



AnalogQ V1.3.0 User's Manual



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1. Introduction

Thank you for purchasing AnalogQ! AnalogQ is a high-quality, transparent equalizer for everyday use. Its application ranges from mixing to critical mastering tasks. Its strong feature is to be capable of recreating a true analog-like magnitude response without oversampling, something which is extremely rare in the digital EQ world. In Natural Phase mode, the phase response (to which the ear is less sensible) will also match the analog domain. Thanks to vectorized instructions (all 64Bit floating point processing), AnalogQ's DSP processing uses very few CPU resources. The resizable, simple, yet powerful interface enables you to work fast and efficiently.

IMPORTANT NOTE CONCERNING GPU ACCELERATION:

AS OF V1.11, ANALOGQ USES GPU ACCELERATION TO DISPLAY ITS GRAPHICS. THIS REDUCES ITS GENERAL CPU USAGE BY APPROXIMATELY 500%-1000%. IF YOU ENCOUNTER PROBLEMS SUCH AS GARBLED GRAPHICS, SPECTRUM ANALYZER NOT BEING SHOWN OR A BLACK PLUGIN WINDOW, PLEASE TRY TURNING OFF THE GPU ACCELERATION BY CLICKING INTO THE TOP LEFT CORNER OF THE PLUGIN'S USER INTERFACE (EVEN IF IT'S NOT VISIBLE/BLACK) AND HOLD THE MOUSE BUTTON FOR 10 SECONDS. THIS WILL DISABLE GPU ACCELERATION. TO TURN IT ON AGAIN, REPEAT SAME PROCEDURE. PLEASE REPORT ANY PROBLEMS TO SALES@SCHAACK-AUDIO.COM!

2. Installing AnalogQ

Windows VST Version

Run the setup and follow the instructions. Make sure to specify the right *32Bit & 64Bit VST2 Plugin* folders. It is recommended to install AnalogQ in a sub-folder of your *VST2 Plugin* folders called *AnalogQ*.

To uninstall AnalogQ, click Start Menu → Program Files → Schaack Audio Technologies → AnalogQ → Uninstall.

Mac AU (Audio Unit) and Mac VST Version

Run the setup and follow the instructions. AnalogQ AU version will be installed into */Library/Audio/Plug-Ins/Components*. AnalogQ VST version will be installed into */Library/Audio/Plug-Ins/VST*. AnalogQ will from then on be accessible to all users of the Mac. Note that a system restart might be required before the plugin shows up in AU hosts (most notably Logic & GarageBand).

To completely uninstall AnalogQ, delete the following files:

```
/Library/Audio/Plug-Ins/Components/AnalogQ.component  
/Library/Audio/Plug-Ins/VST/AnalogQ.vst  
~/Library/Application Support/Schaack Audio Technologies/AnalogQ/resources.bin
```

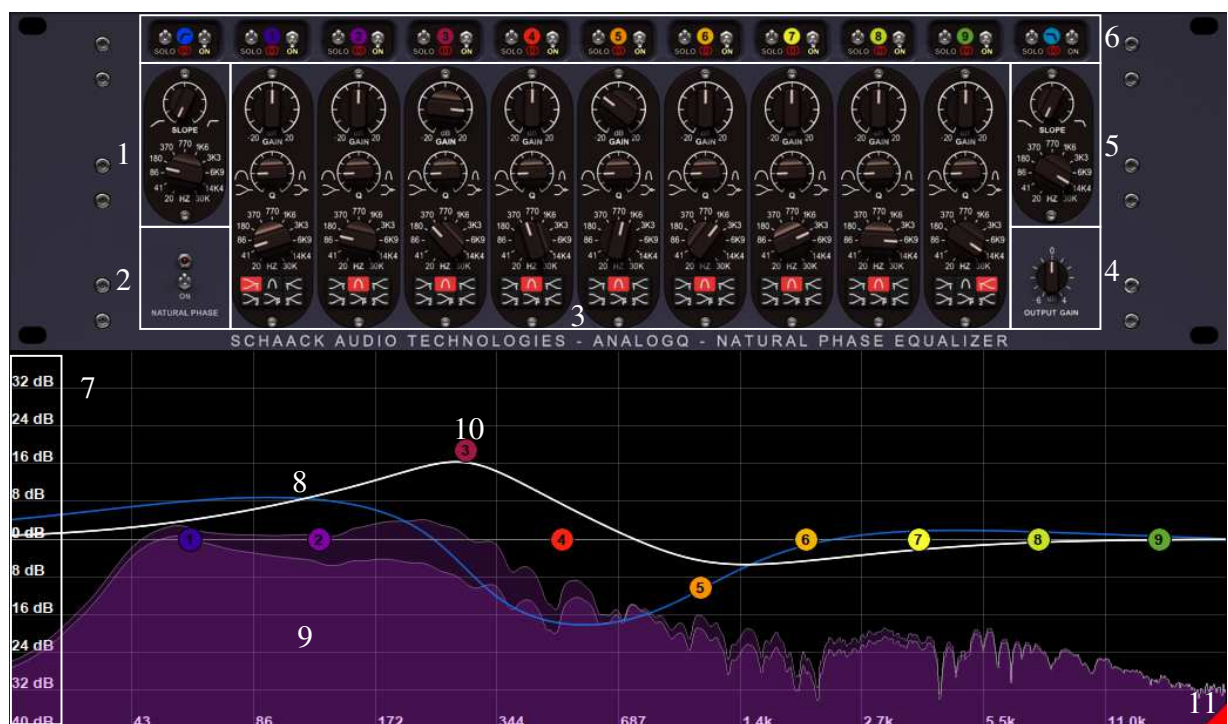
3. License

If you bought an AnalogQ **license**, you will just need to click the "**Open License**" button and point AnalogQ to the .lic file.

If you received a **serial number**, press the "**Enter Serial**" button and copy/paste your serial number. After licensing, the demo restrictions (10 seconds interval silence) should be gone.

4. User Interface

Following is a screenshot of AnalogQ's user interface (UI).



Screenshot of AnalogQ's interface

- 1) **Low Cut Section:** Allows you to cut low frequencies from the signal. Slope is set to lowest (6dB/Oct) by default, and can be adjusted to up to 96dB/Oct for brick-wall filtering.
- 2) **Natural Phase switch:** Activating Natural Phase switch will provide a pretty much perfect phase response with a quasi-perfect amplitude response (both compared to analog domain). It introduces a small latency of about 1ms (which your DAW will compensate for) and uses about twice as much CPU. For most purposes, it's not needed to activate natural phase. Feel free to let your ears be the ultimate judge whether to turn this switch on or not.
- 3) **Individual EQ bands:** Each EQ Band has (from top to below) the following parameters: Gain, Q, Frequency, EQ Type.

Following EQ types can be selected for any of the individual EQ bands:

- Low Shelf 1 (6dB/Octave, Q not adjustable)
 - Low Shelf 2 (12dB/Octave, Q adjustable)
 - Peak EQ
 - Pultec-type Low Shelf with Boost/Cut
 - High Shelf 1 (6dB/Octave, Q not adjustable)
- 4) **Output Gain:** Adjusts the output gain.
 - 5) **High Cut Section:** Allows you to cut high frequencies from the signal. Slope is set to lowest (6dB/Oct) by default, and can be adjusted to up to 96dB/Oct for brickwall filtering.
 - 6) **Solo/On switches:** Allow turning on/off & solo'ing the low/high cut sections as well as of the individual EQ bands.
 - 7) **dB (Decibels) scale:** Can be adjusted using mouse wheel or click & drag.
 - 8) **Magnitude** (white) and **Phase** (blue) responses.
 - 9) **Spectrum Analyzer Plot** (2 curves : pre-EQ input & post-EQ output)
 - 10) **Band Handle** (here for Band 3). You can click Band Handles and move them around or **CTRL+Click** them to change Q. You can also use mouse wheel on them to change Q.
 - 11) **UI Resizer:** Click & drag this red triangle to resize the UI. Pulling the red triangle all way up will make the bottom section (comprising the spectrum analyzer and magnitude/phase responses) disappear.

Keyboard shortcuts available in the UI / further tips:

1. Holding **Shift** on your keyboard while turning the knobs with the mouse increases the precision of knob adjustment.
2. Clicking a knob while holding **CTRL** on your keyboard makes the knob jump to middle/default position. Same is true for **double-clicking** the knob.
3. You can use the **mouse wheel** to fine-adjust the knobs.
4. You can adjust band parameters by using the knobs but also by clicking on the handles seen in the frequency plot. Holding **CTRL** on your keyboard while dragging the mouse will adjust the band's Q. Holding **SHIFT** then draggin a handle will let you change its frequency without affecting the Q.
5. **Right-click** on handles in the frequency plot makes them play solo.
6. **Double-click** on handles in the frequency plot resets their gain to 0dB.

5. Options Dialog

Hovering over the bottom section (comprising the spectrum analyzer and magnitude/phase responses) will show up an **OPTIONS** button which can be clicked to show the options dialog.



In the Options Dialog you can adjust different properties concerning the Spectrum Analyzer, colours, and more.

1) User interface section

- Show Phase response (off by default): Plot the phase response apart from the magnitude response
- Show Pre-EQ spectrum: Shows the spectrum analysis for input signal
- Show Post-EQ spectrum: Shows the spectrum analysis for output signal
- Compact User Interface: Will remove the left/right sides of the User Interface "Rack" to gain space.
- Knobs Mouse Sensitivity: Here you can change how fast the knobs rotate when dragging mouse up and down.

2) Colours Section

Choose one of the colours to change in the Combo Box and play around.

3) Spectrum Analyzer section

- FFT Size: Controls the quality of the Spectrum Analysis. Higher values result in a more accurate spectrum analysis.
- Mode: Peak (shows peak magnitude) or Average (shows mean magnitude)
- Slope (Tilt): Applies a "falloff" of the indicated amount, expressed in dB/Octave, as frequencies increase. This is to simulate an approximation of the human hearing and apply it to the spectrum analysis.
- Reactivity: "speed" at which the magnitudes will fall back to $-\infty$ dB in "Peak" Mode. "averaging speed" at which the magnitudes are averaged in "Average" Mode.



Compact User Interface

4) Save settings as Defaults

Pressing this button will save your option settings not only for this instance of AnalogQ, but will make every new instance of AnalogQ start up with the same settings (as well as the same User Interface size).

6. Version History

- V1.00 : - First release (Windows VST)
- V1.01 : - Fixed audio dropouts in Reaper due to suspending DSP processing while saving plugin state
 - Fixed uninstaller (didn't uninstall properly)
- V1.02 : - Added Frequency/Gain/Q display shown in spectrum view when hovering over EQ handles
 - Fixed: Mouse Wheel direction now correct for adjusting Pultec Low-Shelf 'Cut' parameter
 - Updated User Manual
- V1.03 : - Fixed bug that could lead to crash in when activating Natural Phase mode (especially in Ableton Live)
 - Uninstall now available in Windows Control Panel
- V1.04 : - New Windows installer with separate install options for 32/64 Bit
- V1.05 : - Fixed problem with Natural Phase mode
- V1.06 : - Fixed mouse problem in PluginDoctor (Windows only)
- V1.07 : - Smaller DLLs, better installer
- V1.08 : - Far less CPU usage in Natural Phase mode
- V1.09 : - Fixed dual screen problems on MacOS
 - Fixed AU validation problems on MacOS Catalina & higher
- V1.10 : - Fixed UI resizing now properly working in Cubase
 - Increased UI performance (Windows only)
 - Windows XP compatibility
- V1.11 : - Added GPU acceleration for graphics (ca. 1000% less CPU usage)
 - Less CPU usage for graphics even without GPU acceleration
 - Single beginEdit()/endEdit() call when moving band handle
 - Fixed: sometimes graphical updates only happened sporadically
 - Fixed: Band handles could be grey after loading back solo state
- V1.2.0 : - MacOS: fix for crash in Ableton 11 on Mac M1
 - MacOS (AU): added Mono/Mono->Stereo/Dual Mono support
 - Windows: "Space required" label would not be drawn properly
 - Knobs Mouse Sensitivity selector added in Options Dialog
- V1.2.1 : - Fix for Shift/CTRL not working properly in some hosts (Live/Cubase)
- V1.2.2 : - idem / Mouse sensitivity not saved fix
- V1.2.3 : - fixed some small graphical glitches in Options Dialogs
- V1.2.4 : - better Q adjustment capability in frequency plot
 - added "Enter Serial" button
- V1.2.5 : - fix for sporadic loss of parameter settings in some hosts
- V1.2.6 : - Apple Silicon AU version only : enhanced performance
- V1.3.0 : - New per-band processing types (Stereo/Left/Right/Mid/Side)
 - fix for MacOS multi-monitor problem
 - SHIFT + click then drag handle for changing band frequency

