



MDW[®] Hi-Res Parametric EQ Plug-In Guide

Version 6

**MASSENBURG DESIGNWORKS, LLC ("MDW")
SOFTWARE LICENSE AGREEMENT FOR MDWEQ6-AAX**

PLEASE READ THIS SOFTWARE LICENSE AGREEMENT ("LICENSE") CAREFULLY BEFORE USING THE MDWEQ6-AAX SOFTWARE. BY USING SUCH SOFTWARE, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS LICENSE. IF YOU DO NOT AGREE TO THE TERMS OF THIS LICENSE, DO NOT USE THE SOFTWARE. IF YOU DO NOT AGREE TO THE TERMS OF THE LICENSE, YOU MAY RETURN THE SOFTWARE TO THE PLACE WHERE YOU OBTAINED IT FOR A REFUND. IF THE SOFTWARE WAS ACCESSED ELECTRONICALLY, CLICK "DISAGREE/DECLINE". FOR MDWEQ6-AAX SOFTWARE INCLUDED WITH YOUR PURCHASE OF HARDWARE, YOU MUST RETURN THE ENTIRE HARDWARE/SOFTWARE PACKAGE IN ORDER TO OBTAIN A REFUND.

1. General. The software, documentation and any fonts accompanying this License whether on disk, in read only memory, on any other media or in any other form (collectively the "MDW Software") are licensed, not sold, to you by Massenburg DesignWorks, LLC ("MDW") for use only under the terms of this License, and MDW reserves all rights not expressly granted to you. The rights granted herein are limited to MDW's and its licensors' intellectual property rights in the MDW Software and do not include any other patents or intellectual property rights. You own the media on which the MDW Software is recorded but MDW and/or MDW's licensor(s) retain ownership of the MDW Software itself. The terms of this License will govern any software upgrades provided by MDW that replace and/or supplement the original MDW Software product, unless such upgrade is accompanied by a separate license in which case the terms of that license will govern.

2. Permitted License Uses and Restrictions. This License allows you to install and use the MDW Software. The MDW Software may be used to reproduce materials so long as such use is limited to reproduction of non-copyrighted materials, materials in which you own the copyright, or materials you are authorized or legally permitted to reproduce. You may not make the MDW Software available over a network where it could be used by multiple computers at the same time. You may make one copy of the MDW Software in machine-readable form for backup purposes only; provided that the backup copy must include all copyright or other proprietary notices contained on the original. Except as and only to the extent expressly permitted in this License or by applicable law, you may not copy, decompile, reverse engineer, disassemble, modify, or create derivative works of the MDW Software or any part thereof. THE MDW SOFTWARE IS NOT INTENDED FOR USE IN THE OPERATION OF NUCLEAR FACILITIES, AIRCRAFT NAVIGATION OR COMMUNICATION SYSTEMS, AIR TRAFFIC CONTROL SYSTEMS, LIFE SUPPORT MACHINES OR OTHER EQUIPMENT IN WHICH THE FAILURE OF THE MDW SOFTWARE COULD LEAD TO DEATH, PERSONAL INJURY, OR SEVERE PHYSICAL OR ENVIRONMENTAL DAMAGE.

3. Transfer. You may not rent, lease, lend, redistribute or sublicense the MDW Software. You may, however, make a one-time permanent transfer of all of your license rights to the MDW Software to another party, provided that: (a) the transfer must include all of the MDW Software, including all its component parts, original media, printed materials and this License; (b) you do not retain any copies of the MDW Software, full or partial, including copies stored on a computer or other storage device; and (c) the party receiving the MDW Software reads and agrees to accept the terms and conditions of this License.

4. Consent to Use of Data. You agree that MDW and its subsidiaries may collect and use technical and related information, including but not limited to technical information about your computer, system and application software, and peripherals, that is gathered periodically to facilitate the provision of software updates, product support and other services to you (if any) related to the MDW Software and to verify compliance with the terms of this License. MDW may use this information, as long as it is in a form that does not personally identify you, to improve our products or to provide services or technologies to you.

5. Termination. This License is effective until terminated. Your rights under this License will terminate automatically without notice from MDW if you fail to comply with any term(s) of this License. Upon the termination of this License, you shall cease all use of the MDW Software and destroy all copies, full or partial, of the MDW Software.

6. Limited Warranty on Media. MDW warrants the media on which the MDW Software is recorded and delivered by MDW to be free from defects in materials and workmanship under normal use for a period of ninety (90) days from the date of original retail purchase. Your exclusive remedy under this Section shall be, at MDW's option, a refund of the purchase price of the product containing the MDW Software or replacement of the MDW Software which is returned to MDW or an MDW authorized representative with a copy of the receipt. THIS LIMITED WARRANTY AND ANY IMPLIED WARRANTIES ON THE MEDIA INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY, OF SATISFACTORY QUALITY, AND OF FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO NINETY (90) DAYS FROM THE DATE OF ORIGINAL RETAIL PURCHASE. SOME JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. THE LIMITED WARRANTY SET FORTH HEREIN IS THE ONLY WARRANTY MADE TO YOU AND IS PROVIDED IN LIEU OF ANY OTHER WARRANTIES (IF ANY) CREATED BY ANY DOCUMENTATION OR PACKAGING. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY BY JURISDICTION. This Section shall not apply with respect to software accessed electronically and not delivered by MDW on any media.

7. Disclaimer of Warranties. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF THE MDW SOFTWARE (AS DEFINED ABOVE) IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY AND EFFORT IS WITH YOU. EXCEPT FOR THE LIMITED WARRANTY ON MEDIA SET FORTH ABOVE AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE MDW SOFTWARE IS PROVIDED "AS IS", WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND MDW AND MDW'S LICENSORS (COLLECTIVELY REFERRED TO AS "MDW" FOR THE PURPOSES OF SECTIONS 7 AND 8) HEREBY DISCLAIM ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE MDW SOFTWARE, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR A PARTICULAR PURPOSE, OF ACCURACY, OF QUIET ENJOYMENT, AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. MDW DOES NOT WARRANT AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF THE MDW SOFTWARE, THAT THE FUNCTIONS CONTAINED IN THE MDW SOFTWARE WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE MDW SOFTWARE WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE MDW SOFTWARE WILL BE CORRECTED. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY MDW OR AN MDW AUTHORIZED REPRESENTATIVE SHALL CREATE A WARRANTY. SHOULD THE MDW SOFTWARE PROVE DEFECTIVE, YOU ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATIONS ON APPLICABLE STATUTORY RIGHTS OF A CONSUMER, SO THE ABOVE EXCLUSION AND LIMITATIONS MAY NOT APPLY TO YOU.

8. Limitation of Liability. TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT SHALL MDW BE LIABLE FOR PERSONAL INJURY, OR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, LOSS OF DATA, BUSINESS INTERRUPTION OR ANY OTHER COMMERCIAL DAMAGES OR LOSSES, ARISING OUT OF OR RELATED TO YOUR USE OR INABILITY TO USE THE MDW SOFTWARE, HOWEVER CAUSED, REGARDLESS OF THE THEORY OF LIABILITY (CONTRACT, TORT OR OTHERWISE) AND EVEN IF MDW HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OF LIABILITY FOR PERSONAL INJURY, OR OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION MAY NOT APPLY TO YOU. In no event shall MDW's total liability to you for all damages (other than as may be required by applicable law in cases involving personal injury) exceed the amount of fifty dollars (US\$50.00). The foregoing limitations will apply even if the above stated remedy fails of its essential purpose.

9. Export Control. You may not use or otherwise export or reexport the MDW Software except as authorized by United States law and the laws of the jurisdiction in which the MDW Software was obtained. In particular, but without limitation, the MDW Software may not be exported or re-exported (a) into any U.S. embargoed countries or (b) to anyone on the U.S. Treasury Department's list of Specially Designated Nationals or the U.S. Department of Commerce Denied Person's List or Entity List. By using the MDW Software, you represent and warrant that you are not located in any such country or on any such list. You also agree that you will not use these products for any purposes prohibited by United States law, including, without limitation, the development, design, manufacture or production of missiles, or nuclear, chemical or biological weapons.

10. Government End Users. The MDW Software and related documentation are "Commercial Items", as that term is defined at 48 C.F.R. §2.101, consisting of "Commercial Computer Software" and "Commercial Computer Software Documentation", as such terms are used in 48 C.F.R. §12.212 or 48 C.F.R. §227.7202, as applicable. Consistent with 48 C.F.R. §12.212 or 48 C.F.R. §227.7202-1 through 227.7202-4, as applicable, the Commercial Computer Software and Commercial Computer Software Documentation are being licensed to U.S. Government end users (a) only as Commercial Items and (b) with only those rights as are granted to all other end users pursuant to the terms and conditions herein. Unpublished-rights reserved under the copyright laws of the United States.

11. Controlling Law and Severability. This License will be governed by and construed in accordance with the laws of the State of California, as applied to agreements entered into and to be performed entirely within California between California residents. This License shall not be governed by the United Nations Convention on Contracts for the International Sale of Goods, the application of which is expressly excluded. If for any reason a court of competent jurisdiction finds any provision, or portion thereof, to be unenforceable, the remainder of this License shall continue in full force and effect.

12. Complete Agreement; Governing Language. This License constitutes the entire agreement between the parties with respect to the use of the MDW Software licensed hereunder and supersedes all prior or contemporaneous understandings regarding such subject matter. No amendment to or modification of this License will be binding unless in writing and signed by MDW. Any translation of this License is done for local requirements and in the event of a dispute between the English and any non-English versions, the English version of this License shall govern.

Legal Notices

© 2014 Avid Technology, Inc., ("Avid"), all rights reserved. This guide may not be duplicated in whole or in part without the written consent of Avid.

003, 192 Digital I/O, 192 I/O, 96 I/O, 96i I/O, Adrenaline, AirSpeed, ALEX, Alienbrain, AME, AniMatte, Archive, Archive II, Assistant Station, AudioPages, AudioStation, AutoLoop, AutoSync, Avid, Avid Active, Avid Advanced Response, Avid DNA, Avid DNxcel, Avid DNxHD, Avid DS Assist Station, Avid Ignite, Avid Liquid, Avid Media Engine, Avid Media Processor, Avid MEDIArray, Avid Mojo, Avid Remote Response, Avid Unity, Avid Unity ISIS, Avid VideoRAID, AvidRAID, AvidShare, AVIDStripe, AVX, Beat Detective, Beauty Without The Bandwidth, Beyond Reality, BF Essentials, Bomb Factory, Bruno, C|24, CaptureManager, ChromaCurve, ChromaWheel, Cineractive Engine, Cineractive Player, Cineractive Viewer, Color Conductor, Command8, Control|24, Cosmonaut Voice, Countdown, d2, d3, DAE, D-Command, D-Control, Deko, DekoCast, D-Fi, D-fx, Digi 002, Digi 003, DigiBase, Digidesign, Digidesign Audio Engine, Digidesign Development Partners, Digidesign Intelligent Noise Reduction, Digidesign TDM Bus, DigiLink, DigiMeter, DigiPanner, DigiProNet, DigiRack, DigiSerial, DigiSnake, DigiSystem, Digital Choreography, Digital Nonlinear Accelerator, DigiTest, DigiTranslator, DigiWear, DINR, DNxchange, Do More, DPP-1, D-Show, DSP Manager, DS-StorageCalc, DV Toolkit, DVD Complete, D-Verb, Eleven, EM, Euphonix, EUCON, EveryPhase, Expander, ExpertRender, Fairchild, FastBreak, Fast Track, Film Cutter, FilmScribe, Flexevent, FluidMotion, Frame Chase, FXDeko, HD Core, HD Process, HDpack, Home-to-Hollywood, HyperSPACE, HyperSPACE HDCAM, iKnowledge, Impact, Improv, iNEWS, iNEWS Assign, iNEWS ControlAir, InGame, Instantwrite, Instinct, Intelligent Content Management, Intelligent Digital Actor Technology, IntelliRender, Intelli-Sat, Intelli-Sat Broadcasting Recording Manager, InterFX, Interplay, inTONE, Intraframe, iS Expander, iS9, iS18, iS23, iS36, ISIS, IsoSync, LaunchPad, LeaderPlus, LFX, Lightning, Link & Sync, ListSync, LKT-200, Lo-Fi, MachineControl, Magic Mask, Make Anything Hollywood, make manage move|media, Marquee, MassivePack, MassivePack Pro, Maxim, Mbox, Media Composer, MediaFlow, MediaLog, MediaMix, Media Reader, Media Recorder, MEDIArray, MediaServer, MediaShare, MetaFuze, MetaSync, MIDI I/O, Mix Rack, Moviestar,

MultiShell, NaturalMatch, NewsCutter, NewsView, NewsVision, Nitris, NL3D, NLP, NSDOS, NSWIN, OMF, OMF Interchange, OMM, OnDVD, Open Media Framework, Open Media Management, Painterly Effects, Palladium, Personal Q, PET, Podcast Factory, PowerSwap, PRE, ProControl, ProEncode, Profiler, Pro Tools, Pro Tools|HD, Pro Tools LE, Pro Tools M-Powered, Pro Transfer, QuickPunch, QuietDrive, Realtime Motion Synthesis, Recti-Fi, Reel Tape Delay, Reel Tape Flanger, Reel Tape Saturation, Reprise, Res Rocket Surfer, Reso, RetroLoop, Reverb One, ReVibe, Revolution, rS9, rS18, RTAS, Salesview, Sci-Fi, Scorch, ScriptSync, SecureProductionEnvironment, Shape-to-Shape, ShuttleCase, Sibelius, SimulPlay, SimulRecord, Slightly Rude Compressor, Smack!, Soft SampleCell, Soft-Clip Limiter, SoundReplacer, SPACE, SPACESHift, SpectraGraph, SpectraMatte, SteadyGlide, Streamfactory, Streamgenie, StreamRAID, SubCap, Sundance, Sundance Digital, SurroundScope, Symphony, SYNC HD, SYNC I/O, Synchronic, SynchroScope, Syntax, TDM FlexCable, TechFlix, Tel-Ray, Thunder, TimeLiner, Titansync, Titan, TL Aggro, TL AutoPan, TL Drum Rehab, TL Everyphase, TL Fauxlдер, TL In Tune, TL MasterMeter, TL Metro, TL Space, TL Utilities, tools for storytellers, Transit, TransJammer, Trillium Lane Labs, TruTouch, UnityRAID, Vari-Fi, Video the Web Way, VideoRAID, VideoSPACE, VTEM, Work-N-Play, Xdeck, X-Form, and XMON are either registered trademarks or trademarks of Avid Technology, Inc. in the United States and/or other countries.

Bonjour, the Bonjour logo, and the Bonjour symbol are trademarks of Apple Computer, Inc.

Thunderbolt and the Thunderbolt logo are trademarks of Intel Corporation in the U.S. and/or other countries.

This product may be protected by one or more U.S. and non-U.S. patents. Details are available at www.avid.com/patents.

Product features, specifications, system requirements, and availability are subject to change without notice.

Guide Part Number 9329-65422-00 REV A 01/14

Table Of Contents

Chapter 1: Introduction	9
MDWEQ Plug-In Features	9
System Requirements and Compatibility	10
Registering Plug-Ins	10
Working with Plug-Ins	10
General Support For MDW EQ6	
Chapter 2: Installation and Authorization	12
Installing Plug-Ins for Pro Tools	12
Authorizing Plug-Ins	12
Authorizing Downloaded Software	12
Removing Plug-Ins	13
Chapter 3: Using MDWEQ6	14
The MDWEQ 5-Band Plug-In Window	14
The MDWEQ 3-Band Plug-In Window	16
1 - Hi Shelf HiQ and Low Shelf HiQ	18
2 - EQ display corresponds to Pro Tools' EQ Curve Displays:	19
3 - EQ Control Points (Node):	20
4 - ToolTip	22
MDWEQ Controls	23
Adjusting MDWEQ Controls	24
Adjusting Controls with a Mouse	24
Adjusting Controls with a Keyboard	25
Copying and Pasting Band Settings within a Plug-In	26
PREFERENCES:	28

Chapter 1: Introduction

Massenburg DesignWorks® (MDW) Hi-Res Parametric EQ plug-in Version 6 is a mono and multi-mono AAX plug-in (HDX/DSP and Native) that defines the state-of-the-art in digital equalization. With its unprecedented clarity, unmatched smoothness, low noise, and consistent high-frequency response, the MDW® Hi-Res Parametric EQ is designed for unequaled sonic performance.

MDW Hi-Res Parametric EQ is implemented in double-precision 64-bit floating-point processing, and takes advantage of the maximum capability of your Pro Tools® Native and HDX systems. In 44.1 kHz and 48 kHz sampling rate sessions, MDWEQ upsamples to 88.2 kHz or 96 kHz respectively for all EQ processing, resulting in unprecedented high-frequency curve consistency. This plug-in emulates the constant shape reciprocal filter curves of George Massenburg's legendary GML 8200 equalizer—the industry-standard reference. The MDWEQ plug-in offers a choice of either three or five bands of equalization with support for an ultra-wide frequency range from 10 Hz to 41 kHz.

This guide provides information on installing and using the MDWEQ plug-in in Pro Tools sessions. For general information on using plug-ins with Pro Tools, see the *Pro Tools Reference Guide*.

MDWEQ Plug-In Features

Continuing the tradition of unrelenting attention to quality, MDWEQ provides features and benefits for those who want the best.

Features

- High-resolution 96 kHz sample-rate processing for audio recorded at 48 and 96 kHz, and 192 kHz sample-rate processing for 192 kHz audio
- Wide frequency selection, from 10 Hz to 41 kHz, with variable Q and a choice of three- or five-band EQ
- Double-precision 64-bit processing for unprecedented clarity and low noise.
- Emulates GML8200 constant shape reciprocal filter curves—the industry-standard reference for parametric workflow.
- IsoPeak® functionality solos a target frequency quickly and precisely
- A/B snapshots for quick and easy settings comparisons
- AAX plug-in format with support for HDX and Native hardware
- Support to show the EQ Graph in Pro Tools 2018.7 and later...
- Real Time frequency analysis on the Spectrum Display to help users dive into more surgical EQ

System Requirements and Compatibility

To use the MDWEQ plug-in, you need the following:

- An iLok USB Smart Key (iLok 2 or 3 required)
- An iLok.com account for managing iLok licenses
- iLokLicenseManager application
- A qualified ProTools system (ProTools version 10.3.6 or higher)

Avid can only assure compatibility and provide support for hardware and software it has tested and approved.

For complete system requirements and a list of qualified computers, operating systems, hard drives, and third-party devices, visit:

www.avid.com/compatibility

Registering Plug-Ins

Your plug-in purchase is automatically registered when you activate your iLok license (see “Authorizing Plug-Ins” on page 5).

Registered users are eligible to receive software update and upgrade notices.

For information on technical support, visit www.avid.com.

Working with Plug-Ins

Besides the information provided in this guide, see the *Pro Tools Reference Guide* for general information on working with plug-ins, including:

- Inserting plug-ins on tracks
- Using clip indicators
- Navigating the Plug-In window
- Adjusting plug-in controls
- Automating plug-ins
- Using plug-in presets

General Support For MDW EQ6

Full license of MDWEQ V6 can be purchased through Avid store and all questions related to purchase, download, authorization and installation be directed to Avid support.

The upgrade to a V6 license from your V5 license can be purchased directly from MDW Store. If you've recently purchased a full V5 license within the 30 days prior to the release of V6, please contact MDW for your free upgrade. A proof of purchase/invoice as well as your iLok name must be provided and MDW will upgrade it to V6 license accordingly.

<https://massenburgdesignworks.com/>

Chapter 2: Installation and Authorization

Installing Plug-Ins for Pro Tools

Installers for your plug-ins can be downloaded from the Avid Store (<http://shop.avid.com>) or can be found on the plug-in installer disc (included with boxed versions of plug-ins).

An installer may also be available on the Pro Tools installer disc or on a software bundle installer disc.

To install a plug-in:

- 1 Download the installer for your computer platform from www.avid.com. After downloading, make sure the installer is uncompressed (.dmg on Mac or .ZIP on Windows).
- 2 Locate and double-click the plug-in installer application.
- 3 Follow the on-screen instructions to complete the installation.
- 4 When installation is complete, click Finish (Windows) or Quit (Mac).

When you launch Pro Tools, you are prompted to authorize your new plug-in.

IMPORTANT!

In order for EQ6 to work, you must first uninstall EQ5 folder. EQ5 and EQ6 cannot co-exist on the same system.

Authorizing Plug-Ins

Software is authorized using the iLok USB Smart Key (iLok), manufactured by PACE Anti-Piracy.



iLok 2 and iLok 3 USB Smart Key

An iLok can hold hundreds of licenses for all of your iLok-enabled software. Once a license for a given piece of software is placed on an iLok, you can use the iLok to authorize that software on any computer.

An iLok USB Smart Key is not supplied with plug-ins or software options. You can use the iLok included with certain Pro Tools systems or purchase one separately.

Authorizing Downloaded Software

If you downloaded the software from the Avid Store (<http://shop.avid.com>), you authorize it using the iLok License Manager application. For more information, visit the iLok website (www.iLok.com)

Removing Plug-Ins

If you need to remove a plug-in from your Pro Tools system, follow the instructions below for your computer platform.

Mac OS X

To remove a plug-in:

1 Locate and open the Plug-Ins folder on your Startup drive (Library/Application Support /Avid/Audio/Plug-Ins).

2 Do one of the following:

- Drag the plug-in to the Trash and empty the Trash.
- Drag the plug-in to the Plug-Ins (Unused) folder.

Windows

To remove a plug-in:

1 Choose Start > Control Panel.

2 Click Programs and Features.

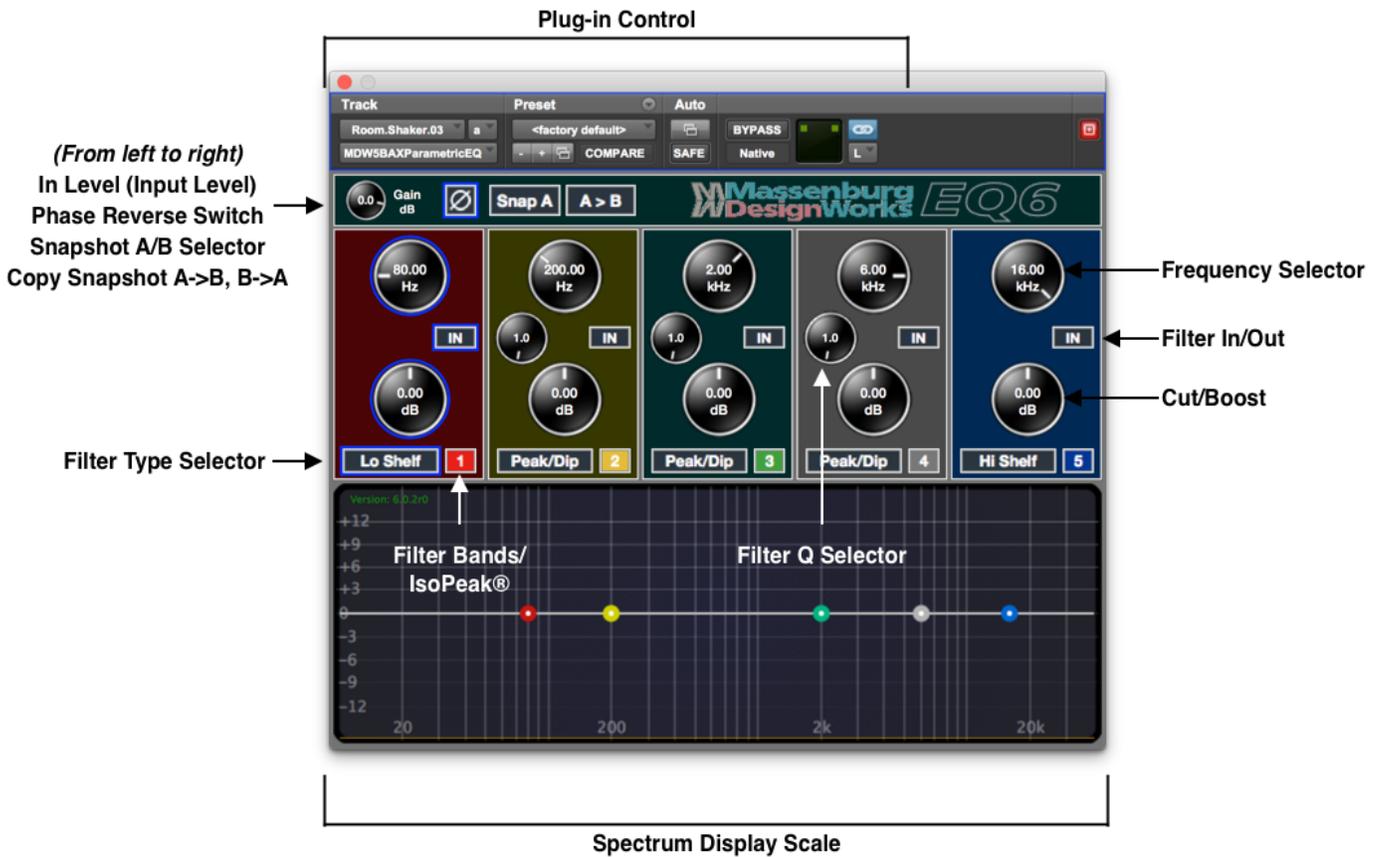
3 Select the plug-in from the list of installed applications.

4 Click Uninstall.

5 Follow the on-screen instructions to remove the plug-in.

Chapter 3: Using MDWEQ6

The MDWEQ 5-Band Plug-In Window



The Massenburg DesignWorks 5-Band High Resolution Equalizer has five independent filter bands connected in series. EQ Bands 2 through 4 can be individually set to one of nine filter types (or bypassed):

- Peak/dip
- High-frequency shelf
- Low-frequency shelf
- High-pass 6 (6 dB/octave slope)
- Low-pass 6 (6 dB/octave slope)
- High-pass 12 (12 dB/octave slope)
- Low-pass 12 (12 dB/octave slope)
- Lo Shelf HiQ
- Hi Shelf HiQ

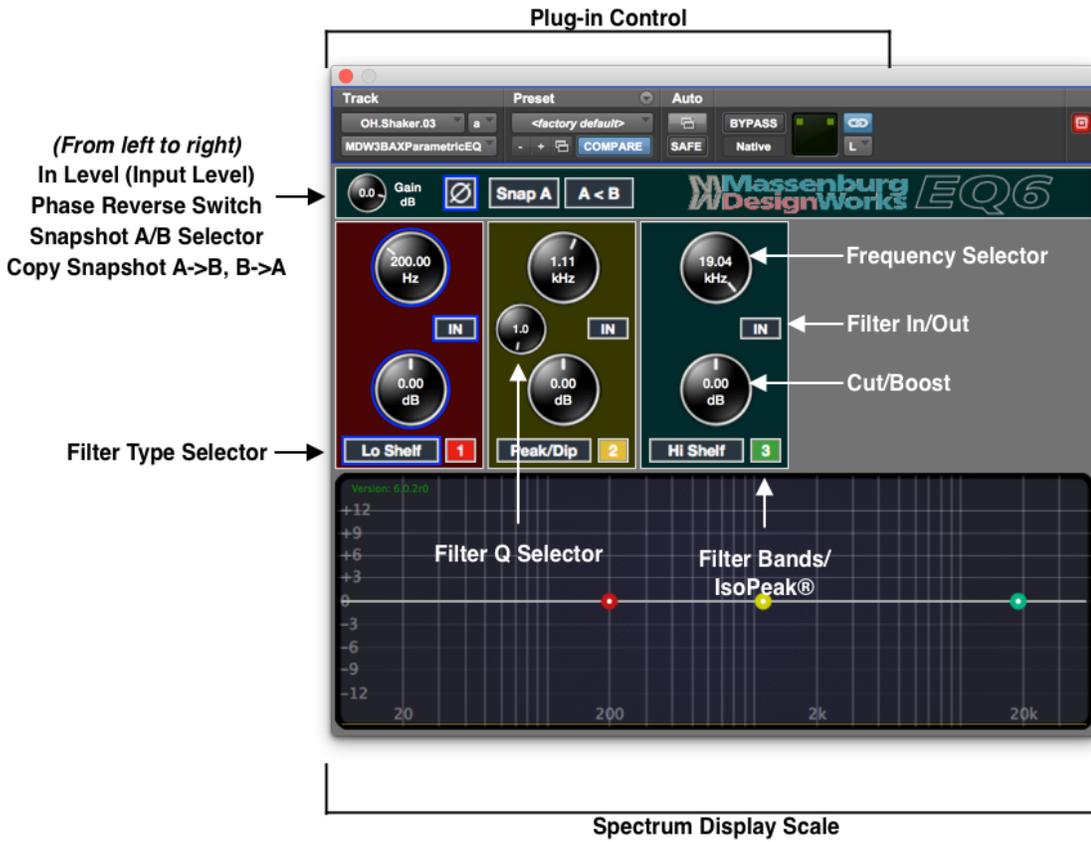
Filter Bands 1 and 5 can be individually set to one of thirteen filter types (or bypassed):

- Peak/Dip
- Lo Shelf
- Hi Shelf
- Lo Shelf HiQ
- Hi Shelf HiQ
- High-pass 6 (6 dB/octave slope)
- Low-pass 6 (6 dB/octave slope)
- High-pass 12 (12 dB/octave slope)
- Low-pass 12 (12 dB/octave slope)
- High-pass 18 (18 dB/octave slope)
- Low-pass 18 (18 dB/octave slope)
- High-pass 24 (24 dB/octave slope)
- Lowpass 24 (24 dB/octave slope)

In addition to the traditional Shelf filters, MDW® EQ6 now comes with a **Lo and Hi Shelf with Hi-Q Option***. A scalable display shows the overall EQ frequency response curve. All filter parameters can be independently automated

*more information on page 9

The MDWEQ 3-Band Plug-In Window



The Massenburg DesignWorks 3 Band High Resolution Equalizer has three independent filter bands connected in series. EQ Band 2 can be individually set to one of nine filter types (or bypassed):

- Peak/dip
- High-frequency shelf
- Low-frequency shelf
- High-pass 6 (6 dB/octave slope)
- Low-pass 6 (6 dB/octave slope)
- High-pass 12 (12 dB/octave slope)
- Low-pass 12 (12 dB/octave slope)
- Lo Shelf HiQ
- Hi Shelf HiQ

Filter Bands 1 and 3 can be individually set to one of thirteen filter types (or bypassed):

- Peak/Dip
- Lo Shelf
- Hi Shelf
- Lo Shelf HiQ
- Hi Shelf HiQ
- High-pass 6 (6 dB/octave slope)
- Low-pass 6 (6 dB/octave slope)
- High-pass 12 (12 dB/octave slope)
- Low-pass 12 (12 dB/octave slope)
- High-pass 18 (18 dB/octave slope)
- Low-pass 18 (18 dB/octave slope)
- High-pass 24 (24 dB/octave slope)
- Lowpass 24 (24 dB/octave slope)

In addition to the traditional Shelf filters, MDW® EQ6 now comes with a **Lo and Hi Shelf with Hi-Q Option***. A scalable display shows the overall EQ frequency response curve. All filter parameters can be independently automated.

*more information on page 9

1 - Hi Shelf HiQ and Low Shelf HiQ

Figures below: left - Standard Shelf, right – HiQ Shelf $Q=1.0$



Figures above: left – HiQ Shelf $Q=0.5$, right HiQ Shelf $Q=4.0$

Note the effect of the “Hi-Q Shelves”; one observes higher selectivity as one increases the “Q” of the shelf. In the example above where one boosts “80Hz” a HiQ Low Frequency Shelf with a Q of 4.0, one raises the lowest frequencies while at the same time reducing timbres centered around 200Hz.

2 - EQ display corresponds to Pro Tools' EQ Curve Displays:



Figure above: Example display of EQ6 Display corresponding with Avid's EQ Curve Display

Avid introduced composite EQ curve displays, which provide a simple, focused view into each track's EQ plug-in activity. MDWEQ6's graphic display now corresponds to its function. As you move your frequency/Q and cut/boost control on both MDWEQ6's graphic display along with Avid's EQ curve display.

3 - EQ Control Points (Node):



Figure above: New MDWEQ6 EQ Control Points (Node) and color shading

MDWEQ6 has significantly improved graphics and now adds control points, or “Nodes”, for this version. You can easily adjust Frequency, Gain, and Q parameters by the following commands in the EQ display.

Here are the controls for each parameter:

Mac OS X:

Option/Alt: on a node resets the band to default.

Control+Drag: a node adjusts the Bandwidth

Command+Drag: a node for high resolution adjustments

Control+Shift: toggles the band In/Out button

Control+Command+Drag: adjusts the Q with higher resolution

Windows:

Option/Alt: on a node resets the band to default.

Start+Drag: a node adjusts the Bandwidth

Control+Drag: a node for high resolution adjustments

Start+Shift: toggles the band In/Out button

Start+Control+Drag: adjusts the Q with higher resolution

4 - ToolTip

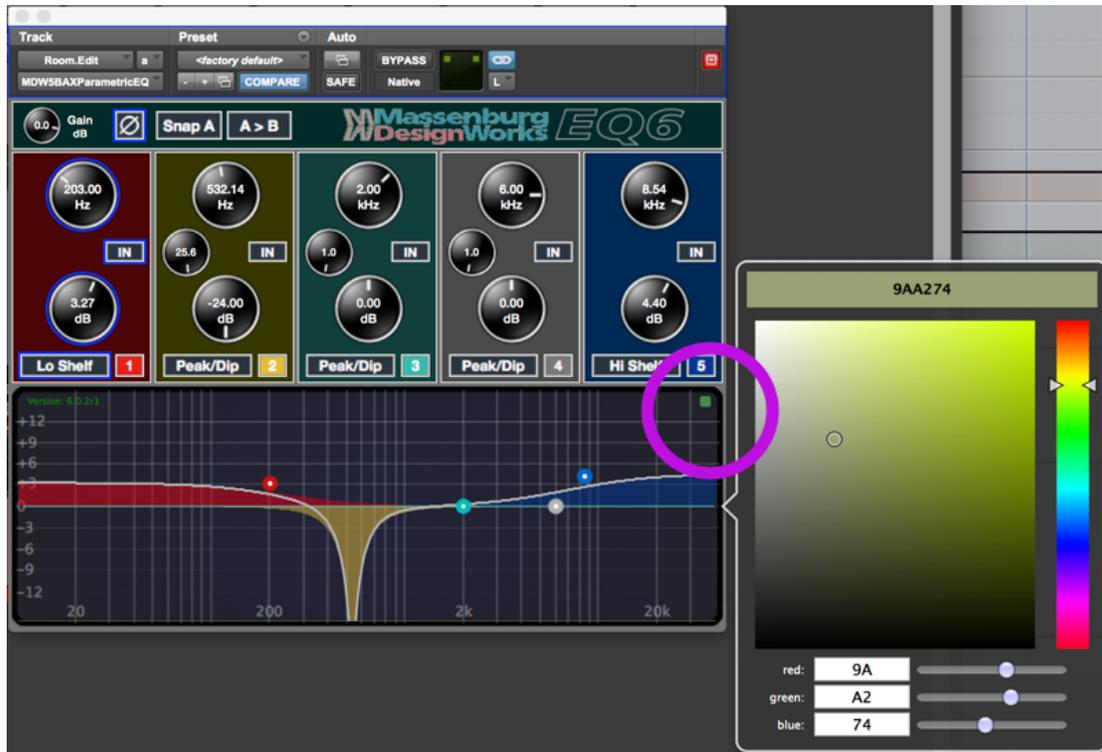


Figure above: ToolTip in the upper corner

MDWEQ6 also added a ToolTip in the upper right corner of the graph which let user to change the color of the Analyzer in real time. To do so, just click the ToolTip. Click outside of the Color Chooser to close the color chooser. Change can be seen below:



MDWEQ Controls

These controls let you adjust the parameters of an MDWEQ plug-in inserted on a track.

Spectrum Display Scale

Click anywhere within the spectrum display to view the Spectrum Display Scale pop-up menu and choose the desired vertical scale of the display. The available choices are ± 6 , ± 12 or ± 24 dB. Selecting a ± 6 dB scale is useful for viewing more subtle equalizer adjustments. Changing the scale of the display has no effect on the equalizer's audio output.

In Level (Input Level)

The In Level adjusts the audio input to the plug-in from -24 dB to $+6$ dB. Drag or double-click and enter numerical data to adjust this control. It is often useful to lower the operating level at this point when you want to decrease the level to the next device or process.

Phase Reverse Switch

Click the Phase Reverse button to reverse the absolute phase of the audio. If the EQ is linked to other channels, it will invert the phase of those as well— maintaining the phase relationship between them, but reversing their relationship to the audio in the rest of the session.

Snapshot A/B Select

The A & B snapshot feature allows you to compare two snapshot settings. Toggle between the two snapshots settings by pressing the A/B Snapshot Button.

Copy Snapshot A->B, B->A

While Snapshot A is selected, you may duplicate all settings to Snapshot B.

Filter Bands

Bands provide precise filtering of the audio signal in series. Filter type for each band is individually selectable.

Frequency Selector

This Selector sets the frequency of the selected filter band. Frequency range is from 10 Hz to 41 kHz.

Filter Q Selector

The Q Selector sets the Bandwidth of the Peak/Dip filter of the selected filter band.

Cut/Boost

This feature provides up to ± 24 dB of frequency cut or boost.

Filter Type Selector

This Selector provides a choice of high-pass (6 or 12 dB/oct), low-pass (6 or 12 dB/oct), high-shelf, low-shelf, peak/dip, or bypass operation. For the MDW 5-Band EQ, Band #5 and for the MDW 3-Band EQ, Band #3, each offers additional filter choices which include high-pass 18 and high-pass 24 (18 or 24 dB/oct).. Additionally, EQ6 comes with new filter types: Lo and Hi Shelf with Hi-Q options.

Filter In/Out

The In/Out button allows you to switch a filter band on or off.

IsoPeak

IsoPeak® provides a function in Peak/Dip filter mode whereby this band is soloed, and a sharp peak is temporarily set. Click on the colored band number button to initiate IsoPeak for that band (the other bands become unavailable while IsoPeak is engaged). Click and hold or right click on the background area of the band to reveal a pop-up menu allowing you to adjust the IsoPeak Q value.

Band Pop-up Menu

Click and hold or right click on the background area of each band to reveal a pop-up menu to adjust the IsoPeak Q value as well as the option to copy and paste individual band settings.

Adjusting MDWEQ Controls

The best way to use MDWEQ is to insert it on a track and adjust its controls during playback to hear the changes in real time.

You can adjust MDWEQ knob control values by dragging the knobs or by double-clicking the knob and then typing a value into the knob's text display.

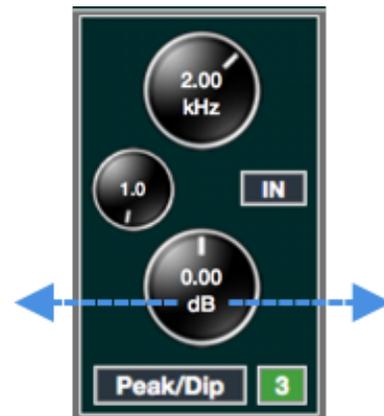
Adjusting Controls with a Mouse

When using a mouse, MDWEQ knob controls are adjusted by dragging horizontally or vertically. Values increase as you drag upward or to the right. Values decrease as you drag downward or to the left.

You can also enable your mouse wheel to adjust the values in the preferences.

To adjust a control with a mouse:

- 1 Begin audio playback so that you can hear parameter changes in real time.
- 2 From the Filter Type selector pop-up menu on the desired band, select the filter type.
- 3 Drag the knob horizontally or vertically to adjust the parameters for the effect you want.



Dragging a knob either horizontally or vertically

Keyboard Shortcuts

- For finer adjustments, Command-drag the control.
- To return a control to its default value, Option-click the control.

Adjusting Controls with a Keyboard

Knob controls display their current value. You can edit this value by double-clicking and entering a value with your computer keyboard. If multiple plug-in windows are open, click the Target button on the plug-in whose controls you want to adjust.

When lit (red), the Target button indicates its window is targeted. When unlit (gray) the Target button indicates its window is not targeted.

To adjust a control with a computer keyboard:

1 Double-click the numerical text you want to edit.



Displaying a control manually (after double-clicking)

2 Select a numerical value for editing by doing one of the following:

- Type the desired value. For negative values, type a minus sign in front of the number.
- Press the Up Arrow on your keyboard to increase a value. Press the Down Arrow to decrease a value.

Tips: In fields that support values in kilohertz, type “k” after a number value to multiply the value by 1000. For example, type “1.2k” or “1k2” to enter a frequency of 1200 Hz.

3 Do one of the following:

- Press Enter on the numeric keyboard after typing a value to input the value without leaving the selected text box.
- Press Return on the alpha keyboard to enter the value and leave keyboard editing mode.

Copying and Pasting Band Settings within a Plug-In

To copy band settings:

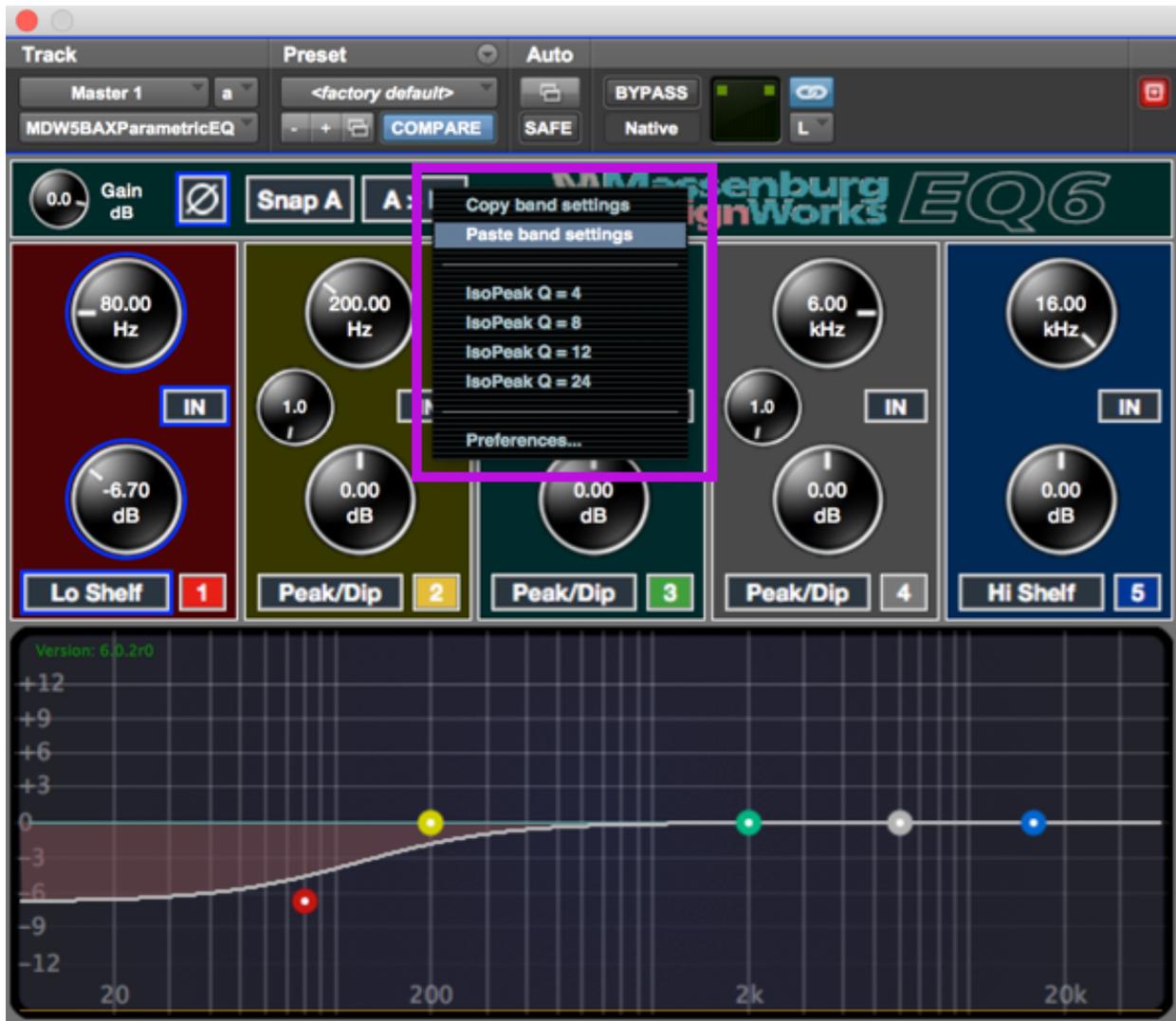
- Click and hold, or right (control) + click, on the background of the band whose settings you want to copy and choose Copy Band Settings



Figure above: Copying band parameters

To paste band settings:

- Click and hold, or right (control) + click, on the background of the band where you want to paste the settings and choose Paste Band Settings.

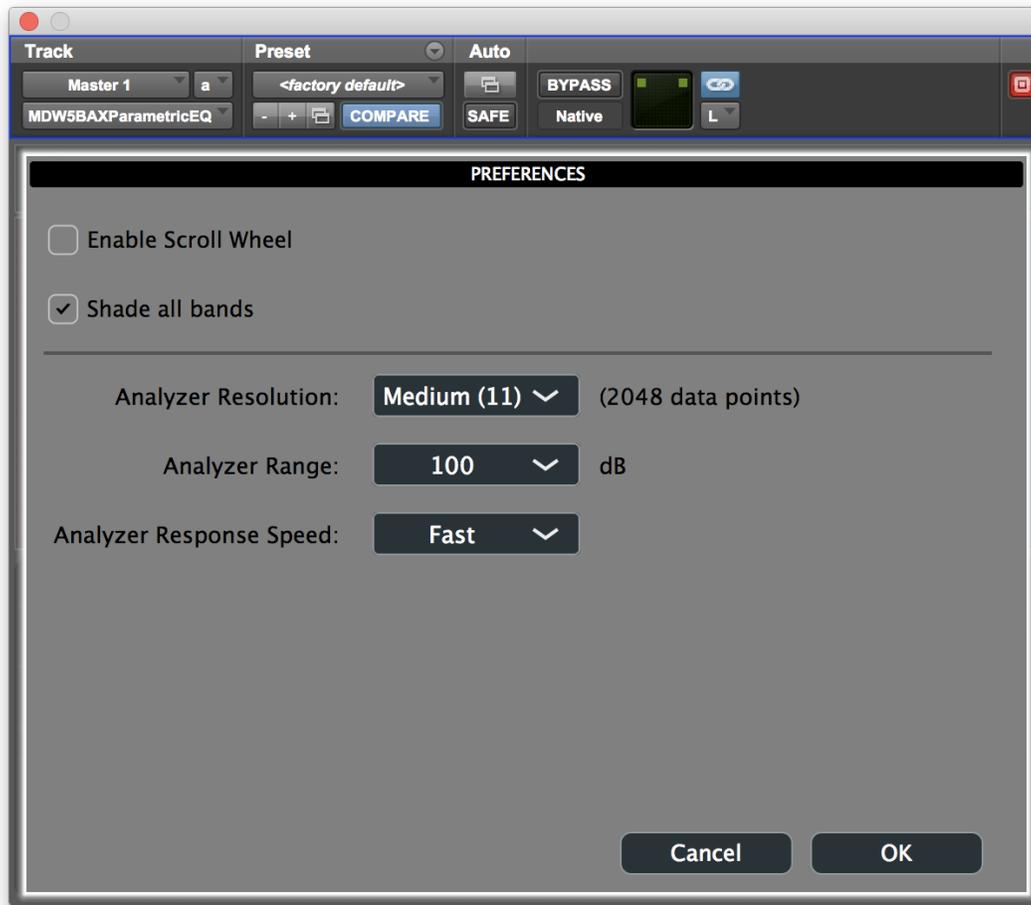


Pasting band parameters

PREFERENCES:

The MDW plug-in preferences let you fine tune plug-in performance. To open this screen, Click and hold, or right click, on the background of a band and select *Preferences*.

In the preferences, you will see the screen below which allows some adjustments for the plug-in.



Enable Scroll Wheel Lets you adjust the values by using your mouse's scroll wheel.

Shade All Bands By default EQ6 shades all bands drawn in the EQ graph display with the corresponding color as in the Bands' solo buttons. Disabling this option only shades the band which is actively being adjusted by a Control Point (node).

Analyzer Resolution Lets you select how many data points are used to analyze the audio data. The more data points, the more cpu processing is required but gives better low frequency resolution.

Analyzer Range

Defines the vertical range of the Analyzer graph in decibels.

Analyzer Response Speed

This changes how often the Analyzer updates and the fall time. Slower values update less regularly, but let you examine the spectrum for a longer period.



For more information please visit:

Massenburg DesignWorks

<https://massenburgdesignworks.com>

<https://avid.com>