PSP EasyVerb

Operation Manual

PSPaudioware.com

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Thanks to all our customers around the world for their ideas and help in our development of new plug-ins!

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PSP EasyVerb

Thank you for your purchase of PSP EasyVerb v.2, a multipurpose algorithmic reverberation processor designed to simulate physical spaces or popular reverb machines such as plate and spring reverbs. In developing this plug-in, we tried to make it simple to use, while offering enough control over each algorithm for you to customize the effect to your specific needs. In other words, we wanted to offer you a reverb that is operationally “easy,” but sonically complex!

PSP EasyVerb consists of ten algorithms: Ambience, Room, Chamber, Club, Hall, Arena, Cathedral, Spring, Plate and Reverse. Each of algorithm exists in three variations. The Legacy variation is the room tuning from PSP EasyVerb version 1, for current users who don’t want to lose their original sounds. The other two variations, Alt1 and Alt2, are new as of version 2. Each of the algorithms can also be set to one of three sizes: Small, Medium, and Large. The Medium size corresponds to the setting for PSP EasyVerb version 1 – use this setting with the Legacy algorithm to faithfully recreate the sound of version 1.

Each algorithm has adjustable parameters for Decay (reverb time), Damp (high frequency damping to simulate darker rooms) and Predelay. The reverb's frequency spectrum can be then shaped with a 3-band semi-parametric equalizer.

We recommend that you spend some time with the manual to get a sense of what PSP EasyVerb can do, then start by pulling up the various presets in order to hear the algorithms and their variations. We hope you find this plug-in as useful for adding the depth and the space to audio material as we do. Please don't hesitate to let us know your thoughts about this powered-up – but still easy – version of PSP EasyVerb!

Overview of PSP EasyVerb Algorithms

PSP EasyVerb adds depth and space to audio material by generating reverberations similar to those created by classic reverberation hardware, which in turn are meant to simulate physical spaces of various sizes and shapes. These algorithms are specially designed to ensure rapidly developing and dense reverberation with smooth decay. Most of the algorithms are true stereo – the input signal is not summed before feeding the reverb, so it processes each side separately and retains the pan position of the input signal rather than forcing it to the center. You can use the various controls to do some overall shaping and fine-tuning of the effect, but it will be the chosen algorithm that provides the primary impact.

PSP EasyVerb's ten powerful, high-quality reverberation algorithms were developed specifically based on their utility in various applications.

Ambience

Ambience creates a generalized sense of depth and space based on a mid-sized, open environment with a very "live" sound, placing the source material in the center of the space. Its main feature is that unlike most reverb algorithms, Ambience doesn't use delays with feedback to create its space. In this algorithm the maximum decay is fixed at 1 second and the Time knob alters the amplitude envelope of the reverb instead of the decay time. Even though the decay time isn't changing, this makes the reverb sound shorter or longer, depending on the shape of the reverb tail. It's an unusual but very musical effect.

Room

The *Room* algorithm generates the sort of reverberations you would experience at the back of a rectangular mid-sized room, with the source material placed at the front of the room.

Chamber

Chamber simulates the dense reverberations experienced at the back of a larger, more sonically rich space than the Room algorithm offers. The Chamber's shape is irregular, as you would find in a small concert hall or studio echo chamber. The source material is positioned in the front of the chamber.

Club

Club simulates a large, rectangular, multi-part space. The source material is positioned on the "stage" of the club, and the early reflections are sustained for a moment, after which the reverberations experienced at the rear of the club starts to decay exponentially.

Hall

Hall simulates the reverberation present at the far end of a large, multi-angular space, with the source material at the opposite end. Hall is one of the most sonically complex algorithms, due to the size and shape of the space being simulated.

Arena

The *Arena* algorithm creates a huge hemispherical space, in which the sound source is located approximately two-thirds of the way to the back of the arena, and the reverberation is captured from the far end. Like Hall, this is a very complex algorithm with lots of early reflections, but the curved room shape gives it far fewer sharp surfaces for reflections.

Cathedral

Cathedral is a large, very angular space in which the source material and reverberation are in the middle of the space, instead of at one end. The hard angles and high reflectivity of the Cathedral result in a short buildup phase, followed by an exponential and smooth reverb decay.

Spring

The *Spring* algorithm is based on the response of a classic dual-channel studio spring reverb. It possesses an "echoing" character and increasing pattern density on the reverb's tail. Since real springs are always single-channel devices, setting the *Spring* algorithm to stereo gives you dual mono processing, so two separate input signals can be processed in the same spring tank.

Plate

The *Plate* algorithm is based on the response of classic studio reverb machines that used very large metal plates to create echoes and ambiances.

Reverse

Reverse, which in some reverbs might be called "non-linear", provides a sense of reversed magnitude and damping envelopes. Unlike most of other algorithms here the Time parameter controls the envelope of the reverberation buildup. Note that the high-frequency damping of the reverberation is also reversed. This might be used as a special effect, slap back echo, or to provide a reverberation *preceding* the dry signal. (This would be done in the mix by duplicating the dry track, adding the Reverse reverb, and then time-shifting that track back by the length of the reverse reverb. Sorry, we can't actually turn time backwards. Yet.)

Choosing The Best Algorithm For Your Needs

Please note that although we have fine-tuned these algorithms with low coloration in mind, the actual response of each algorithm will be sensitive to a track's specific audio content. Use your ears to make sure that the chosen Algorithm, Size, and Variation suit your specific application. For example, for a given track a Chamber or a Hall with slightly modified Time and Damp settings might work better than a Plate. Remember that changing the algorithm doesn't change your settings, including the EQ. On the other hand, tweaking the parameters while keeping the same algorithm might may give the track a "boost" that you might not have expected from that algorithm. You should take your time – both to understand how PSP EasyVerb does things, and to experiment with its settings to achieve the best results.

Controls

PSP EasyVerb's front panel contains all of the plug-in's controls, with no hidden tabs or menus. (Easy, remember?) Knobs can operate in circular or linear mode according to the host's settings. They operate in linear mode by default. Most of the control settings will be stored whenever you save a preset. The exceptions are Mix, Output and, Proc. Thes are adjusted globally for all programs, so you don't have to constantly change the output level or reverb level every time you switch between presets.

Basic Operation

To activate or deactivate the processing, simply click on the foot switch button. To change the algorithm, its size or a variation use buttons beneath the display or click directly on labels on it. To adjust the knobs, click on the knob and move your mouse up or down. The numeric display of the current value below the knob you are adjusting will change to reflect your mouse position.

If you press the Shift key before you click on a knob, for as long as you hold the Shift key down the knob will be in Fine Movement Mode, which allows you to make more precise parameter adjustments. Clicking on a knob with the Alt key pressed (Option on a Mac), or double-clicking it, will reset the knob to its default position.

The knob value display below each knob can be clicked to reveal a text box. You can directly type a desired numerical value into this box. Clicking on the name of the currently chosen reverb algorithm underneath the graphic representation opens a popup menu listing the available reverb algorithms to choose from.

Finally, you can click on the PSP EasyVerb title at the top of the plug-in panel to switch the display to an information panel with details about the plug-in authors, the installed version number, and to whom the plug-in is licensed. Simply click on the information panel to return to the standard editing display.

Parameters

Decay

This sets the reverberation decay time. It lets set the decay time from very short, instantly decaying reverberations to near-frozen ones. When the algorithm you are using is simulating a physical space, the longer the decay time, the larger the space will seem. In the case of the Ambience and Reverse algorithms, this control sets the shape of a decay curve while the time is constant and set to around 1 second.

Typically a Decay setting between 30% and 70% will offer the most natural sound, and in the case of the Plate and Spring algorithms, the most accurate simulation of those devices.

Algorithm

The Algorithm display and the center set of Left/Right arrow buttons underneath it are used to select the reverb algorithm you want to use. Each algorithm is represented with a display name and a number underneath. You can use the arrow buttons to scroll through the algorithms one by one while auditioning them. You can also selet a particular algorithm

directly by clicking on its number (see below), or clicking on the algorithm's name to pop up the algorithm list:
1 Ambience
2 Room
3 Chamber
4 Club
5 Hall
6 Arena
7 Cathedral
8 Spring
9 Plate
10 Reverse

Please see the Overview of PSP EasyVerb Algorithms for details on each of the algorithms.

Size
Selects the size of a “space” or a mechanical reverberator. The default Medium Size reproduces the fixed Size setting that was built into PSP EasyVerb version 1. Small and Large refer to smaller and larger “spaces”. Click on the name or use the left set of Up/Down scroll buttons to select a Size.

Variation
Selects the algorithm’s room tuning. The default Legacy Variation reproduces the fixed settings for these parameters that were built into PSP EasyVerb version 1. Alt 1 and Alt 2 are new variations with different tonalities. Click on the name or use the right set of Up/Down scroll buttons to select a Variation.

Damp
Sets the damping factor for high frequencies. It ranges from 0 % for bright reverberation to 100 % for very dark reverberation.

Use this control to set the high frequency damping – in other words, how much high frequency information gets removed from the reverb tail – over time. This helps to simulate the high frequency damping caused by absorption from the materials in the room such as carpets (or people in seats!), or you can use it to simply tune the brightness to your taste.

Predly
The Predly slider adds predelay – the time between the dry signal and the first sound of the reverberation. Longer Predelay settings simulate larger rooms, where the source sound must reach the walls before its reflections can bounce back to the listener.

EQ Section

PSP EasyVerb offers you a 3-band EQ section that includes, from left to right, a low shelving EQ, middle peaking EQ, and a high shelving EQ. Each band has two control knobs:

Freq:

This knob sets the frequency beyond which the shelving bands will cut or boost the signal, or the precise frequency at the center of the peaking band's cut or boost.
The low shelf has a range of 25 Hz to 10 kHz;
The middle peaking band has a range of 80 Hz to 8 kHz;
The high shelf has a range of 50 Hz to 20 kHz.

Gain:

This knob determines how drastic an effect the EQ will have on the sound:
For the two shelving bands, the Gain knob can boost the frequency by up to +6 dB, creating a 6 dB shelf at and above or below the selected frequency, all the way down to a cut of −∞ that effectively turns the bands into lowpass or highpass filters. To avoid having this extreme setting sound too drastic, and in order to produce a more natural sound, the shelving bands use first-order filters with a gentle slope of 6 dB of boost or cut per octave.
The middle peaking band has a Gain range of ±18 dB. The middle peaking Gain includes overall level compensation to avoid drastic changes in level. For example, a boost of +12dB will be compensated by an overall (full band) signal attenuation of 6 dB, while a cut of −12 dB will be compensated by a 6 dB overall boost.

Proc

This button turns the plug-in's processing on or off. When turned off, no input signal is passed to the reverberation algorithm, but the reverb still works, so the reverb tail will not be cut off abruptly as soon as you press the button.
Note that turning Proc off will *not* reduce CPU usage, because the plug-in is still running. Use your plug-in's host application or DAW to totally disable the plug-in. Also note that the dry/wet Mix is retained when Proc is off.

Width

The Width control sets the stereo width of the reverb. Narrowing the Width gives you the soundstaging typical of some vintage reverbs – including mono Plate or Spring reverbs, or an echo Chamber – or simply to help you maintain clarity in the mix.

Mix

The Mix control sets the ratio of dry (original signal) to wet (reverb only). This control is intentionally not stored within presets, but its settings will be stored within a project in your DAW or other host application.

A Mix of 0% produces only a dry signal at the output , while 100% passes in only the wet reverberation signal at the output, as you would want if PSP EasyVerb is used on an auxiliary send. The Mix ratio on the output of the plug-in is retained even if the Proc button is in its off position, so a dry signal level set by the Mix knob is also suitable to act as a signal level control when in Bypass mode.

Out

The Out knob sets the overall output level, and has a range from −∞ (muted) to +12 dB. It is set to 0 dB by default.

Output level indicator

This 3-LED meter shows the presence and approximate level of the output signal.

PSP EasyVerb / About box

Clicking on the plug-in's name shows its About box. To go back from an About box view to the usual parameter editing view, just click anywhere in the plug-in window.

Preset Handling & View Options

We have provided PSP EasyVerb with a selection of factory presets. These presets can be used as a starting point for further adjustments, or for quick “drop-ins” on certain tracks.

You access the PSP EasyVerb presets from the PSPaudioware standard PRESET BAR at the top of the plug-in interface.

Preset Browser

PSP EasyVerb version 2 features a comprehensive new preset management and browser system. To access the preset browser, you click the preset name window at the top of the plug-in (which displays 'Default' when the plug-in loads).

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

Application - shows all factory built-in presets grouping by application.

< Factory presets are built into the plug-in and cannot be directly edited! You can adjust them and save separately as user presets >

Designer - shows all factory built-in presets grouped by designer.

My presets - shows only user presets.
This view shows all of the presets you have created and saved, or downloaded and added to your custom presets for PSP EasyVerb.
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 EasyVerb

For Mac users, this is located at:

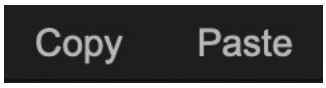
~/Documents/PSPaudioware.com/User Presets/PSP EasyVerb

< You can always check the exact path by clicking on the "Show file in Finder" tab at the bottom of the preset browser window. >

To select a preset, click a preset name in the right window. When clicked, the preset will be applied so that you can audition it. To confirm the preset choice, you can click the preset name once more to load it.

Each preset has own picture. You can click on it to open the designer's website.

Copy/Paste



The **Copy/Paste** feature allows you to quickly transfer settings between instances of the plug-in.

To use this feature, you can click '**Copy**' at the top of the plugin below the preset browser window. Then, open a new instance of the plug-in on another track (or on the same track) and click '**Paste**' to paste the settings to the new instance of the plug-in.

This feature can be particularly useful for processing similar instruments or sounds, when only a few minor tweaks to the starting settings are needed for each specific track.

A/B System

The **A/B system** is for quickly checking and auditioning changes to the plug-in settings.

The **A/B Button** at the top of the interface below the preset browser window allows you to A/B between the current and previous setting of the plug-in. This can be used to audition changes made to your mix, or to audition between two presets.

The **A>B Button** quickly copies the settings of the **A** setting to the **B** setting. This allows you to save your place and apply further tweaks and the audition them with the **A/B Button**.

Undo / Redo

The **Undo/Redo** feature of the plugin lets you quickly navigate between setting changes.

To use this feature, use the undo/redo buttons (CCW and CW arrows, respectively) located below the preset browser window.

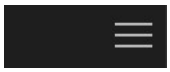
These buttons will undo changes to the current plug-in settings, or allow you to undo a preset change, depending on the last action in the plug-in.

100% GUI resizing

PSP EasyVerb's window size is easily changed to suit your needs. To change the GUI zoom factor, simply hover your mouse over the zoom percentage number and scroll up or down with your mouse wheel or a two-finger touch on your touchpad. Double-click the size number to reset the window to the default size of 100%.

You can also resize the plug-in interface simply by dragging the right bottom corner of the plug-in to any size you like. For quick and precise size setting, single-click on the size number to pop up a set of frequently-used size preset values.

CONFIG Menu



When clicking the three parallel lines icon in the top right corner will open the **CONFIG** menu. Here, you can open the manual, check the current plug-in version number, and choose to hide or show mouse-over hints. Click anywhere in the window to exit.

Minimum System Requirements

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

macOS Intel or macOS AppleSilicon

AudioUnit
- macOS 10.14 – macOS 14 Sonoma
- 64-bit AudioUnit compatible host application

VST
- macOS 10.14 – macOS 14 Sonoma
- 64-bit VST3 compatible application

VST3
- macOS 10.14 – macOS 14 Sonoma
- 64-bit VST3 compatible host application

AAX
- macOS 10.14 – macOS 14 Sonoma
- 64-bit Pro Tools

Processing

- All internal processing is performed with 64-bit double precision floats.
- 32 and 64-bit floating point audio streams are fully supported.
- Sample rates up to 768 kHz are fully supported.

Support

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

www.PSPaudioware.com

That's where you can find the latest product information, free software updates, online support forum, and answers to the most frequently asked questions about our products.

Problems with the installation, activation, or authorization?
Please check our troubleshooting video tutorials on our YouTube channel.

You can also contact us via email: support@PSPaudioware.com.
We will gladly answer all of your questions. As a rule we respond within 24 hours.

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