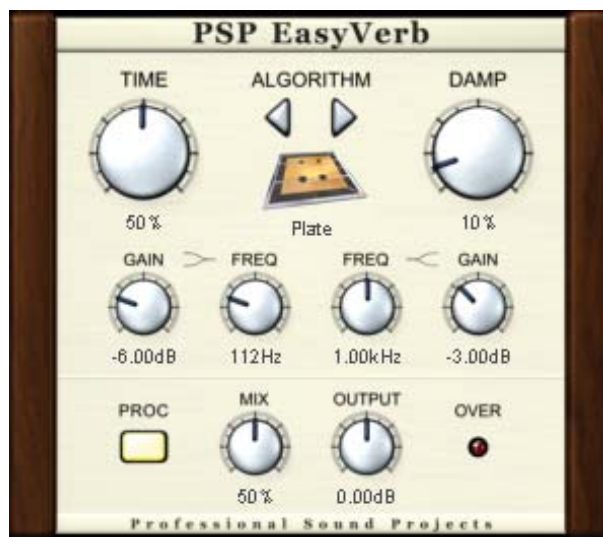


PSP EasyVerb



Operation Manual

Forward

Thank you for your purchase of the PSP EasyVerb, a reverberation processor with nine high quality reverb algorithms designed to simulate physical spaces or popular reverb machines such as plate and spring reverbs. In developing this plug-in, we endeavored 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!

Generating reverberations is a very CPU intensive process, but we have tried to keep the CPU usage of the PSP EasyVerb as reasonable as possible without sacrificing quality. PSP EasyVerb can operate at sample rates up to 96kHz, however in order to assure reasonable CPU usage at sample rates above 50kHz, the plug-in employs downsampling. EasyVerb will not work with sample rates higher than 96kHz.

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

Thank you,

Your PSP team

Mateusz Woźniak & Antoni Ożyński

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End User License Agreement

PREFACE: This End-User License Agreement (“EULA”) is a legal agreement between you and PSPaudioware.com s.c. (PSP) for the PSP product accompanying this EULA, which includes computer software and may include associated media, printed materials, and “online” or electronic documentation (“SOFTWARE”). By installing, copying, or using the SOFTWARE, you agree to be bound by the terms of this EULA. If you do not agree to the terms of this EULA, you may not use the SOFTWARE. The SOFTWARE is protected by copyright laws and international copyright treaties, as well as other intellectual property laws and treaties. The SOFTWARE is licensed, not sold.

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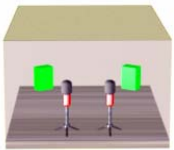
PSPaudioware.com s.c
Dzikiem Róży 11/8,
05-500 Józefosław,
Piaseczno,
Poland

PSP EasyVerb

Overview of EasyVerb Algorithms

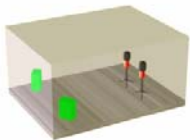
Like all reverb processors, PSP EasyVerb allows you to add depth and space to audio material by generating reverberations similar to those created by classic reverberation hardware, or by real physical spaces of various sizes and shapes. These algorithms use special techniques to ensure almost instantly growing, dense and loop-free reverberation with a smooth decay. All algorithms are true stereo which means that the input signal is never summed before feeding the reverb. You can use the various controls to do some overall shaping and fine-tuning of the effect, but it is your selection of one of the nine algorithms that will have the largest impact.

PSP EasyVerb's nine powerful, high-quality reverberation algorithms were developed specifically based on their usefulness. These algorithms are:



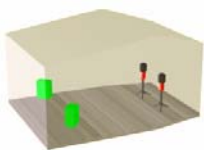
Ambience

Ambience creates a generalized sense of depth and space based on a mid-sized, open environment, in which the source material is in the middle of the space. It sounds very 'live' and its main feature is that it doesn't use typical delays with feedback to create its reverberations. The result of this is that the maximum decay is fixed to 1s (but loop free) and the Time knob alters the amplitude envelope of the reverb instead of the decay time. This makes the reverb sound shorter or longer, depending on the shape of the reverb tail, even though the decay time isn't changing



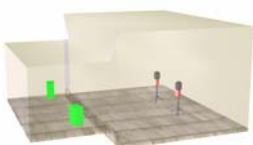
Room

This 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.



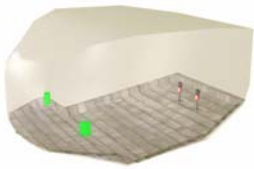
Chamber

Chamber simulates the dense reverberations experienced at the back of a larger, more sonically rich space than the room algorithm. The shape of the chamber is irregular to mimic the shape of concert and echo chambers. The source material is positioned in the front of the chamber.



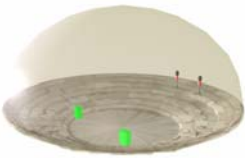
Club

This algorithm simulates a large, rectangular, multi-room 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 start 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 of the space being simulated.



Arena

This algorithm creates a huge, spherical space, in which the source material is at approximately two-thirds of the way to the back of the arena, and the reverberation captured from one extreme end. Like hall, this is a very complex algorithm with lots of early reflections, but the spheroid shape gives it far fewer hard surfaces for reflections.



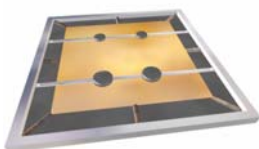
Cathedral

This is a large, very angular space in which the source material and reverberation are in the middle of the space, instead of the farthest distance. The hard angles and high reflectivity of the Cathedral result in a short build up phase followed by an exponential and smooth reverb decay.



Spring

The Spring algorithm is based on the response of a classic dual channel studio reverb machine that possesses a similar echoic character and increasing pattern density on the reverb's tail. Since real springs are always single channel devices, this algorithm in fact offers dual mono processing when used in stereo.



Plate

The Plate algorithm is based on the response of classic studio reverb machines that used gold metal plates to create echoes and ambiences.

Controls

The graphic user interface of the PSP EasyVerb is designed to be both simple and functional, offering its controls in an easy to understand layout.



Basic Operation

To activate the buttons, simply click them. They will glow yellow to indicate that they are active. To adjust the knobs, click on the knob and rotate your mouse clockwise or counterclockwise. 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 pressed before you click on a knob, for as long as you hold the key down the knob will be in Fine Movement Mode, which allows you to make more minute value adjustments. Clicking on a knob with the Ctrl key pressed (COMMAND on Mac) will reset a knob to its default position. Clicking on a knob with the Alt key pressed (OPTION on Mac) will move the knob to the position of your cursor.

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 to switch the editor display to an information panel with details about the plug-in authors, the version number, and to whom the plug-in is licensed. Simply click on the information panel to return to the standard graph display.

Below is a description of each component of the PSP EasyVerb editor:

TIME



This sets the reverberation decay time. It allows you to set the decay time from very short, instantly decaying reverberations to almost 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 algorithm, this control sets the shape of a decay curve while the time is constant and set to 1s. Typically a 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



These arrow buttons allow you to select which reverb algorithm to use. Below the arrow buttons is a graphic representation of the algorithm. This graphic will represent the size, shape, and location of the audio source and reverberation for those algorithms that simulate a physical space. If the algorithm you have chosen is a simulation of a studio reverberation machine, the graphic will represent the type of machine the algorithm is based on. You can click on the name of the algorithm below the graphic to access a pop-up menu listing all the available algorithms (see below).



DAMP



Use this control to set the high frequency damping (in other words, how much high frequency information gets removed) over time. It enables you to emulate the high frequency damping caused by absorption from the materials in the room or simply the brightness of the reverb tail.

EQ SECTION

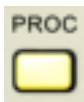


PSP EasyVerb offers you an EQ section consisting of two bands of EQ—a low shelving EQ and a high shelving EQ. Each band consists of two knobs:

FREQ: This band sets the frequency from which the “shelf” shape of the EQ will cut or boost the signal. The low shelf (leftmost FREQ knob) has a range of 25Hz to 10kHz. The high shelf has a range of 50hz to 20kHz.

GAIN: This knob determines how drastic an effect the EQ will have on the sound. Each gain knob can boost the frequency by up to 6dB, creating a 6db shelf at the selected frequency, all the way down to a cut of $-\infty$. To avoid this extreme cut sounding too sharp, and in order to produce a more natural sound, first order filters are used for these shelving EQs.

PROC



This button turns the PSP EasyVerb's input processing on or off. Turning it off means that no input is passed to the reverberation algorithm, although the reverb still works and the tail of the reverb will decay smoothly, not cut off abruptly as soon as you press the button. Please note that turning the PROC button off will not reduce CPU usage by this plug-in.

MIX



The Mix control sets the dry (original signal) to wet (reverb only) ratio. This control is intentionally not stored within presets but its settings will be stored within a project.

OUTPUT



This sets the output gain. This control is also intentionally not stored within presets.

OVER LED



The over LED will light any time the plug-in's output reaches or exceeds 0dBFS. When 0dBFS is exceeded, in addition to the LED lighting, the text below the LED showing the held peak value becomes red. After the over occurs, the LED returns to dark grey. You can reset both the LED and held peak value text by clicking on the LED.

Settings Management

Presets

PSP EasyVerb comes with 51 different presets. These presets were carefully designed to cover most reverb applications, as well as to give you starting points for your own creative experimentation. Please feel free to adjust these presets to your own specific needs, and then save the new settings to recall later.

Saving and Loading your settings

After you use PSP EasyVerb for a while, you will undoubtedly find a few standard settings that you like to start from, or specific reverb settings you like to use for certain material. In these cases, you can save yourself time by saving your settings for future reference. The PSP EasyVerb supports VST format preset handling. Please refer to your VST host application's documentation for specific information regarding how to save and load presets in that program. Please use the dedicated preset bar above or below the plug-in to save and recall presets in other audio applications

Support

If you have any questions about the principles or operation of our plug-ins, please visit our web site www.PSPAudioware.com where you can find the latest product information, free software updates 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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