

# MTurboEQ



## Overview

MTurboEQ is an equalizer inspired by many of the good analog EQs of the past, made to be easy and quick to use, sound great, but not necessarily emulate the originals. It doesn't produce any unnecessary noise or distort the signal (unless **Saturation** is used). MTurboEQ is designed in such a way that all the equalizers that it provides "feel" the same. They always have pretty much the same features, even when the original EQs didn't come close to such versatility. We cloned what we decided to be advantageous, but discarded everything else. Each equalizer has a different filter design, which essentially defines which frequencies are affected and how. That's after all the magic of these analog devices. Simply choose the one that sounds best to you. And, of course, you can use the A-H presets for comparison.

## Globals

First, there's always a **Globals** section, which is the same for all EQs. It provides the basic processing one often needs.

**Input gain** lets you adjust the input level to your needs. Note that when saturation is used, the gain affects the amount of saturation/distortion.

**Saturation** lets you bring some character, or analog feel, to the signal. It generally simulates the nonlinear characteristics of most analog devices and produces higher harmonics. Be careful not to overuse this feature.

**High-pass** and **Low-pass** filters are essential for mixing. For most tracks, which don't contain bass frequencies, it is advantageous to remove the low-end using a high-pass filter. This clears the area of unnecessary rumble, noise and other artifacts, and clears the space for the instruments, which actually need it - bass and bass drum usually. It is often useful for these instruments too however, to remove DC for example. The low-pass filter is less widely used, but it can still be advantageous for tracks, which don't require the high frequencies, hence it lets you clear additional space in the mix.

**Dry/Wet** provides an easy way to adjust the amount of equalization. Please note that since this is a minimum phase equalizer, it's not a true dry/wet as that would cause problems with phase cancellation. Instead it emulates how the dry/wet would work, if it were actually possible. It does not affect the input HP/LP section though.

## Filters

**Low-shelf** and **high-shelf** filters are most likely the most essential filters. Low-shelf lets you control the bass frequencies and high-shelf targets the high frequencies and lets you get some sparkle. Be careful not to overuse them, since positive gain almost always sounds "better", but that's due to the psychoacoustical hi-fi effect. It is common to perform some slight high end boost though, to make the output brighter as that usually sounds more professional and microphones tend to lower the level of high frequencies.

**Peak filters** are used to control a specific part of the spectrum and are often combined with shelves, which will most likely be the first to be used. For example, it's common to equalize a bass drum by amplifying the bass spectrum with a low-shelf and then remove some of the

mids using a peak filter.

## Stepped / Continuous

MTurboEQ lets you easily switch between 2 editor modes at any time. **Stepped** mode is inspired by analog devices, which couldn't have a slider or knob for technical reasons, so instead they had a multi-position switch, which let you choose between a limited set of predefined values. The engineers had to take their time and use their expertise to select the most useful ones. There's some appeal in having this limited set, since it is often hard to decide what is better, if you have potentially infinite possibilities. It is also easier to compare values that are further apart, so there's some distinct difference in sound. In most cases we cloned the values that the designers of the original devices had chosen, but we often added some more. In Stepped mode (almost) all filter parameters provide the stepped behaviour, even if the originals provided a knob for example, simply to have a standardized behaviour. After all we are not limited by the problems of the analog world any more.

**Continuous** mode is the exact opposite - it lets you choose any value in the available interval, even if the original designs didn't provide them. The advantage is that you can tune the equalizer much further, the disadvantage is that you need to be able to choose. In any case you can freely switch between the 2 modes and perform major decisions in Stepped mode and then switch to Continuous mode for fine-tuning for example.

## Mid-side and other goodies

Similarly to most MeldaProduction plugins, MTurboEQ has several goodies you can use to speed-up your workflow and perform more complex tasks. These are documented below, but let's have a quick review. **L+R** button controls the channel mode - which channels are affected. You can use it to make the EQ process only left or right channel for example, or even mid and side channels, surround etc. **AGC** may be handy to avoid loudness changes and getting fooled by your own ears. **Safety limiter** is generally handy if you want to make sure the output won't get too loud no matter how crazy processing are you going to perform. **Oversampling** shouldn't be necessary, but if you want to avoid even potential aliasing when using saturation for example, feel free to use it. **A-H** presets are essential for fast workflow and let you store, compare and morph between 8 settings.

## Devices

This plugin can be thought of as a collection of plugins listed on the left side of the GUI. Select a device simply by clicking on it. Its GUI will appear on the right side. Compared to other MeldaProduction plugins it doesn't have any **edit screen**, so you cannot edit the internal functionality, which may be extremely complex. If you are interested in complex editing, please check **MXXX, the ultimate modular effect**.

 Presets

### Presets

Presets button shows a window with all available presets. A preset can be loaded from the preset window by double-clicking on it, selecting via the buttons or by using your keyboard. You can also manage the directory structure, store new presets, replace existing ones etc. Presets are global, so a preset saved from one project, can easily be used in another. The arrow buttons next to the preset button can be used to switch between presets easily.

Holding **Ctrl** while pressing the button loads a random preset. There must be some presets for this feature to work of course.

Presets can be backed up by 3 different methods:

- A) Using "Backup" and "Restore" buttons in each preset window, which produces a single archive of all presets on the computer.
- B) Using "Export/Import" buttons, which export a single folder of presets for one plugin.
- C) By saving the actual preset files, which are found in the following directories (not recommended):

Windows: C:\Users\{username}\AppData\Roaming\MeldaProduction

Mac OS X: /Library/Application support/MeldaProduction

Files are named based on the name of the plugin like this: "{pluginname}.presets", so for example MAutopan.presets or MDynamics.presets. If the directory cannot be found on your computer for some reason, you can just search for the particular file.

Please note that prior to version 16 a different format was used and the naming was "{pluginname}presets.xml". *The plugin also supports an online preset exchange. If the computer is connected to the internet, the plugin connects to our server once a week, submits your presets and downloads new ones if available. This feature is manually maintained in order to remove generally unusable presets, so it may take some time before any submitted presets become available. This feature relies on each user so we strongly advise that any submitted presets be named and organised in the same way as the factory presets, otherwise they will be removed.*



### Left arrow

Left arrow button loads the previous preset.



### Right arrow

Right arrow button loads the next preset.



## Randomize

Randomize button loads a random preset.



## Panic

Panic button resets the plugin state. You can use it to force the plugin to report latency to the host again and to avoid any audio problems. For example, some plugins, having a look-ahead feature, report the size of the look-ahead delay as latency, but it is inconvenient to do that every time the look-ahead changes as it usually causes the playback to stop. After you tweak the latency to the correct value, just click this button to sync the track in time with the others, minimizing phasing artifacts caused by the look-ahead delay mixing with undelayed audio signals in your host. It may also be necessary to restart playback in your host.

Another example is if some malfunctioning plugin generates extremely high values for the input of this plugin. A potential filter may start generating very high values as well and as a result the playback will stop. You can just click this button to reset the plugin and the playback will start again.



## Settings

Settings button shows a menu with additional settings of the plugin. Here is a brief description of the separate items.

**Licence manager** lets you activate/deactivate the plugins and manage subscriptions. While you can simply drag & drop a licence file onto the plugin, in some cases there may be a faster way. For instance, you can enter your user account name and password and the plugin will do all the activating for you.

There are 4 groups of settings, each section has its own detailed help information: **GUI & Style** enables you to pick the GUI style for the plug-in and the main colours used for the background, the title bars of the windows and panels, the text and graphs area and the highlighting (used for enabled buttons, sliders, knobs etc).

**Advanced settings** configures several processing options for the plug-in.

**Global system settings** contains some settings for all MeldaProduction plugins. Once you change any of them, restart your DAW if needed, and it will affect all MeldaProduction plugins.

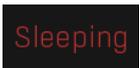
**Dry/Wet affects** determines, for Multiband plug-ins, which multiband parameters are affected by the Global dry/wet control.

**Smart interpolation** adjusts the interpolation algorithm used when changing parameter values; the higher the setting the higher the audio quality and the lower the chance of zippering noise, but more CPU will be used.



## WWW

WWW button shows a menu with additional information about the plugin. You can check for updates, get easy access to support, MeldaProduction web page, video tutorials, Facebook/Twitter/YouTube channels and more.



## Sleep indicator

Sleep indicator informs whether the plugin is currently active or in sleep mode. The plugin can automatically switch itself off to save CPU, when there is no input signal and the plugin knows it cannot produce any signal on its own and it generally makes sense. You can disable this in Settings / **Intelligent sleep on silence** both for individual instances and globally for all plugins on the system.



## Reload

Reload button reloads the device and sets all non-locked controls in the current device to their default values. It may be useful, since the plugin stores current settings when switching between the devices, hence this button is a quick and easy way to get the defaults for the devices, before you changed them. If you want to reload all parameters for the device, you must unlock the Easy screen locks or disable them all by turning off the On/Off button in the Global Locking panel in Edit mode.



### Device selector

Device selector lets you choose from the predefined devices (previous 'active presets'). These are different from normal presets as they can actually have Easy-mode controls available via knobs or buttons. Click on an device to load it. Check out our video tutorials for information about creating your own devices. Although you cannot put your own devices into this selector, you can still save them as normal presets and on loading they will work in the exactly same way.

When browsing the devices, the plugin stores the control values (multiparameters). It doesn't store the full settings, only the multiparameters, so that if you switch between the devices, your settings will be kept intact, unless you switch to edit screen and perform some advanced editing, in which case it is recommended to use the A-H presets to store your work.



### Collapse

Collapse button minimizes or enlarges the panel to release space for other editors.



### Stepped / Continuous

Stepped / Continuous button lets you switch between 2 editor modes - stepped, which resembles the vintage analog gear by providing only a limit set of values, and continuous, which is traditional for digital user interfaces. There is absolutely no difference in sound, however for some people it is easier to have limited set of options to choose from, hence they prefer stepped mode. Others enjoy the full capacity of the digital processing, hence they prefer continuous mode.



### Reload

Reload button reloads the device and sets all non-locked controls in the current device to their default values. It may be useful, since the plugin stores current settings when switching between the devices, hence this button is a quick and easy way to get the defaults for the devices, before you changed them. If you want to reload all parameters for the device, you must unlock the Easy screen locks or disable them all by turning off the On/Off button in the Global Locking panel in Edit mode.



### **Time graph**

Time graph button switches between the metering view and the time-graphs. The metering view provides an immediate view of the current values including a text representation. The time-graphs provide the same information over a period of time. Since different time-graphs often need different units, only the most important units are provided.



### **Pause**

Pause button pauses the processing.



### **Popup**

Popup button shows a pop-up window and moves the whole metering / time-graph system into it. This is especially useful in cases where you cannot enlarge the meters within the main window or such a task is too complicated. The pop-up window can be arbitrarily resized. In metering mode it is useful for easier reading from a distance for example. In time-graph mode it is useful for getting higher accuracy and a longer time perspective.



### **Enable**

Enable button enables or disables the metering system. You can disable it to save system resources.



### **Collapse**

Collapse button minimizes or enlarges the panel to release space for other editors.



### **Collapse**

Collapse button minimizes or enlarges the panel to release space for other editors.

