Wire Grind

# BlizzVerb

User Manual


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# Overview

BlizzVerb is a VST3 effects plug-in for Windows systems. It uses a physics and psycho-acoustics based core model to produce realistic sounding algorithmic reverberation.

It uses psycho-acoustically based parameters to control a physics-based algorithmic model. The end result is realistic sounding reverberation without the unnecessary and overly technical control parameters.

# Features

**Physically-Informed Wetness Adjustment**

In real-world reverberation, wetness is among the most important psycho-acoustic properties. The level of wetness varies greatly, and it depends entirely on physics. Most reverb effects include a simple cross-fader to adjust wetness. In contrast, BlizzVerb adjusts wetness by altering the underlying acoustics model. The result is a far-better sounding and much more realistic effect.

**Spectral-Decay Modeled On Acoustic Measurements**

In a real physical space, reverberation decay time depends on the frequency of the sound waves. While every room is different, the frequency dependence tends to follow general pattern. BlizzVerb's spectral decay model aims to reproduce this pattern, and it produces a much more realistic sound than reverbs that use simple lo-pass and hi-pass filters.

**Stereo Models For Headphones and Speakers**

Realistic reverberation requires a stereo sound field. However, accurate stereo modeling depends on the location of the sound system's speakers. The widespread use of headphones complicates matters more as it is an extreme speaker configuration. A realistic stereo model designed for speakers will always conflict with one that is designed for headphones, and visa versa. BlizzVerb provides separate stereo models for speakers and headphones, and users can adjust how much of each one they wish to use.

**1,000 Rooms**

Choose a room to fine-tune reverberation characteristics. Each room has a unique set of early echos, and each provides for a distinct temporal texture, stereo field, and coloration. Results may be subtle, however there is often a definitive improvement as well.

**Early Echo Density**

Early-echo build-up is based on geometrical acoustics theory. This provides natural sounding reverberation without having to adjust pre-delay.

### Freeze

Use freeze to lock the reverb decay at a particular point in time. Freeze can be used for several purposes including the creation of pad sounds.

### Other Features

- Decay time and room size adjustment
- undo and redo for both A and B
- A/B toggle and paste

## Demo Version Limitations

There are two differences between the demo versions the full versions:

- The demo version is unable to save settings.
- The demo version periodically ads a tone or chirp sound to the output.

## Installation

This program comes with a set up application that will guide you through the process. You will likely need to unzip or extract the download package before running. Close other applications beforehand to avoid installation difficulties. The main apps known to cause install problems are audio apps (e.g. DAW software).

## Uninstall

The program can be removed using Windows' add/remove utility.

## System Requirements

### Operating System

Windows versions 7 through 11.

### Supported Host Programs

A program supporting 64-bit VST3 effects plug-ins is required.

### Internet Access (recommended)

Access to the world wide web is required during installation. If the plug-in is being installed on an offline computer, a small amount of data will need to be copied from one computer to the other.

# Specifications

**Supported Sample Rates**

44.1kHz, 48kHz, 88.2kHz, 96kHz, 176.4kHz, 192.0kHz

Other sample rates may work too, but we have not tested them. If in doubt, please try the free demo version.

**Plug-in Format**

VST3, 64-bit

# Software Interface Details

### A / B and Arrow

BlizzVerb will remember and save two sets of parameters. The “A” and “B” buttons will both toggle between the two parameter sets. The arrow between “A” and “B” will copy the active A/B parameters to the non-active parameters. It will then automatically toggle to the other parameter set.

### Acoustical Wetness

Adjusts the wetness of the underlying acoustic model. It works similarly to a traditional wet/dry fader, however it provides a much more realistic sound.

### Bypass

When bypass is active, the input audio is passed directly to the output for monitoring. The gain meters will continue to operate as normal. To completely stop the plug-in, check if your DAW host program has an option to disable plug-ins.

### Cut-Off

The two “Cut-Off” frequency kobs divide the spectrum into three segments, lo, mid, and hi. The global decay time is controlled by the “Decay Time” slider. For the lo and hi segments, decay time is further adjusted using the two “Decay Rate” knobs.

### Decay Rate

The audio spectrum is divided into three segments, lo, mid, and hi. The global decay time is controlled by the “Decay Time” slider. For the lo and hi segments, decay time is further adjusted using the two “Decay Rate” knobs. Setting the knob to 100% will disable spectral shaping on that spectral segment.

### Decay Time
Sets the amount of time needed for the reverberation to fade away. Additional frequency-dependent decay time adjustments can be made for lower and higher frequencies using the “Cut-Off” and “Decay-Rate” knobs.

### Freeze
Locks the reverb, and lets the current sound continue to reverberate.

### Headphones
Sets the depth of the headphone-stereo-model. Set to 0% for no stereo enhancement, and 100% for full stereo enhancement.

### Out Gain
The amount of gain applied to the output signal.

### Room Number
Selects different rooms and gives a different set of early reflections. Different rooms will differ in coloration, texture of early reflections, and stereo field.  Note: The reverberation is will constrained by all of the other parameters. Therefore, the results of changing the room number may seem subtle to many users.

### Room Size
Sets the size of the space being modeled. Room Size is the size of the room along one dimension, and the volume of the simulated room will equal the cube of the Room Size.

### Speakers
Sets the depth of the external-speaker-stereo-model. Set to 0% for no stereo enhancement, and 100% for full stereo enhancement.

### Undo / Redo < / >
The two angle brackets at the top are undo and redo buttons. Undo and redo will be applied only to the current A / B parameter set.