MAKE BELIEVE™ STUDIOS

METRIC HALO


# MELD

# User's Guide

# MELD Users Guide

Metric Halo

Revision: 4.0.86

Publication date October 2, 2025

# Table of Contents

# List of Figures

# 1. Introduction

When I started doing Atmos mixes, my business partner Serban Ghenea and I sat and had a conversation:

What direction did we want to go in Atmos?

Working for 20+ years with Serban, I know how much goes into the small details of every mix. These mixes are tweaked to perfection with the artists and producers. Every detail has been dialed in against every other detail.

So starting in Atmos, we decided that we wanted to first respect those mix decisions, and among the most critical of those mix decisions are volume, loudness, compression, limiting; the "glue" that holds a mix together. The seeming obsession over the "master buss" chain that we use cemented in my mind that this was a critical component of the mix to be retained when doing Immersive mixes.

However, when the mix is printed out to stems, we are losing some of that glue.

When a stereo mix "master buss" is split out into many different instances for beds and objects, we are losing some of that glue.

And when a stereo mix is mastered, adding layers of compression, limiting, loudness, and EQ; the Immersive mix should follow or that glue is also lost.

For many years I tried to compensate for these losses by very carefully tailoring the volumes of objects and beds, adding limiting to some tracks or some objects, and side-chain compression to my beds and objects.

But what I really needed was a tool where all instances follow one instance and where the "side-chain" doesn't key off of one feed, but all feeds combined.

I needed it to be light on processing power so that it could be added to the end of an already filled set of mix buss plugins. I needed it to be reliable so that older versions would not be broken by newer versions. I needed it to be simple to use, so that I could quickly set up, meter, and monitor the results.

With the relationship built with Make Believe Studio and Metric Halo working on the MixHead plugin, I knew who to turn to. I asked them to build me this plugin and MELD was born.


This re-created the buss processing, the mastering processing, and the missing glue so that Immersive mixes can have the same feel as the stereo mixes; because from this basis, when it sounds right, you can make those panning decisions into Immersive space with the confidence that you are not losing the soul of the mix, but are immersing yourself into that highly detailed, dialed in production.

We added features such as the ability to use multiple instances;  Not only can you recreate the glue on the mix buss, but do it on the drums buss, or BGV subgroups as well.  Or you might have a Music, Dialog, Effects setup;  A, B, C instances ready to go!

This opened up MELD to not only be a tool for Immersive mixing, but a really cool general mixing tool, because it can replace complex audio routing tasks with better results. Creative routing results without the complex routing.

Replace your aux buss, your folder, your sub-master with MELD. Now your sends from channels feeding the Aux or folder will follow the channel's EQ and dynamics processes, and your routing is simplified so your stems will print more closely to the mix.

I know of one well known engineer and producer who does not like to use any processing on his stereo master buss because, working with film projects, his stems need to match the mix exactly. With MELD he can have the best of both worlds.

So what started as a need for dynamics and EQ control for Immersive mixing has become a really interesting creative mixing tool as well.

**- John Hanes**

## What exactly is MELD, though?

MELD is a channelstrip plug-in... in a sense it is *the* ChannelStrip plug-in, since it houses some of the main tools used at Mixstar Studios: Metric Halo ChannelStrip and Make Believe Studios MixHead.

MELD is designed to be inserted across any and all tracks in a host DAW session which would be bussed and processed in aux or group submix stems. All the instances of MELD communicate with each other, and the MELD UI lets you group and link the processing parameters to apply identical processing to every instance in the group, without any bus routing, prior to any panning stage. In the case of transitioning a completed stereo mix session to immersive, you just insert MELD across all the tracks that were sent to submix buses, and create MELD groups for each set of tracks per submix. In essence, each MELD group replaces each stereo submix bus, and since the grouped tracks are now untethered from the submix bus, they can be panned throughout an immersive soundfield without restriction.

MELD takes the EQ, Compressor, and Limiter from MH ChannelStrip, adds Make Believe MixHead, and includes a new Loudness processor optimized for dynamic presence control at the Atmos LUFS target range.

The EQ, Comp and MixHead processor blocks support recalling factory and custom presets created in the standalone MH ChannelStrip and MixHead plugins. As with parameter changes, preset recalled to a grouped instance will be applied to all instances in the group.

The MELD Overview tab displays quick-access control interfaces for the EQ, Comp, Loudness and Limiter modules, and the module tabs can be dragged to re-arrange the order of the processes.

With MELD, huge track folders of harmonized backing vocals, massed guitar overlays and FX channel arrays routed to dozens of buses and object channels can be dialed in quickly and easily in a single UI, saving time and hassle while improving the quality of the result all at once. Naturally, MELD groups can be automated in the same fashion as submix processors - automating a single instance within the MELD group applies that automation to every track in the group.

One of the greatest advantages of a MELD workflow is, MELD grouped tracks are processed as individual signal paths with the exact same processors set to the same settings, and because each process path is discrete, the distinctive performance characteristics of each track come through fully articulated. This results in a richer soundfield presentation with more detail and localization of each track than processing through a group bus or multichannel stem.

Of course, sometimes you want the extra glue of bus-processed tracks, and MELD provides the Advanced Parameter **Shared Sidechain Support** to accomplish precisely that effect by allowing full control of the detector sidechain linking of each groups' compressor and/or limiter blocks.

## Links to videos

John Hanes making an Atmos mix from stems

John Hanes making an Atmos mix from mix session

Mike Monseur showing how he uses MELD in an Atmos session

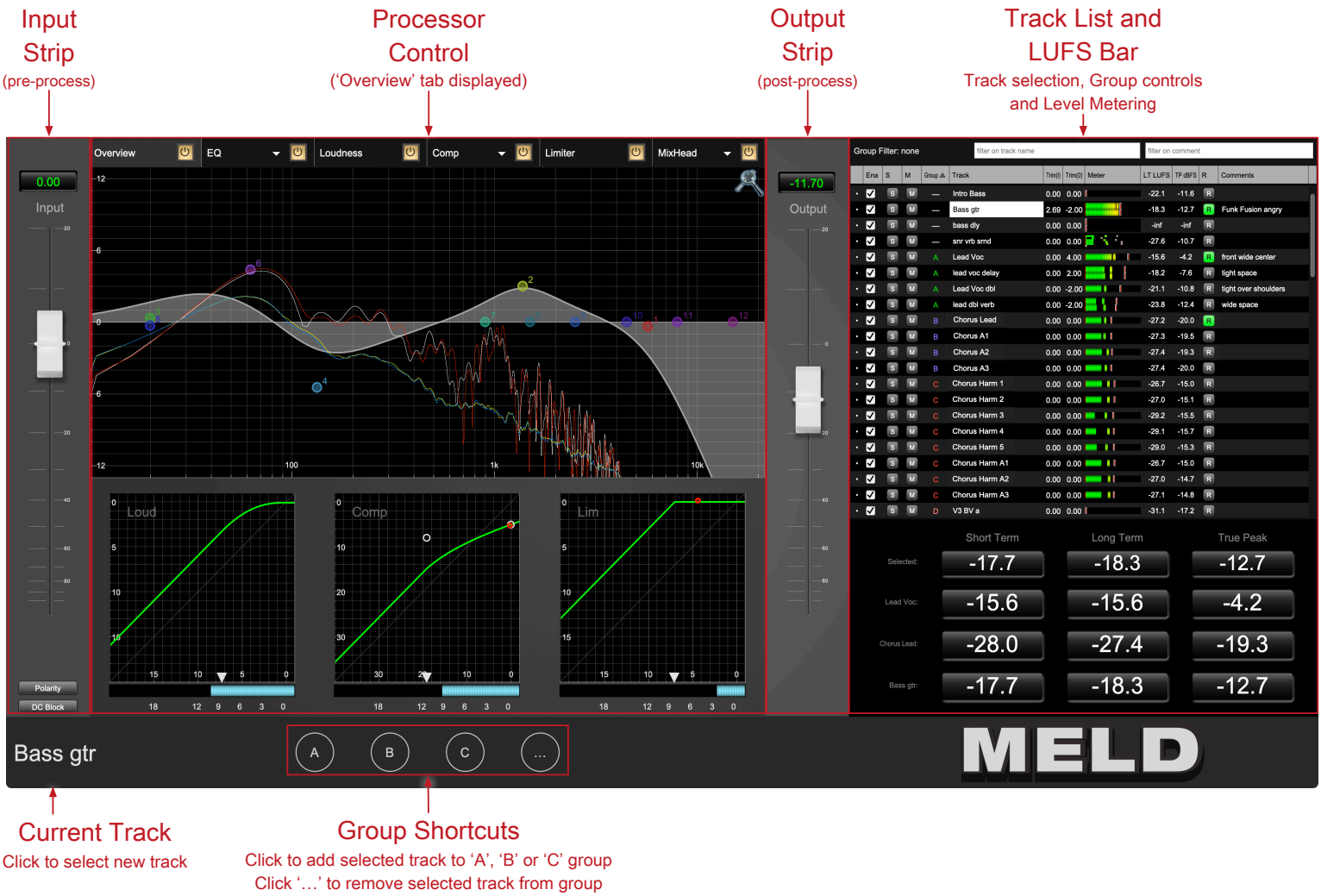
Ari Morris using MELD for ATMOS mixing

Rick Carson MELD video walkthrough with an advanced sidechaining tools overview with Metric Halos BJ Buchalter

# 2. Operation

## MELD User Interface

The primary MELD interface opens to the Overview display tab, with basic graphic views and controls for the primary EQ and dynamics processors.




The overall plug-in UI is arranged thusly (with details sections linked):

- Input Strip: Sets the incoming signal level before processing.
  - The Input Fader sets the input level for all Tracks in the group.
  - Input Polarity and DC Block filter switches are at the bottom of the strip.
- Processor Control: The main processing control area. The Tab Bar across the top serves several functions:
  - Click a tab to view the individual processor blocks or the Overview.
  - Each tab has enable/disable toggles for that block. The MixHead, EQ and Comp tabs also include preset loading from your MixHead and MH ChannelStrip preset libraries, respectively.
  - Click-drag the processor block tabs to re-order the signal processing chain.

- Output Strip: Sets the post-processed output level.
  - The Output Fader sets the output level for the group.
- The Track List displays operational controls and metering for all MELD-enabled DAW mixer tracks and buses, using the track names from the DAW mixer strips (for DAW hosts that support this function).

  The Track List is where you create, modify and navigate MELD groups. Currently you can assign up to 26 groups, labeled **A** through **Z**.

  There are several columns of information presented in the Track List, which can be auto-sized, or hidden by right-clicking in the column header bar and selecting from the pull-down menu.

  - The first column (with the blank header) is the Track Selector column, for selecting tracks for group assignment.
  - Ena enables/disables MELD processing per group (basically a bypass).
  - S and M operate MELD Group Solo and Mute functions.
  - The Track List Trim(I) and Trim(O) columns provide un-linked Input and Output Trim controls so you can easily view, modify and automate individual Track/instance trims independently from the rest of the group.
  - Each Track includes a Comments field for text notes.
  - Signal output Meters for each Track includes: PPM level with RMS, Long Term LUFS and True Peak dBFS. PPM meters show each channel within a Track (a 7.1.4 instance would show 12 active meter displays), while LUFS and TP dBFS numeric meters show the highest level of all channels within the track.
  - Reference tracks, selected in the **R** column, add separate Short and Long Term LUFS and True Peak readouts in the LUFS Bar, below the main Track List UI.
  - The Track List view can be filtered per Group, and search by text string is available for both Track Name and Comments content. The search filters are found above the Track List table.

    The Track List view can be sorted in ascending or descending order for most columns by clicking column headers.
- Current Track in the lower left corner of the plug-in window, shows the track name currently in view. Click on this track name (revealing the full list of all MELD tracks) to directly go to a new track. The main Track List will scroll to bring your newly selected track into view there as well.
- The **A, B, C, ...** Group Shortcut buttons below the processor block are for more efficient group management in Music, Dialog and Effects workflows.

Reminder: any DAW mixer strips which do not have MELD inserted can not be controlled by MELD. MELD instances can be added any time and (for most DAW hosts) in any insert slot - new instances will immediately appear in the Track List and MELD group processing settings will be applied automatically to a any instance added to a group.

## MELD Advanced Parameters


The **Advanced Parameters** button to the right of the Presets bar replaces the Track List Group Filter and column header with the control for a very important MELD feature:

### Shared Sidechain Support


When Shared Sidechain Support is enabled (button lit, as shown above) two selector columns are added to the MELD Track List: **CSC** and **LSC**.

- **CSC**: Compressor SideChain link. Links the detector sidechain of all group compressor blocks so they all respond in sync to the highest peak of all the tracks in the group. This closely emulates the "glue" achieved by compressing group buses in a stereo mix.
- **LSC**: Limiter SideChain link. Links the detector sidechain of all group limiter blocks so they all engage per the highest peak of all the tracks in the group.

With Shared Sidechain Support enabled, the compressor and/or limiter of each MELD instance will be driven by a group-derived detector sidechain, unifying the dynamic response of each track to provide more glue, even when panned immersively.

Sharing only the sidechain between grouped tracks results in audibly greater precision and detail than summing the tracks to a stereo bus before compression and/or limiting.

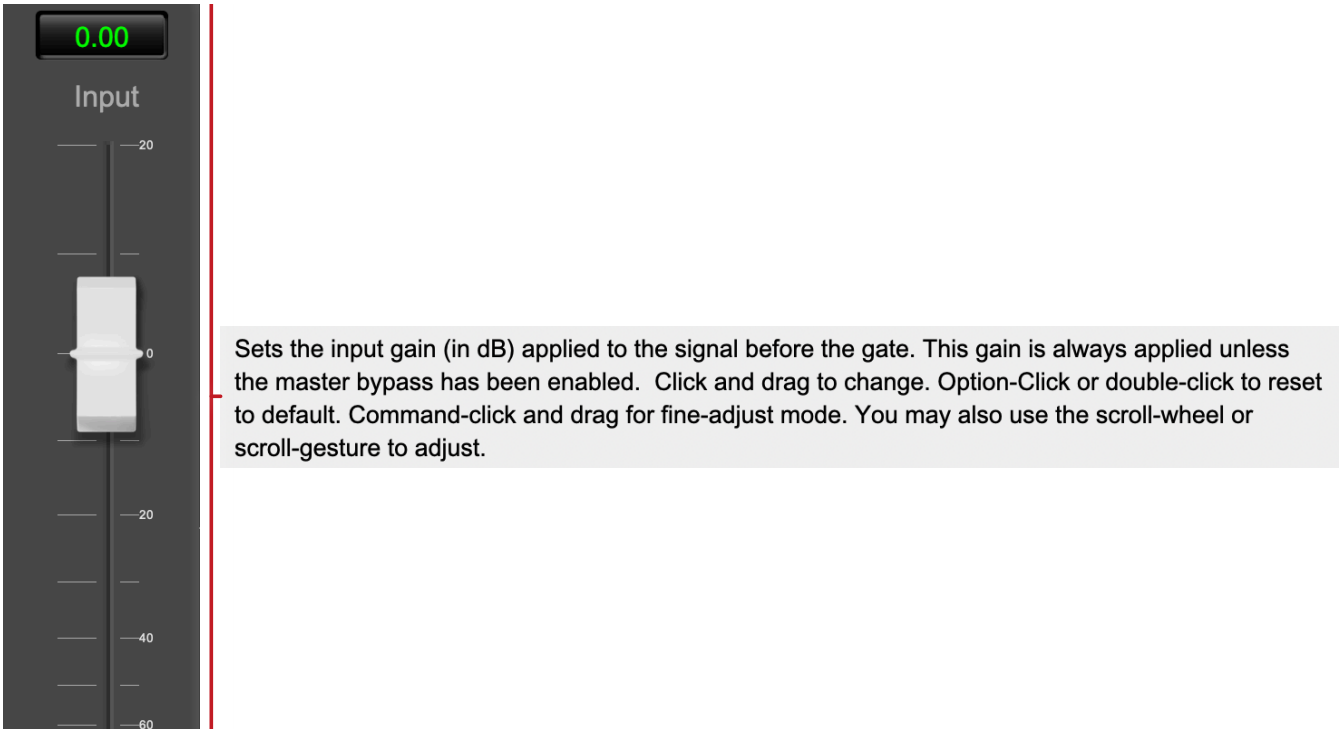
The larger the subgroup, the greater the benefit. This is especially true for immersive mixes where grouped tracks can be panned around the soundfield or pushed away from the listener for enhanced depth of field.

More advanced options of Shared Sidechain Support for different workflows are detailed in the MELD Advanced Sidechaining section.

## Input Strip

### Input Fader

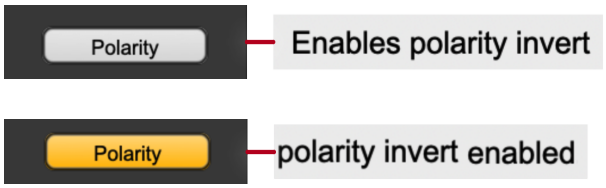
The **Input Fader** is a group control, setting the input level to the processing block across the group.




The Input Fader has a gain range of +20dB to -∞.

### Polarity

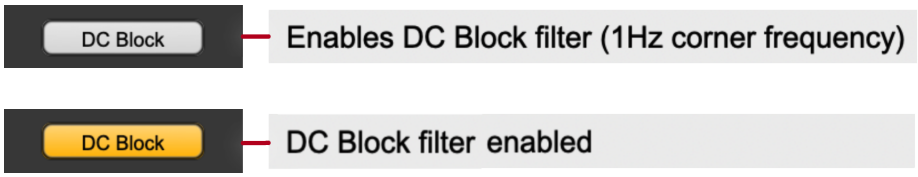
**Polarity** is a group control, inverting the input signal polarity for all tracks in the group.




Polarity is inverted when the Polarity button glows yellow.

### DC Block

The **DC Block** is a group control, applying a 1Hz cut filter reaching -∞ at 0Hz.

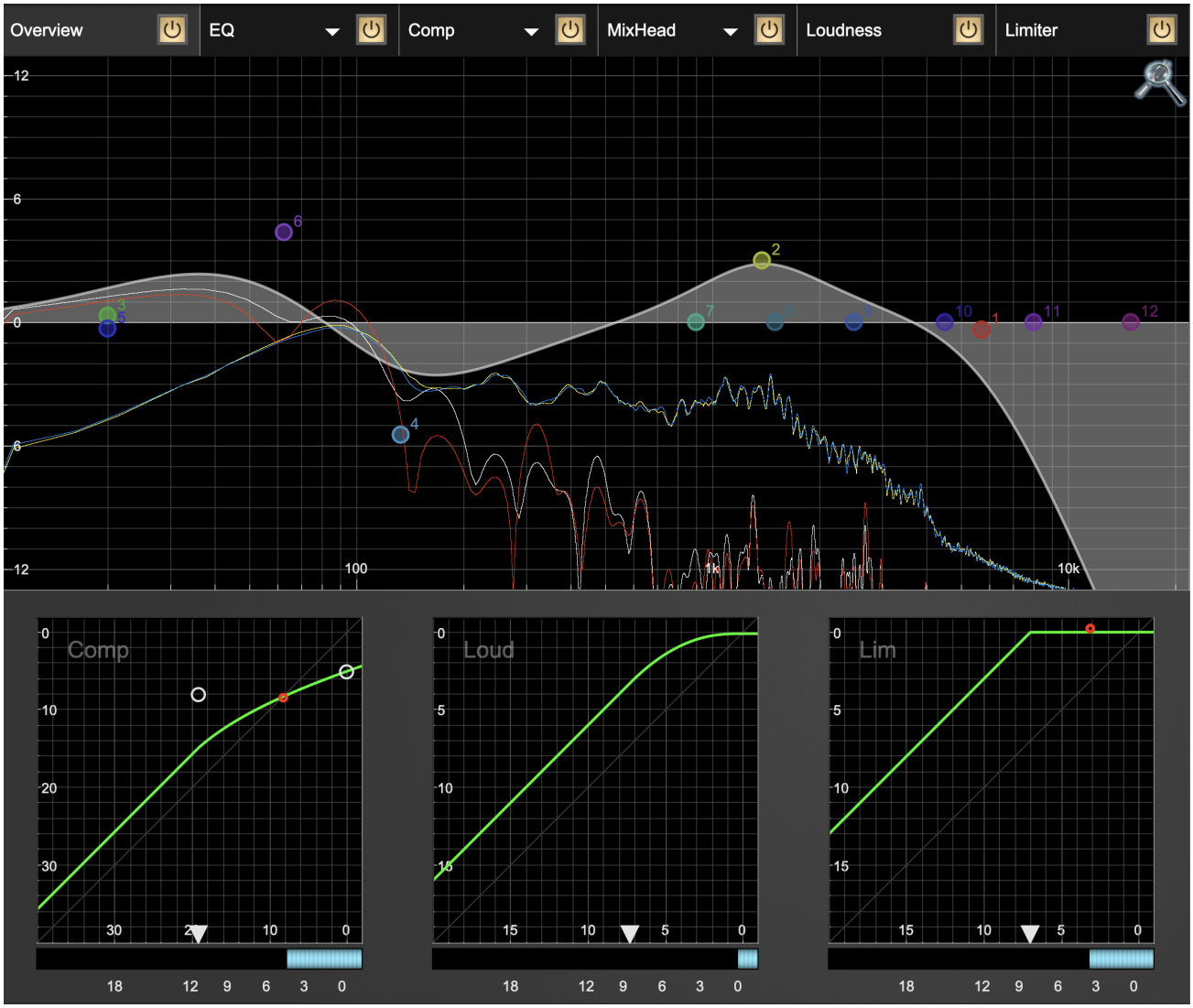



DC is blocked when the DC Block button glows yellow, and is applied after the Input gain/polarity stage.

## Processor Control section

MELD is built around five world class signal processors: the EQ, Compressor and Limiter blocks from Metric Halo ChannelStrip, Make Believe Studios MixHead, and a new process designed for MELD called "Loudness".

**Note**: All parameter settings in this section are applied to all Tracks within the selected MELD Group.



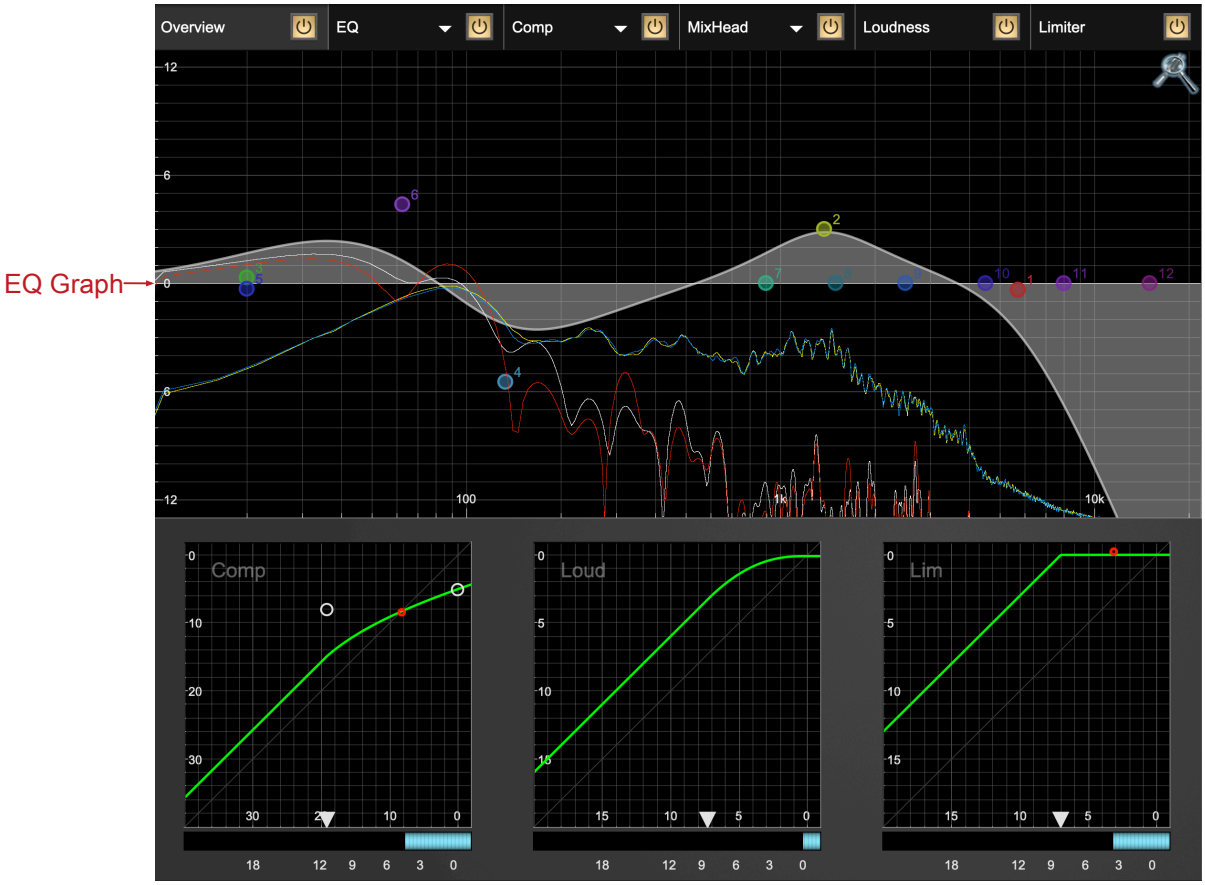

### Processor Block Tabs


The six tabs of the Tab Bar are used to select the processor block view, engage / disengage each processor, and re-sequence the five processing blocks in the signal chain.

Click a tab to focus the view on the individual blocks.

Click-drag tabs to move them earlier or later in the signal process chain.

### Processing “Overview” tab




The Overview tab is selected by default, providing core parameter controls for the four main process blocks - EQ, Comp, Loudness and Limiter.

The Overview is designed to be MELDs primary work space, allowing you to stay “in the zone” with as little switching between processor UIs as possible.

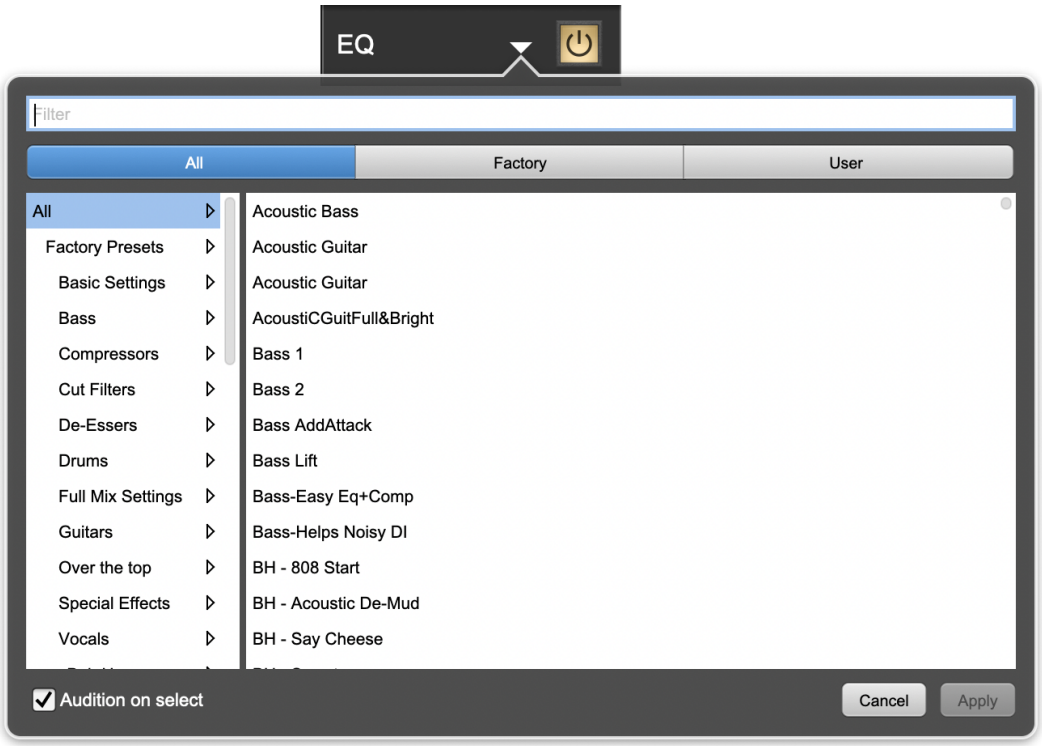
- The block Enable / Disable switch in the Overview tab toggles all MELD processing including the Trims. It is a double of the MELD plug-in header Bypass control.
  When lit, MELD is processing... when dark, MELD is bypassed. The other tab block Enable switches toggle the individual blocks.
- The Overview EQ graph includes all functions of the full EQ block view. See the EQ Block page for the full EQ control run-down.
- The Overview Compressor graph has controls for Threshold and Ratio (and Knee when in **MIO** compressor mode). See the Comp Block page for full Compressor details.
- The Loudness block has only a Threshold control. See the Loudness page for MELD Loudness processor details.
- The Limiter also has just a Threshold control. See the Limiter page for MELD Limiter details.
- In MELD dynamics graphs, the white ∇ is Threshold. O controls Ratio (and Knee) in the Comp.

## EQ

### EQ Block Tab

Select the EQ Tab to bring the EQ processor block UI into focus.
The EQ Preset and EQ Block Enable controls are available whether or not the EQ Tab is selected.

#### EQ Tab Preset menu




The MELD EQ Block is compatible with MH ChannelStrip EQ presets, loading the EQ band parameters into the first six bands of the 12-band MELD EQ.
The disclosure triangle in the EQ tab opens the Preset Selector UI, where you can select from any MH ChannelStrip Factory or User EQ preset installed on your system.

Loading a ChannelStrip preset from the EQ tab loads only the EQ settings from the preset.

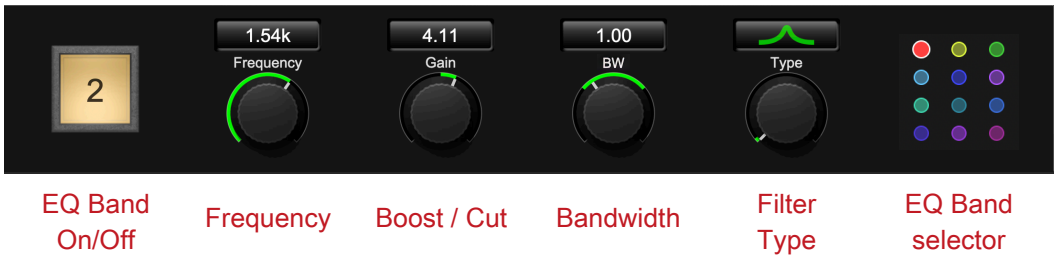
See MELD Preset Menu section for detailed information on the preset menu.

#### EQ Block Enable button

The MELD EQ block can be enabled or bypassed by toggling the EQ Block Enable button. The EQ is disabled when the button is dark (left), and is enabled when the button is lit (right).

### EQ Filter Band controls

The EQ Filter Band control strip appears below the EQ Transfer Function graph.




#### EQ Band Enable Button

Use this toggle button to enable the filter band. When the filter band is turned off (dark grey) the signal will pass through the filter unchanged.

#### Filter Band Frequency

Use this knob to adjust the characteristic frequency of the filter. For the peaking and bandpass filter types this controls the center frequency of the filter. For the high and low cut filter types this control adjusts the 3 dB point of the filter. For the shelving filters this control adjusts the shelf transition point.

#### Filter Band Boost/Cut Control

Use this knob (labeled "Gain" in the illustration) to adjust the gain of the filter band for the peaking, high and low shelf filter types. This parameter is ignored for the other filter types. In the shelving filters the maximum boost is +12 dB and the maximum cut is -24 dB. In the peaking filters the maximum boost/cut is ± 24 dB. When you increase the boost for a filter band above 15 dB, the filter gets very aggressive and resonant. You can use this feature to good effect when you need to reconstruct a resonance for a recorded instrument that lacks one. For example, you could place a narrow +24 dB peaking filter between 60 and 80 Hz on a kick drum track that lacked a "belly" for the drum.

#### Filter Bandwidth

Use this knob (labeled **BW** above) to adjust the characteristic width of the filter. This control only has effect for peaking, shelving and bandpass filter types. Please note that this parameter controls the bandwidth (measured in octaves), not the quality factor (or "Q"). If you have been using Q controls, the numbers will be backwards from what you are used to. Small numbers mean narrow filters and large numbers mean wide filters. For peaking and bandpass filter types, this parameter controls the bandwidth of the filter in octaves. For the high and low shelving filter types this parameter adjusts the amount of dip/peak and the slope of the shelf. When this parameter is set to 0.1 you will get the largest dip/slope available and when the parameter is 2.5, you will get a classic first order shelf (which has a transition band that is about 1 decade wide; e.g. if it is a high shelf with a frequency of 10 kHz and a gain of 10 dB, the gain will be at 0 dB near 1kHz).

#### Filter Type Button

This button (indicating a peaking/parametric filter in the illustration above) is used to select the filter type of the EQ band. You may choose from 6 different types of filters:

- 

  **Peaking/Parametric** – a second order bell-shaped parametric boost/cut filter. The Gain control has a boost/cut range of ± 24 dB. When the boost is greater than +15 dB the filter gains a resonant quality. The center frequency of the filter can be any frequency between 20 Hz and 20 kHz. The bandwidth of the filter is continuously variable between 0.1 octaves and 2.5 octaves.

- 

  **Low Shelf** – a shelving filter that applies boost/cut to low frequencies. Boost/cut has a range of ± 24 dB. The bandwidth controls the dip/peak that is added at the end of the transition band.

- 

  **High Shelf** – a shelving filter that applies boost/cut to high frequencies. Boost is limited to +12 dB (reflected in the EQ Transfer Function display) whereas cut goes to –24dB. The bandwidth controls the dip/peak that is added at the end of the transition band.

- 

  **High Cut** – a 12 dB/octave high cut filter with a -3dB point that is continuously adjustable between 20 Hz and 20 kHz.

- 

  **Low Cut** – a 12 dB/octave low cut filter with a -3dB point that is continuously adjustable between 20 Hz and 20 kHz.

- 

  **Bandpass** – a bandpass filter with 6dB per octave skirt on the high and low ends of the pass band. The width of the pass band can be adjusted between 0.1 octaves and 2.5 octaves and the center of the pass band is continuously adjustable between 20 Hz and 20 kHz.

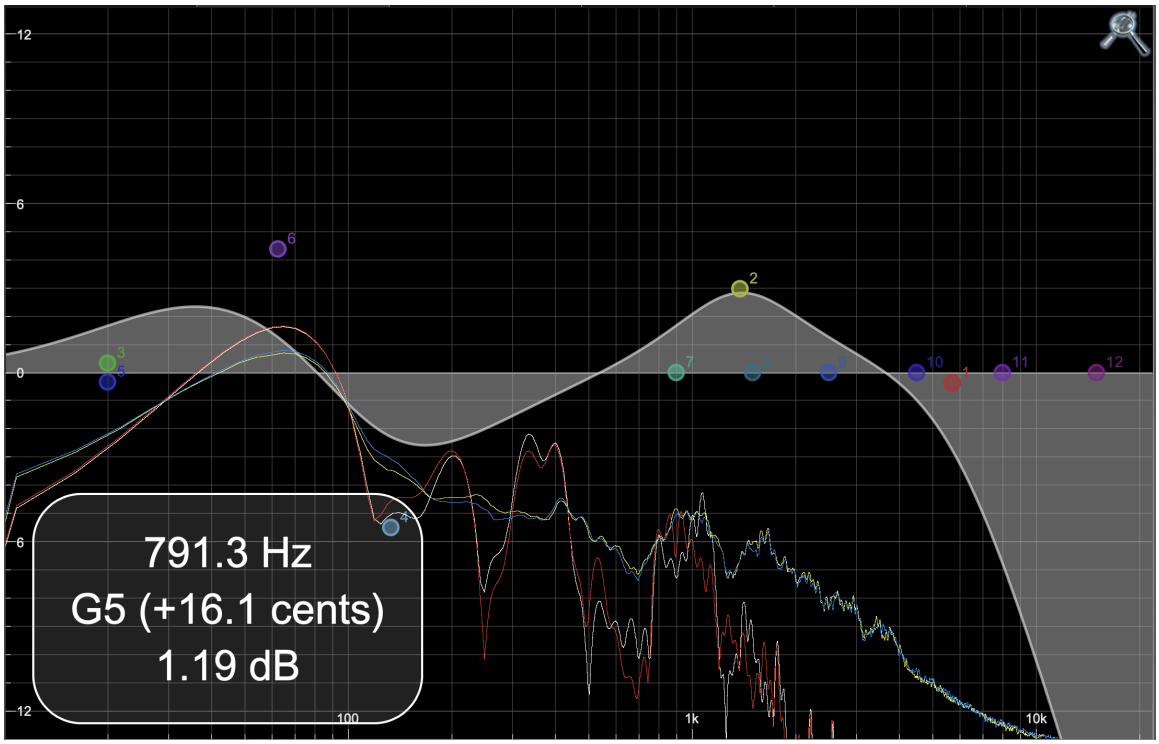
#### EQ Band Selector

The twelve colored buttons at the right of the EQ control bar correspond to the EQ fiter band colors in the transfer function graph. Click a color to bring that filter into focus of the EQ cinbtrol knobs.

The selected EQ band will highlight in the EQ Transfer Function graph above, showing the effect of that band within the composite EQ curve.

EQ band colors can be edited in the MELD UI Preferences tab opened by clicking the Metric Halo logo in the upper left corner of the MELD header.

### EQ Transfer Function




**EQ Transfer Function**

The horizontal axis provides frequency calibration in Hertz (Hz). The vertical axis provides level calibration in decibels (dBr). The heavy line (white by default) indicates the relative change in level at each frequency that is created by the combined effects of all of the active filter bands in the equalizer.

Each EQ band is represented by a colored dot in the transfer function graph.

The dot represents the center frequency or knee of the filter band, and acts as a control handle for the band within the transfer function field.

The band that is currently being edited will be highlighted and displayed along with the overall response curve, making it easy to see how each filter is affecting the overall curve. If the associated band is a symmetrical filter (parametric) there will also be two smaller colored dots that can be used to control the bandwidth of the filter.

Clicking on a band handle dot and dragging will allow you to adjust the frequency and gain of the associated band.

- Command–click or double-click the dot to toggle the band enable (single-click to disable a band when Auto Enable Bands is turned on).
- Click and drag the smaller dots associated with a larger dot to adjust the filter Q. You can also option–click the dot to adjust the Q (dragging left increases the Q, right decreases the Q).
- Command + Option–click the dot to switch the band filter type.

In the transfer function field, multiple filter bands may be temporarily grouped by shift-click or click-drag selection of the filter control handles.

To dismiss the filter curve, click anywhere in the black area of the transfer function. This will deselect the filter, and the only trace displayed will be the master EQ curve.

Reminder: clicking the **?** "Help" icon in the MELD plug-in header will activate tooltips for the various UI elements. The tooltip for the EQ transfer function is especially handy:

Displays the transfer function of the 6-band EQ. Click the SpectraFoo icon to enable spectrum analysis of the output of MELD.

Click and drag any of the control handles to change the associated EQ band's frequency and gain.

Click and drag the smaller control handles of a selected band to adjust the band's bandwidth.

Command-click a control handle to toggle the band's enable.

Option-click and drag a control handle to adjust the band's bandwidth.

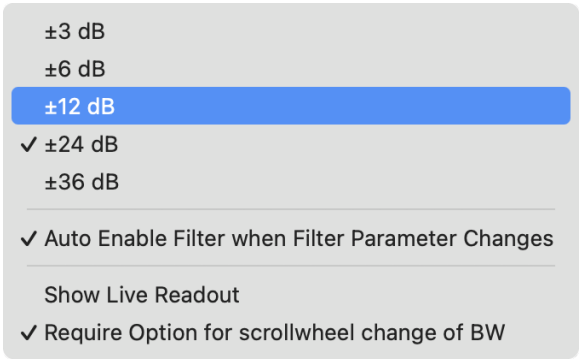
Command-Option-click a control handle to cycle through the possible band types.

Control-click or Right-click in the transfer function area to popup a menu to select the vertical range of the transfer function display.

**EQ Transfer Funciton tooltip**

#### Transfer Function options

Right-clicking the EQ transfer function background brings up an EQ functions control menu.

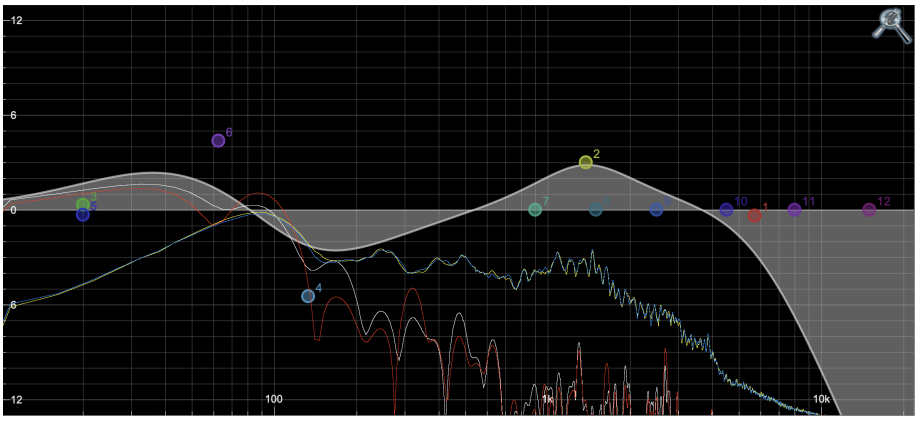



- EQ display scale: Sets the EQ curve dB scale from ±3 to ±36 dB.
- **Auto Enable Bands when band parameter changes**: Automatically enables a filter band when one of its parameters is adjusted within the EQ Transfer Function. This preference will apply to all instances of MELD.

  Note that the Auto-Enable applies only to the filter band enables, and does not affect the master plug-in Bypass state.
- **Show Live Readout** (shown on the previous page): Enables an overlay in the lower left corner of the transfer function which displays the relative amplitude of the master EQ curve at the frequency indicated by your mouse cursor. Moving the cursor off the EQ display hides the readout. Live Readout control is enabled per MELD instance.
- **Require Option for scrollwheel change of BW**: Enabled by default, this control requires the Option modifier key to change the BW parameter using a mouse scrollwheel. Scrollwheel filter width control works for filter band knobs (one at a time) and selected filters in the transfer function display (multiple selections supported).

### Spectragraph Analyzer

Clicking the SpectraFoo™ logo in the upper right hand corner of the transfer function will activate the spectragraph, showing the realtime frequency analysis of your signal overlaid on the Transfer Function EQ curve:




**Spectragraph Display**

The traces are:

- White: Left channel instantaneous display
- Red: Right channel instantaneous display
- Yellow: Left channel average display
- Blue: Right channel average display

The *instantaneous* trace updates in real-time, allowing you to see the immediate peak level of your audio. The *average* trace displays the level as averaged over a short period, giving you a more general view.

The spectragraph analyzes the signal post-filter, allowing you to see the effect of your EQ filters.

To disable the spectragraph entirely, click the active Spectrafoo icon.

If you right-click or control-click on the Spectrafoo icon, you will see a menu to set options for the spectragraph:


- Show Instantaneous Trace: Toggles the instant response traces for both channels.
- Show Average Trace: Toggles the averaged response traces for both channels.
- Show Left Channel: Toggles the left channel spectragraph display.
- Show Right Channel: Toggles the right channel spectragraph display.

These settings are stored independently for each instance of MELD.

Controls for Left and Right channel will only be available in stereo instances of MELD.

Default view shows the Left channel only.

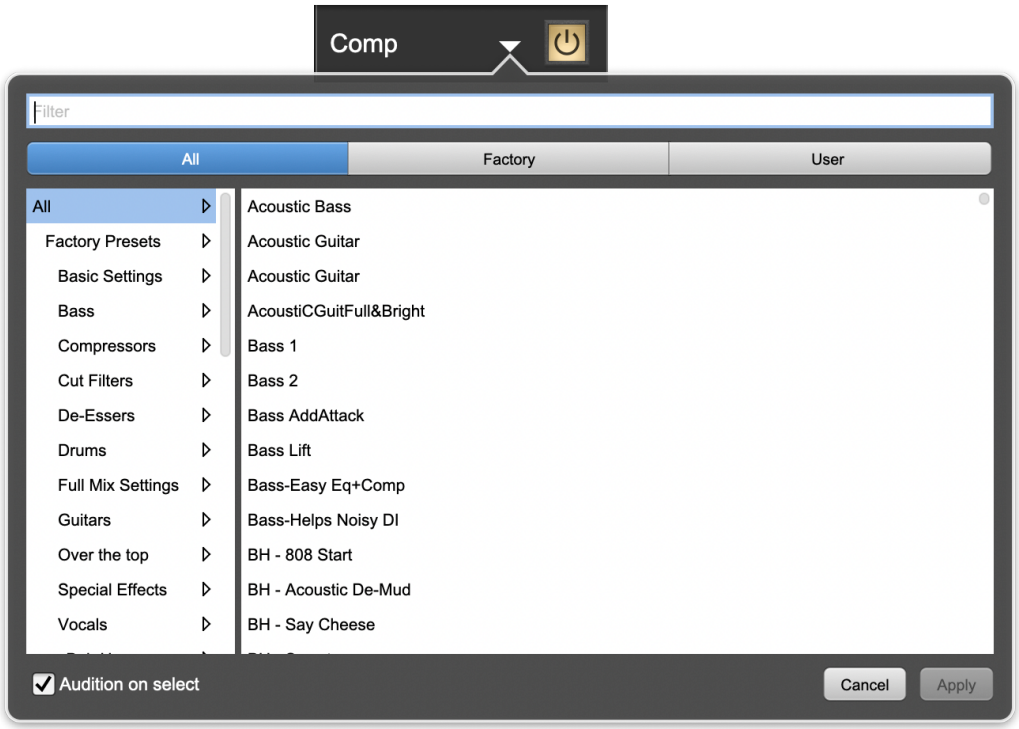
## Compressor

### Compressor Block Tab

Selecting the **Comp** tab brings the MELD Compressor block into focus.

Note that the Comp Preset and Comp Block Enable controls are available whether or not the Comp Tab is selected.

#### Comp Tab Preset menu




The MELD Compressor Block is compatible with MH ChannelStrip compressor presets.
The disclosure triangle in the Comp tab opens the Preset Selector UI, where you can select from any MH ChannelStrip Factory or User preset installed on your system.

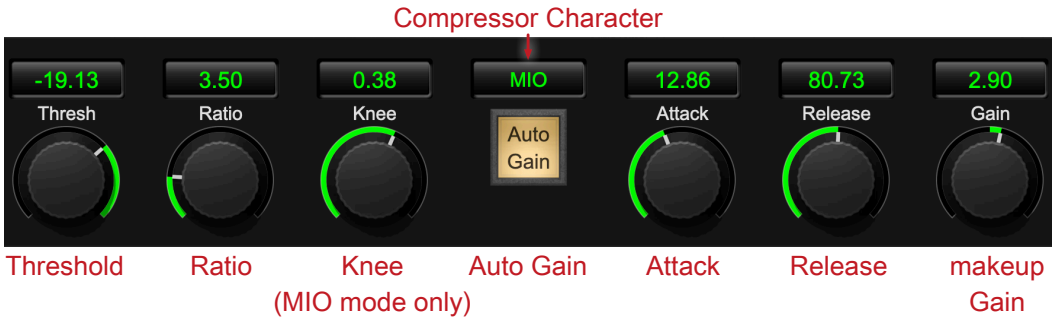
Loading a ChannelStrip preset from the Comp tab loads only the compressor settings from the preset.

See MELD Preset Menu section for detailed information on the preset menu.

#### Comp Block Enable button

The MELD Compresssor block can be enabled or bypassed by toggling the Comp Block Enable button. The Compressor is disabled when the button is dark (left), and is enabled when the button is lit (right).

### Compressor Controls




#### Threshold Control

The **Threshold** knob controls the level at which the compressor begins to reduce the gain applied to the signal. When the detector level is below the threshold level, no gain reduction is applied. As the detector level increases above the threshold level, the gain is reduced as indicated by the knee diagram associated with the compressor. The compressor knee is soft. The ratio increases as the difference between the detector level and the threshold increases.

**Note**: In the Compressor Graph, Threshold is controlled by moving the white ∇ handle across the bottom of the graph.

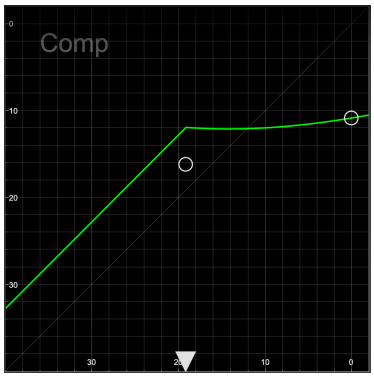
#### Ratio Control

The **Ratio** knob controls the 'terminal' ratio used to compute the gain reduction of the compressor. When the ratio associated with the soft knee hits the ratio specified by the ratio knob, the knee 'hardens' and remains at the same constant ratio. If you set the ratio to 1000:1 the compressor will have a soft knee for all input levels and thresholds. This makes the compressor work like a classic tube limiter/compressor.

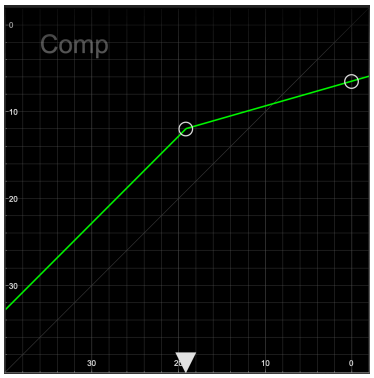
**Note**: In the Compressor Graph, Ratio is controlled by moving the white O handle at the right edge of the graph down from the top.

#### Knee Control (MIO mode only)

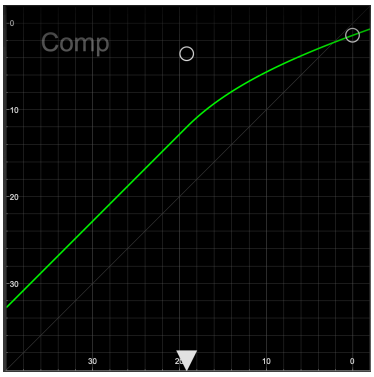
The **Knee** knob allows you to adjust shape of the compressor when the Compressor Character is set to **MIO**. The Knee control has no effect for the other compressor character algorithms and will not be available in those modes.




Knee = -0.5




Knee = 0




Knee = 1

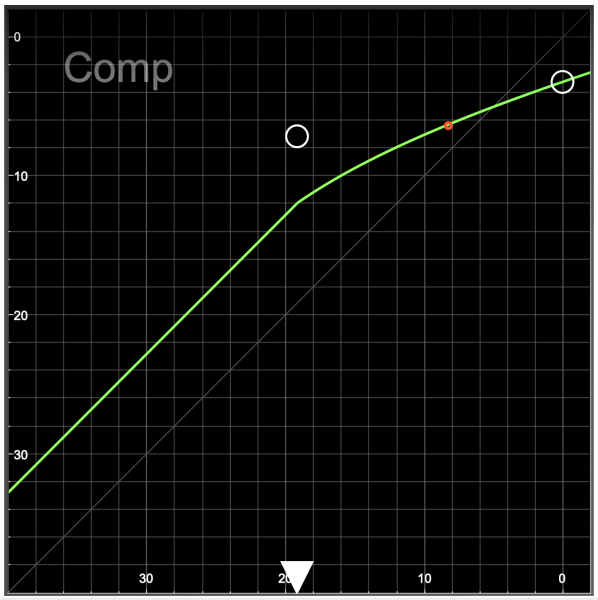
When the Knee control is set to the default 0, the transfer function of the compressor is a classic "hard-knee" in which the compressor applies no gain reduction when the detector level is below the threshold, and the gain is reduced by the ratio when the detector level is above the threshold.

When you increase the Knee parameter from 0 to 1 the knee of the transfer function gradually softens until the compressor functions as a "soft-knee" compressor by the time you get to 1.

You can also adjust the Knee parameter to negative values to a max of -0.5, which has the effect introducing a "kink" in the compressor transfer function at the threshold. This is definitely worth experimenting with, and often yields useful results on percussive material and FX tracks.

**Note**: In the Compressor Graph, the Knee is controlled by moving the white ○ handle which is always directly above the Threshold ∇ handle.

**Compressor Graph**




Shows the Compressor transfer function knee graph. The red dot indicates the instantaneous output level of the compressor as a function of the input level.

MELD provides a Dynamics Knee graph for the compressor processing block. Both the horizontal and vertical axes are calibrated in dBFS. The horizontal axis corresponds to the input level and the vertical axis represents the output level. The green line shows the static gain response curve set by the Threshold, Ratio and Knee controls. This curve is generally a good approximation of the response when the attack is fast and the release is slow.

In most cases, however, the dynamic response of the processor will not exactly match that set gain response curve. In order to represent this, we have included a "bouncing ball" meter for the compressor. This *Dynamic Knee Indicator* is shown as a red circle that is overlaid on the graph. The red circle is placed so its horizontal position is equal to the instantaneous input level and its vertical level is equal to the instantaneous output level. Examining this meter while you are adjusting the dynamics controls will provide you with a great deal of information about how the processor is operating and how the controls interact.

#### Gain Reduction Meter


Compressor Gain Reduction Meter. Shows how much gain reduction is being applied by the Compressor. Control-click or Right-click to popup a menu to set the display range of the Meter.

The gain reduction meter grows down from 0dB, showing the amount of attenuation being applied by the compressor. If you right-click on the meter, you may set the scale of the meter to ranges of 0dB to 54dB, 24dB, 12dB, 6dB, or 3dB

#### Compressor Character


**Compressor Character Switch options**

Use the compressor character button to determine the overall dynamic characteristics of the compressor. There are three "classic" ChannelStrip settings to choose from:

- **Smooth** – appropriate for full mixes or single instruments that do not have big transients. Provides very smooth compression with few artifacts, no distortion and limited transient control.
- **Warm** – is the most versatile basic compressor mode. Balances transient control with audibility of the compression. Appropriate for a wide range of signals including harmonic instruments with large transients (e.g. plucked bass).
- **Fast** – provides significant transient control at the expense of transparency and added distortion. Appropriate for impulsive signals with significant transients. Supports very fast (e.g. 1 sample) gain reduction attacks.
- **MIO** – This compressor algorithm is *very* different from the other three.

  The MIO compressor generates its gain reduction directly from the detector level. The Attack and Release parameters directly control the measurement of the detector level. This allows the MIO compressor to function as a limiter as well as a compressor and a leveling amplifier.

  The MIO compressor algorithm also supports an adjustable Knee which can be used to adjust the compressor response from hard to soft, or into special effect territory.

  With the Compressor in MIO mode, the attack and release are applied to the envelope detector, and the gain reduction is driven directly from the detector. This is why, in MIO mode, the detector Dynamic Knee Indicator response visually slows down following the Attack and Release controls.

  In general, the MIO algorithm is more flexible and controllable than the other algorithms, and as a result, we have made it the default compressor option for MELD.

#### Auto Gain

When the **Auto Gain** button is enabled the compressor automatically adjusts the makeup gain in the compressor output stage, so that if the manual output **Gain** knob is set to 0 dB the static gain reduction for a 0 dB input level will be about 7 dB. This number was chosen because it works well with the default settings of the Attack and Release knobs to provide enough pad to not clip fast transients. The output Gain knob will apply additional trim to the internal automatic gain. If the threshold is set very low (e.g. –60 dB) and auto gain is enabled, you will not be able to add very much manual gain (only about 1 – 2 dB) even though the readout on the knob will go up to + 30 dB. This is an internal limitation of the compressor.

#### Attack Control

The **Attack** knob allows you to adjust how quickly the gain reduction is increases when the detector level goes above the threshold level. This control is calibrated in milliseconds and values range from 0 to 500 ms. The compressor has an 8 sample look-ahead buffer that allows it to have an "instant attack" when you set the attack time to 0. Fast attack times will control the transients of impulsive sounds. Use longer attack times to let the transients through but control the sustains.

#### Release Control

The **Release** knob controls the release time of the compressor. This knob is calibrated in milliseconds and can range from 5 ms to 5 sec. The release time controls how quickly the gain reduction returns to zero after the detector drops below the threshold value. For settings below 40 ms or so the compressor releases pretty abruptly and may introduce unwanted artifacts into your audio, depending on the signal. In addition, be careful making the release time faster than the attack time.

#### Manual MakeUp Gain

The **Gain** knob allows you to manually adjust the makeup gain applied to the signal after the gain reduction applied by the compressor. If the Auto Gain switch is off, this is the amount of makeup gain applied. If the Auto Gain switch is on, then this parameter becomes a trim added to the internally computed makeup gain.

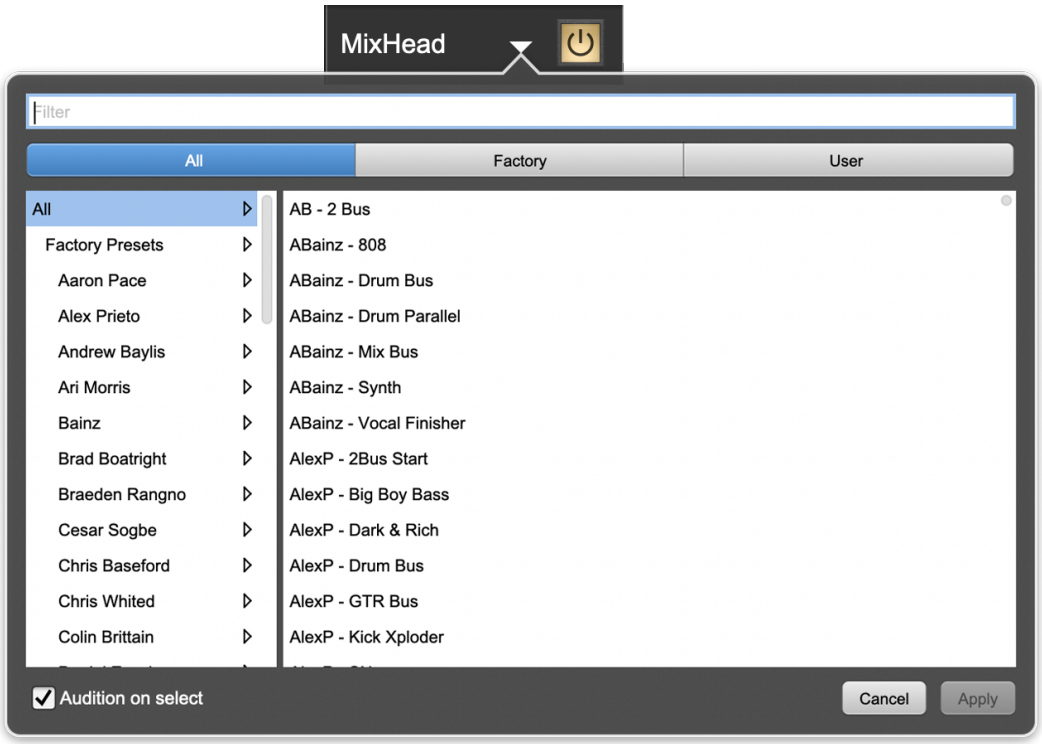
## MixHead

### MixHead Block Tab

Selecting the **MixHead** tab brings the MELD MixHead block into focus.

Note that the MixHead Preset and MixHead Block Enable controls are available whether or not the MixHead Tab is selected.

#### MixHead Tab Preset menu




The MELD MixHead Block is compatible with standard MB MixHead plug-in presets.
The disclosure triangle in the MixHead tab opens the Preset Selector UI, where you can select from any MB MixHead Factory or User preset installed on your system.

See MELD Preset Menu section for detailed information on the preset menu.

#### MixHead Block Enable button

MixHead can be enabled or bypassed by toggling the MixHead Block Enable button. MixHead is disabled when the button is dark (left), and is enabled when the button is lit (right).

### MixHead Controls

There a five primary parameters to control the MixHead processor.

#### Input Gain

**Input Gain** adjusts the pre-process input level, not unlike the line in calibration on a tape deck. Input Gain adjusts input level in 0.1dB steps, with values spanning from -12.0dB to +12.0dB.

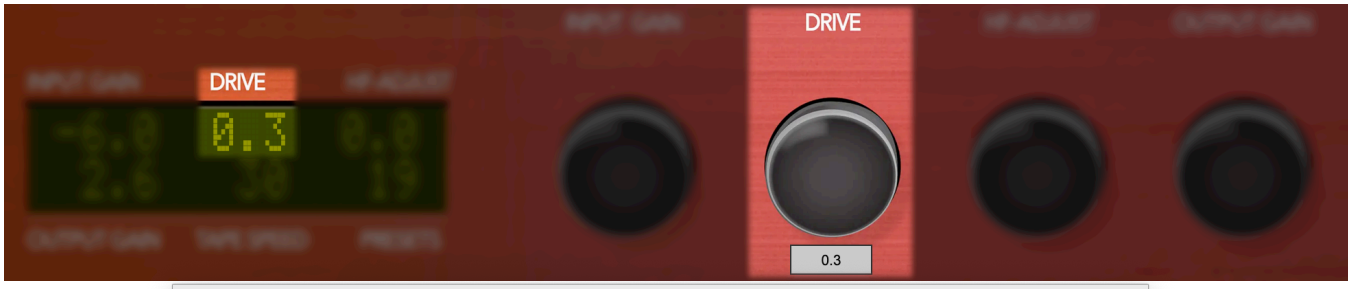

Input Gain (dB) Knob. Click-Drag to change. Control-Shift-drag to apply inverse change to Output Gain. Alt-click to reset. Control-Alt-click to set to minimum. Control-click (or Right Click) for text entry.

Input Gain interacts greatly with the Drive stage and Output level.

**Tip**: **Control-Shift-drag** Input Gain to inverse link with the Output Gain control, to maintain your current gain structure through the processor while shifting the reference point at which the Drive circuit operates.

#### Drive

**Drive** adjusts the amount of harmonic distortion and saturation effect. The saturation effect is non-linear with regard to gain, and often requires some degree of Output level compensation.




Drive Gain (dB) Knob. Click-Drag to change. Alt-click to reset. Control-Alt-click to set to minimum. Control-click (or Right Click) for text entry.

The Drive parameter has a range of -7 to +14. The default Drive setting of 0.0 is intended to emulate a record level of +7dB to tape, so the saturation effect is already fairly well engaged at 0.0 Drive. More subtle tape emulation characteristics with higher headroom and less dynamic saturation are available at Drive levels below 0, where the Input and Output levels tend to have more relative effect.

**Tip**: High Drive settings can result in serious signal breakup, especially with modern day deep low frequency program. That said, MixHead works brilliantly as a high-passed parallel processor even on deeply bass-heavy master tracks, bringing massive saturation crunch to the mids and a silky sheen to the highs without stepping on the bass foundation.

#### HF-Adjust

**HF-Adjust** allows you to control the amount of high frequency cut or boost independent of the Drive setting. The control range is -6 (max. cut) to +6 (max boost).


High-Frequency Adjust Gain (dB) Knob. Click-Drag to change. Alt-click to reset. Control-Alt-click to set to minimum. Control-click (or Right Click) for text entry.

With real tape, the higher the saturation the more high frequency damping takes place. MixHead lets you break that rule by running high frequency energy levels contrary to what you would otherwise expect from tape. The effect can be used to simulate differences in tape formulations or playback electronics or different bias/EQ setups.

**Tip**: Unlike pretty much anything with a real tape deck, HF-Adjust is automatable. It is especially well suited to pushing instruments back in the mix or bringing them dramatically forward as the song demands. At low saturation levels a bit of HF-Adjust boost acts very much like a vintage exciter.

#### Output

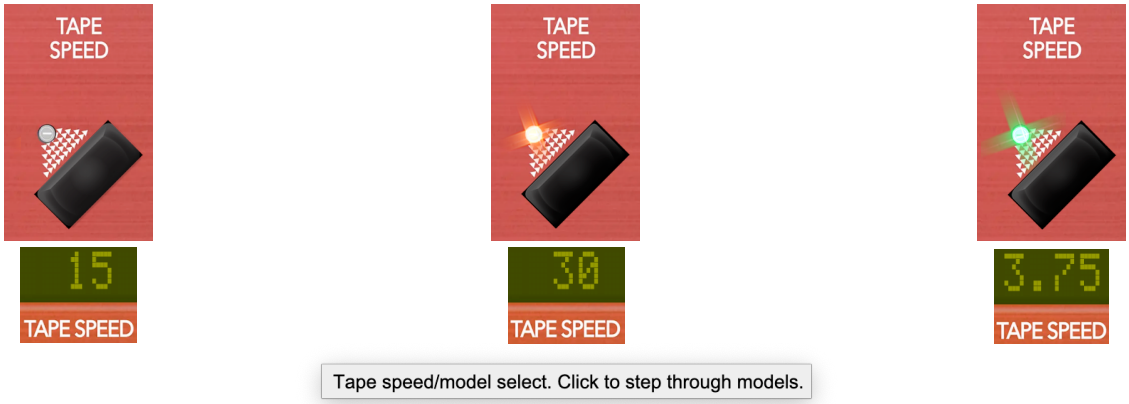
**Output Gain** adjusts output level post-processing. Output Gain adjusts output level in 0.1dB steps, with values spanning from -12.0dB to +12.0dB.


Output Gain (dB) Knob. Click-Drag to change. Control-Shift-drag to apply inverse change to Input Gain. Alt-click to reset. Control-Alt-click to set to minimum. Control-click (or Right Click) for text entry.

Generally Output Gain is used as a final compensation for the changes in perceived loudness from the Drive stage saturation effect, and to ensure that the output of MixHead does not clip the input of the next process in the signal chain.

#### Tape Speed

**Tape Speed** toggles between MixHeads three tape speed emulation algorithms.




- **15ips** (the default): emulates the general distortion and saturation characteristics associated with tape recording at 15ips, with an unexpected subtle stereo widening effect.

  In 15ips mode, the Tape Speed switch light is dark.

- **30ips**: emulates the generally lower distortion and higher saturation headroom curve associated with tape recording at 30ips.

  Note that the 40Hz to 70Hz bass reduction induced when recording to analog tape at 30ips is not reproduced.

  In 30ips mode, the Tape Speed switch light is lit amber.

- **3.75ips**: A new addition to MixHead not available on the original hardware, 3.75 was inspired by the modeling of a 1950's Webcor tape machine. The main characteristics that were borrowed for the 3.75 machine are its headbump curve and the amount of distortion it can generate. In true MixHead fashion we utilized the Mixheads' unique approach to compression, limiting and hf adjust as the other models.

  In 3.75ips mode, the Tape Speed switch light is lit green.

### Meters

There are three sets of stereo meters, displaying signal levels after the Input and Output gain stages respectively, and the "virtual tape machine record level" of the Drive stage.

Note: in mono plug-in instances, both channels of the meter pairs will show signal activity.


- The **Input PPM** meters show the peak level after the Input Gain control. They are PPM response from -30dBFS to 0dBFS, with a 1 second peak hold.
- The **Drive Level** meter indicates the amount of harmonic saturation being applied at the Drive stage - basically how hard it's working. The segments display a range from -10db to +21dB.
- The **Output PPM** meters show the peak level after the Output Gain control. They are PPM response from -30dBFS to 0dBFS with a 1 second peak hold.

**Important Notes**

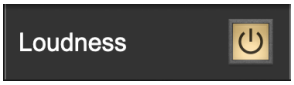
Since MELD MixHead resides as a process block within MELD, the Advanced Parameters of the standalone MixHead which were designed to improve compatibility across various workflows are not included. MELD MixHead operates as follows:

- The topmost segment of each meter set indicates consecutive samples into digital clipping. In MELD MixHead, it does not change color as a warning.
- Since it is always feeding another high-resolution processor stage, MELD MixHead does not hard clip its output, allowing greater-than-0dBFS data to pass unaltered to the next stage in the signal chain.

And finally, as on the standalone version, the bottom segments of both the Input and Output meters are always lit to emulate the original hardware indication of a clock-synced and legal AES audio input stream.

## Loudness

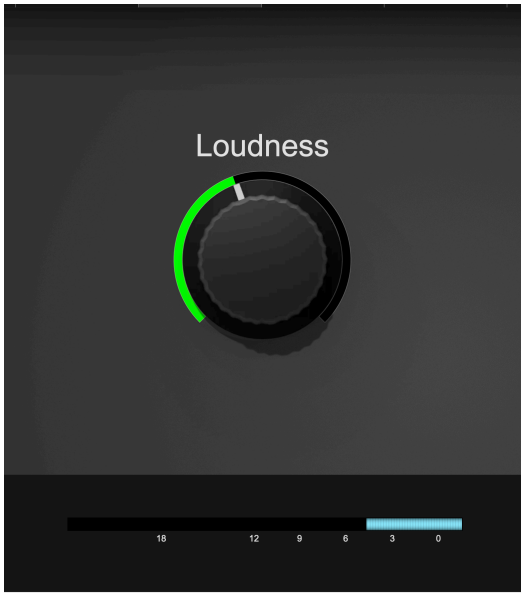
### Loudness Block Tab




Selecting the **Loudness** tab brings the MELD Loudness block into focus.

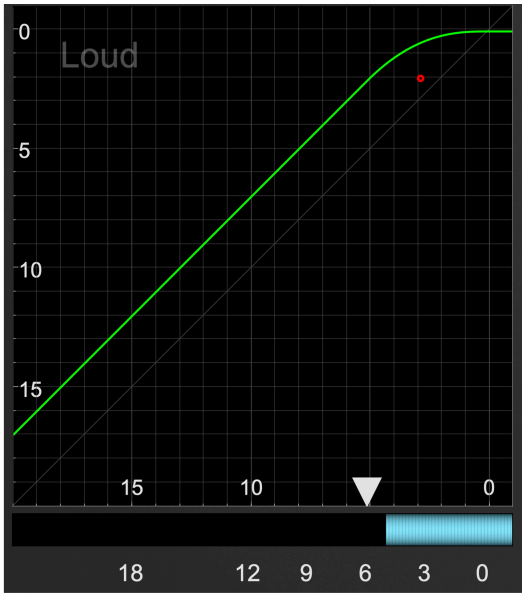
The MELD Loudness block can be enabled or bypassed by toggling the Loudness Block Enable button. Loudness is disabled when the button is dark (left), and is enabled when the button is lit (right).

### Loudness Control and Meter




Sets the threshold of the Loudness processor, in dB, from 0dB to -12dB. Higher settings increase the perceived loudness of the program.

Click and drag to change. Option-click or double-click to reset to default. Command-click and drag for fine-adjust mode.
You may also use the scroll wheel or scroll wheel gesture to adjust.




Loudness transfer function knee graph.

The red dot indicates the instantaneous output level of the compressor as a function of the input level.
Threshold control is the white triangle at the bottom, and uses the same control gestures as the knob UI shown to the left.

MELD Loudness increases the average signal level (and therefore the apparent overall loudness) while leaving the peak program alone.
The Threshold control determines how far below peak dynamic range Loudness reaches for program material to reinforce.

The result is naturally very dependent on the source material, but it is especially effective in smoothing out vocal and acoustic instrument performances by bringing up quieter moments in a performance to match the more energetic passages. Things like a singer momentarily turning away from a mic, or differences in performance intensity between overdub takes are much less apparent with Loudness in the chain.

Loudness is tuned to be most effective within the LUFS target range for mixing immersive music, broadcast and post production program.

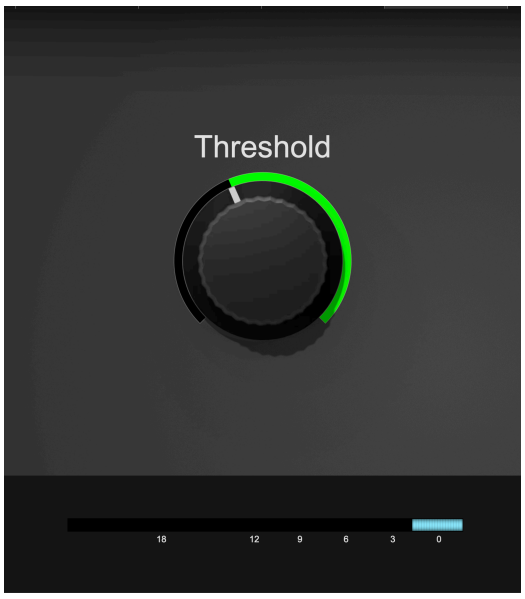
## Limiter

### Limiter Block Tab


Selecting the **Loudness** tab brings the MELD Limiter block into focus.

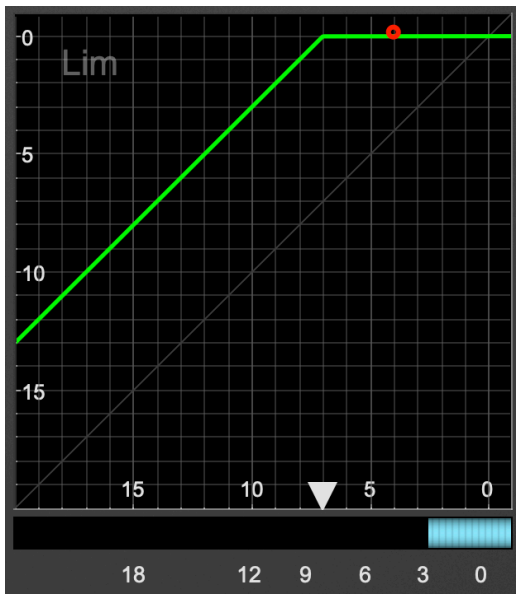
The MELD Limiter block can be enabled or bypassed by toggling the Limiter Block Enable button. The Limiter is disabled when the button is dark (left), and is enabled when the button is lit (right).

### Limiter Control and Meter




Sets the threshold level where the limiter will begin to limit the output signal. The limiter will automatically apply makeup gain so the maximum output level is at 0dB if the input level goes above the threshold.

Click-drag to change. Option-click to reset to default. Command-click and drag for fine-adjust mode. You may also use the scroll wheel or scroll-wheel gesture to adjust




Limiter transfer function knee graph.

The red dot indicates the instantaneous output level of the limiter as a function of the input level.
Threshold control is the white triangle at the bottom, and uses the same control gestures as the knob UI shown to the left.

The Limiter threshold may be set between 0 and -12 dB using the Limiter Threshold knob.

Gain reduction is displayed in the gain reduction meter below, sweeping from right to left.

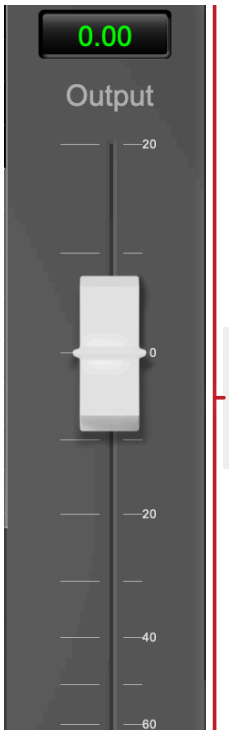
The limiter applies autogain to the audio when engaged; as the threshold is lowered, the output gain is increased a complementary amount.

The MELD Limiter action is identical to MH ChannelStrip, but the MELD Limiter display includes dedicated gain reduction meters rather than using the knob ring, and has a dynamics knee graph available in Overview mode which displays the dynamics curve and the instantaneous signal output level.

## Output Strip

### Output Fader

The **Output Fader** sets the processed MELD group output level.




Sets the gain (in dB) applied to the signal after the last process block. This gain is always applied unless the master bypass has been enabled. Click and drag to change. Option-Click or double-click to reset to default. Command-click and drag for fine-adjust mode. You may also use the scroll-wheel or scroll-gesture to adjust.

The Output Fader has a gain range of +20dB to -∞.

## Track List / Groups control

The Track List displays every MELD instance in the host DAW session, with the Track Name of each instance provided by the host DAW per the AAX, AU or VST specifications.

MELD Track List name fields are read-only to ensure accurate location of each MELD instance in the host DAW mixer. Track name edits in the host DAW are immediately reflected in the Track List.
**Note**: If the Track name field remains empty after instantiating MELD, that just means your particular DAW does not publish the track name to the plug-ins. Please file a support ticket with your DAW publisher requesting the feature.

MELD can be instantiated on mono, stereo or multichannel DAW tracks. Multichannel and multi-mono instances of MELD are displayed as a single track with multichannel level meters. For example, the top track in the graphic below is L-C-R-Ls-Rs-LFE 5.1.

The Track List includes Long Term LUFS and True Peak hold metering for every track in your session with a MELD instance.

**Note**: MELD instances can be placed in any available track insert slot, allowing full freedom to apply additional plug-ins before or after MELD. There is also no restriction on placing multiple instances of MELD in a single track. Most host DAWs provide the track name to the plug-ins, but do not provide either the slot number. As a result, if you insert more than one MELD plugin instance on the same track, you will get multiple instances with the same track name showing up in the Track List. If you go this route (which John Hanes mentioned in his introduction), we recommend you use the Comment field to identify which instance is which.


| | Ena | S | M | Group ▲ | Track | Trim(I) | Trim(0) | Meter | LT LUFS | TP dBFS | R | CSC | LSC | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| • | ☑ | S | M | — | snr vrb srnd | 0.00 | 0.00 | | -27.4 | -10.7 | R | C | L | |
| • | ☑ | S | M | — | * Bass gtr | 2.69 | -4.00 | | -21.6 | -15.5 | R | C | L | Funk Fusion angry |
| • | ☑ | S | M | — | Intro Bass | 0.00 | 0.00 | | -22.4 | -12.6 | R | C | L | |
| • | ☑ | S | M | A | lead dbl verb | 0.00 | 0.00 | | -18.7 | -11.4 | R | C | L | wide space |
| • | ☑ | S | M | A | lead voc delay | 0.00 | 0.00 | | -18.5 | -10.3 | R | C | L | tight space |
| • | ☑ | S | M | A | Lead Voc dbl | 0.00 | 0.00 | | -19.9 | -9.6 | R | C | L | tight over shoulders |
| • | ☑ | S | M | A | Lead Voc | 0.00 | 3.00 | | -17.0 | -5.9 | R | C | L | front wide center |
| • | ☑ | S | M | B | Chorus Lead | 0.00 | 0.00 | | -27.4 | -19.1 | R | C | L | |
| • | ☑ | S | M | B | Chorus A1 | 0.00 | 0.00 | | -27.3 | -18.7 | R | C | L | |
| • | ☑ | S | M | B | Chorus A2 | 0.00 | 0.00 | | -27.2 | -19.5 | R | C | L | |
| • | ☑ | S | M | B | Chorus A3 | 0.00 | 0.00 | | -27.4 | -19.4 | R | C | L | |
| • | ☐ | S | M | C | Chorus Harm 1 | 0.00 | 0.00 | | -28.4 | -15.2 | R | C | L | |
| • | ☐ | S | M | C | Chorus Harm 2 | 0.00 | 0.00 | | -28.7 | -15.6 | R | C | L | |
| • | ☐ | S | M | C | Chorus Harm 3 | 0.00 | 0.00 | | -31.1 | -18.8 | R | C | L | |

**Track List example**

The sections that follow will detail the functions of each column in the MELD Track List.

**Please Note**: Unless otherwise stated, all Track List group functions operate the same for single unassigned tracks as they do for track groups.

## Track List interface

The Track List provides enough information and control to run the majority of a mix without ever leaving the MELD interface. The vertical columns of the list provide an array of control and metering options for both groups and individual tracks.

### Track List Search Filters

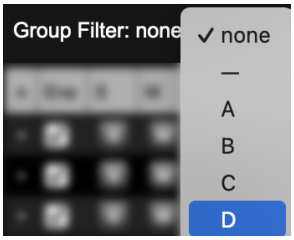
One of the most impactful aspects of MELD is its ability to focus on and directly compare any set of tracks' I/O trim settings and output levels.

The Track List interface provides a variety of search and sorting functions to make creating and navigating high track count sessions straightforward and efficient.

Across the top of the List UI is the Search section.


#### Group Filter

The Group Filter sets the list view to show all groups, a single group, or all the tracks not assigned to any group. Click the Group Filter button to open the pull-down menu selector.




The filter selections are:

- **none** (no filter): shows all MELD tracks
- **-** (no group): shows only tracks not assigned to a group
- **A through Z**: shows the tracks of the selected group (A - D shown)

The check mark in the menu shows the current filter setting. Items will highlight blue as you move through the list. Click an item to select.

#### Track Name Filter

Type a set of characters in the **filter on track name** field to show only tracks with that text string in the track name.

#### Comment Filter

Type a set of characters in the **filter on comment** field to show only tracks with that text string in the Comments field.

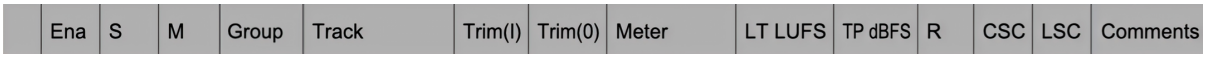
**Note**: Both Track Name and Comment filters are dynamic and will sort as you type.
**Note also**: Both search filters work even when the Track or Comment columns are hidden.

#### Column arrangement

The order of the columns can be changed freely by dragging any column name in the header to the left or right. The new column arrangement will apply to all MELD instances, and will be stored and recalled with the saved session.

#### Sorting

Click a column header to sort the tracks by that columns contents. A sorting arrow will appear to show the column is selected and is sorting the tracks below. Click again to toggle the sort order between ▲ *ascending* (lowest value at the top) or ▼ *descending* (highest value at the top).




Sorting the Track List by the various header criteria is a powerful time-saver for navigating MELD.

- The **{blank header}** column at the far left is the track selector: Click to sort tracks by the host DAW mixer track order at the time the session was launched.

  **Note**: host DAWs do not transmit track mixer position to plug-ins, so MELD can only derive track position by reading the order each individual MELD instance is loaded when opening a saved session. Generally, DAWs instantiate tracks starting at 1 and progressing to 2, 3 and so on, however...

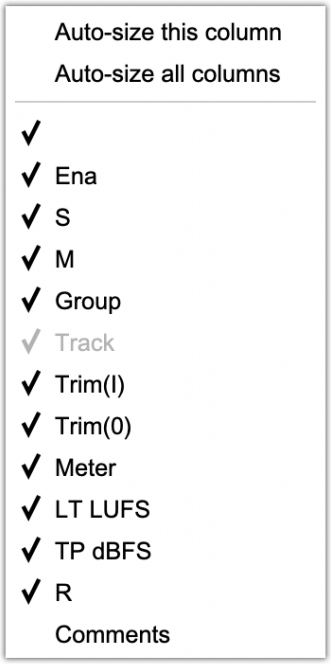
  **Note also** that some DAWs do not launch plug-ins in a linear per-track sequence (Logic is one...). Additionally, using track folders to organize the host mixer (almost a given these days) may also affect the track order. In these cases, the only way to correctly sort the DAW track sequence in MELD is to name the DAW mixer tracks alphanumerically for their position in the mixer, such as 01-, 02-, 03-, and so on, then sort by Track Name.

- **Ena** Group Enable: Click to sort between enabled and disabled tracks.
- **S**: Click to sort between Solo'd and non-Solo'd tracks.
- **M**: Click to sort between Muted and non-Muted tracks.
- **Group**: Click to sort alphabetically by Group letter. Ungrouped tracks are listed with the **-** symbol before group A (like **0** (zero) is numerically listed before **1**).
- **Track**: Click to sort alphabetically by Track name.
- **LT LUFS**: Click to sort by Long Term LUFS level.
- **TP dBFS**: Click to sort by True Peak dBFS level.
- **Comments**: Click to sort by Comments in alphabetical order.

Sorting is not available for **Trim**, **Meter**, **R**eference, or the advanced mode **CSC** and **LSC** columns.

#### Column Auto-size and Visibility

Right-click any column header other than **Meter** to open the columns control menu.




- **Column Auto-size**: Click to auto-size all columns, or just your selected column.
- **Show/Hide**: Checked items are visible, unchecked items are hidden. This control affects visiblility only, the column functions are still active when hidden.

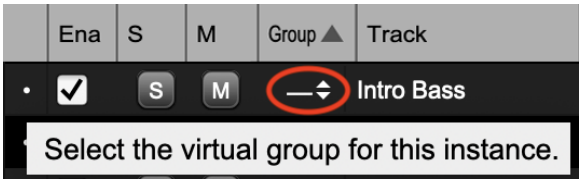
  In the graphic above, the **Comments** column is unchecked and hidden.

  **Track** is dimmed above because the it is the currently selected column (i.e. the Show/Hide menu was opened by right-clicking the **Track** header, and you can't hide the object that is displaying the current menu).

### Creating MELD virtual groups

MELD is pretty intuitive just by clicking around and seeing what happens, but let's get straight to the most important thing - making virtual track groups.

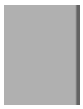
To assign a single instance to a virtual group, click in the Group column of that track to reveal the Group selector menu, then click a group from the list A through Z.




**Group selector tooltip shown on an unassigned track**

#### Selecting multiple tracks for group assignment

The column with the **{blank header}** (farthest left by default) is for selecting multiple tracks to be assigned to MELD groups:



Track Selector Header

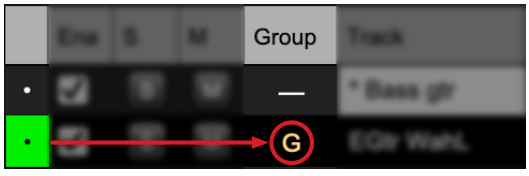
Clicking on track selector boxes readys tracks for assignment to a group - green means selected.

Selecting a group in the Group column will assign all selected tracks (including any not in the current window view) to that group.

Track not selected. Click to select. Shift-click or click-drag to select a range. Command-click or command-drag to select non-contiguous tracks.

Track selected and ready to be grouped. Command-click to de-select. Option-click anywhere within the column to clear all selections.

To assign selected tracks to a Group:




Click the Group Assignment button for any selected Track, and select the desired Group from the pop-up menu. All selected Tracks will be assigned to the new group.

Tracks can be removed from groups and/or re-assigned to other groups at will.

When a track is added to a group, the group processor parameters are immediately applied the track.

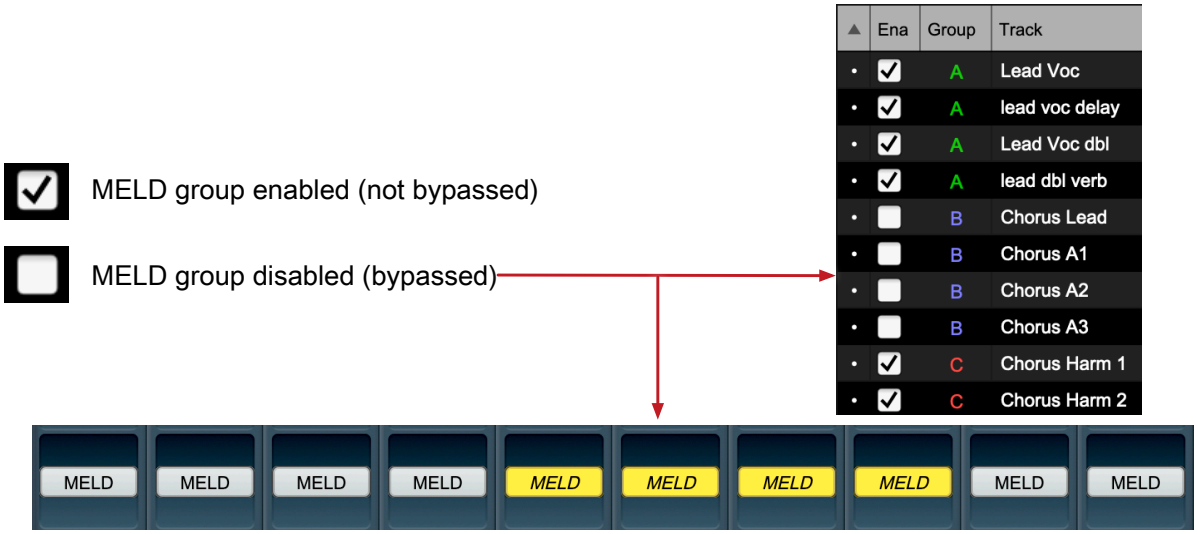
Keep in mind that MELD virtual groups have no relation to any type of group in the host DAW mixer. MELD instances can only communicate with other MELD instances within a session. As far as the host DAW is concerned, MELD is just another plug-in instance on a track: all of the parameter links, metering and sidechain linking happen between MELD instances directly.

### Track Enable / Bypass

Ena **Enable** column header

The **Ena**ble checkbox column enables MELD processing per group. Unchecked instances are bypassed.

Click the checkbox for any track in the group to MELD processing in or out for the entire group.




Disabled MELD tracks become bypassed MELD instances in the plug-in host mixer.

### Solo

S **Solo** column header

Click the **S** button on any track in the group to solo the group.


Group not soloed. Click any solo button in a group to toggle the group solo state. Shift-click to solo-safe the group.


Group is soloed. Click to un-solo the group. Option-click anywhere within the Solo column to clear all MELD solos **except solo-safed instances**.

Shift-click to solo-safe. Click to “un-safe” but remain soloed or shift-click again to un-solo. Tracks must be manually “un-safed” before they can be un-soloed.

**Notes**:

- MELD Solo can only apply to tracks which contain an instance of MELD. Any tracks in the host DAW mixer which do not have MELD inserted will not be affected by MELD Solo.
- Host DAW Solo functions always operate independent of MELD.

  Click the Solo header to ▼ *descending* sort order to quickly find solo’d MELD instances.

### Mute


**Mute** column header

Click the **M** button on any track in the group to mute the group.


Group not muted. Click any mute button in a group to toggle the group mute state.


Group is muted. Click to un-mute the group.
Option-click anywhere within the Mute column to clear all MELD mutes.

Notes:

- MELD Mute can only affect MELD instances. Any tracks in the host DAW mixer which do not have MELD inserted will not be affected by MELD Mute.
- Host DAW Mute functions always operate independent of MELD.

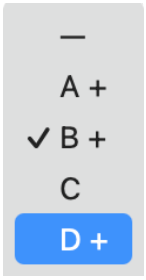
  Click the Mute header to ▼ *descending* sort order to quickly find muted MELD instances.

### Group


**Group** column header

The **Group** column shows the current virtual group assignment for each track. Click the Group button of any track to open the list of groups to assign the track to a new group.

There are 26 virtual groups available in MELD, A through Z. Below is a segment of the group selection list illustrating the




— indicates tracks that are not assigned to any virtual group

\+ sign means group A is an active group (clicking A+ will **add** the track to group A)

✓ means the selector menu was opened from a track belonging to group B

group C is inactive: an open group with no existing members

The blue highlight shows the mouse cursor position. Click to assign to this group.

Notes:

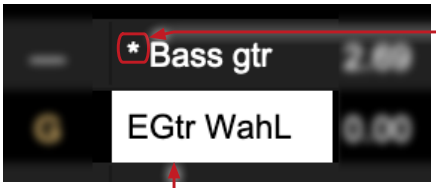
- Assigning tracks to an active existing group will immediately apply all group processor settings to the new tracks, overwriting all existing settings.
- The Undo arrow in the MELD header bar can be used to reverse an errant group assignment (restoring the original processor settings) for only one track at a time, so if an entire group is mistakenly reassigned, the tracks must be selected individually and Undo applied to each track independently. This is an constraint of MELD operating within the AAX/AU/VST3 plug-in environments.

### Track


**Track** column header

The **Track** field lists the name of the host DAW mixer track in which this instance of MELD resides.

Track names are published by the host DAW as part of the AAX, AU and VST3 specifications and are not editable from within MELD. However, editing the track name within the host DAW is immediately reflected in the MELD UI.




An asterisk (*) in the Track name indicates the original instance in the host DAW from which the MELD plug-in UI was opened, in this case, the “Bass gtr” track

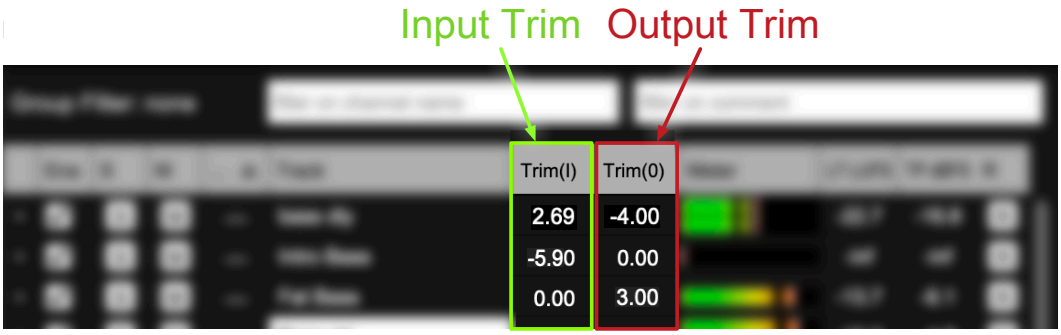
The white highlight reflects the track currently selected and visible in the MELD UI

### Input / Output Trims

Input and Output Trim controls are available for each track. Trims are unlinked from group operations, allowing fully independent level adjustment for each track within a group.

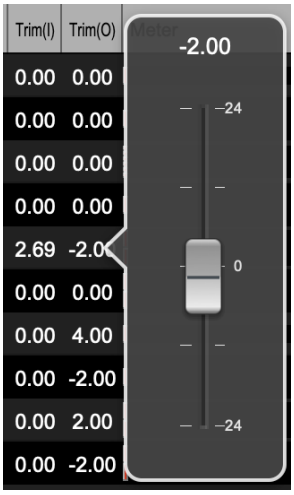
The Input and Output Trims are applied at the same gain stage as the Input Strip and Output Strip faders respectively. The faders are linked to the group setting, but the trims are not linked, operating as independent offsets to the fader gain settings.

Trims are essential for maintaining balances within the group, where some tracks may naturally drift in relative level.




Control-click the desired trim numeric field to directly enter a new trim gain.

Clicking a trim numeric field opens a fader control to ride the trim gain manually and to record automation moves.



### Metering in MELD

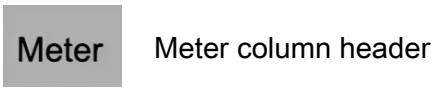
MELD provides two primary level metering locations: per-instance in each track row in the Track List, plus user-assignable LUFS Bar numeric readouts below the Track List.

The Track List displays three types of level meters per instance: Spectrafoo Digital PPM level with RMS, Long Term LUFS and True Peak dBFS.

A second always-visible **LUFS Bar** below the Track List shows Short Term and Long Term LUFS plus True Peak hold for the currently selected instance, and any tracks selected as **Reference** tracks.

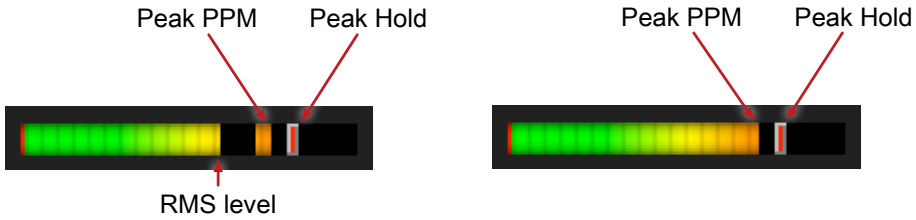
All MELD meters are reset by clicking on any numeric readout in the LUFS Bar meter array below the Track List.

#### Spectrafoo™ PPM meters




SpectraFoo™ multi-function level metering is provided for every channel of every MELD instance.

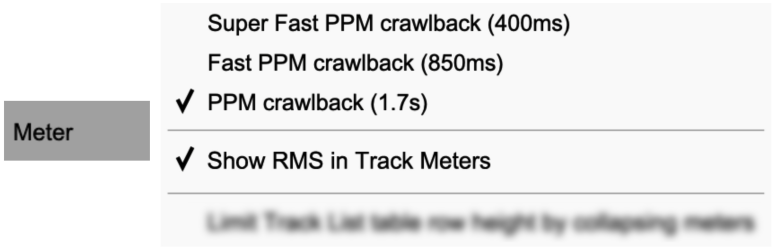
By default, the meters display PPM Peak, with RMS and Peak Hold.




**Track List PPM meters: Default setting (with RMS) on left, RMS disabled to the right**

- RMS level is indicated by the colored solid bar, which transitions from green at "safe" high-headroom levels to yellow at -18dBFS, then to orange and finally red approaching -6dBFS. The RMS meter uses the PPM standard for decay time (1.7seconds per 20dB) and the digital PPM standard legend for calibration.
- Instantaneous Peak is displayed by the floating colored pip which follows the bar color and decay standard as above.
- Temporary Peak Hold is show as a floating red pip with a hold time of 2 seconds.

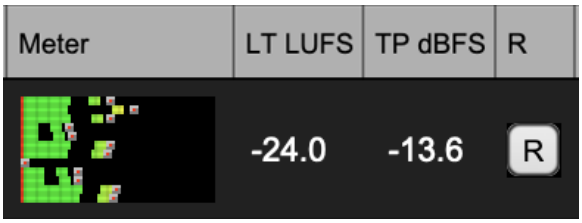
To customize the PPM meters, right-click the Track List Meters column header to open the Meters settings menu:



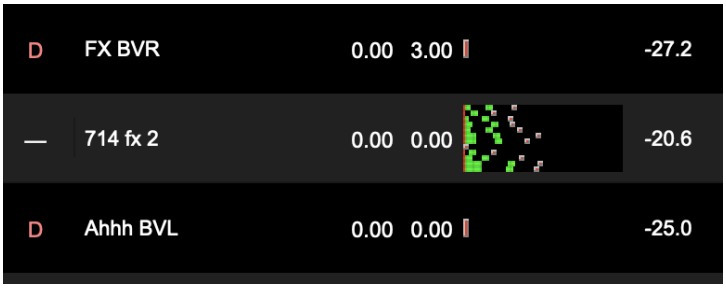

- **Super Fast PPM crawlback (400ms)**, **Fast PPM crawlback (850ms)** and the default **PPM crawlback (1.7s)** set the decay speed for all PPM level meters in the Track List.
- **Show RMS in Track Meters** is checked by default. When unchecked, the RMS readout is removed and the level bar becomes a standard PPM level meter. (See 'Track List PPM meters' graphic on the previous page).

#### Multichannel metering

Multichannel / multi-mono MELD instances are limited only by the number of channels supported by the host DAW. The PPM digital meters show each channel within a Track, e.g. a 7.1.4 track would show 12 active meters.

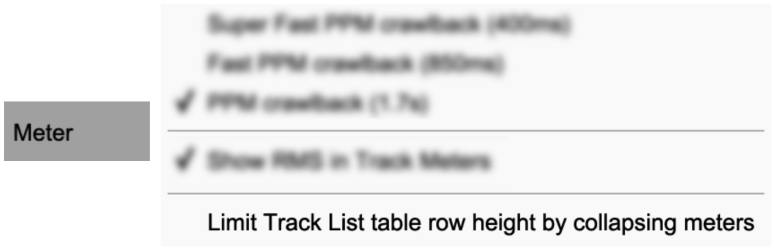



**Track heights example with >8 channel instance present**

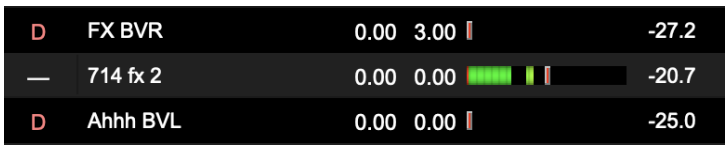



**Track List meters showing 7.1.4 PPM default view**
**(RMS view enabled, "Limit Track List table row height by collapsing meters" preference disabled)**

When displaying multichannel tracks greater than 8 channels, the Track List row height must become larger to accomodate. For cases where the greater row height is inconvenient, the "Limit Track List table row height by collapsing meters" option is available in the Meters column header preference menu.




- **Limit Track List table row height by collapsing meters** is a visual aid which simplifies the meter displays for easier navigation of large sessions. When checked, stereo and multichannel PPM meters are flattened to a single "mono" meter reflecting the highest level of all channels within the track, and track row heights are locked to their minimum size.




**Note**: **Show RMS in Track Meters** and **Limit Track List table row height by collapsing meters** are duplicates of the MELD UI preferences *Show RMS in Track Meters* and *Collapse List Meters*. These settings are saved to the host computer and automatically applied to the next instance of MELD of whatever format, even on another DAW or MIOConsole3d.

### LT LUFS

LT (Long Term) LUFS meters display the average loudness of each track over the duration of playback. The LT LUFS reading is held while play is stopped, and is amended when play resumes.

LT LUFS is duplicated for the selected track in the top LUFS Bar readout below the Track List.

### TP dBFS

True Peak dBFS meters throughout MELD display 4x oversampled and interpolated intersample peak level, even when MELD processing is not in an oversampled mode.

TP dBFS is duplicated for the selected track in the top LUFS Bar readout below the Track List.

### R (Reference LUFS Bar selector)

In pretty much every mix session there will be certain key tracks that serve as guides or references for other support tracks and groups. Equally, some tracks are just plain troublesome and need keeping an eye on. Unfortunately, especially in larger sessions, those tracks may end up scrolled out of view.

In such cases, click the **R** button on a track to set it as a "Reference" track.

| Group ▲ | Track | Trim(I) | Trim(0) | Meter | LT LUFS | TP dBFS | R |
|---|---|---|---|---|---|---|---|
| — | snr vrb smd | 0.00 | 0.00 | | -27.0 | -10.7 | R |
| — | * Bass gtr | 2.69 | -2.00 | | -18.4 | -13.5 | R |
| — | Intro Bass | 0.00 | 0.00 | | -28.1 | -12.6 | R |
| A | lead dbl verb | 0.00 | 0.00 | | -19.6 | -12.0 | R |
| A | lead voc delay | 0.00 | 0.00 | | -19.1 | -11.5 | R |
| A | Lead Voc dbl | 0.00 | 0.00 | | -19.8 | -10.9 | R |
| A | Lead Voc | 0.00 | 3.00 | | -17.0 | -7.6 | R |
| B | Chorus Lead | 0.00 | 0.00 | | -20.9 | -11.2 | R |
| B | Chorus A1 | 0.00 | 0.00 | | -20.9 | -11.1 | R |

**Reference** tracks gain an additional, always visible meter readout in the LUFS Bar directly below the main Track List.

> **Group parameter automation**: Since parameter changes to any instance within a MELD group are applied to all group instances, it

#### LUFS Bar (Reference meter array)

The **LUFS Bar** is an additional meter grid which is always visible regardless of the Track List focus.

The LUFS Bar provides a larger, easier to read display of Long Term LUFS and True Peak dBFS for the currently selected MELD track. Secondly, the LUFS Bar adds Short Term LUFS for even more is useful for displaying representative instances from each major virtual group and/or potential problem tracks, up front and always visible as a guide throughout the mixing process.


**Important reminder**: All track PPM level, LUFS and True Peak metering displayed within the MELD Track List and LUFS Bar UIs represent the output level of the MELD plug-in instance return to the host DAW.

### Comments

The Comments field can be used for any kind of text notes. Comments can be anything from descriptions of track content, mix notes, or keywords for text search filters.

In a pinch, the Comments field can be used in lieu of Track Name column in cases where the host DAW does not publish track names to MELD.

### MELD Advanced Sidechaining (CSC and LSC columns)

During the development of MELD, we received feature requests and feedback from a variety of immersive mix engineers, each with their own experiences and workflow scenarios. One request submitted later in the development cycle, was to be able to utilize a stereo guide track as the detector input for the dynamics process blocks in MELD, as that was the workflow most familiar to them.

While considering the request, we realized that the DSP code already basically supported this workflow, but required additional UI to allow the user to control it, and that the additional UI would also enable other processing tricks to be accomplished directly within MELD without having to resort to pre-mixing sidechain tracks, or complicated bussing within the host DAW.

As a result, MELD includes three detector models.

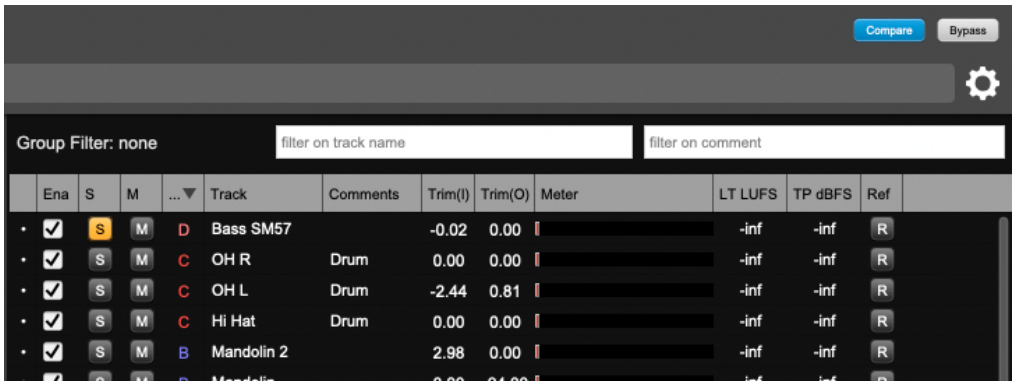
#### Simple/Default Sidechain mode

Dynamics Processors (Compressor and Limiter) utilize the signal being processed as the detector input, per instance.

Each instance will use all of the channels in the stem it is processing for the detector input (based on the signal entering the dynamics block).

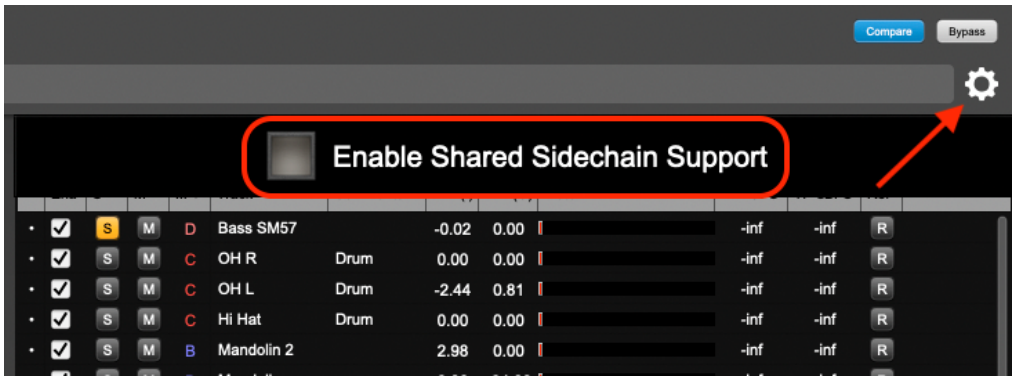
So Mono MELD instances process mono, Stereo process stereo, etc. This is what you get if you just instantiate MELD and don't enable any of the advanced sidechain routing features.

In this default mode the instance list does not show the *CSC* and *LSC* sidechain listen columns:

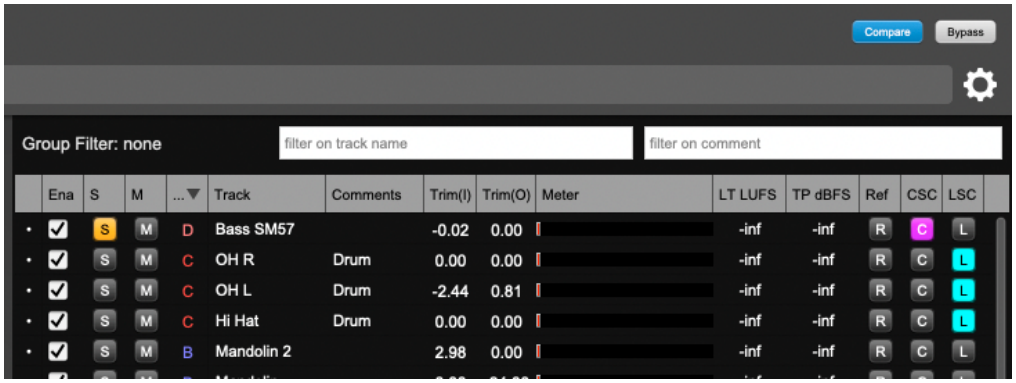



#### Shared Sidechain Mode

This is enabled by clicking on the 'gear' icon in the top right corner of the plugin UI (below the plug-in bypass button) - that will display the "Enable Shared Sidechain Support" button:



When you click that button, the session will switch to Shared Sidechain Mode, and the instance list will show the *CSC* and *LSC* sidechain assignment buttons at the end of the track list row:




In Shared Sidechain Mode, all the channels from all instances in a group are automatically sent to the shared sidechains for the group. Each group has two shared sidechains, one for the Compressor and one for the Limiter.

The signals sent to the sidechain are tapped from right before the relevant process block, so if you have the comp before the limiter, the sidechain signal for the limiter will be post-compressor.

The sidechains are automatically time-aligned between the instances. This has the effect of adding latency to the MELD plugins (which is why this is not on by default).

The additional latency will be twice the host buffer size. The host process buffer size is always 1024 samples in Pro Tools. In other hosts it is the same as the I/O buffer size. The latency is reported to the host so that the host can time-align the session.

Although all instances automatically send to the shared sidechains, they do not use the shared sidechain as the detector input unless you explicitly enable that.

When Shared Sidechain Mode is enabled, the Instance List on the right side of the MELD UI gets two new columns added: CSC and LSC. These columns have the (C)ompressor (S)ide(C)hain Enable and the (L)imiter (S)ide(C)hain Enable buttons. When the [C]ompressor button is on, the compressor for that instance will use its group sidechain as the detector input. Similarly when the [L]imiter button is on the limiter for that instance will use its group sidechain as the detector input.

By default, these SC enable buttons are linked within the group, so if you enable one for a group member, it will enable it for all the instances in the group. But if you just want one of (or a subset of the) instances in the group to use the sidechain, you can hold the option/alt key when clicking the button and that will defeat the grouping.

To recap: In Shared Sidechain Mode, by default, all members of the group send to the sidechain, and you can choose to have instances in the group use the sidechain for the detector (rather than the signal passing through the instance). In all cases, the dynamics gain is applied to the signal passing through the instance.

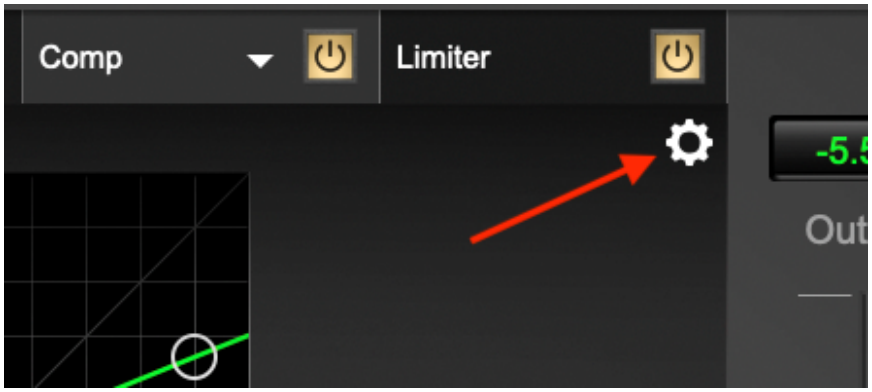
**Advanced Sidechain Mode**

This extension of Shared Sidechain Mode allows you to select the source signal routed to each groups' shared sidechain for each of the dynamics blocks. The sidechain source can be any other instance of MELD on any track in the session.

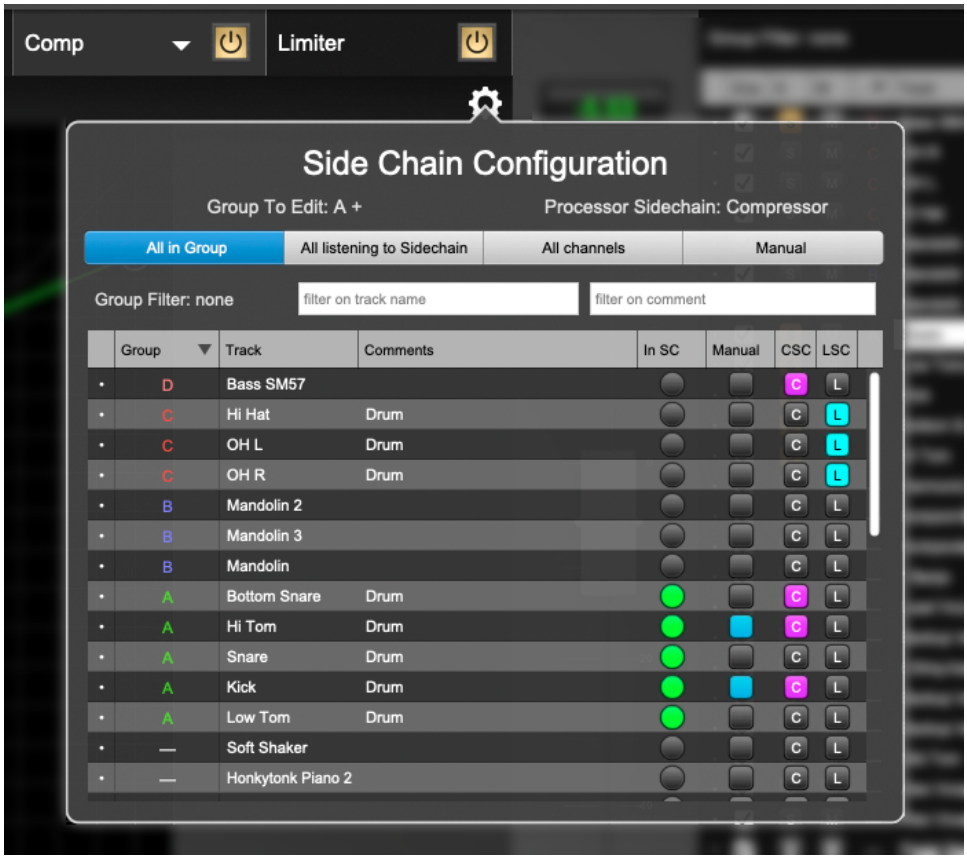
When Shared Sidechain Mode is turned on, the Advanced Sidechain controls UI appears in the upper right corner of the Compressor and Limiter.

By default, it works as described above in the Shared Sidechain Mode section, but the new UI allows you to tailor what is sent to each of the 52 shared sidechains (e.g. the compressor and limiter sidechains for each of the 26 groups).

To change what is sent to the sidechain, you need to navigate to the dynamics tab (e.g. either Comp or Limiter) for a track within that group. You will see that there is now a gear icon available in the top-right corner of the section control area (e.g. just to the left of the output fader readout). To access the sidechain UI, just click the gear:



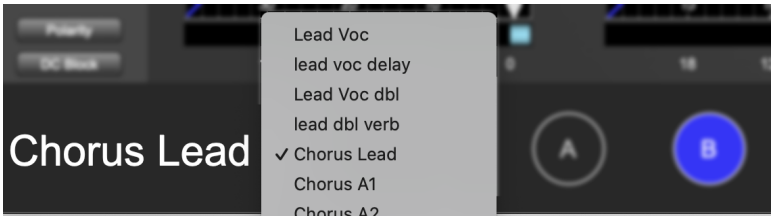

When you click the gear, the Advanced Side Chain Configuration pane will popup:




- **Group To Edit** - A popup menu that lists all the groups; it will default to the group of the current instance, but you can switch to editing the sidechain of a different group if you want to.
- **Processor Sidechain** - A popup menu that lists the dynamics processors (compressor and limiter); it will default to processor of the tab that was selected when you clicked the gear icon, but you can switch to editing the other processor's sidechain if you want to.
- **Sidechain Assign Mode Bar** - A multiswitch bar that allows you to select the mode that is used for sending instance signals to the sidechain. The available modes are:
  - **All in Group** - the default mode; all instances in the group are automatically sent to the sidechain. Note that the "In SC" for all the instances in the group are indicated in green, showing that all the grouped instances are being sent to the sidechain for Group A Compressor.
  - **All listening to Sidechain** - if you select this mode, all instances of the group that have the sidechain enabled will also be sent to the sidechain, but all other instances will not. Note that the "In SC" for all the instances in group A that are listening to the compressor sidechain are indicated in green, showing that just the grouped instances that are listening to the compressor sidechain are being sent to the sidechain for Group A Compressor.
  - **All Channels** - if you select this mode, all instances of MELD will send to the sidechain. Note that the "In SC" for all instances are indicated in green.
  - **Manual** - if you select this mode, only the instances that have the manual button enabled in the instance list at the bottom of the Side Chain Configuration pane will be sent to the sidechain. Note that the "In SC" column for all the instances with the Manual Enable buttons turned on are indicated in green, showing that just the manually selected instances are being sent to the sidechain for Group A Compressor.

### Instance / Track Selector

The currently in-focus instance name is shown at the bottom left of the main MELD window. Not only does this always show the current MELD instance in focus, but it allows you to instantly re-focus the MELD UI to any track in the session without having to scroll through the Track List.




Click to reveal a selection menu of all MELD instances for instant navigation without having to change the Track List view. This list is always in the order of host session track 1 at the top.

### Post-Production Workflow Shortcuts

The **A, B, C, ...** Group Shortcut buttons below the processor block are to enhance workflows based on three primary groups - such as Music, Dialog and Effects.


The **A, B and C** buttons will highlight when a track belonging to one of those groups is selected.

Clicking **A, B or C** when highlighted will remove the currently selected track from the group.

Clicking **A, B or C** when *not* highlighted will add the currently selected track to the group.

The **...** button will highlight when the selected track is assigned to a group other than A, B or C.


Clicking the **...** button when it is lit will remove the selected track from its group.

# 3. Plug-In Header Bars

All Metric Halo and Make Believe family plug-ins display the MH header bar at the top of the plug-in window. This header bar allows you to organize and access all your presets across all supported plug-in formats on Mac, Windows and Metric Halo hardware DSP via MIOConsole3d.

It is especially useful in that, regardless of platform, it provides a straightforward, powerful and consistent processing workflow wherever you might be working.

With the constant evolution of computer capabilities opening the door to new production techniques and music delivery formats, the differences between DAW software workflows have become ever more diverse. Many of the major DAWs provide their own plug-in headers within every plug-in instance window, providing their own feature set catering specifically to their internal workflow.

Conversely, other equally popular DAWs provide no added feature support for plug-ins (such as plug-in parameter Undo/Redo), opting instead to insert plugs as a straight processing block.

The plug-in header bar bridges that gap by offering the most asked for plug-in functions in a simple GUI, making all of our plug-ins functions and their presets available to every user on every platform.

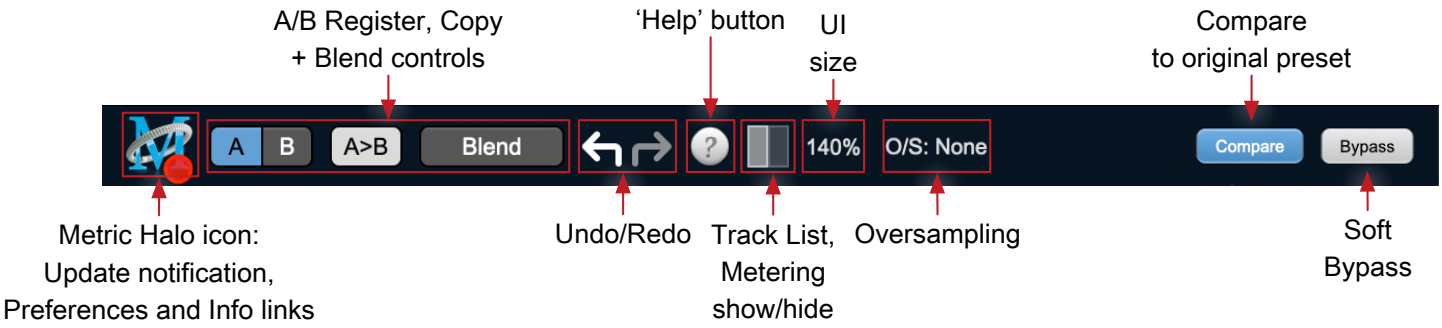
The plug-in header bar has two rows of controls, with the Metric Halo logo icon at the top row left.

The top row handles plug-in operations, including update notification and download, access to MH online resources, GUI preferences, tooltip help, A/B parameter snapshots, snapshot Blend, plug-in Undo/Redo, Oversampling modes, Compare and soft Bypass.


**MELD Plug-in header**

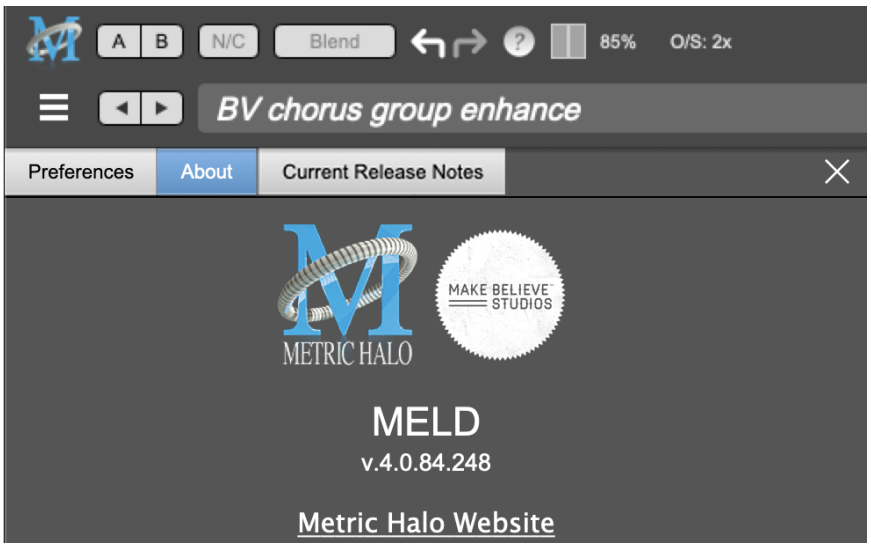
The lower row (with the 'hamburger' menu icon at the left) is all about preset management.

### Plug-In Header: Top Row

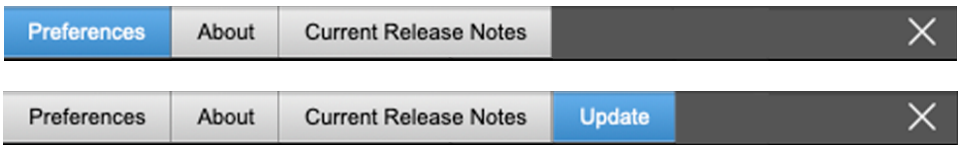



#### Metric Halo Header Icon

Clicking the MH icon expands the entire plug-in window to the right and opens a multi-function control sidebar with the Preferences tab in focus:




This sidebar has context-sensitive tabs across the top for GUI **Preferences** (shown above), **About**, and **Current Release Notes**.




**Plug-in control pane tabs**

When updates are available for download from Metric Halo, the MH icon will sport a blatant red dot (shown in the header map at the top of this page) and an **Update** tab is added to the sidebar. These tabs are dynamic by design, and additional tabs may appear as new content becomes available.

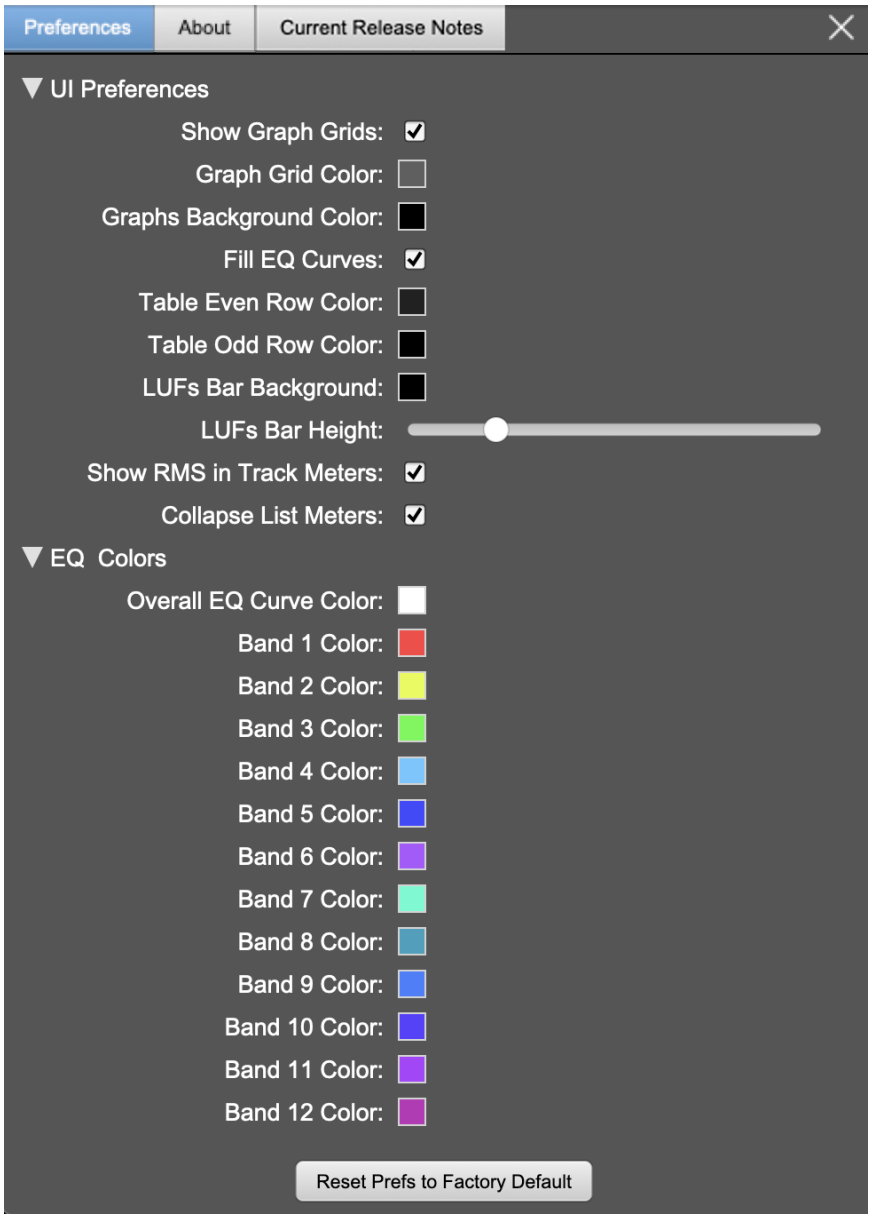
To close the sidebar, click the MH icon again, or the "**X**" at the right edge of the tab bar.

**Preferences tab**

The Preferences tab provides controls to modify the color scheme of various graphical elements within the MELD UI.

UI parameter changes are live, so you can see changes to the plug-in graphics as you make them. This includes colors, gradients, graphic element show/hide, knob types and bevels.

Clicking color selection swatches opens the standard OS color pickers window with the eyedropper tool for sampling any color visible on your display.



**UI Preferences**

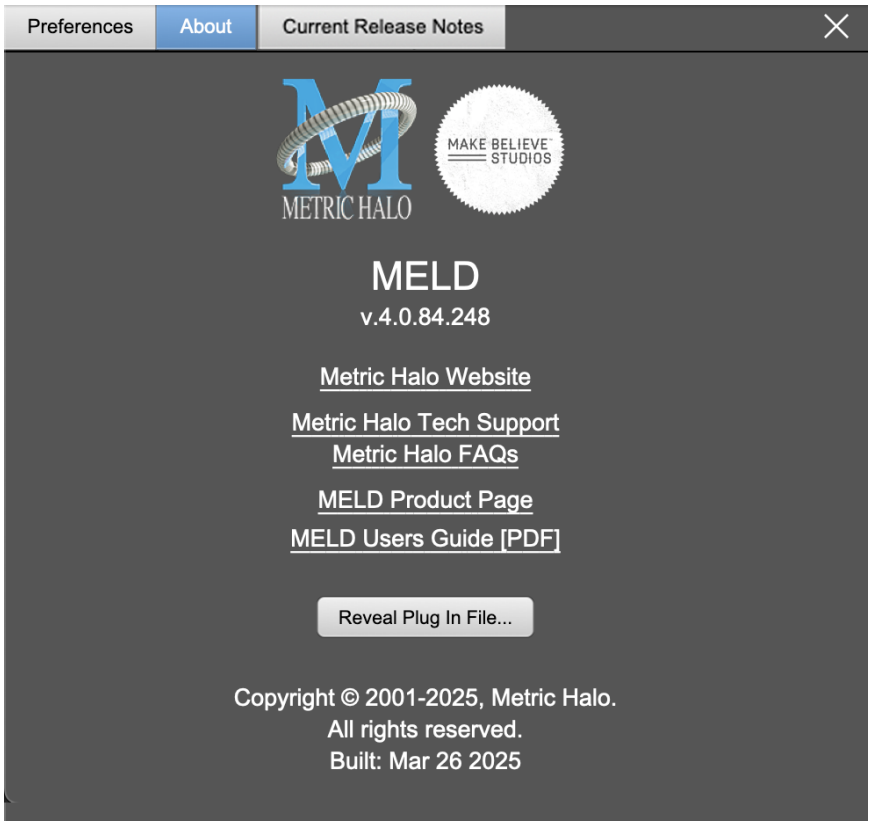
- **Show Graph Grids** toggles the display of transfer function graph reference grids.
- **Graph Grid Color** sets the transfer function grid lines color. The default color is a medium grey.
- **Graphs Background Color** sets the transfer function background color.
- **Table Even Row Color** sets the background color of the even-numbered Track List rows.
- **Table Odd Row Color** sets the background color of the odd-numbered Track List rows.
- **LUFS Bar Background** opens the macOS color picker to set the background color behind the Short and Long Terms LUFS and True Peak numeric readouts below the Track List.
- **LUFS Bar Height** sets the height of the Short and Long Terms LUFS and True Peak numeric readout display.
- **Show RMS in Track Meters** sets the Spectrafoo Level Meters in the Track List to show RMS along with PPM and Peak. With RMS enabled, the solid bar of the level meter indicates RMS, the colored pip shows PPM Peak, and the red pip a 3 second Peak Hold.

  With RMS disabled, the solid bar fills in to display PPM Peak with the Peak Hold pip.
- **Collapse List Meters**, when checked, flattens stereo and multichannel PPM meters to a single highest-level meter, and locks Track List row heights to their minimum size.
- **EQ Colors**
  - **Overall EQ Curve Color**: sets the color of the aggregate EQ energy curve (the total sum effect of all active bands)
  - **Band 1 Color**: sets the color of filter band 1 UI elements
  - **Band 2 Color**: sets the color of filter band 2
  - **Band 3 Color**: sets the color of filter band 3
  - **Band 4 Color**: sets the color of filter band 4
  - **Band 5 Color**: sets the color of filter band 5
  - **Band 6 Color**: sets the color of filter band 6
  - **Band 7 Color**: sets the color of filter band 7
  - **Band 8 Color**: sets the color of filter band 8
  - **Band 9 Color**: sets the color of filter band 9
  - **Band 10 Color**: sets the color of filter band 10
  - **Band 11 Color**: sets the color of filter band 11
  - **Band 12 Color**: sets the color of filter band 12

**Note**: All UI preferences listed above will be saved to the computer and automatically applied to the next instance of MELD of whatever format, even on another DAW or MIOConsole3d.

You can always revert to the factory default settings by clicking the **Reset Prefs to Factory Default** button at the bottom of the Preferences pane.

**About tab**

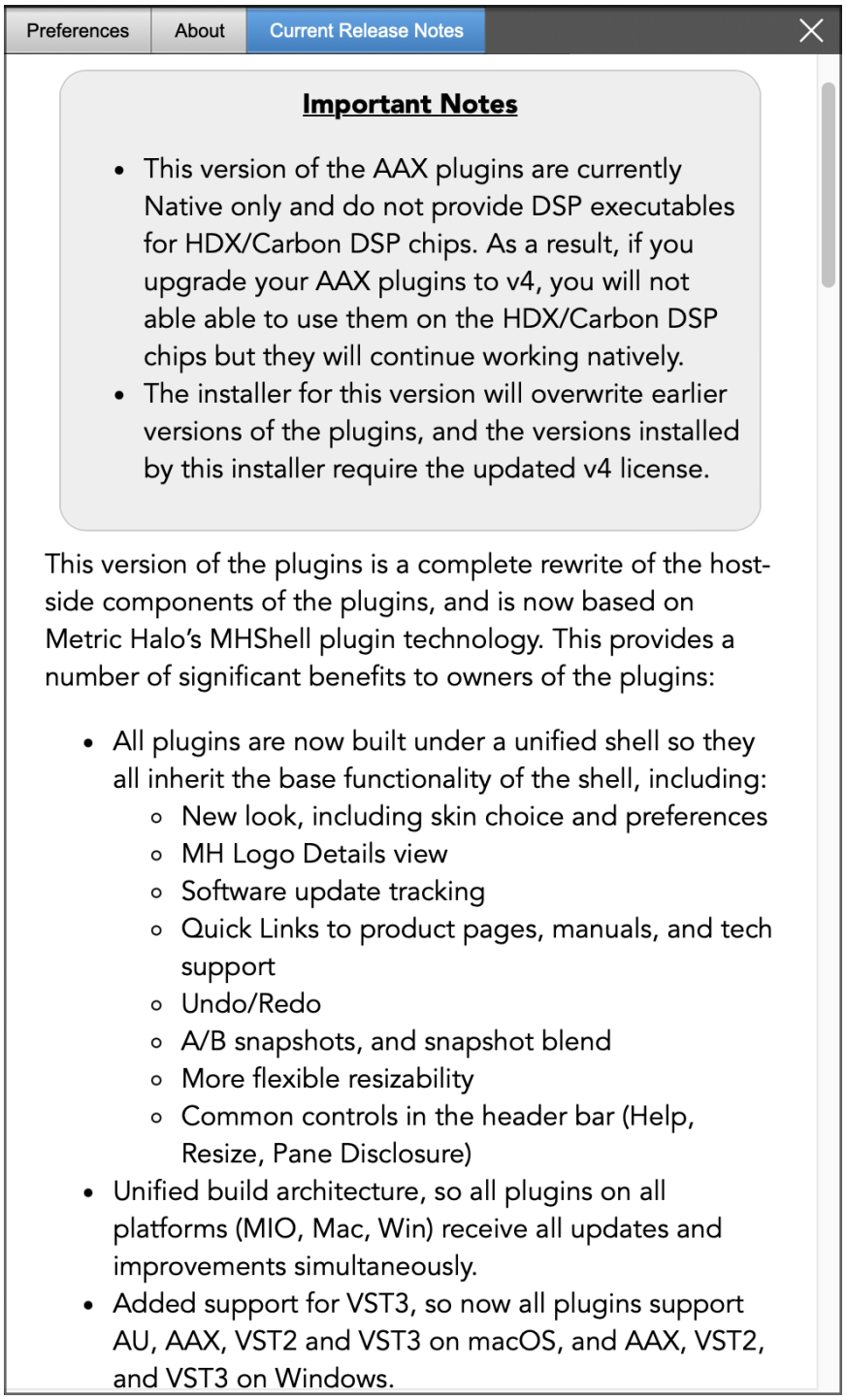



The **About** tab reveals the current plug-in version information and provides convenient web links to product info, support pages and the current manual on the Metric Halo main website.

Clicking the "MELD Users Guide [PDF]" link will open and display the latest Mixhead manual in your default web browser.

**Reveal Plug-In File...** will open the folder containing the current plug-in file, with the plug-in file itself selected. Very handy for troubleshooting on the fly.

**Current Release Notes**




**Current Release Notes example**

Current Release Notes lists a synopsis of major changes (a snippet of which is shown above), with feature and bugfix revisions for the most recent software releases listed below.

Please note that on Windows, the release notes will not be displayed in the pane, and a link to the release notes will be displayed instead. You can click the link to view the release notes using your current default web browser.

**Update notification tab**


**Update tab (only appears when an update is available)**

The **Update** tab will contain a link to download the new installer package in the header at the top of the pane.

Below the download link header will be release notes detailing the major changes included in the update, with bugfix revisions for the most recent software releases listed further below. Windows users will see a link to view the release notes using your current default web browser.

Click the Installer link to download, unzip and run the installer manually, preferably when your audio software is inactive so it can properly scan the new versions at launch.

### Plug-in Snapshot Registers: A/B


**Plug-in Header: Snapshot Registers: A/B**

The A and B buttons control the A and B state registers. The A/B registers are used to store modified parameter snapshots in addition to the original saved preset called up by **Compare**.

The Blend function can be used to smoothly morph between the parameters set in the A and B registers, and Blend is a mappable parameter so it can be operated with external MIDI control. Details of the A/B Snapshot Blend feature follow on the next page.

For each of the A and B buttons the visual display tells you the state of the register:

- Light Grey means the register is empty
- Dark Grey means it has settings, but is unselected
- Blue means it has settings and is selected

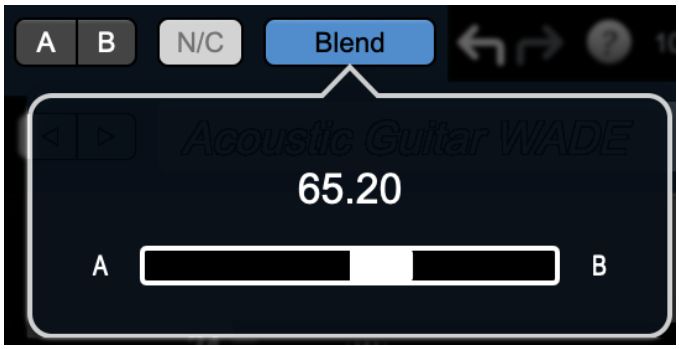
You can perform the following actions:

- Clicking on an empty register takes a snapshot of the current settings and saves them to the register.
- Clicking on an unselected filled register copies the register parameters to the current active plug-in settings.
- Clicking on a **selected** register toggles to the other register; this lets you toggle between the register settings without having to move the mouse.
- The Copy button will show **N/C** and remain inactive until one or both of the registers is in use. The Copy button will alternate between **A>B** (copy A to B) or **B>A** (copy B to A) depending on which register is selected. Clicking the Copy button then copies the settings from the selected register to the target register, overwriting the prior contents (if any).
- <Option> - clicking on a register snapshots the current settings and saves them to the register, overwriting the prior contents (if any).
- Changing settings when a register is selected will update the settings in the register to reflect the change.

### Snapshot Blend

The Blend button allows you to interpolate (or morph) between the parameter snapshots stored in the A and B registers. It becomes active when both A and B have a parameter set stored.

Blend is a MIDI-mappable parameter so it can be operated in realtime with external MIDI control and/or automated in the DAW. This allows you to automate a transition from the A → B register, the B → A register or any setting between the two.




**Plug-in Header: Snapshot Blend**

The Blend button's visual display tells you the state of the register:

- Light Grey means it is empty
- Dark Grey means it has settings, but is unselected
- Blue means it has settings and is selected

Click on Blend to popup the blend control. Slide all the way to the left to apply the settings in the A register. Slide all the way to the right to apply the settings in the B register. Intermediate settings for blend will give you intermediate settings for any parameter that is different in register A and B. The blend control does not change the state of Bypass.

Note that the Blend is not a parallel processing mode where two instances of the processor are running the A and B settings and the output is a parallel blend of the two settings. Rather, Blend interpolates the parameter settings of the two registers to one instance of the processor. You can see the parameter controls move between A and B settings as you slide the Blend control.

The A/B and Blend settings are stored and recalled as part of the plug-in state, but are not saved as individual presets in the preset bar.

While you can use the blend with arbitrary A and B settings we find it works best when you craft the settings in the two registers in such a way as they are related to each other. Specifically, if an indexed (stepped) parameter is different between the two settings, the interpolated value will snap to one of the indexes between the two settings, which can be jarring.

It is best if the parameters that you blend are smooth parameters (e.g. gains, frequencies) and make sure the indexed parameters (enables, modes, band types) are set the same for both registers.

The easiest way to do this is to load the same setting into both registers and then tweak the settings of one of the registers.

This works especially well if you make one of the registers be the basic settings with all the gains or thresholds flattened out so that you can smoothly interpolate between a setting and effectively bypassed - we have found that this allows you to zero in a perfect configuration between too much and too little.

### Plug-in Undo/Redo

All the plug-ins provide support for undo/redo from the plug-in header bar.

**Plug-in Header: Undo/Redo**

The left and right curved arrows represent Undo (Left) and Redo (Right). These arrows are grey when there is nothing to Undo or Redo.

The arrows are white when it is possible to Undo (Left) or Redo (Right). Clicking the left arrow when it is white will undo the last action you made in the plug-in. When you undo something that change is placed on the redo stack, and the Redo button will turn white.

Clicking the Redo button (when it is white) will restore the state that the last Undo changed.

If the Redo button is white and you make a change in the plug-in, the Redo button will go grey as the redo buffer will be cleared.

### Help Button

**Help Button**

This button toggles the tooltip display. When enabled, tooltips will be shown when the mouse hovers over a control. When the tooltip display is disabled, you may still see tooltips by holding down the **?** key and hovering over a control.

### Track List / Metering Selector

This button toggles visibility of the Track List and Metering section of the MELD interface. This button allows you to maximize screen real estate while keeping processing and Track selection controls available.

Above left shows the button with the right pane dark, meaning the Track List / Metering section is hidden. Above right shows both MELD UI sections visible.

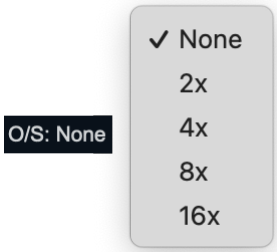
### UI Size Selector


**UI Size Selector**

This pull-down menu lets you set the plug-in UI size to taste.

The size is remembered and applied the next time you insert or open MELD.

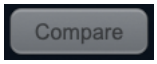
### Oversampling Selector




**Oversampling Multiplier Selector**

Oversampling is applied per MELD Group, with O/S settings from 2x to 16x. The default Oversampling setting is None.

### Compare Button




**Compare Button (inactive)**


**Compare Button (active)**

To use the compare button, a preset must first be loaded. The compare button will light up when the current settings differ from the selected preset. If you click this button while it is lit, the preset settings will be restored, but you can still return to the changes you made by clicking on the button again. It is important to note that any changes you make to activate the compare light are always for comparison to the last loaded preset.

### Soft Bypass

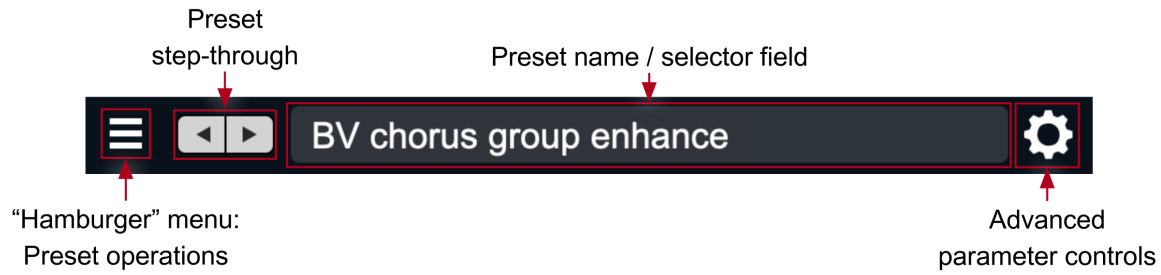

**Soft Bypass Button (not bypassed - plug-in is processing)**


**Soft Bypass Button (bypassed - plug-in is *not* processing)**

When glowing yellow, this button will maintain the time delay through the channel and will continue to show metering, but will cleanly disable the processing.

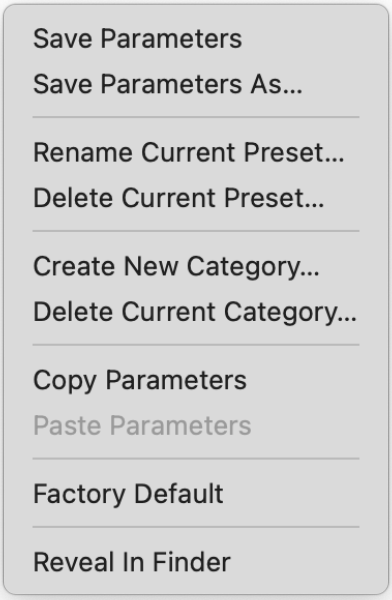
### Plug-In Header: Preset Row

**Important Note**: In MELD, presets are recalled to all instances in the currently selected MELD Group. Otherwise, MELD preset operations are just like any other Metric Halo plug-in.




#### Plug-in Hamburger menu

The preset and parameter functions within the hamburger menu break down as follows:



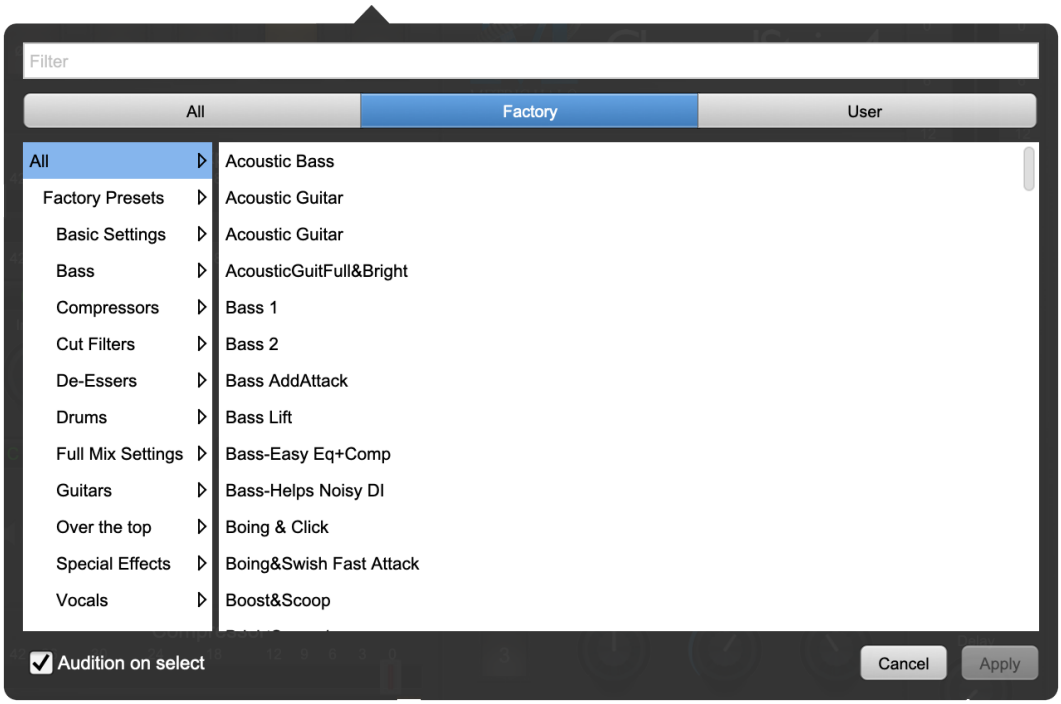

- **Save Parameters** saves the current plug-in parameters to the current preset.
- **Save Parameters As...** opens a dialog box where you can name and choose a category to save your current plug-in settings.
- **Rename Current Preset...** lets you rename the current preset.
- **Delete Current Preset...** deletes the current preset.
- **Create New Category...** lets you create a new preset category for the current plug-in type.
- **Delete Current Category...** deletes the current preset category.
- **Copy Parameters** copies the current parameter set so you can paste them to another instance of the same type plug-in.
- **Paste Parameters** pastes the copied parameters. Note that pasting a parameter set over an existing named preset will change the preset name field to: **[No Preset]**.
- **Factory Default** loads the factory default settings for this plug-in.
- **Reveal In Finder** opens the folder in which the current preset is saved.

### Preset Step-Through Buttons

**Preset Step-Through Buttons**

These buttons step through Factory and User Presets in succession, as they are listed in the Preset Selector window. The left arrow chooses the previous preset. The right arrow chooses the next preset.

### Preset Name/selector menu:




**Plug-in Header: Preset selector menu (ChannelStrip shown)**

The Preset selector will open to show all the available preset categories, and the presets within those categories.


**Preset selector menu: Audition on select**

With "**Audition on select**" enabled at the bottom of the window, selecting a preset will temporarily load those parameters so you can hear the effect on the audio you are playing, without actually committing to the preset.

Click **Cancel** to revert to your previous settings and close the selector window.

Hit **Apply** to commit the new preset parameters and close the preset selector window.

### Advanced Parameters

**Advanced Parameters button**

The gear icon at the far right of the Presets bar opens the MELD Advanced Parameter settings UI, containing the control to **Enable Shared Sidechain Support**.

See the Advanced Parameters section for details.

# 4. Installation

For both Mac and Windows, there is a single standard installer for MELD containing all formats that allows you to decide which formats you would like to use.

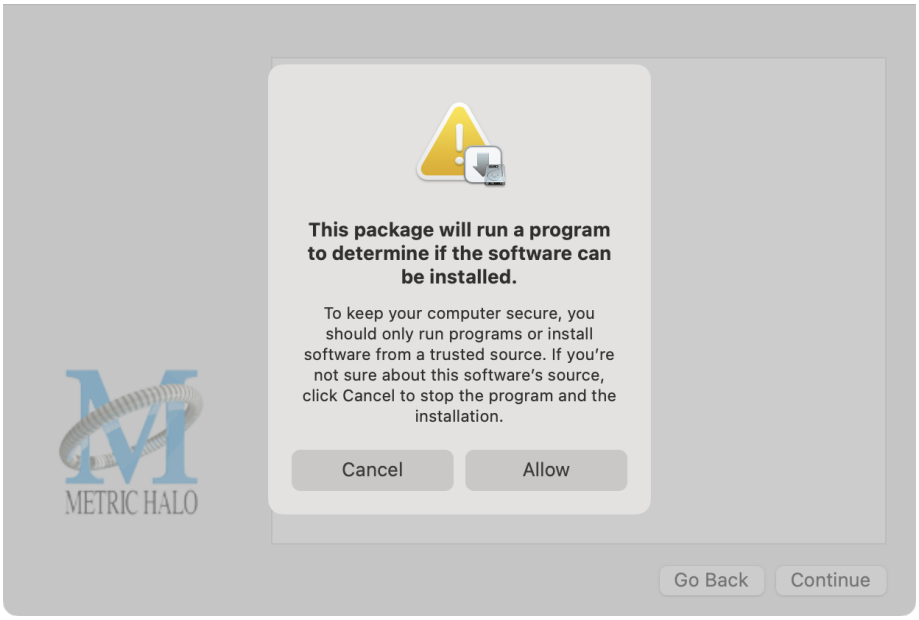
### Mac

*Please note*– The following graphics show installation on a macOS 12 system; the process may be slightly different in other versions of the OS, but the basic concepts are the same. Small details such as file sizes shown may vary with subsequent releases.

- Double-click the "MBmeld.pkg" application

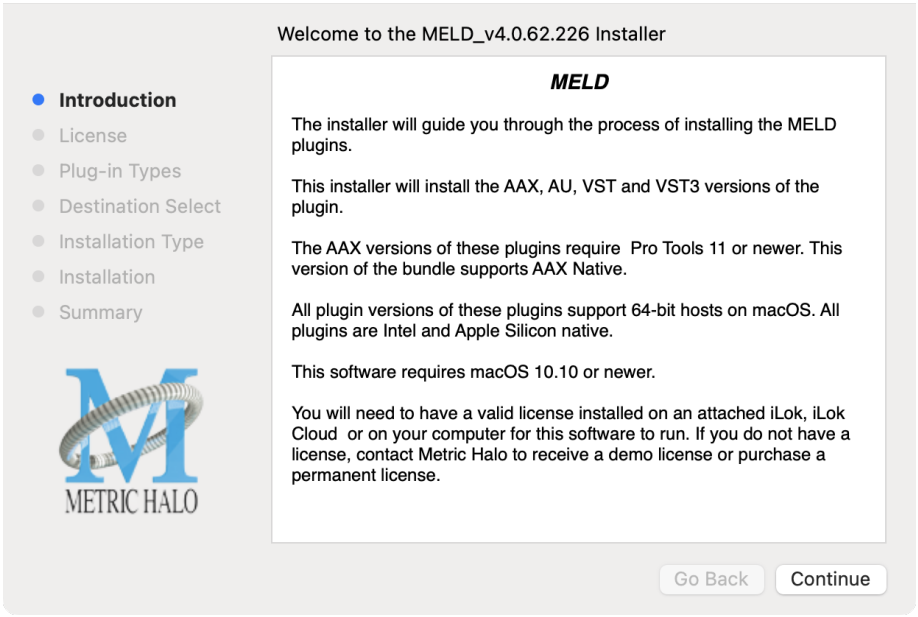
MELD.pkg

- The first window requests permission for the installer program to scan for the presence of earlier versions of Metric Halo plug-ins. Clicking "Cancel" will quit the installer. Click "Allow" to proceed:



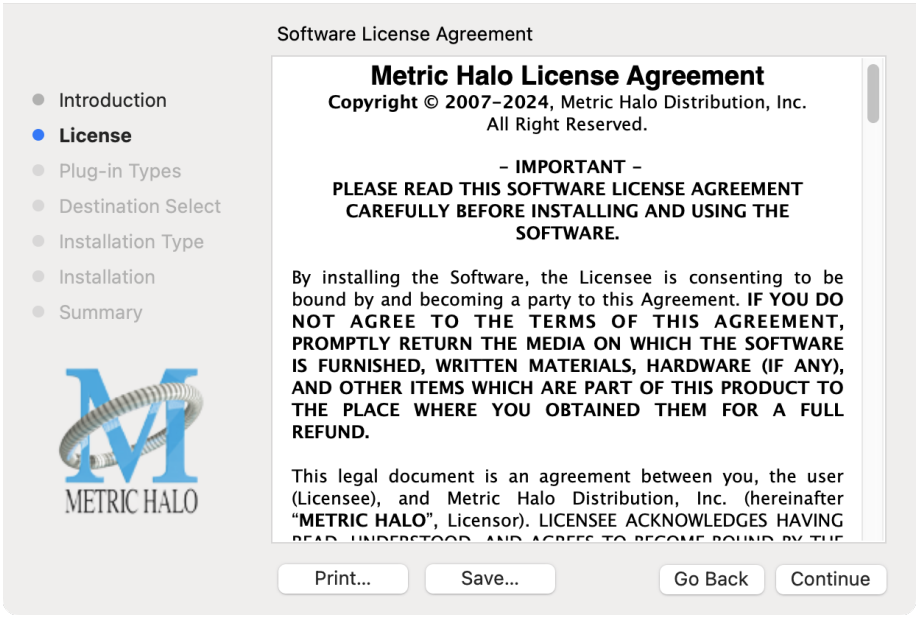

Click "Allow" to proceed…

- The installer dialog will appear:



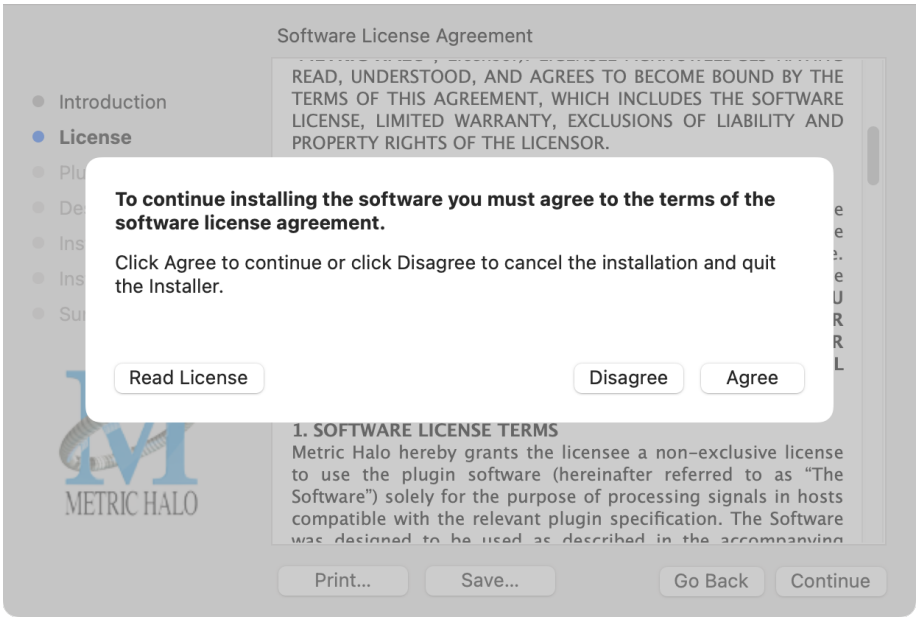

Click “Continue”…

- Now you will see the Metric Halo License Agreement:




After you have read it, click “Continue”…

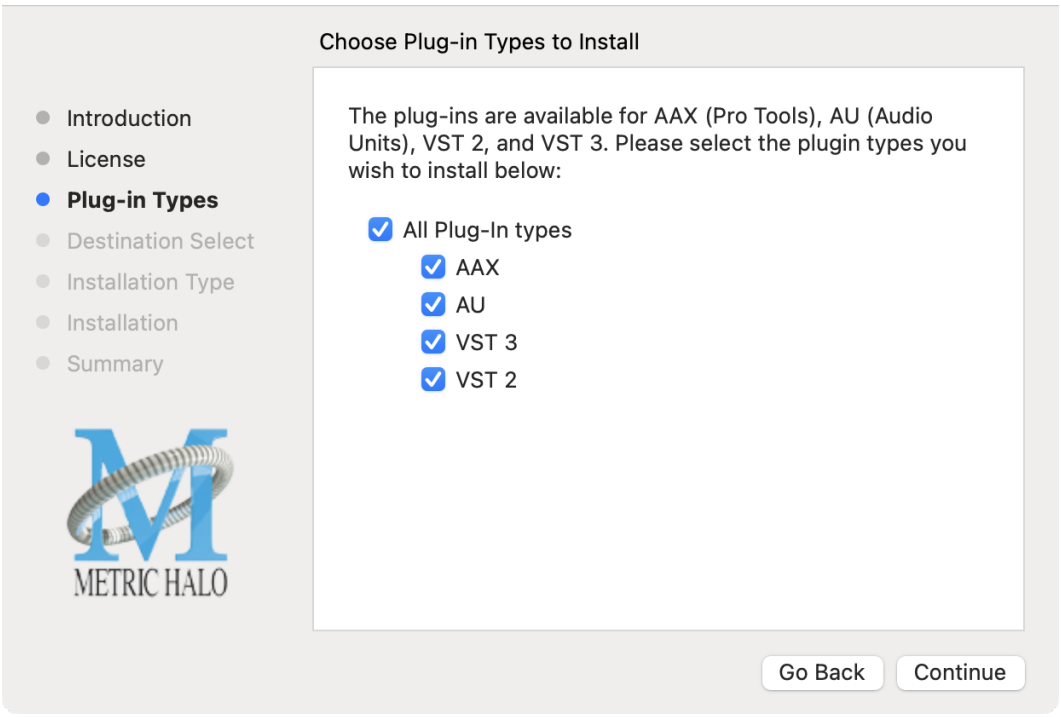
- Next, click “Agree” to accept the License Agreement:



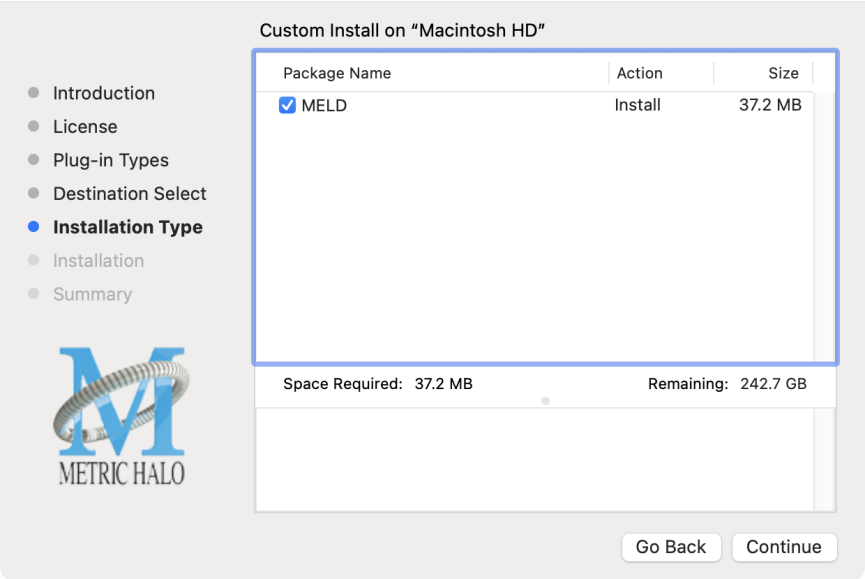
- The default installation will install Audio Unit, VST2, VST3 and AAX plug-ins to their respective folders in the root Library directory:
  - AU to **/Library/Audio/Plug-Ins/Components**
  - VST2 to **/Library/Audio/Plug-Ins/VST**
  - VST3 to **/Library/Audio/Plug-Ins/VST3**
  - AAX to **/Library/Application Support/Avid/Audio/Plug-Ins**

  Selecting any one or more specific plug-in types will install or upgrade only those formats, leaving older plug-ins in unselected format types untouched.

  Your plug-in format selection will be saved as a preference and pre-set automatically for future Metric Halo family plug-in installations on this computer. Of course you may change your selections at that time.

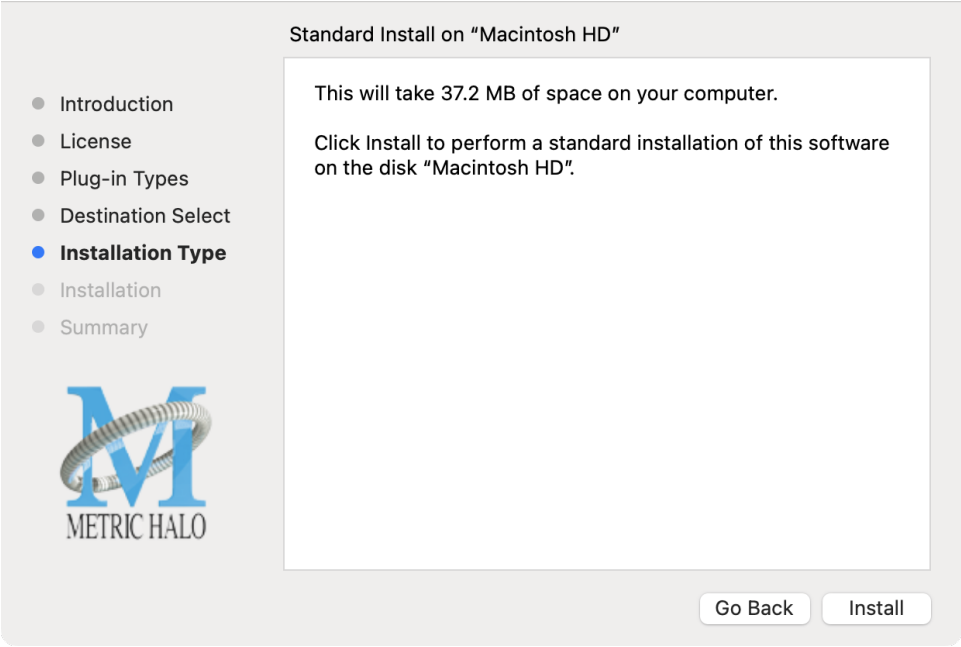


- Since there is only one plug-in to be installed, the “Custom Install” page really only serves to verify whether you are installing or updating MELD.




Click “Install” to proceed.

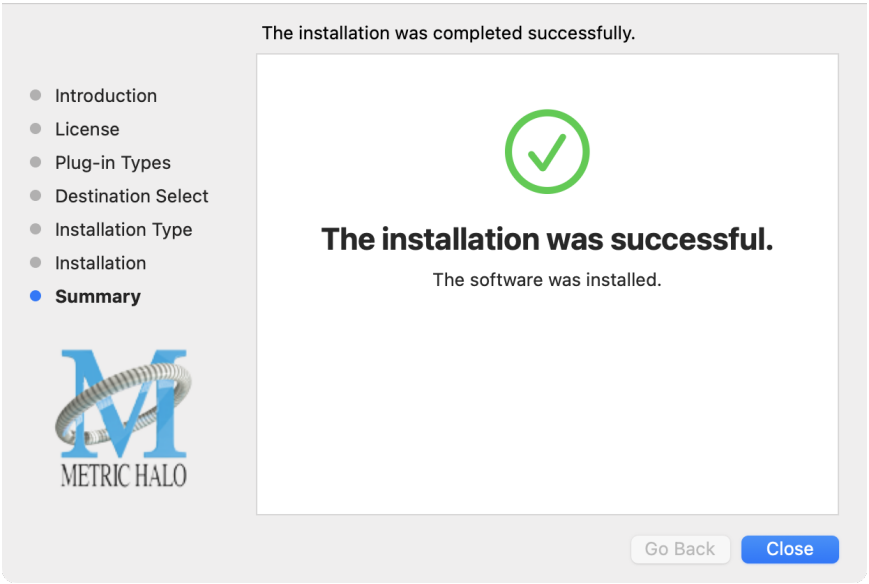
- The final confirmation window displays the total size of the selected installation. Hit “Install” to proceed.



- If present, Touch ID/Face ID will execute the installation once it recognizes your biometrics:


  Otherwise, enter your login password as usual and click “Install Software”.

- Once the installer has finished, you’ll see this dialog:




  If you do *not* see the “Installation Successful” message, contact MH Support.

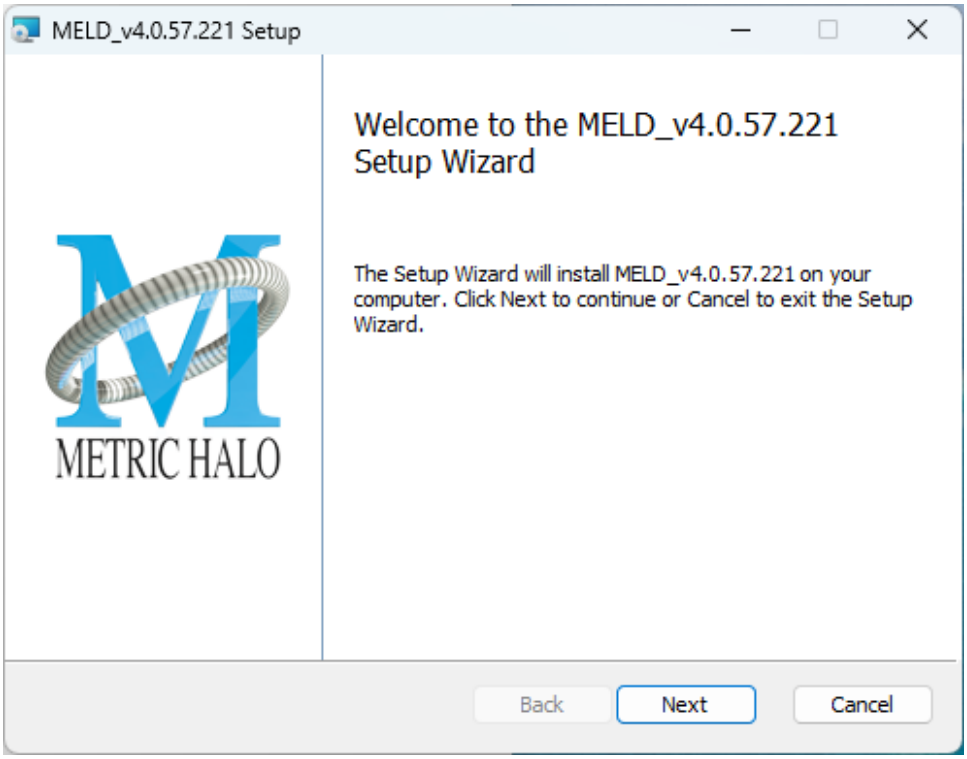
That’s it! Enjoy using MELD!

### Windows

*Please note* – The following graphics show installation on an Windows 10 system; the process may be slightly different in other versions of the OS, but the basic concepts are the same. Small details such as file sizes shown may vary with subsequent releases.

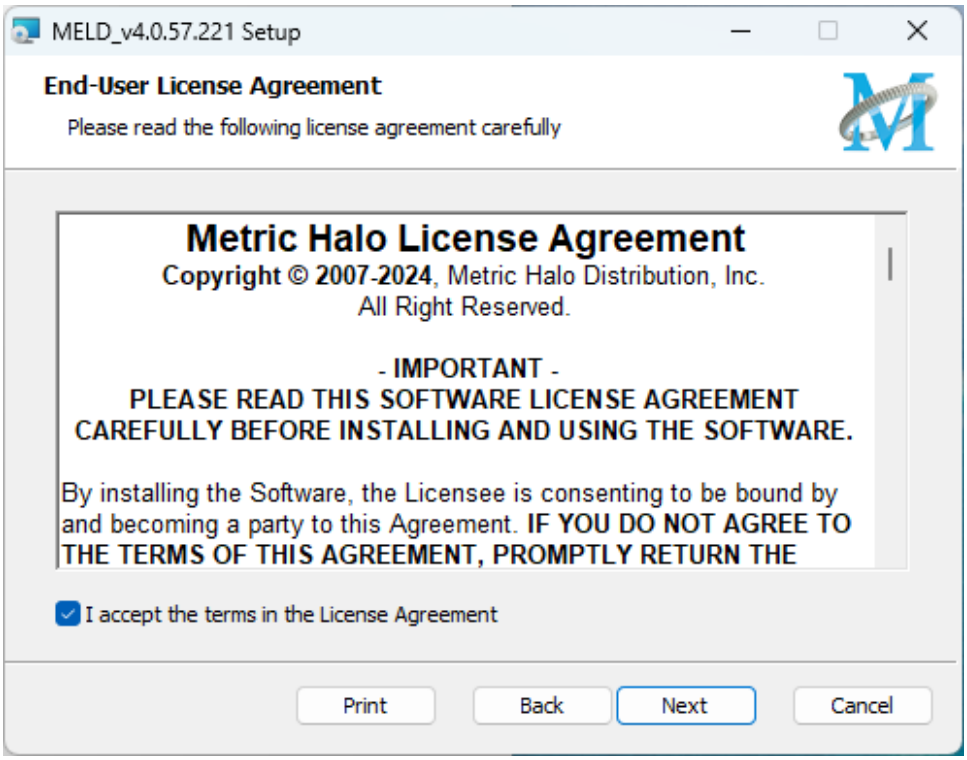
- Double-click the "MELD" installer application.


- The installer dialog will appear:



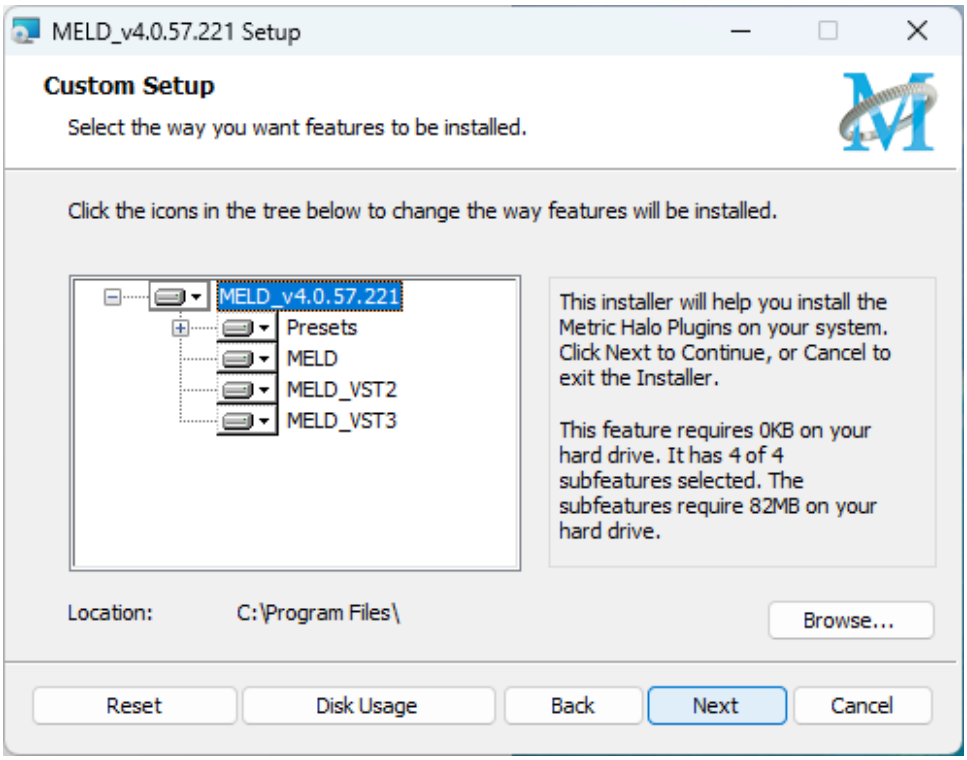

Click "Next" to proceed.

- Read the Metric Halo License Agreement:




After you have read it, click next to “I accept the terms of the License Agreement” and click “Next”.

- Custom Setup Options




The Windows installer **Custom Setup** page allows you to refine the features to be installed and their location.

By default, VST2, VST3 and AAX will be selected for installation to the C:\Program Files\ folder. Specifically:

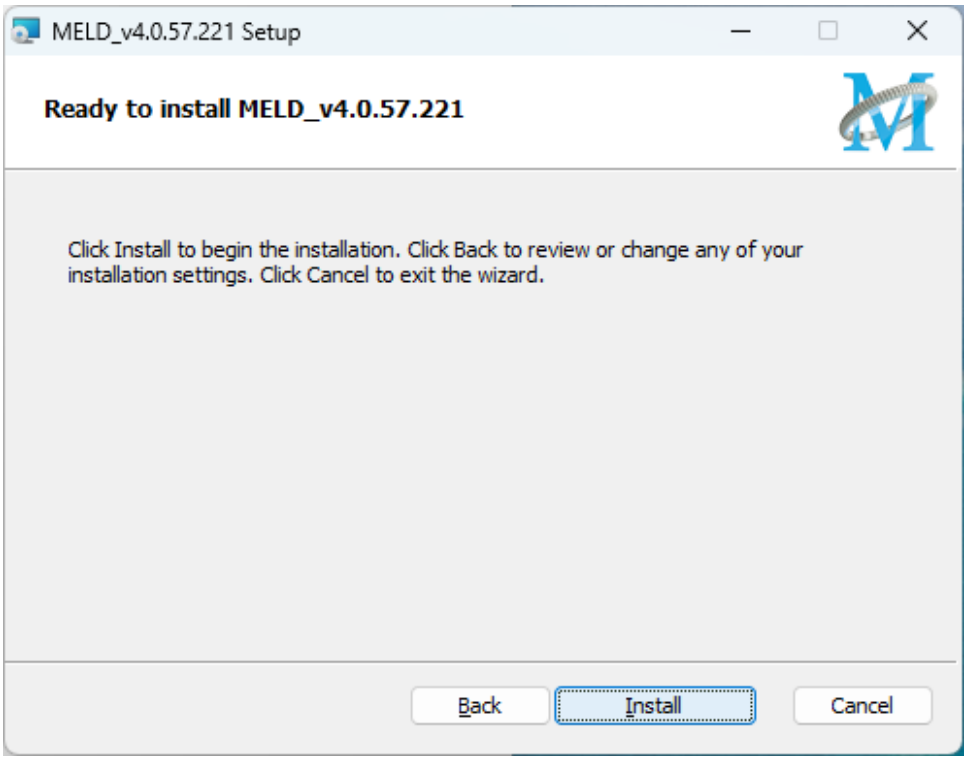
- VST2 to **C:\Program Files\Common Files\Steinberg\VST2**
- VST3 to **C:\Program Files\Common Files\VST3**
- AAX to **C:\Program Files\Common Files\Avid\Audio\Plug-ins**

These default locations are the most commonly used and should be recognized automatically by most DAWs. See your host DAW software Plug-Ins Location Preferences to verify the above directories are in your DAWs Plug-In Locations list.

If not, then you can either click **Browse** to change the installation target folder (the Browse button is in the lower right of the installer Custom Setup window), or add the locations listed above to the DAW Plug-Ins Location Preferences.

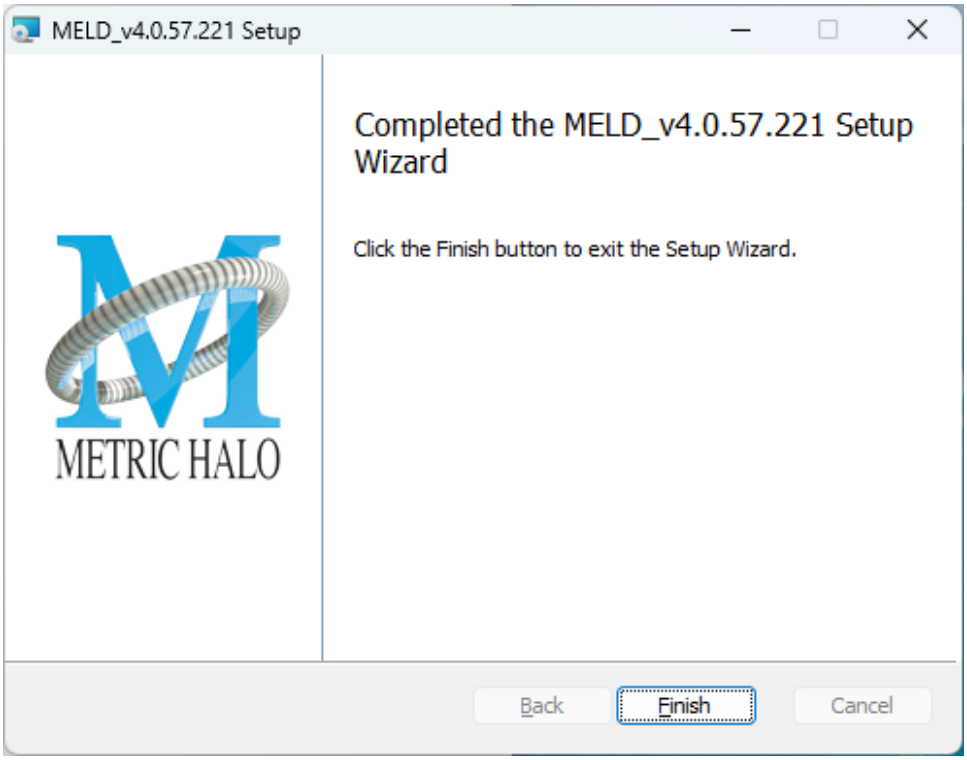
When you have made your selections, click “Next” to continue.

- The next page is a confirmation to continue, offering a last chance to go back and review your selections from the previous window:




Click “Back” to return to the Setup page, “Cancel” to cancel the installation, or click “Next” to continue.

- Once the installer has finished, you will see this dialog:




If you do *not* see the "Installation Successful" message, contact MH Support.

That's it! Enjoy using MELD!

### Suggested practices and troubleshooting tips

For best results, make sure your DAW is set to scan your audio plug-ins at every launch. This may add a bit of time at launch, but it helps make sure that new and updated plug-ins will be properly registered.

When making changes to DAW Preferences Plug-in Locations, make sure to quit the DAW, finish your installations and restart the DAW so the plug-ins will be properly scanned and ready for you to use.

If new plug-ins do not register, open your Plug-Ins Preferences and clear or reset any plug-in caches, 'ignore' or 'block' lists, then quit and relaunch the DAW to scan and re-register all your current plug-ins. Periodically clearing the plug-in caches is a common studio maintenance practice, especially after installing or removing audio software.

The easiest way to check that your plug-ins have been properly installed is to open C:\Program Files\ and type **vst** in the search field. This will show a list of all your installed VSTs and their locations within nested Program Files sub-directories for comparison against your DAW preferences.

### Update Notification (all platforms)

MELD will automatically check for newer version availability (if your computer is connected to the internet).

**Plug-in Update Alert**

If a new version is found, the Metric Halo icon in the plug-in header bar will sport a lovely red dot. Click on the dotted icon and check the Update Notification tab for release notes and download instructions.

# 5. System Requirements

Hosts:

- *Pro Tools™ (Mac)*: Pro Tools 11 or higher running on a Macintosh computer. MELD currently supports Native AAX operation only.
- *Pro Tools™ (Windows)*: Pro Tools 10 or higher running on a Windows computer. MELD currently supports Native AAX operation only.
- *Native (Mac)*: Any Intel or Apple Silicon-native Mac DAW (64-bit) that supports AU, VST2, VST3 or AAX plug-ins.
- *Native (Windows)*: Any Intel Windows (64-bit) DAW that supports VST2, VST3 or AAX plug-ins.

Operating System:

- *Mac*: Any Apple Silicon (ARM) or Intel-based Mac running Mac OS X 10.9 or newer
- *Windows*: Any Intel-based Windows PC running Windows 10 or newer.

Licensing:

- A PACE iLok.com account. You can authorize your v4 license to your computer, iLok Cloud or any 2nd or 3rd generation iLok USB key.

  The first generation blue-green iLok USB keys are no longer supported by PACE for new product authorizations.

  Please note that prior v2 and v3 licenses are separate and remain valid: you do not have to trade in your old iLok license. Production Bundle v3 and earlier plug-ins will continue to serve on older systems in addition to the v4 installations on newer platforms, with full preset compatibility between v3 and v4.
- One license authorizes the software on any platform.
- The most recent iLok License Manager installer can be found here: iLok License Manager application and driver installers.

  Older operating systems may require a specific version of the iLok driver, which can be found here: Legacy iLok application and driver installers.

# 6. Service and Support

Make Believe Studios takes great pride in the reputation for customer service and support that we have built. If you have any problems, questions, or suggestions please get in touch with us at: your_friends@makebelievestudio.com