EQuity – six band visual equalizer

USER'S MANUAL

Version 1.0.0

www.GenuineSoundware.com

INTRODUCTION

EQuity is a six band visual equalizer with precise meterings, featuring a frequency analyzer and an IR-based preamp section. It was initially conceived as a simple EQ module to be incorporated in other audio products, then the visual EQ section and the spectrum analyzer were added. It represents an inexpensinve solution for DAWs and other audio environments where the use of a visual equalizer comes handy. The low CPU power requirement makes it perfect for being run in multiple instances on complex mixes.

MAIN FEATURES:

- 4 fully parametric bands with -24/+24 dB gain
- First and last band can be either shelving or peak filters
- High-pass input filter and Low-pass output filter
- Bands can be heard in solo mode
- Stereo input vu-meters with readout values
- Stereo output vu-meters with readout values
- Output phase meter
- Stiwchable meter peak hold and release time
- Preamp section based on IR from high-end analog gear
- Resizable UI

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INSTALLATION

SYSTEM REQUIREMENTS

EQuity is available in the following formats:
- for Windows: VST2 x64, VST3 x64, Standalone x64
- for OSX: VST2 x64, VST3 x64, Audio Unit x64, Standalone x64

Windows:
- any Windows computer running Windows 7 x64 or newer
- ASIO compatible sound card for low latency performance

OSX:
- OSX version 10.11 or greater

INSTALLATION ON WINDOWS

An automatic installer is provided. Double click its icon, accept the EULA and follow the on-screen instructions.

INSTALLATION ON OSX

An automatic installer is provided. Double click its icon, accept the EULA and follow the on-screen instructions. At some point you might be asked to insert your user's log-on password, this is required by OSX to authorize the copy of the files into your Library.

LICENSE ACTIVATION

If you haven't bought a license yet, the software runs in Demo Mode, which applies some limitations to its functionalities. Typically, the output audio signal is interrupted by a short pause of silence (or a low-volume white noise burst) and some of the import/export functions are locked. Inserting a license will unlock all functionalities.

In Demo mode, everytime the software is launched, the registration screen appears automatically. If your computer is connected to the Internet and the GSi website is reachable, in case you have purchased a license, all you have to do is copy/paste the 24-character **License Code** into the registration form and click **REGISTER**. if everything is right, the software should authorize itself in a matter of seconds.

Instead, if the computer is offline, you have to use an online computer to create an authorization code and continue the process manually in a few steps.

1. Take note of the **Machine ID** code that appears in the registration form, write it down on paper or copy/paste it in a text file and save it onto a *USB memory*

2. Go to the online computer, open the browser and navigate to **www.GenuineSoundware.com/Activate** then select the appropriate software name from the drop-down list, insert your **License Code** and enter

3. Once there, paste (or type) your **Machine ID** into the appropriate field, and give a name to this Authorization then click **CREATE NEW ACTIVATION**

4. At this point you should see a Response Code that may also be quite long, so copy it (click on COPY) and paste it into the text file you created before, then save it onto the *USB memory* again

5. Return to the offline computer, back at the software's registration screen, paste your License Code, paste your Response Code and click **REGISTER**

6. If everything was done correctly, the software is now activated.

To leave this screen and return to the main screen, just click on the dark area.

OPTIONS FOR THE STANDALONE APPLICATION

The standalone application offers an extra menu for setting the AUDIO and MIDI devices. Under Windows it is possible to select between the available audio driver types. For better performance, use a low-latency ASIO driver, possibly the most recent driver released from your sound-card's manufacturer. Select the stereo output port, the stereo input port, the sampling rate, the buffer size.

This software supports sample-rates ranging from 44100 up to 384000 Hz. However, the best performance is achieved at 44100 Hz.

The settings are immediately applied as soon as they're changed. Close this window when done.
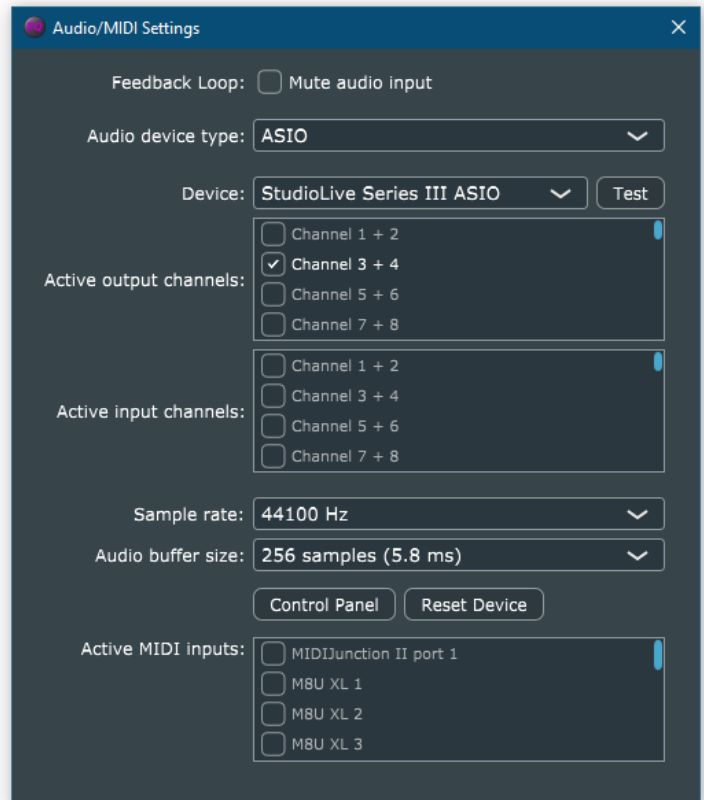
Please note: the standalone application always stores the last status.

MAIN SCREEN

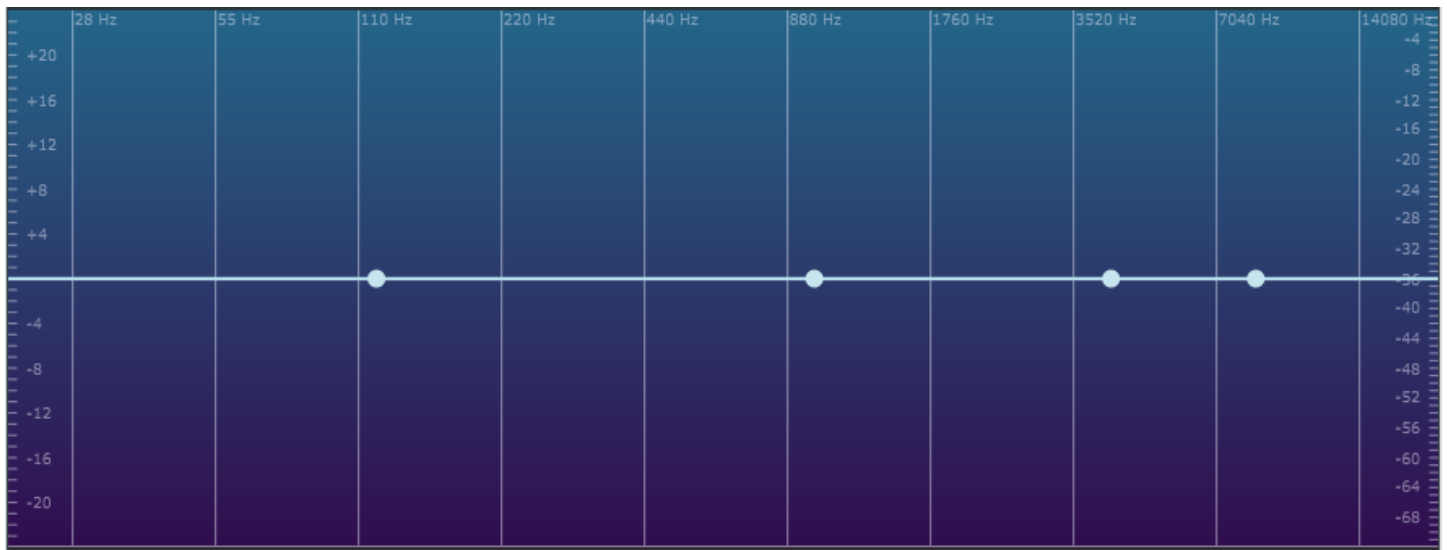The main screen is split in two parts: the upper part shows the visual equalizer and the frequency analyzer, the bottom part features vu-meters, rotary controls for the bands, the bypass switches and the Preamp section.

In the third decade of the 21st century you should already be familiar with visual equalizers. You see a straight horizontal line and some dots, the dots represent the bands, with the frequency on the horizontal (X) axis and the gain on the vertical (Y) axis. Drag these dots using your mouse and you'll see the band values to change in the bottom part of the screen, as well as the EQ curve being drawn as the band values are adjusted. While your mouse pointer stands over a band's dot, use the mouse wheel to adjust the Q value. Right-click (or CMD-click on a Mac) on a band dot for a menu that lets you Solo or UnSolo a single band, or choose the filter type for bands 1 and 4. Band 1 can be either Low-shelf or Peak. Band 4 can be either High-shelf or Peak. The two middle bands are Peak filters. Dragging a band dot will automatically turn that band on and will also activate the whole EQ. Double-click on a band to set it to its default values.

In the background you see some scales. On the top edge, along the X-axis you see the frequency scale, that in this EQ is arranged by octaves on the multiple of the 440 Hz frequency. At the left edge you have the scale for the EQ curve that goes from bottom to top from -24 dB to + 24 dB where the middle is 0 dB; at the right edge you have the scale for the frequency analyzer, that goes from -72 dB to 0 dB.
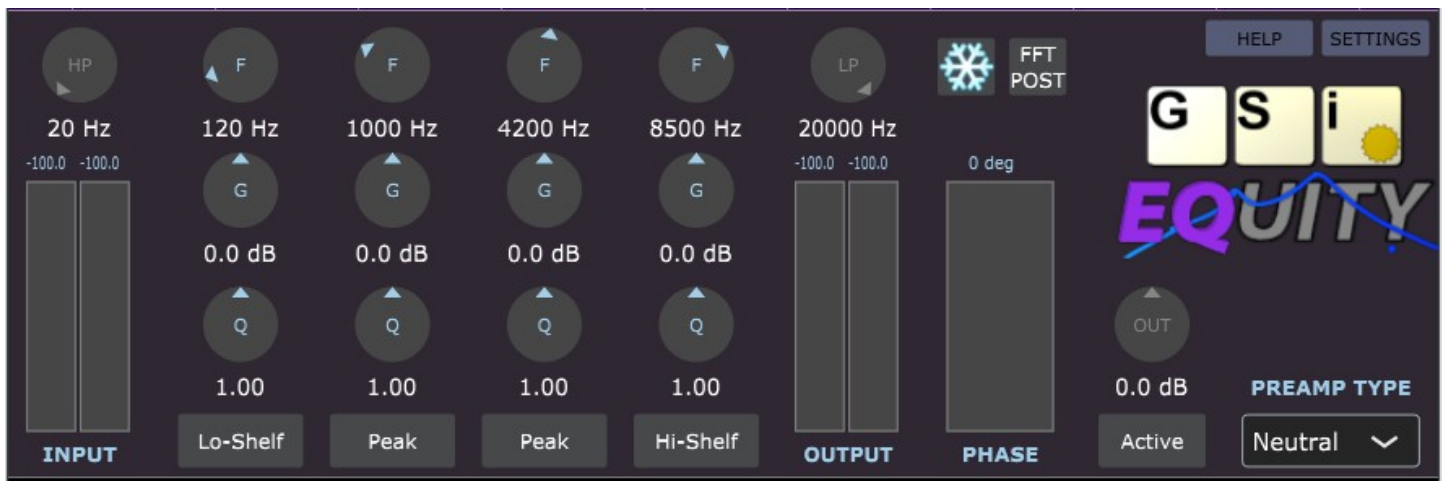
The lower part of the main screen includes all other controls. The 4 parametric bands include Frequency, Gain and Q, that have a direct link with what you can see and move in the visual top area; plus you have a knob for the input high-pass filter and another for the output low-pass filters. Both these filters have automatic bypass, the high-pass turns off when set at 20 Hz and the low-pass turns off when set at 20000 Hz, you'll see that the knob notch will become gray when these are bypassed, and also the EQ curve will be flat towards the ends. At the right side of all band controls there is the output level knob. You should adjust this knob to compensate for amplification or attenuation caused by your equalization settings. Each knob has its own readout display. Click on it to enter the desired value manually. Double click on a knob to reset it to its default value.

The bottom area of the main screen also features an input stereo vu-meter, an output stereo vu-meter and an output phase meter. All meters have their own readout displays that display the instant value in dBFS, except the phase meter that displays the phase difference between left and right channel in degrees. Zero degree means the two signals are perfectly in phase (mono signal), 180 degree means the two signals are at opposite phases. When a band is heard in Solo mode, the output meters will display both the amplitude and the phase of that specific band.

The two buttons above the phase meters are momentary functions: the left button can be used to freeze all meters (and their peak values); the right button is used to set the frequency analyzer to display the input signal (PRE) or output signal (POST). By default, the output signal is analyzed.

On the right edge of the screen there's the PREAMP section. The only control for this section is a drop-down list with 7 different IRs (impulse responses) captured from actual analog outboard gear including high-end mic preamps or compressors. Naturally, only the frequency response can be captured and replicated using IRs and convolution. Setting one of these will result in the output response slightly altered reproducing the frequency characteristics of the gear they were recorded from. Of course the differences between one and another may be very subtle. To bypass this section, make sure this selection is on Neutral.

Please note: *the Pre-amp is put before the Equalizer in the audio chain*.

All controls will be accessible from the Host Automation (thus can be automated, saved in a project or controlled via Midi using the host Midi controls) except a few things that are momentary and will also reset to their default status:

  – Band Solo
  – Freeze
  – FFT POST

Please note that **EQuity doesn't have its own preset manager**, but you can use the host's functions to save and load presets.

GLOBAL SETTINGS

Click the **SETTINGS** button on the main screen to invoke the Global Settings panel. Here you can set a few options that will be remembered for all sessions:

– **Show analyzer**: to save CPU resources, you might want to turn off the Analyzer in case you don't need it. However, this section only works when the UI is displayed.

Show analyzer	☑ Show frequency analyzer
Fill analyzer	☑ Use a filled style for the analyzer
Rounded edges	☑ Round the edges of the analyzer plot
Show peaks	☑ Show and hold peak values
Peak hold time	2 seconds
Meters decay time	1 second
Show band information	☑ Show band values on mouse hover
Show guide lines	☐ Show guide lines on mouse hover
Window size	Large
Use OpenGL	☑ Let your GPU deal with the UI tasks
Activate license	Click to activate your license
Check updates	Click to check for updates
Go to support website	Click to open in default browser

– **Fill analyzer**: choose between a simple line or a filled style with semi-transparent gradient fill

– **Rounded edges**: choose whether you prefer rounded edges in the analyzer plot

– **Show peaks**: this enables the peak hold for all meters as well as for the analyzer. When a peak is detected it will be held for a given time

– **Peak hold time**: choose for how long the peak should be held

– **Meters decay time**: this only affects the vu-meters

– **Show band information**: this enables a bubble display that appears whenever the mouse is over a band dot or while the dot is being dragged

– **Show guide lines**: this attaches two reference lines to the mouse cursor when this moves across the EQ curve display

– **Window size**: the whole window can be zoomed in or out according to your visual tastes

– **Use OpenGL**: using OpenGL can result in faster UI and also frees some CPU power, but you should disable this if you see glitches or strange behaviors

– **Activate License**: click this button to invoke the License Management System

– **Check updates**: click this button to check if an update is available; this check is also done automatically from time to time

To leave this screen and return to the main screen, just click on the dark area.

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