

RP-VERB



RP-VERB RE User Guide

Powered by RPCX

Welcome

Welcome to RP-Verb RE, the RPCX reverb plug-in.

RP-Verb RE takes you beyond regular reverb effects. RP-Verb RE consists of reverb, early and late reflections, ensemble, distortion and EQ modules.

Combine and configure the modules at your preference, or simply turn them on or off individually. RP-Verb RE takes you on the path from straightforward room simulation to delayed and distorted infinite reverb tails.

Almost every parameter can be controlled in real-time by using midi controller data. Many factory-patches have been set up to make full use of this capability.

Preset management and global controls



Along the top of the RP-Verb RE panel you find the preset control section and a number of global controls.

Preset Controls

RP-Verb RE uses the standard Reason preset controls. Clicking on the preset menu, brings up a list of presets in the current folder and clicking on the up / down buttons next to the menu allows you to scroll through these presets.

The Patch Browser button will bring up the patch browser, allow you to load in presets from other folders.

The Save Patch button, allows you to save the current preset.

Bypass

The Bypass switch turns the RP-Verb RE signal processing, in all modules, on and off.

Reset

This resets the audio path in RP-Verb RE. It clears the reverb and other modules.

Dry / Wet

This control sets the balance (mix) between RP-Verb RE's processed (wet) output and the original (dry) signal. The range is from 100% dry (the original input signal only) to 100% wet (only the RP-Verb RE processed signal).

Reverb



The reverb section is the core part of RP-Verb RE. It employs algorithms to simulate a particular acoustic space. It places the source signal in a reverberating space such as a room or a concert hall.

The controls in this section let you determine the shape, size and building and decorative materials of the reverberating space. They all help you to establish the right reverb character. You are not restricted to real world simulations only. The range of RP-Verb RE's parameters goes well beyond the characteristics found in naturally occurring spaces and allow you to combine settings that do not necessarily go together in a typical room or hall.

It will take you from subtle and realistically sounding reverbs to more creative and even outrageous uses of the reverb effect. To this purpose we have included a number of algorithms and space types that start where other reverbs end. Look for "Storm" or "Space" in the type section.

on / off

REVERB Turns the reverb module on and off

pre-delay

The pre-delay setting determines the time between the direct (input) signal and the start of the reverb signal. In other words, it delays the start of the reverb signal. In real-world rooms and halls the length of the pre-delay is typically related to the size of the room. It represents the time a sound needs to travel from the source, to bounce back from walls and ceilings, and to find its way back to the listener.

pre-delay disorder

Pre-delay disorder introduces timing variations in the pre-delay. A higher setting is indicative of irregularly shaped rooms with many reflective surfaces at different distances from the sound source. It works well in combination with Room type reverbs.

space size

The space size is measure of the size of the simulated acoustic space. It sets the size of the space in cubic meters (m³). In general the larger the size, the longer and denser the reverb signal will be. The size is represented in arbitrary % when using the Space Orbit reverb type.

space disorder

Space disorder introduces irregular variations in the size settings as the reverb signal evolves and is a measure for the symmetry of the simulated space. It works in a similar way to the predelay disorder setting and works well in combination with Room type reverbs.

reverb length

The reverb length determines how long it takes for the reverb signal to fade out. In natural spaces the length is directly related to the size of the simulated space i.e. big size – long reverb, small room – short reverb. The setting here is made as a percentage of the maximum reverb length for the selected size.

space type

The space type selects the basic shape of the simulated acoustic space and determines the algorithm that is used to create the reverberated sound. **Hall** represents a classic hall, a large open space with high ceilings and a relatively large distance between listener and sound source. The typical Hall reverb sounds dark and long. **Room** is used to recreate smaller spaces where the listener is closer to the sound source. The reverberated sound is brighter and shorter than the Hall reverb. **Vintage** is not based on any naturally occurring shape or space in particular and is more suited to imitate older classic reverb machines. It works well on vocals and for those situations where you need long tailed reverbs. **Space** is an experiment in how far we could push RP-Verb RE. Think of the galaxy and go boldly where no reverb has gone before.... Milkyway is the maximum size we can offer you.

space color

The space color parameter defines the timbre of the reverb and is a reflection of the surface material in the simulated space. Hard surfaces reflect a lot of the acoustic energy and make for a bright reverb signal. Soft materials such as carpets, curtains and soft furniture absorb more of the acoustic energy and in particular the higher frequencies. The quality of resultant reverb is therefore darker and of a lower volume.

Reflections

Early reflections



The early reflections are a set of complex echoes (created by delays) that are caused by hard surface reflections in certain room types and spaces. They are audible before the full dense reverb part sets in. The volume, pattern and positioning of the early reflections depend on the listener position, room geometry and surface material of the reflecting walls and ceilings in the simulated room.

Use the 'On/Off' button to assess the impact of the early reflections on the overall reverb sound and see what works best in your song. Prominent use of early reflections can help you to shape percussive sounds and give them more body.

on / off	EARLY REFLECTIONS Turns the early reflections on and off
volume	Volume of the early reflections
direct	Early reflections are heard directly without going into the reverb
into reverb	The early reflections are sent into the reverb. This setting is not commonly used, but can be useful for small room simulations.
length	Sets the delay time, or length, of the early reflections
damping	Dampens the high frequencies of the early reflections. This is associated with softer surfaces in the room like carpets and curtains.
feedback	This sets the level of feedback of the early reflections.
side	Sets the amount of side-wise reflections between the two earliest delays
cross	Sets the amount of cross-wise reflections between the left and right delays

Late reflection



The late reflection adds a longer delay reflection, which can be heard in certain spaces or room types. It depends also on the listener's position whether the late reflection is audible. You can use the 'On/Off' button to assess the impact of the late reflection on the overall reverb sound and see what works best in your song.

on / off	LATE REFL. Turns the late reflection on and off
volume	Volume of the late reflection
direct	The late reflection is output directly without feeding back into the reverb
into reverb	The late reflection is sent into the reverb engine.
length	Sets the delay time, or length, of the late reflection
damping	Dampens the high frequencies of the late reflection. This is associated with softer surfaces in the room like carpets and curtains.

Envelope and Effects

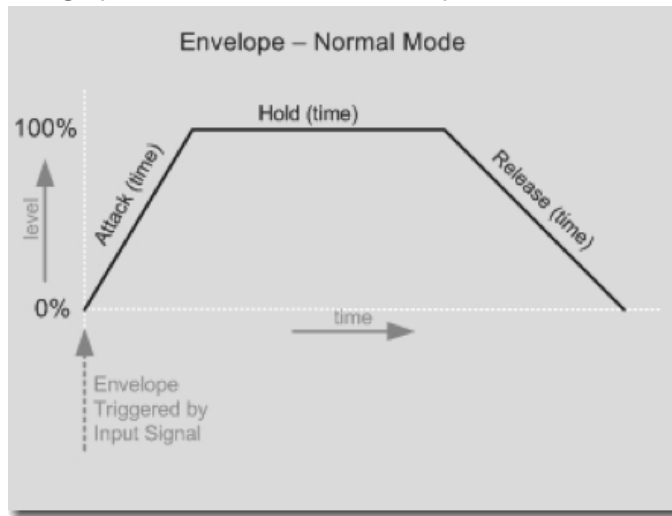
Envelope



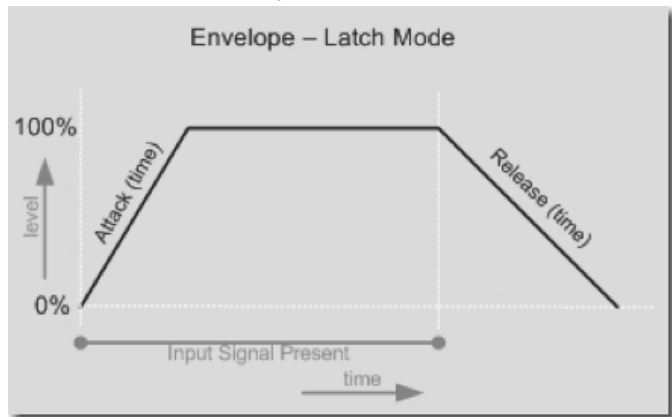
The envelope section allows you to control the reverb signal level and several other reverb parameters depending on the input volume.

on / off	ENVELOPE Turns the envelope section on and off
audio control on / off	The envelope controls the volume of the reverb
reverb size on / off	The envelope controls the size of the reverb
reverb length on / off	The envelope controls the length of the reverb
size + length on / off	The envelope controls the size and length of the reverb
size + length + audio on / off	The envelope controls the size, length and audio level of the reverb
mono input	The envelope input is controlled by a mono signal. This can be useful when the input signal is panned in a stereo field but you would like an equal response of the envelope for both sides the input signal.
latch envelope	The envelope is latched, so it reaches the maximum level and stays there until the input volume goes down to zero.
attack	Envelope attack time; determines how quickly the envelope reaches maximum value when it is triggered
hold	Determines how long the envelope stays at its maximum level. Please note that in Latch Mode, the hold time is ignored.
release	In Latch Mode, it controls how quickly the envelope decays to zero when the input volume reaches zero. In Normal Mode it controls the release time after the hold period has finished.
amount	Sets the overall amount or strength with which the envelope controls the reverb length and size if selected.

The graphic below shows the Envelope in Normal Mode:



And here is the Envelope in Latch mode...



Ensemble



The ensemble effect adds a complex chorus to the sound. It works very well on vocal tracks. In the RP-Verb RE audio chain, the Ensemble module is the second effect.

on / off	ENSEMBLE Turns the Ensemble effect on and off
amount	Controls how much of the ensemble effect signal is added to the signal
into reverb	The ensemble effect signal is fed into the reverb section.
direct + reverb	The ensemble effect signal is output directly as well as fed into the reverb section.

Distortion




The distortion effect adds distortion to your input sound. This is done by sending the signal through a waveshaper effect which simulates tube saturation distortion. It works great for drums and in creating unusual distorted reverbs and rooms.

on / off	DISTORTION Turns the distortion section on and off
amount	Sets the amount of distortion applied to the input signal.

Equalizer



RP-Verb RE has its own internal high quality 3 band EQ. The "post audio" setting defaults to "Off" which means that the input sound is equalized before it goes into the other sections and effects like Distortion, Ensemble, Reverb and Late Reflection.

on / off	 Turns the Equalizer on and off
high	Controls the high frequency emphasis and attenuation at 8 kHz.
mid	Controls the mid frequency emphasis and attenuation at 4 kHz.
low	Controls the low frequency emphasis and attenuation at 100 Hz.
post-audio	Switches the Equalizer to process the RP-Verb RE output signal (wet) only.

Back Panel



Input L/R and Output L/R

The input and output connectors give you access to the stereo input and output signal of RP-Verb RE.

CV Input

The CV Inputs allow you to plug-in a control signal and directly master some of the main parameters. The level of impact is determined by the control knob adjacent to the CV input. As you can see, the control levels are adjustable for all CV inputs independently. The Envelope Gate input triggers the RP Verb RE envelope via its CV input.

Side L/R

The side input, when connected, drives the Envelope level. This overrides the programmed Envelope level.

HQ Mode

The HQ Mode switch operates RP-Verb RE in High Quality Mode. Usually you would leave the HQ Mode engaged (On). This mode however, uses more CPU power. To conserve CPU power you may want to consider turning HQ Mode off. Rest assured that with HQ Mode disabled, the audio and reverb quality is still very high. Disabling HQ Mode can help you to save CPU power while working on your project before the final mix-down.

Midi Controls

#	Control
8	Mix
14	Bypass
15	Ensemble On/Off
22	Ensemble Volume
23	Ensemble Mode
24	Distortion On/Off
25	Distortion Amount
26	Early Reflection On/Off
27	Early Reflection Volume
28	Early Reflection Length
29	Early Reflection Damping
30	Early Reflection Feedback
31	Early Reflection Side Feed
44	Early Reflection Cross Feed
45	Early Reflection Mode
46	Reverb On/Off
47	Reverb Room Size
48	Reverb Length
49	Reverb Pre-Delay
50	Reverb Disorder
51	Reverb Damp
52	Reverb Volume
53	Reverb Pre-Delay Disorder
54	Reverb Diffusion
55	Reverb Low Colour
56	Reverb High Colour
57	Reverb Space Type
58	Reverb Colour Type
59	Late Reflection On/Off
60	Late Reflection Volume
61	Late Reflection Length
62	Late Reflection Damp
63	Late Reflection Mode
70	Envelope On/Off
71	Envelope Attack
72	Envelope Hold
73	Envelope Release
74	Envelope Modulation Amount
75	Envelope Channels
76	Envelope Latch On/Off

77	Envelope Mode
78	EQ On/Off
79	EQ Low
80	EQ Mid
81	EQ High
82	EQ Position