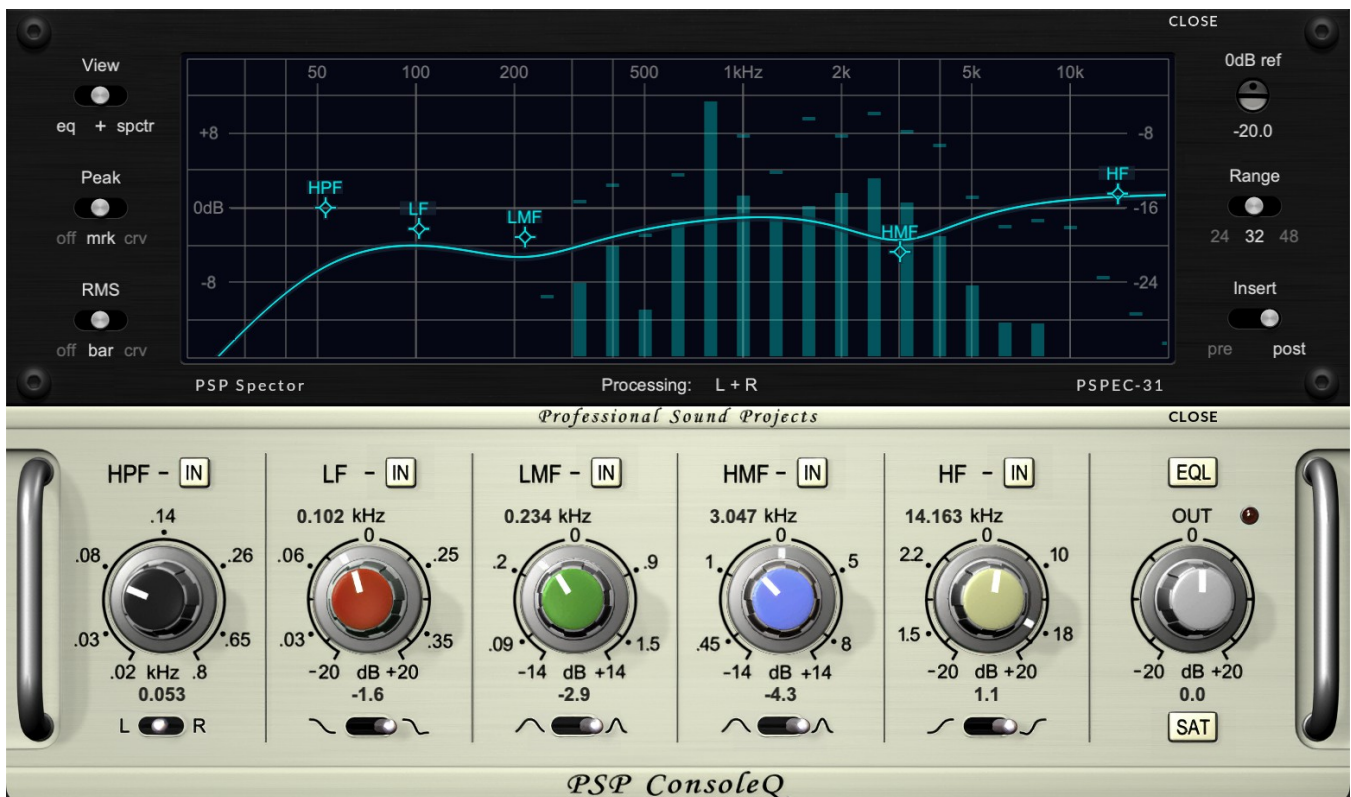


PSP ConsoleQ

Tracking and Mixing console equalizer

Operation Manual



PSPaudioware.com

Acknowledgments

Main plug-in development and algorithms: Mateusz Woźniak
Development assistant: Piotr Dmuchowski
Platform development: Adam Taborowski
Plug-in Design and Graphics: Mateusz Woźniak
Installer: Piotr Dmuchowski
Product Manager: Antoni Ożyński
Documentation: Orren Merton, Mike Metlay, Mateusz Woźniak

Alpha and Beta testing:

- Joanna Stefańska
- Joachim Krukowski
- Aaron Campbell
- Oleg Yershov
- John Kurzweg

Presets designed by:

- Oleg Yershov
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- PSP Team

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Table Of Contents

ACKNOWLEDGMENTS.....	2
SPECIAL THANKS GO OUT TO:.....	2
END USER LICENSE AGREEMENT.....	4
FEATURES.....	5
PSP CONSOLEQ MAIN PANEL.....	6
PSP CONSOLEQ CONTROLS.....	6
PSP SPECTOR PSPEC-31 PANEL.....	9
PSP SPECTOR CONTROLS.....	9
BACK PANEL.....	11
PRESET HANDLING AND VIEW OPTIONS.....	12
PRESET BROWSER.....	13
COPY / PASTE.....	14
A/B SYSTEM.....	14
UNDO / REDO.....	14
GUI RESIZING.....	15
CONFIG SECTION.....	15
MINIMUM SYSTEM REQUIREMENTS.....	16
PROCESSING.....	17
LIMITATIONS OF THE DEMO VERSION.....	17
SUPPORT.....	18

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PSPaudioware.com s.c.
Bugaj 12;
05-806 Komorów,
Poland.

Overview

Thank you for your purchase of PSP ConsoleQ! This is a tracking processor reminiscent of British console equalizers, designed to provide an analog console experience in both sound and operation. It's perfect for whenever an engineer wants to fix or shape audio, or make tracks stand out in a mix, regardless of the audio source.

PSP ConsoleQ is especially designed for track processing as its hardware predecessor was. Whether you're trying to accentuate valuable acoustic elements, make a track group or full mix really kick, or just to make a track sound professional, PSP ConsoleQ is a great tool. We have placed all of that sonic potential within a straightforward graphic interface, with familiar hardware-like characteristics to make tweaking easy, fast, and pleasurable. PSP ConsoleQ will definitely put a smile on your face!

PSP ConsoleQ is inspired by the musicality and simplicity of classic analog hardware. We've expanded its functionality, adding features like a variable high pass filter and switchable steepness for the shelving filters, all while keeping it easy to use.

For PSP ConsoleQ version 2, we have added a smooth frequency control for all bands, numerical value displays, and the PSP Spector PSPEC-32 module – which combines the 30-band analyzer with equalization graphing to offer an alternative way to control filters.

PSP ConsoleQ is CPU efficient enough to be used at every stage of the creative process, from composition through tracking to final production/mixing/mastering. Whenever you want quick musical results, we are confident this equalizer will do the job with musical style and grace.

Features

- Four bands of equalization: shelving Low and High Pass Filters and peaking Low Mid and High Mid filter bands with adjustable gain-following Q values.
- Equalization can be applied to either or both input channels.
- LF and HF can be set to act as peaking filters rather than shelves.
- FAT double sampling: In PSP ConsoleQ, FAT is automatically switched on for low (below 50 kHz) sample rates, and off for higher sample rates. This ensures accurate processing independent of the sample rate.
- 64-bit double precision floating point math for ultra-low cumulative errors in the filters – no more worrying about piling up noise as you engage more filters!
- An optional second-generation SAT (for SATuration) option in the output of each plug-in. This not only protects against digital clipping in software or hardware that comes after the plug-in, but it also adds a smooth overdriven sound to hard-driven signals. The SAT algorithm is located after the output level control in the plug-in's internal chain, and its ceiling reference level is set to a fraction of dB below 0 dBFS.
- All actual parameter values like gain, frequency, or Q may differ from displayed values. This is a typical feature of analog equalizers.
- A 31-band bar analyzer with optional spectrum curve display mode.

PSP ConsoleQ main panel



PSP ConsoleQ captures the sound character and functionality of various classic British console equalizers, including the famous, flexible AMEK EQ. Although it takes inspiration from these analog classics, it sports modern features like an adjustable high pass filter, steepness (resonance) control for the shelving filters, and three nominal Q values for the midrange filters.

In addition to its other many musical features we designed PSP ConsoleQ's midrange bell filters with gain-following Q factors: the Q factor of these filters gradually increases (i.e. the sharpness of the peak gradually gets narrower) with stronger boost or cut.

PSP ConsoleQ Controls

PSP ConsoleQ has a very straightforward user interface, reflecting the simple console equalizers of its sonic heritage. As such, its controls need only basic explanation.

General equalizer panel controls:

L – R Switch: Use this switch to assign the filters to only the left channel (L), both channels (center position), or only the right channel (R). This switch also determines the analyzer's behavior. The analyzer displays measurement of a single channel when L or R is selected. The maximum peak and RMS values of channels are displayed in stereo mode (middle position).

OPEN / CLOSE: Click the label at the upper right corner of the plug-in to open or close the PSP Spector PSPEC-31 panel above the main panel.

EQL (EQ aIL): Click this button to engage (when illuminated) or bypass all of the filters. Note that this does not bypass the plug-in entirely – the output level and SAT features are still operational.

OUT: This knob adjusts the global output level. The output level is variable between –20 dB and +20 dB.

SAT: This turns on the Saturation algorithm described in the Overview.

HPF (High Pass Filter):

IN: Click this button to engage (lit) or bypass the filter. When the IN button is not lit, the HPF filter band is not visible on the PSP Spector panel and its marker is greyed out.

Black Knob: The knob lets you adjust the high pass filter frequency. The HPF has a range from 20 Hz to 800 Hz.

Numerical Value under the knob: Displays the HPF cutoff frequency in kilohertz (kHz).

LF (Low Shelf Filter):

IN: Click this button to engage (lit) or bypass (unlit) the filter. When the IN button is unlit, the LF filter band is not visible on the PSPEC-31 panel and its marker is greyed out.

Numerical Value over the knob: Displays the band's frequency in kilohertz (kHz).

Grey Outer Ring: Click and drag the knob's ring to adjust the frequency of the low filter. Use the SHIFT key for a precise frequency adjustment. The LF range is 30 Hz to 410 Hz.

Red Knob: Use the knob to adjust the boost or attenuation of the low frequency filter between -20 dB and +20 dB.

Shelf switch: Use this switch to select the shelf characteristics for the low filter. The left switch position offers a smooth and classic shelf sound. The right switch position results in steeper filtering and a punchier sound. PSP consoleQ v. 2 has added a middle position for the Shelf Switch – when set to the middle position, the LF becomes a peak filter with fixed Q.

Numerical Value under the knob: Displays the gain in decibels (dB).

LMF (Low Mid Filter):

IN: Click this button to engage (lit) or bypass the filter. When the IN button is not lit, the LMF filter band is not visible on the PSPEC-31 panel and its marker is greyed out.

Numerical Value over the knob: Displays the band's frequency in kilohertz (kHz).

Grey Outer Ring: Click and drag the knob's ring to adjust the frequency of the low mid filter. Use the SHIFT key for precise frequency adjustment. The LMF range is 75 Hz to 1550 Hz.

Green Knob: Use the knob to adjust the gain of the low mid filter between -14 dB and +14 dB.

Q Width Switch: Use this switch to select the nominal Q factor value for the low mid filter. The nominal Q value is reached approximately at maximum boost or attenuation. The values are 0.7, 2, and 4.

Numerical Value under the knob: Displays the gain in decibels (dB).

HMF (High Mid Filter):

IN: Click this button to engage (lit) or bypass the filter. When the IN button is not lit, the HMF filter band is not visible on the PSP Spector panel and its marker is greyed out.

Numerical Value over the knob: Displays the band's frequency in kilohertz (kHz).

Grey Outer Ring: Click and drag the knob's ring to adjust the frequency of the high mid filter. Use the SHIFT key for a precise frequency adjustment. The HMF range is 420 Hz to 9700 Hz.

Blue Knob: Use the knob to adjust the gain of the high mid filter between -14 dB and $+14$ dB.

Q Width Switch: Use this switch to select the nominal Q factor value for the high mid filter. The nominal Q value is reached approximately at maximum boost or attenuation. The values are 0.7, 2, and 4.

Numerical Value under the knob: Displays the gain in decibels (dB).

HF (High Shelf Filter):

IN: Click this button to engage (lit) or bypass the filter. When the IN button is not lit, the HF filter band is not visible on the PSPEC-31 panel and its marker is greyed out.

Numerical Value over the knob: Displays the band's frequency in kilohertz (kHz).

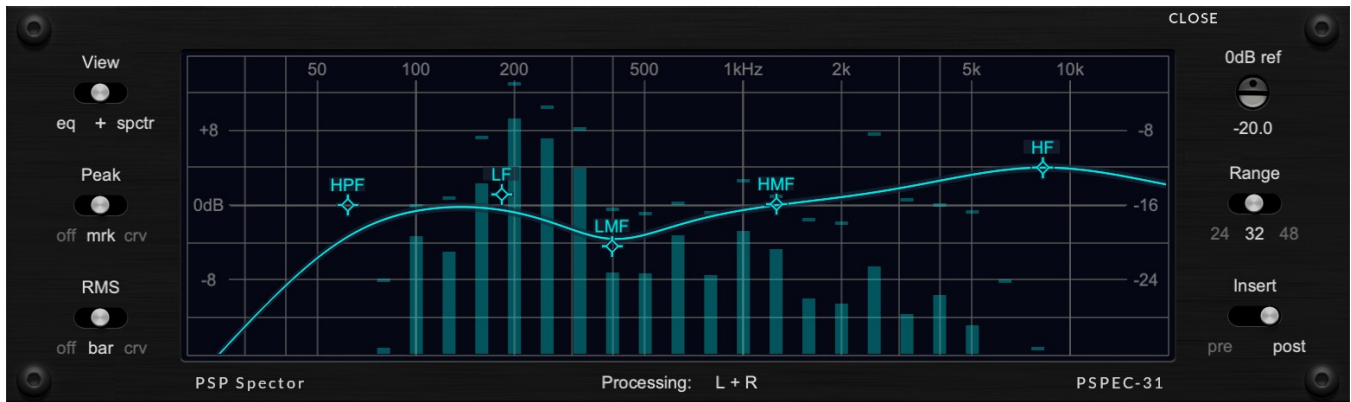
Grey Outer Ring: Click and drag the knob's ring to adjust the frequency of the high filter. Use the SHIFT key for a precise frequency adjustment. The HF range is 1480 Hz to 20 kHz.

Tan Knob: Use the knob to adjust the boost or attenuation of the high frequency filter between -20 dB and $+20$ dB.

Shelf switch: Use this switch to select the shelf characteristics for the high filter. The left switch position offers a smooth and classic shelf sound. The right switch position results in steeper filtering and a punchier sound. PSP consoleQ v. 2 has added a middle position for the Shelf Switch – when set to the middle position, the HF becomes a peak filter with fixed Q.

Output LED: This LED will flash when 0 dBFS is exceeded on output. Don't worry, it's not indicating any internal distortion. Once triggered, the LED will stay dark red until you reset it by clicking it. Note that when SAT is engaged, you will never exceed 0 dBFS on the output.

PSP Spector PSPEC-31 panel



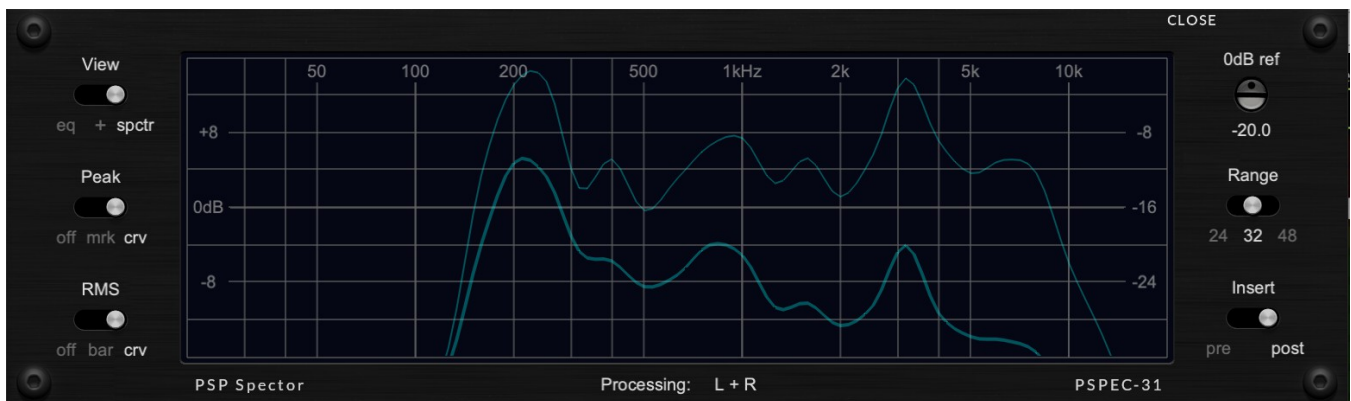
PSP Spector PSPEC-31 is a new pop-up display panel that's been added to version 2 of PSP ConsoleQ. Although it doesn't influence the plug-in's sound, it offers several powerful features that you'll find helpful for everyday use.

PSP Spector lets you manipulate the classic analog sound of PSP ConsoleQ with digital parametric EQ controls. It displays the plug-in's equalization curve, and there are onscreen markers for each filter that you can click and drag to set their gain and frequency directly.

In addition, PSP Spector offers a 31-band spectrum analyzer, which lets you observe the spectrum of the track either before or after equalization has been applied.

The analyzer's spectrum can be displayed in several views:

- a bar-graph view with peak values for each band displayed as floating line markers above each band (as shown above);
- a smooth curve view with peak values for each band displayed as floating markers; or
- a smooth curve view with peak values for each band displayed as a higher curve (as shown below)



NOTE: Although the curve mode may resemble a Fast Fourier Transform (FFT) display, it is still a 1/3-octave measurement, interpolated for a smooth overview curve on the display.

PSP Spector PSPEC-31 controls:

CLOSE: Click on the CLOSE label, either at the upper corner of the analyzer's display or the upper right corner of the main panel, to disable and close the PSP Spector panel. Click on the main panel's OPEN label to open and enable the PSP Spector panel again.

NOTE: To keep CPU usage as low as possible, the analyzer stops processing audio when you close the PSP Spector panel. (You're not looking at it when it's closed, right?)

View switch: Selects the EQ only (left), spectrum analyzer only (right), or both together (middle). When EQ only is selected, the analyzer stops processing audio.

Peak switch: Selects how bands' peak values are displayed: off (left), floating line markers (middle), or smooth curve (right).

RMS switch: Selects the analyzer's main display of RMS signal values: off, (left), bar graph (middle), or smooth curve (right).

0dB ref: This trimpot sets the reference level offset for 0 dBFS measurement. The numerical scale on the right side of the display shows the dBFS value when the reference is set to 0. Negative values move the 0 dB reference down; at these settings, the displayed spectrum is boosted. Double-click the trimpot to set a default reference value of -20.0 dB; the range is -40.0 dB to 0 dB.

Range switch: Selects the level range on the display graph: 24 dB (left), 32 dB (middle), or 48 dB (right).

Insert switch: Selects whether the PSP Spector is inserted pre-equalizer (left) or post-equalizer (right).

NOTE: PSP Spector PSPEC-31 doesn't affect the audio signal. The insert point selection just allows you to analyze the signal before or after PSP ConsoleQ applies its EQ curve.

HPF, LF, LMF, HMF, and HF markers on the display: Click and drag any of the band markers to change the settings for that filter. Double-click the marker to bypass that band; this is equivalent to setting the band's main panel IN button to bypass (not lit).

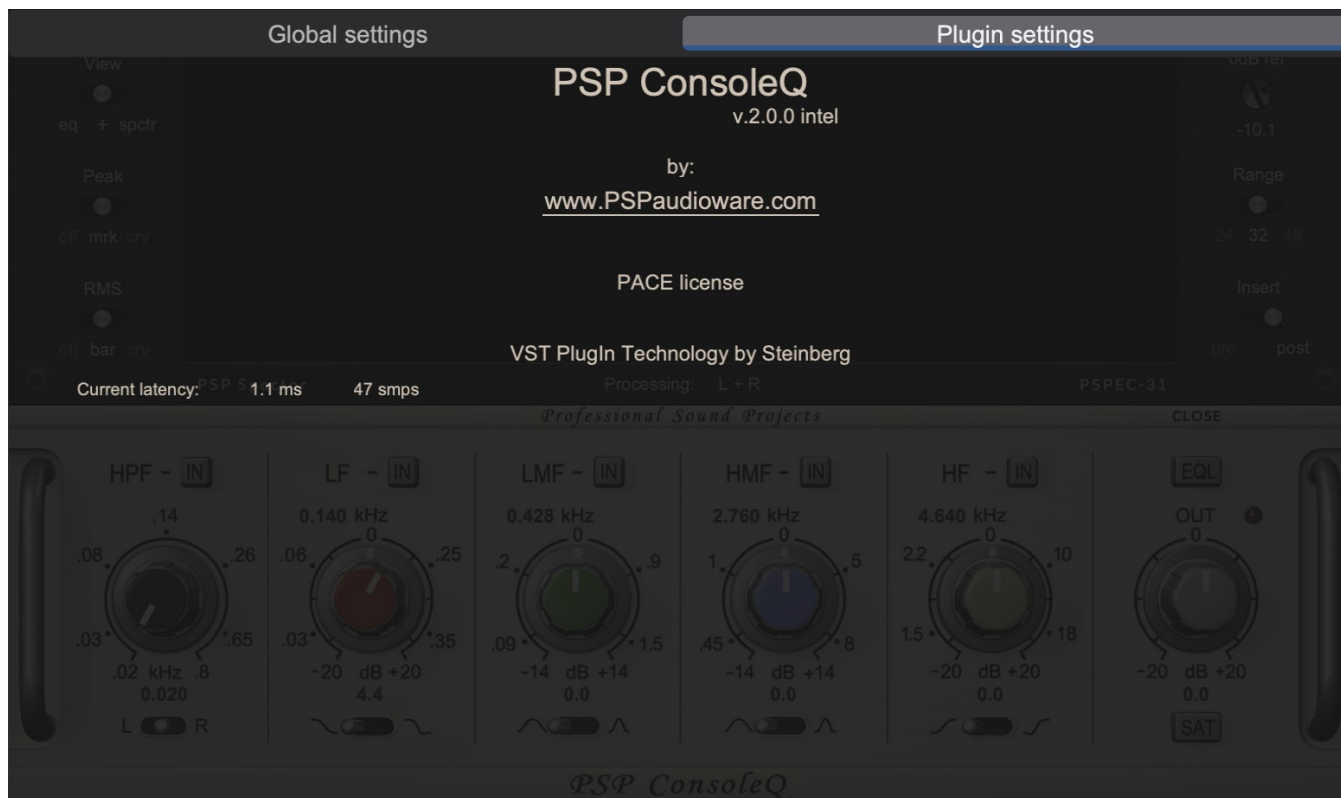
By default, clicking and dragging lets you adjust both frequency and gain at once. Use the SHIFT key to lock the frequency and adjust the gain alone. Use the ALT / OPTION key to lock the gain and adjust the frequency alone.

Use your mouse's scroll wheel to control the peak Q or shelf type.

All markers and the equalization curve will be greyed out when the EQL button on the equalizer's main panel is disengaged (not lit).

Rear panel

Clicking on the front panel's PSP ConsoleQ label opens the rear panel About box, on the Plugin Settings tab. Click on the link to open the PSPaudioware.com website. Click on any label other than the web site link to close the rear panel and return to the front panel.

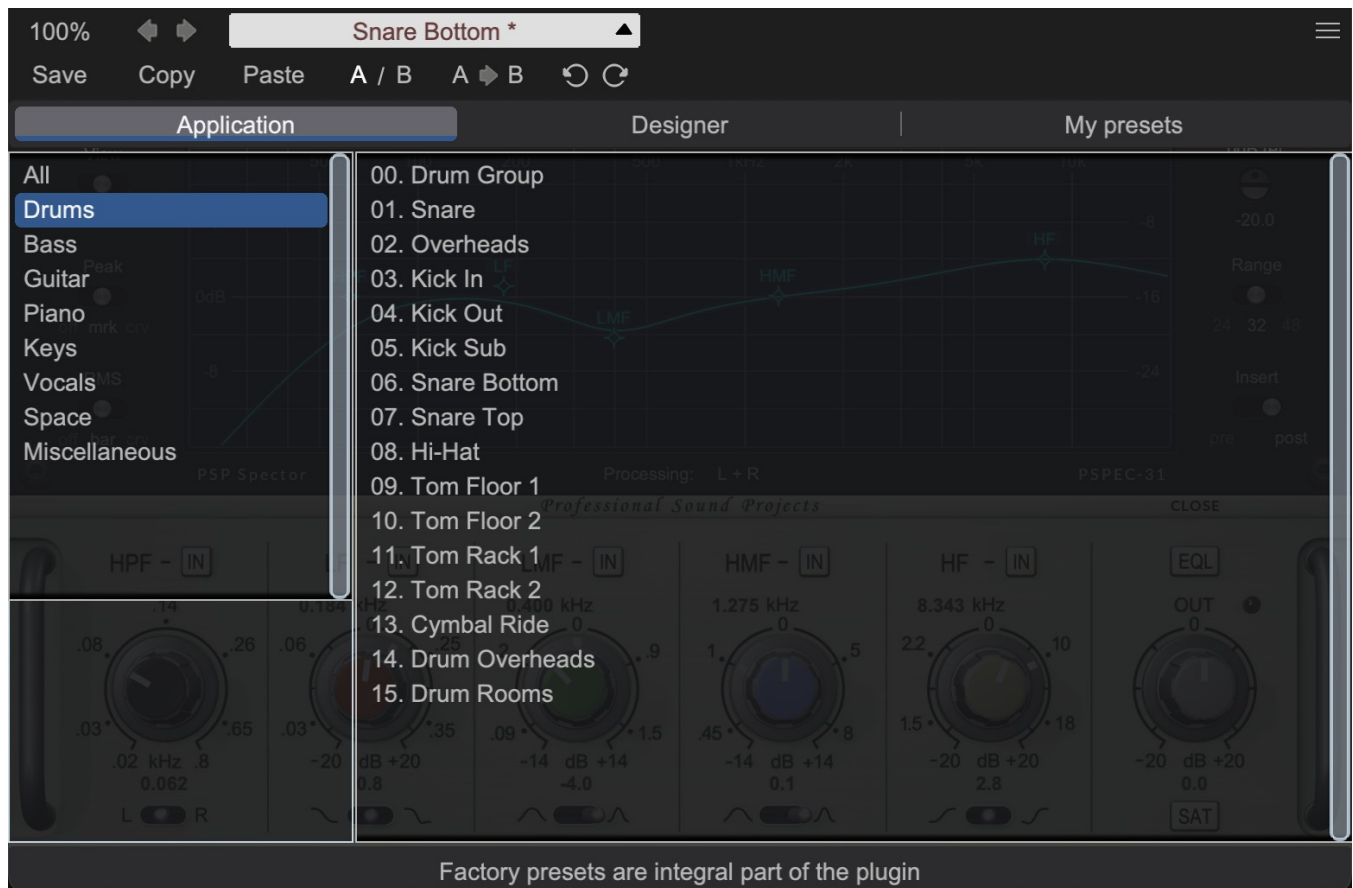


The Global Settings tab lets you access this manual or set whether Hints (floating information boxes that appear when hovering over a control) are visible or not. It also shows the installed version of the software, for help with troubleshooting. Please go to **Config** section of this manual for more details.

PRESET HANDLING AND VIEW OPTIONS

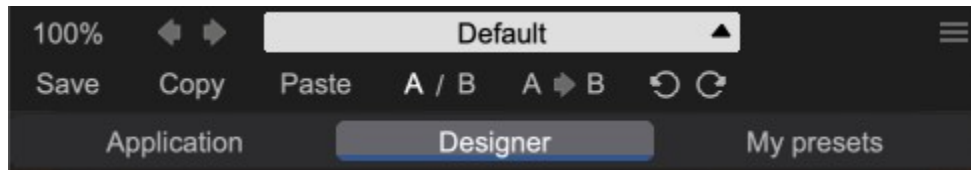
Every PSP plug-in comes with a large library of factory presets. You can use them as a starting point for experimenting with your own sounds, examine them to understand how the various features work, or keep them handy for when a track or mix needs a quick and high-quality way to create an effect or fix a problem.

To access the preset library, just click on the Preset Bar along the top of the plug-in window. If you're familiar with other PSPaudioware plug-ins, you'll find that this one works exactly the same way.



Preset Browser

PSP ConsoleQ features a comprehensive preset management and browser system. To access the preset browser, simply click on the preset name window at the top of the plug-in (which displays 'Default' when the plug-in loads).



The new preset manager has three main categories which can be accessed via the tabs at the top of the preset browser: **Application**, **Designer**, and **My presets**.

Application – shows all factory presets, sorted by application or type of effect. These can be selected from a list on the left side of the preset browser.

Designer – shows all factory presets, sorted by designer. A photo of the designer is displayed for each of their presets. Click on the photo to open the designer's website.

My presets – shows only the presets you have created and saved, or downloaded and added to your custom presets for PSP ConsoleQ.

NOTE: The Factory presets are built into PSP ConsoleQ. While you can't edit them directly, you can make adjustments to them, and then save the result as a user preset.

To add categories to the preset list, you can create new subfolders in the preset directory.

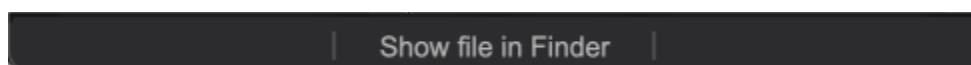
For Windows users, this is located at:

C:\Users\Username\Documents\PSPAudioware.com\User Presets\PSP ConsoleQ

For Mac users, this is located at:

~/Documents/PSPAudioware.com/User Presets/PSP ConsoleQ

NOTE: You can find the exact file location by clicking on the **Show File in Finder** button at the bottom of the preset browser window.



To select a preset, simply click a preset name in the right window. On the first click, the preset will be temporarily loaded so that you can audition it while still in the preset browser. To confirm the preset choice and get back to the main user interface, double-click the preset name again.

Copy / Paste

A dark rectangular button with the text "Copy" and "Paste" in white, separated by a small gap.

The **Copy/Paste** feature is useful for when you're running two or more instances of Lexicon PSP42 and you want them to have identical settings.

Of course, you can always open a new instance and load the same preset as your first instance has, but this only works if your first instance hasn't been tweaked at all since the preset was loaded. To share your tweaks between instances, use **Copy** and **Paste**.

To use this feature, simply click the **Copy** button, open a new instance of PSP ConsoleQ where it's needed, and click the Paste button to load the first instance's settings.

This feature can be particularly useful for processing similar instruments or sounds, when only a few minor tweaks are needed for each instance.

A/B System

A dark rectangular button with the text "A / B" and "A ➔ B" in white, separated by a small gap.

The **A/B system** lets you quickly audition changes to your settings. You can compare how different tweaks work in a track or mix, or even audition two different presets on the fly.

The **A/B Button** allows you to quickly switch between the current plug-in settings (**A**) and a previous group of settings that you've previously stored (**B**).

The **A>B Button** copies the **A** settings over to the **B** slot. This lets you temporarily 'bookmark' your current settings, make more tweaks, and then compare the new tweaks with your 'bookmarked' settings using the **A/B Button**.

Undo / Redo



The **Undo/Redo** feature can be extremely important when designing presets! We all know the frustration when we make one too many edits and ruin a previously great sound. With the **Undo** and **Redo** buttons (the counterclockwise and clockwise arrows as shown above), you can step backward and forward through your edit actions until you're back where you wanted to be.

These buttons will let you undo a preset selection, returning you to your previous preset with all settings as they were when you stopped editing it.

GUI resizing

100%

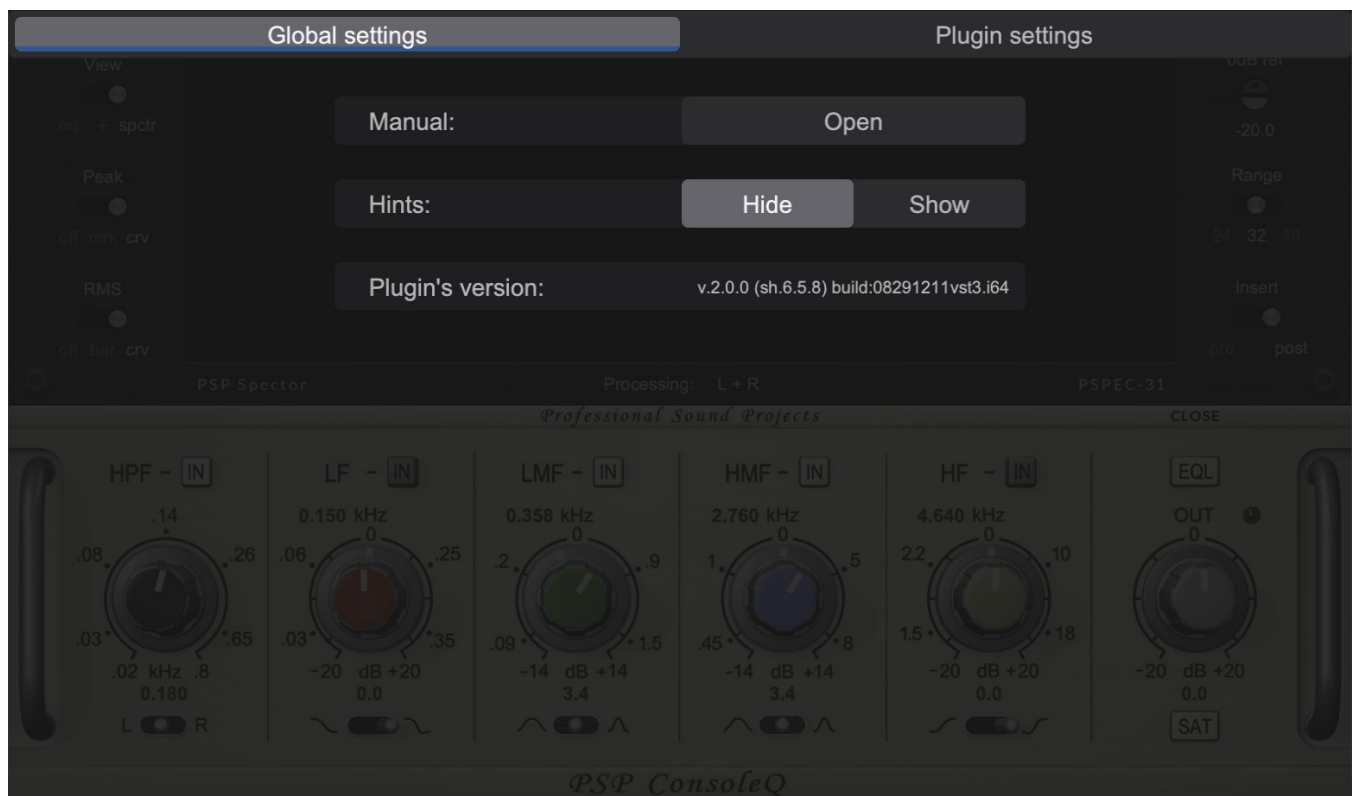
The percentage at the top left shows the current user interface size. Click on it to reveal a dropdown menu of size choices, or hover your mouse on it and scroll up and down to change the size quickly. Double-click to reset it to the default size (100%).

You can also resize the plug-in interface by click- dragging the right bottom corner of the plug-in to any size you like.

Config section



Click the icon with three parallel lines in the top right corner to open the **CONFIG** menu. You will find controls to open the manual, hide or show mouse-hover tool tips (Hints), and check your current plug-in version with build number.



These functions are also available in the **Global Settings** tab on PSP ConsoleQ back panel, which is accessed by clicking the PSP ConsoleQ name on the front panel.

Clicking the Plug-in Information and Settings tab returns you to the main view.

Minimum System Requirements

In order to run PSP ConsoleQ, you'll need to install the free [iLok License Manager](#) application, but you don't need a hardware dongle. By default we provide 3 licenses which can be activated in 3 separate locations, each of which can be either a computer or an iLok dongle (2nd generation or above). You can move these licenses at any time using PACE's iLok License Manager software.

Windows

VST

- Windows 7 – Windows 11
- 64-bit VST3 compatible application

VST3

- Windows 7 – Windows 11
- 64-bit VST3 compatible application

AAX

- Windows 7 – Windows 11
- 64-bit Pro Tools

All DAWs

- Up to date iLok License Manager application installed

macOS Intel or macOS AppleSilicon

AudioUnit

- macOS 10.12 – macOS 13 Ventura
- 64-bit AudioUnit compatible host application

VST

- macOS 10.12 – macOS 13 Ventura
- 64-bit VST3 compatible application

VST3

- macOS 10.12 – macOS 13 Ventura
- 64-bit VST3 compatible host application

AAX

- macOS 10.12 – macOS 13 Ventura
- 64-bit Pro Tools

All DAWs

- Up to date iLok License Manager application installed



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Processing

- All internal processing done with 64-bit double precision floats.
- PSP ConsoleQ supports 32-bit and 64-bit floating point audio streams.
- PSP ConsoleQ supports sample rates up to 384 kHz.

PSP ConsoleQ and Plug-in Latency

In order to achieve the highest quality results, most of the plug-ins in PSP ConsoleQ require a small buffer containing a number of samples in order to process your audio material properly. The amount of samples needed was kept purposefully small so that these equalizers could be used in tracking—in all cases the internal latency is around 1 ms (one millisecond). The final latency may vary a bit based on sample rate.

That said, most modern DAWs include plug-in delay compensation, which eliminates the effect of the delay incurred by PSP ConsoleQ on playback. PSP ConsoleQ fully supports the latency compensation of all host DAWs (meaning, accurately reports its samples of delay to the host). Note that some host DAWs have limitations regarding its delay compensation, so be sure to refer to your DAW's user guide for more information. For your convenience the latency of the plug-in is reported at its bottom bar in samples and milliseconds.

Limitations of the demo version

We offer a 30-day evaluation period without any audio interruptions or control limitations. To get access to the plug-in and your unique authorization details, simply login to your account at our [user area](#).

Enjoy!

– the PSP team

Support

If you have any questions about any of our plug-ins, please visit our website:

www.PSPAudioware.com

The website is where you can find the latest product information, free software updates, online support forum and answers to the most frequently asked questions.

Problems with the installation, activation or authorization?
Please watch our [troubleshooting video tutorials](#) on our YouTube channel.

You can also contact us by e-mail: support@PSPAudioware.com.
We will gladly answer all of your questions. As a rule we respond within 24 hours.

PSPAudioware.com s.c.
Bugaj 12
05-806 Komorów
Poland.
ph. +48 601 96 31 73
www.PSPAudioware.com
contact@PSPAudioware.com

PSPaudioware.com s.c.
Bugaj 12
05-806 Komorów
Poland