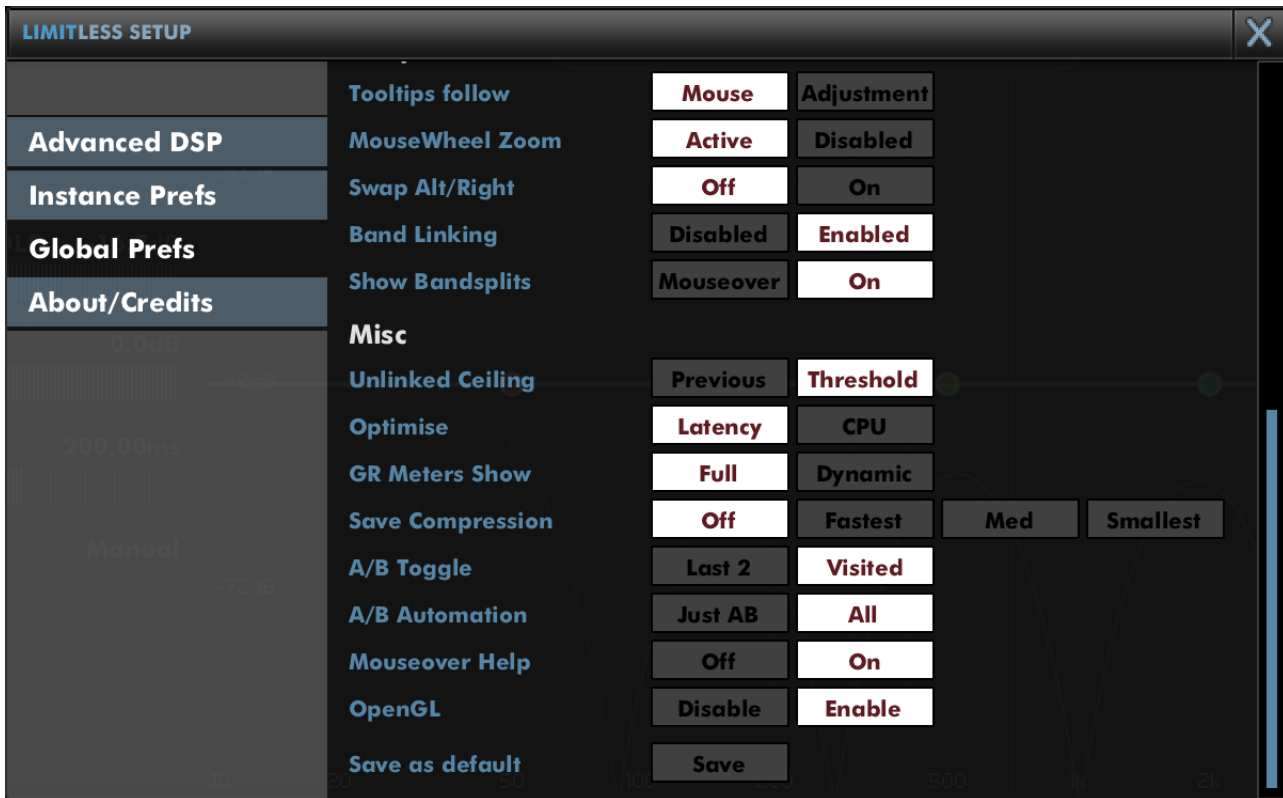
Meter Shows Clipping determines whether a representation of the GR from the clipping module is displayed on the main GR meters.

ProTools Opt/Shift determines whether you expect ProTools style keyboard modifiers (Opt/Alt for reset to default and Apple/Ctrl for fine-adjust).

MouseWheel Sensitivity configures mousewheel response for knobs and textboxes.

Hide Mouse will cause the mouse to disappear while you're adjusting a value to reduce distraction.

Reset Loudness On determines whether the Loudness statistics should be reset when Limitless detects a change in transport (pressing play in the DAW), or only when clicked.



Graph

Tooltips follow allows you to choose whether the Frequency graph tooltips respond to mouse movement, or adjustments made by a control surface.

MouseWheel Zoom can enable or disable zooming into/out of the Frequency graph.

Swap Alt/Right swaps over Alt and Right, so that Alt-dragging engages autolisten.

Band Linking can be disabled to prevent selection of multiple nodes on the Bandsplit graph.

Show Bandsplits determines whether the frequency response curve for each band is shown permanently or only while the pointer is hovering over the graph.

Misc

Unlinked Ceiling determines whether, when unlinking Ceiling and Threshold, the Ceiling value should jump to its previous setting, or whether it should remain matching the Threshold setting.

Optimise allows you to select between optimising CPU usage at the cost of some additional

latency, or whether you wish to minimise absolute latency at the cost of CPU. In general you should optimise for CPU unless you have specific realtime requirements.

GR Meters Show determines whether the GR meters show the Full GR applied to the signal, or just the GR pertaining to the dynamic processing. If you find the GR readouts move too quickly and are distracting, try Dynamic.

Save Compression allows you to adjust the degree of compression used when saving state for a preset or within a session. If you want to text-edit presets, or want fastest-possible save times, switch this Off. By default this is set to Smallest to minimise session file sizes.

A / B Toggle allows you to determine how right-clicking the A / B menu cycles through A / B banks. Last 2 swaps between the last two A / B banks you have visited. Visited allows you to cycle through all A / B banks you've visited so far. If you want to assign the A/B bank selector to a MIDI CC parameter, select 'MIDI Learn' and then a right-click on the A/B menu will bring up MIDI learn options.

A / B Automation allows you to determine whether changing A / B bank writes full automation to the session, or just records the change of A / B bank.

Mouseover Help allows you to hide or reinstate the help display at the base of the plugin window after it has been closed.

OpenGL allows you to disable OpenGL in case there are compatibility issues with your machine. Toggling this option will require you to close and re-open the UI.

Save as default is used to save the state of this instance as the state that new instances will have when created.

12 Troubleshooting

12.1 Get in touch

If you run into trouble, get in touch! We're here to help, after all!

For technical support, feature requests and general discussion, visit:

<http://dmgaudio.com/contact.php>

Or you can just email us directly at: contact@dmgaudio.com

For support with DMGAudio software, [sending email](#) is the way to go. It allows us to be much faster and more responsive, and we try to spend more time answering our emails than hanging out on social media!

For general discussion though, please feel free to drop by on Facebook/Twitter and tell us how you're getting on. We'll be posting news about updates there too - but also do [join the DMGAudio mailing list](#) to make sure you never miss out.

 <http://facebook.com/dmgaudio>

 <http://twitter.com/dmgaudio>

 <http://www.youtube.com/c/dmgaudioofficial>

Questions about licensing, license transfers and discounts are covered in our [FAQ](#).

Information about version numbers, updates, features and bug fixes is listed under the Specifications tab on the [Limitless Product Page](#).

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