

MIX

Professional Audio and Music Production

Overloud Breverb Reverb Plug-In

by [Barry Rudolph](#)

FIELD TEST

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Italian software developer Overloud is offering Breverb, a synthesized reverb plug-in that's modeled on high-end hardware reverbs costing many times its \$499 retail. It includes four master algorithms: Hall, Room, Plate and Inverse. Each run, using minimal CPU resources, in separate environments within the plug-in and each has specifically designated sets of adjustable parameters relevant to their specific ambient treatment. Breverb runs native on PCs and Macs in Audio Units, VST and RTAS formats, and uses iLok copy protection.

ALL-PRO SIGNAL CHAIN

Breverb's GUI clearly shows that incoming stereo signals are split into dry and into the reverberation unit for the wet path. For control, there are stereo input/output faders, wet and dry level faders, pan pots and meters that surround the centralized reverb algorithm/preset selector menu. The wet signal passes through a master EQ and gate on its way to the wet/dry output mixer.

This master EQ comprises two dual-band, fully parametric EQs with controls for gain, frequency and Q. The Q control adjusts the width of these bell-shaped filters or changes them into 12dB-per-octave lowpass or highpass

filters. The EQs also include a damping control (for use with halls, rooms and plates) to simulate the real-world effects of a room's wall materials and objects that absorb mostly high frequencies.

Following the EQ is a gate especially designed for gating reverb tails, with threshold, attack, release, hold time, shape (either linear or sigma) and slope parameters. The attack, release and hold parameters operate like any typical noise gate. Shape offers a choice of gate-attenuation curves: Linear is a straight, downward path; and sigma is an "S" shape, in which the gate closes slowly at first and then more rapidly downward. Slope controls the exact shape of this S curve--higher values mean a steeper downside.

Both the master EQ and gate are represented in the GUI as the last two of a row of five master control buttons or tabs with lighted in/out indicators. When you click on any of these five tabs, a row of up to six knobs appears for adjusting parameters under the selected tab's name/function.

BREVERB'S REVERB, GUI

Breverb's row of five master control tabs starts with the General tab, where up to six parameters control the synthesized reverbs. Nine reverb parameters are available: time, size, decay, diffusion, shape, spread, motion, pre-delay and depth. Control parameters vary depending on a preset's algorithm-- i.e., a room algorithm's general parameter set offers time, size, diffusion and decay, while an inverse effect requires time, diffusion, pre-delay, motion and depth controls.

It is significant that Breverb maintains a separate table of parameter values for each of the reverb's four master algorithms and their subsequently spawned presets. In addition to properly 'scaling' a parameter's range to fit the selected algorithm/preset, you can automate and store the parameter settings and then toggle between them (when changing presets) without overwriting the other parameter sets used for the other three algorithm/presets. This is ideal for comparing two different reverbs using the A and B select buttons, or shuttling sets of parameters between presets using the A-to-B and B-to-A functions. You can automate up to 133 parameters.

In Breverb, all parameters are completely uncorrelated. One advantage of a reverb synth like Breverb over a convolution-based reverb is that in a reverb synth, all settings are completely malleable and not beholden to any of the natural laws of physics. You can easily create room reverb sounds that are impossible in the physical world; because the reverb time and room size parameters are not connected, as they are in the physical world, very small spaces can have very long reverberation times. Imagine a closet with a near-infinite number of reflections or a concert hall the size of a bedroom. I love it!

Pre-delay is configured in milliseconds or in musical notation for syncing to session tempo. The Regen control sets pre-delay feedback of the left/right input channels, Motion sets the speed of the pre-delay modulation and Depth sets the amount of modulation.

ADVANCED MODE

To conserve screen space, the GUI offers an advanced mode with a choice of showing or hiding up to six additional faders either underneath the row of knobs or on the right side of the plug-in. These six faders default to mirroring the most-often tweaked parameters from the row of knobs. But since they are 'soft', you can reconfigure them (using a pull-down menu or Drag n' Drop) to control (and/or automate) any of Breverb's 37 GUI controls.

All master controls and parameters are saved with each user-named preset. The preference panel settings decide: if you want to keep the same master control settings from preset to preset; save the advanced mode's fader associations; show factory presets along with user presets or in another folder; and mouse sensitivity (speed) when operating knobs or faders. Finally, all six advanced mode faders plus the in, wet and dry controls are accessible by an external MIDI controller.

BREVERB IN THE STUDIO

After installing the RTAS version into my Quad-core PPC Mac/Pro Tools HD3 Accel system, I added Breverb to a session whose DSP resources were already maxed out and found no problems after Pro Tools reshuffled its DSP resources. In general, Breverb has a very present and bright sound, and, to be heard, does not add any appreciable level to the mix. After using it for a few weeks, I found that all of its presets cut through with ease and added a polished sheen to my mixes.

I first try all new hardware and software reverbs on drums. Percussive drum sounds are broadband sounds and short in duration, so I find it easy to hear any "boinging" or noticeable decay-looping artifacts. I used a room preset called Guitar Studio on the snare drum in a 128 bpm R&B song, which already had five other reverbs and four delays coming in and out at certain moments as effects. Breverb worked perfectly for adding a little overall ambience to the track. The Guitar Studio preset also worked for the lead vocal.

On a rock song, I modified an inverse preset called Swept Arpeggio to thicken a snare sound. Inverse patches sound unnatural, so unless you're going for a big-hair '80s snare sound, a little goes a long way. Inverse also works well on lead vocals, where it adds stereo width and size without the long-tailed reverb of a plate or hall patch.

A room patch called Chamber 1 worked smoothly on a pop ballad, and I preferred adjusting pre-delay using musical notation over using milliseconds. Using the Regen function makes pre-delay more interesting and smooths out any vocal attacks that can distract from the effect of an otherwise smooth-sounding reverb. I used the gate to ensure that the total hang time of the reverb's tail did not wash over the bar line of a chord change. Both the gate hold and release times are separately adjustable using musical notation--an extra-cool feature that gives you precise control rather than making you guess when the gate should shut.

One of the most beautiful plate presets is A Night In Sevilla. I used this on a fingerpicked acoustic guitar solo with great results. I could not get enough of this wonderful-sounding reverb! I used the master EQ to warm up the tone of the reverb slightly to better fit my track.

By greatly enlarging the size parameter of the Cello Drama Ambience plate preset while keeping the default time at 500 ms, I created a plate the size of a skyscraper with the decay time of a small room. This was amazing on an acoustic rhythm guitar, giving it a roomy sound that wasn't washed out in long reverb.

On a kick drum (reverb on the kick????!), I used a plate preset called Drums Up Front. I was going for a tight ambience on the kick because, by comparison to the rest of the kit, it sounded much too present, close and dry. I dialed the time parameter down to 200 ms and made the size at 45 percent. As with all very tight ambiences, I carefully added just enough to hear the effect while solo'ing the kick drum tracks. I find on a lot of software reverbs, the left and right output levels for supertight ambiences are never exactly matched, and I would like to see separate level controls for the left and right outputs in Breverb. There are pan pots for left/right inputs and outputs that change the panoramic positioning, but not the level.

BREVERB FOR ALL

I liked Breverb's separate algorithms, its presets, the well-thought-out GUI and, most of all, its superb sound. And this plug-in lets you easily accomplish everything you would do using the remote control of a large, expensive hardware reverb. If you are interested in building your reverberation sounds just as you would build the sound of your mixes, then Breverb is for you.

Overloud, dist. by Ilio, 800/747-4546, www.ilio.com.

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Check Out The Sound Of Breverb--Download These Samples

All audio was recorded at 44.1kHz/24-bit in .wav format. They were edited only in length and normalized in [Bias Peak Pro 5.2 XT](#). If you downloaded the MP3 version of files, they were made using [AudioEase's Snapper](#) utility. They are 192KB @ 44.1kHz.

The single shot snare drum sounds are from [EastWest's Fab Four](#). You'll hear the sample dry and then a lot of the added Breverb preset. You will hear the nature of the effect this way using a broadband percussive signal.

Inverse Presets use the same default pre-delay time.

- | | |
|--|--|
| 1. Hall Preset "80's Percussion Space".(mp3) | 1. Hall Preset "80's Percussion Space".(wav) |
| 2. Hall Preset "Announcer".(mp3) | 2. Hall Preset "Announcer".(wav) |
| 3. Hall Preset "Chamber 1".(mp3) | 3. Hall Preset "Chamber 1".(wav) |
| 4. Hall Preset "Cinematic Hits".(mp3) | 4. Hall Preset "Cinematic Hits".(wav) |
| 5. Hall Preset "Long Bright Wash".(mp3) | 5. Hall Preset "Long Bright Wash".(wav) |
| 6. Plate Preset "8th Gate".(mp3) | 6. Plate Preset "8th Gate".(wav) |
| 7. Plate Preset "Female Lead Plate".(mp3) | 7. Plate Preset "Female Lead Plate".(wav) |
| 8. Plate Preset "A Night In Sevilla".(mp3) | 8. Plate Preset "A Night In Sevilla".(wav) |
| 9. Plate Preset "Funk Theory".(mp3) | 9. Plate Preset "Funk Theory".(wav) |
| 10. Plate Preset "Neutral Vox Space".(mp3) | 10. Plate Preset "Neutral Vox Space".(wav) |
| 11. Room Preset "Big Empty Room".(mp3) | 11. Room Preset "Big Empty Room".(wav) |
| 12. Room Preset "Cinematic Breakz".(mp3) | 12. Room Preset "Cinematic Breakz".(wav) |
| 13. Room Preset "HipHop Fattener".(mp3) | 13. Room Preset "HipHop Fattener".(wav) |
| 14. Room Preset "Medium Room".(mp3) | 14. Room Preset "Medium Room".(wav) |
| 15. Room Preset "Huge Percussion".(mp3) | 15. Room Preset "Huge Percussion".(wav) |
| 16. Inverse Preset "Comeback Guitar Solo".(mp3) | 16. Inverse Preset "Comeback Guitar Solo".(wav) |
| 17. Inverse Preset "Laaate".(mp3) | 17. Inverse Preset "Laaate".(wav) |
| 18. Inverse Preset "Ostinato Strings".(mp3) | 18. Inverse Preset "Ostinato Strings".(wav) |
| 19. Inverse Preset "Strange And Dark Echo".(mp3) | 19. Inverse Preset "Strange And Dark Echo".(wav) |
| 20. Inverse Preset "Init".(mp3) | 20. Inverse Preset "Init".(wav) |

Mixdown Use

- ["FastKit1"--Default Plate Algorithm.\(mp3\)](#)
- ["FastKit2"--Default Hall Algorithm set to 2.64s\(.mp3\)](#)
- ["FastKit3"-Default Room Algorithm.\(mp3\)](#)
- ["FastKit4 -Default Inverse Algorithm.\(mp3\)](#)
- ["EgtrPlate"--Plate Preset "Empty Plate Room".\(mp3\)](#)
- ["EgtrRoom"-- Room Preset "Female AntiClutter".\(mp3\)](#)
- ["GirlVocal"--Default Hall Preset.\(mp3\)](#)

Mixdown Use

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- ["GirlVocal"--Default Hall Preset.\(wav\)](#)

Download All The Files At Once: [All .wav Files \(70MB Zip Archive\)](#) [All .mp3 Files \(7.3MB Zip Archive\)](#)

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