PSP ClassicQ
PSPClassicQex

Operation Manual

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Acknowledgments

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Finally, thanks to all our users around the world for ideas and help in development of new plug-ins!

PSP ClassicQ

PSP ClassicQ is inspired by various classic British-style equalizers. It captures the sound and flavor of famously musical high and low filters (such as those in early Neve EQs), melded to very precise mid-range filter. In addition, PSP ClassicQ offers a selectable simulation of class A circuitry and output transformer for a unique, vintage-style color. To its classic features PSP ClassicQ adds extremely useful features such as an adjustable high pass filter, switchable Q for low- and high-shelf filters, and a sweepable midrange bell-type filter. The design of PSP ClassicQ lends it especially well to fixing and shaping individual tracks.

PSP ClassicQ Controls

From left to right:

EQL (EQ alL): Click this button to engage (when illuminated) or disengage all the filters. Note that this does not bypass the plug-in, so the output level, the SIMulation algorithm and SAT feature are still operational.

SIM: This button engages (when illuminated) or disengages the Class A circuitry and transformer simulation. The Class A algorithm is located pre-output level control, and the transformer's simulation is post-output level control (followed by the SAT algorithm).

HPF: This button engages (when illuminated) or disengages the high pass filter.

Hz Knob: Turn this knob to adjust the frequency of the high pass filter from 20Hz (full counter-clockwise) to 400 Hz (full clockwise).

Low Shelf Filter Section:

LF: Click this button to engage (when illuminated) or disengage the low frequency filter.

Hz Knob: Turn this knob to adjust the frequency of the low frequency filter in four steps from 35 Hz (full counter-clockwise) to 220 Hz (full clockwise).

Hi Q: When engaged (illuminated), this function offers a steep, resonant, and punchy low-end characteristic of classic British EQs. Disengaged, the filter is more "polite" sounding.

dB Knob: This knob adjusts the boost or attenuation level of the low filter from -20 dB to +20 dB.

Midrange Filter Section:

MF: Click this button to engage (when illuminated) or disengage the midrange filter.

Q Dial: This knob adjusts the Q factor for the midrange filter. You can select a Q factor in five steps between .5 and 5.

Auto Q: When engaged, the plug-in enters “auto Q” mode in which the Q factor will increase progressively as you increase the amount of boost or attenuation of the signal and reach the nominal value at maximum of boost or cut. This is typical for bell-type filters in classic equalizers. Disengaged, the midrange filter works more like a surgical, static Q regardless of the level of boost or attenuation.

Hz Knob: Turn this knob to adjust the nominal frequency of the mid filter from 50 Hz (full counter-clockwise) to 1000 Hz (full clockwise).

Hz x 10: This button, when engaged (illuminated), multiplies the frequencies of the Hz knob by 10. In other words, the range of the Hz knob when this button is engaged becomes 500 Hz to 10 kHz.

dB Knob: This knob adjusts the boost or attenuation level of the low filter from -20 dB to +20 dB.

High Shelf Filter Section:

HF: Click this button to engage (when illuminated) or disengage the high frequency filter.

Hz Dial: Turn this knob to adjust the frequency of the high filter in four steps from 5 kHz to 16 kHz.

dB Knob: This knob adjusts the boost or attenuation of the high filter from -20 dB to +20 dB.

Hi Q: When engaged (illuminated), this function offers a steep, resonant, and characteristic of classic British EQs. Disengaged, the filter is more “polite” sounding.

Output Section:
dB Knob: This knob boosts or attenuates the global output level. The output level is variable between -20 dB (full counter-clockwise) and +20 dB (full clockwise).

SAT: This turns on or off the Saturation algorithm described in the overview.

Output digital peak meter: This LED type meter indicates output level in the range of -20 to +3dBFS.

PSP ClassicQex

PSP ClassicQex is extended version of the PSP ClassicQ. All features of the previous version are available, and a new Low Mid section is added.

PSP ClassicQex Controls

From left to right:

EQL (EQ alL): Click this button to engage (when illuminated) or disengage all the filters. Note that this does not bypass the plug-in, so the output level, the SIMulation algorithm and SAT feature are still operational.

SIM: This button engages (when illuminated) or disengages the Class A circuitry and transformer simulation. The Class A algorithm is located pre-output level control, and the transformer's simulation is post-output level control (followed by the SAT algorithm).

HPF: This button engages (when illuminated) or disengages the high pass filter.

Hz Knob: Turn this knob to adjust the frequency of the high pass filter from 20Hz (full counter-clockwise) to 400 Hz (full clockwise).

Low Shelf Filter Section:

LF: Click this button to engage (when illuminated) or disengage the low frequency filter.

Hz Knob: Turn this knob to adjust the frequency of the low frequency filter in four steps from 35 Hz (full counter-clockwise) to 220 Hz (full clockwise).

Hi Q: When engaged (illuminated), this function offers a steep, resonant, and punchy low-end characteristic of classic British EQs. Disengaged, the filter is more "polite" sounding.

dB Knob: This knob adjusts the boost or attenuation level of the low filter from -20 dB to +20 dB.

Low Midrange Filter Section:

LMF: Click this button to engage (when illuminated) or disengage the low midrange filter.

Hi Q: When engaged (illuminated), the Q factor for the low midrange filter is set to narrow range 3, otherwise it is set to 1 resulting in a wide bell range. The Q behavior works like in the Auto Q mode of the high midrange filter.

Hz Knob: Turn this knob to adjust the nominal frequency of the mid filter from 50 Hz (full counter-clockwise) to 1000 Hz (full clockwise).

dB Knob: This knob adjusts the boost or attenuation level of the low filter from -20 dB to +20 dB.

High Midrange Filter Section:

HMF: Click this button to engage (when illuminated) or disengage the midrange filter.

Q Dial: This knob adjusts the Q factor for the midrange filter. You can select a Q factor in five steps between .5 and 5.

Auto Q: When engaged, the plug-in enters "auto Q" mode in which the Q factor will increase progressively as you increase the amount of boost or attenuation of the signal and reach the nominal value at maximum of boost or cut. This is typical for bell-type filters in classic equalizers. Disengaged, the midrange filter works more like a surgical, static Q regardless of the level of boost or attenuation.

Hz Knob: Turn this knob to adjust the nominal frequency of the mid filter from 50 Hz (full counter-clockwise) to 1000 Hz (full clockwise).

Hz x 10: This button, when engaged (illuminated), multiplies the frequencies of the Hz knob by 10. In other words, the range of the Hz knob when this button is engaged becomes 500 Hz to 10 kHz.

dB Knob: This knob adjusts the boost or attenuation level of the low filter from -20 dB to +20 dB.

High Shelf Filter Section:
HF: Click this button to engage (when illuminated) or disengage the high frequency filter.

Hz Dial: Turn this knob to adjust the frequency of the high filter in four steps from 5 kHz to 16 kHz.

dB Knob: This knob adjusts the boost or attenuation of the high filter from -20 dB to +20 dB.

Hi Q: When engaged (illuminated), this function offers a steep, resonant, and characteristic of classic British EQs. Disengaged, the filter is more "polite" sounding.

Output Section:
dB Knob: This knob boosts or attenuates the global output level. The output level is variable between -20 dB (full counter-clockwise) and +20 dB (full clockwise).

SAT: This turns on or off the Saturation algorithm described in the overview.

Output digital peak meter: This LED type meter indicates output level in the range of -20 to +3dBFS.

Using presets

PSP ClassicQ and PSP ClassicQex are provided with factory sets of presets.

The main aim of included presets is to show customers the features of the plug-in and help to learn the controls usage. In addition, the presets can be used as a starting point for further adjustments or as quick fix presets.

The PSP ClassicQ and PSP ClassicQex presets can be accessed from the PSPaudioware standard PRESET bar at the bottom of the plug-in interface. Here you can select from among the factory presets, and load and save individual, as well as banks of presets. There are three sections to this bar, the PRESET section, the Preset window, and the BANK section.

BANK SECTION
Click the green arrow icon to load a bank from a disk.
Click the red arrow icon to save a bank.
Double click the BANK label to permanently store the default preset bank.
Press Command (Mac) or Control (PC) and double click to restore the factory default bank.

PRESET SECTION
Click the green arrow icon to load a preset.
Click the red arrow icon to save a preset.
Double click the PRESET lavel to permanently store the default preset.
Press Command (Mac) or Control (PC) and double click to restore the factory default preset.

PRESET EDIT BOX
Click the menu button to the right of the preset edit box to see and the popup menu of all the presets in the currently loaded preset bank and to choose a preset from the list.
Click the name of the preset to rename it.

PRESET SELECTION
Click on the bright left arrow to switch to a previous preset on the list.
Click on the bright right arrow to switch to a next preset on the list..

MEMO A and B
Both A and B are permanently stored on your disk. This allows you to compare alternative settings or share a preset between various instances of the plug-in in the same project or even between various projects.
Click the green arrow icon to load a preset from memo A or B.
Click the red arrow icon to save a preset to memo A or B.

?
Click on the question mark whenever you need to open the operation manual.

Technical Specifications

Processing

- FAT double sampling. FAT is automatically switched on for low (below 50kHz) sample rates, and off for higher sample rates. This ensures the most accurate processing independent of the sample rate.
- 64-bit double precision floating point computations for ultra low accumulative errors in the filters.
- An optional second generation SAT(uration) option in the output of the plug-in. This both protects against digital clipping in software or hardware following the plug-in, and adds a smooth, overdriven sound to hard-driven signals. The SATuration algorithm is located after output level control in a plug-in's internal chain and its ceiling reference level is setup a fraction of dB below 0dBFS.
- An optional Class A circuitry and transformer simulation. The aim of SIM algorithm is to provide even harmonics and special sound character of some classic parametric equalizers. Class A algorithm is located pre-output level control, and the transformer's simulation is post-output level control (followed by the SAT algorithm).
- All actual parameters like gain, frequency or Q may differ from displayed values which is a typical feature of analog equalizers.
- 32 and 64 bit floating point audio streams supported
- Sample rates up to 192kHz supported.

Plug-in Latency

In order to achieve the highest quality results, PSP ClassicQ and PSP ClassicQex plug-ins 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 1ms (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 ClassicQ and PSP ClassicQex on playback. PSP ClassicQ and PSP ClassicQex fully support 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

The demo will operate without any limitations for 14 days from its initial installation. During the demo period you will just need to click on the GUI to engage processing once the plug-in is inserted. After the end of evaluation time you would not be able use the plug-in without authorization.

Authorization

Each PSP plug-in has to be authorized using an automatic authorization application or a batch authorizer downloaded from user's account page on our site.

The About Screen

Each PSP plug-in offers an About window. This screen contains your authorization details, as well as the version number of the plug-in. To access each plug-in's about box, click on the name of the plug-in. To return to the controls view, click the name of the plug-in again (or anywhere in the about screen).

Minimum System Requirements

PC

VST
- Windows x32 or x64 (XP Service Pack 2, Vista or 7)
- VST 2.4 compatible application

RTAS
- Windows x32 or x64 (XP Service Pack 2, Vista or 7)
- ProTools LE 8.0.0 or ProTools TDM 8.0.0 (or later)

AAX
- Windows x32 or x64 (XP Service Pack 2, Vista or 7)
- Pro Tools 10 or Pro Tools HD 10

Mac

AudioUnit
- Mac OSX 10.5 or later
- 32 or 64-bit host application capable of running AudioUnit plug-ins with Cocoa view

VST
- Mac OSX 10.5 or later
- 32 or 64-bit VST 2.4 compatible host application

RTAS
- Mac OSX 10.5 or later
- ProTools LE 8.0.0 or ProTools TDM 8.0.0 (or later)

AAX
- Mac OSX 10.7 or later
- Pro Tools 10 or Pro Tools HD 10

Please keep in mind that these CPU and RAM specifications are *minimum* requirements. For the best performance, you will want a faster CPU and as much RAM as possible!

Support

If you have any questions about any of our plug-ins, please visit our website http://www.PSPaudioware.com where you can find the latest product information, free software updates, online support forum and answers to the most frequently asked questions.

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.

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