

Halo Reverb

User guide · version 1.1.0



What it is

An algorithmic reverb with eight spaces, each its own engine, and a six-band decay contour you drag directly on the tail's own light. Decay from 0.1 to 60 seconds, a freeze that holds a tail losslessly, ducking on the unit, and HALO's pitched regeneration inside the tail. Zero latency. VST3, AU and AAX for Windows and macOS.

Hall, Chamber, Plate, Room, Ambience, Cathedral, Nonlin and HALO are eight separate engines, not presets of one algorithm. The rooms and halls run an eight-line modulated feedback delay network; Plate is a figure-eight plate topology that uses SIZE for its early reflections and ignores BLOOM; Nonlin is a 32-tap-per-channel gated engine with no feedback loop at all, where BLOOM becomes SLOPE and walks from reverse through gated to decaying; and HALO adds a granular pitch shifter inside the regeneration loop, with octave up, fifth up, octave plus fifth, octave down or detune, each pass climbing further. Switch spaces and the whole machine re-lights in that space's colour.

The decay contour is the signature. Six bands, split at 150, 400, 1200, 3500 and 8000 Hz, each scaling the master decay from 0.25x to 4x, drawn as a curve of light over the live tail with every node grabbable. Select a node and it names its own frequency band, shows its exact ratio and derives the target time in seconds; type the ratio you want and it commits on Return. The filters doing the work are absorptive filters inside the

feedback loop, so the measured reverb time really follows the curve you drew: RT60 tracks the display within 10 percent at 0.5, 2, 8 and 20 second settings. Master decay runs from 0.1 to 60 seconds.

Around that: predelay 0 to 500 ms, free or synced to the host from 1/32 to 1/4 with dotted and triplet values, falling back to the manual value and saying so when the host has no usable tempo. Freeze holds an existing tail in the feedback spaces, click-free in and out, with tone, width, ducking and mix all still live while it hangs. Ducking has amount, attack and release, driven by the dry signal. Three eras voice the whole machine: MODERN is full bandwidth, CLASSIC caps at 15 kHz with noisier modulation, VINTAGE caps at 10 kHz, darker still. Wet-path low and high cut, low and high tone shelves, width from 0 to 200 percent that stays mono-compatible, a mix lock for browsing presets, A/B with copy, and output trim. 43 factory presets plus Default, in six banks. Zero samples of latency and no lookahead anywhere. The window resizes from 900x620 to 1650x1110 at a fixed aspect.

The six contour bands sit at fixed splits rather than freely placed nodes, and Nonlin stores those ratios without applying them, because it is a finite window with no feedback to shape. Halo Reverb is stereo, taking mono or stereo in and stereo out, with no surround format.

Built and used at a working recording studio. Support: support@vitricaudio.com

Key features

- Eight spaces on four engine families: modulated FDN, figure-eight plate, 32-tap gate, HALO
- Six-band decay contour dragged on the tail's own light, split at 150/400/1200/3500/8000 Hz
- Per-band decay from 0.25x to 4x of master decay, with absorptive filters inside the loop
- Decay from 0.1 to 60 seconds; measured RT60 follows the displayed value within 10 percent
- Freeze holds a tail losslessly and click-free, with tone, width, ducking and mix still live
- HALO regeneration pitches the tail: octave up, fifth, octave plus fifth, octave down, detune

Working the light field

The display is the tail, drawn as light across frequency and time, with the decay contour over it as a curve you edit. Drag a node up or down to scale that band's decay; select one and its card names the band (LOW, LOW MID, MID, HIGH MID, HIGH, AIR), shows the exact ratio and derives what that means in seconds at the current master decay. Type a ratio into the card and press Return to commit, or Escape to cancel. Left and right select a band, up and down step its ratio, and Shift gives fine movement. A drag keeps the offset it started with, so grabbing a node does not jump it, and pressing or releasing a modifier without moving the pointer never moves the value.

The toolbar and the decks

The eight-space selector, the preset menu, A/B with COPY, FREEZE and BYPASS sit along the top. Under the display, four core knobs stay put - PREDELAY, SIZE, DECAY and BLOOM - beside a same-size TEXTURE section that carries diffusion, modulation and early/late. In the HALO space, a second page of that section holds the regeneration send, decay, tone and interval. Below them the tail strip carries ducking, the wet cuts and the tone shelves, and the bottom row holds the era switch, width, mix with its lock, and output.

Engine-qualified controls

Controls that a space does not use stay stored and read as stored rather than disappearing: Nonlin keeps the contour ratios and tank modulation without applying them, Plate uses SIZE for its early reflections and ignores BLOOM, and the duck attack and release stay stored while the amount is zero. Predelay sync overrides the manual value only when the host reports a usable tempo above 20 BPM; otherwise the manual value stays active and the interface says PREDELAY FREE.

Mouse and keyboard

Drag a knob to adjust; Shift-drag is ten times finer (Cmd-drag in Pro Tools). The wheel steps on the parameter's own grid, with Shift for fine steps. Double-click or Cmd-click resets a control to its default (Alt-click in Pro Tools). Click any value to type it, in the control's own unit: Hz or kHz, ms or s, dB, percent or a contour ratio. Arrow keys nudge the focused control. The options menu carries tooltips, the reduce-visual-effects switch and the keyboard shortcut sheet.

Typical uses

- **Lead vocals.** A plate at 1.5 seconds with 25 ms of predelay, ducking riding the dry phrase, and the contour pulling lows out of the tail so the vocal stays clear.
- **Drums.** Nonlin for gated and reverse tails, or a tight room with the contour keeping the kick's region short while the snare blooms.
- **Sound design.** HALO regeneration with freeze. Pitch the tail an octave up, hold it, and play the tone, width and mix like an instrument.
- **Mix bus and score.** A cathedral or a scoring-stage hall with the six-band contour shaping length per region, at zero samples of latency anywhere in the chain.

Full specification

- Eight spaces, each its own engine: Hall, Chamber, Plate, Room, Ambience, Cathedral, Nonlin and HALO
- Four engine families: an eight-line modulated FDN, a figure-eight plate, a 32-tap-per-channel nonlinear gate, and the HALO regeneration layer
- HALO regeneration intervals: octave up, fifth up, octave plus fifth, octave down and detune, with their own bloom, decay and tone
- Six-band decay contour, splits fixed at 150, 400, 1200, 3500 and 8000 Hz
- Per-band decay scaling from 0.25x to 4x of master decay, with exact ratio entry and derived target seconds
- Absorptive filters inside the feedback loop, so measured decay follows the drawn curve
- Measured RT60 tracks the displayed value within 10 percent at 0.5, 2, 8 and 20 seconds
- Decay 0.1 to 60 seconds; size 50 to 200 percent; diffusion 0 to 100 percent
- Bloom sets density build-up, from tails that speak immediately to a late hall swell; Nonlin relabels it SLOPE, reverse to gated to decaying
- Freeze holds an existing tail in the feedback spaces, click-free in and out; early reflections stay live and Nonlin stays a finite window

- Tone, width, ducking and mix stay live while frozen
- Ducking driven by the dry signal: amount 0 to 100 percent, attack 1 to 100 ms, release 20 to 2000 ms
- Predelay 0 to 500 ms, free or host-synced from 1/32 to 1/4 with dotted and triplet divisions
- Sync needs a host tempo above 20 BPM; without one the manual predelay stays active and the interface says so
- Eras: MODERN at full bandwidth, CLASSIC capped at 15 kHz with noisier modulation, VINTAGE capped at 10 kHz and darker
- Wet-path low cut 20 Hz to 1 kHz and high cut 1 kHz to 20 kHz
- Low and high tone shelves, plus or minus 12 dB
- Modulation rate 0.1 to 5 Hz and depth 0 to 100 percent; early/late balance 0 to 100 percent
- Stereo width 0 to 200 percent, mono compatible at every setting
- Mix 0 to 100 percent with a lock that holds it while you browse presets
- A/B compare with copy, output trim plus or minus 24 dB
- The light field display: the wet tail drawn as light across frequency and time, with the contour over it as an editable curve
- Freeze visibly holds the light, ducking dims it, bypass turns it out
- 43 factory presets plus Default, in six banks: Vocals, Drums, Guitars, Keys and Synths, Mix Bus, and FX and Sound Design
- Zero samples of latency, with no lookahead anywhere
- Typed values on all 27 continuous controls: Return commits, Escape cancels, invalid input keeps the old value
- Shift for a fine drag, wheel steps on the parameter's grid, double-click or Cmd-click to reset
- Options menu with tooltips, reduce visual effects and the keyboard shortcut sheet
- Resizable window at a fixed aspect, 900x620 up to 1650x1110
- 33 automatable parameters, state saved and recalled exactly with your session
- VST3, AU and AAX, Windows and macOS

Installation on Muse Hub

This Muse Hub edition opens and runs directly: there is nothing to enter, nothing to unlock and no purchase pointer inside the plugin, and the status chip reads MUSE HUB. Muse Hub handles the purchase, the installation, updates and removal. On Windows the plugin installs as VST3 and AAX. On macOS the installer places VST3, AU and AAX builds in the standard system plugin folders. If the plugin does not appear in a host, rescan plugins, confirm the host is 64-bit, and in Audacity enable it in the Plugin Manager.

Requirements: Windows 10 or later (64-bit) or macOS 11 or later, Intel or Apple Silicon. Settings and presets are the same as the edition sold at vitricaudio.com, so projects open in either edition.

Frequently asked questions

Is the HALO space a shimmer reverb?

It contains one and goes further. A granular pitch shifter sits inside the tail's regeneration loop with five interval choices: octave up, fifth up, octave plus fifth, octave down and detune. At low settings it reads as

tuned air behind a vocal rather than an effect. Pushed hard it is the full climbing shimmer wash, and the field runs gold into violet as it climbs.

What does the decay contour actually control?

Reverb time per frequency region. Six bands, split at 150, 400, 1200, 3500 and 8000 Hz, each scaling the master decay between a quarter and four times. The filters doing the work are absorptive filters inside the feedback loop, so the measured reverb time follows the curve: verified within 10 percent at 0.5, 2, 8 and 20 second settings.

Does freeze colour the held tail?

No. In the feedback spaces freeze holds the existing tail losslessly, verified to hold within 0.1 dB over ten seconds, and engage and release are click-free. Early reflections stay live, and tone, width, ducking and mix keep working while it hangs. Nonlin has no feedback loop, so it does not acquire an infinite tail.

What are the eras?

Three voicings of the whole machine. MODERN is clean and full bandwidth. CLASSIC caps the tail at 15 kHz and adds noisier modulation. VINTAGE caps it at 10 kHz, darker and noisier still. They are bandwidth and modulation choices with honest numbers, not marketing decades.

Does it add latency?

No. Zero samples reported and real, with no lookahead anywhere. It sits in a tracking chain as comfortably as on the mix bus.

Can I sync the predelay to the track?

Yes, from 1/32 to 1/4 with dotted and triplet divisions. Sync needs a host tempo above 20 BPM; when the host does not give one, the manual predelay stays active and the display tells you so instead of silently changing the time.

Can I type an exact decay time or ratio?

Yes. Every continuous control takes a typed value in its own unit, including the six contour ratios, and the selected node also shows what its ratio works out to in seconds. Return commits, Escape cancels, and an untouched draft never overwrites a newer automation value.

What formats and DAWs does Halo Reverb support?

VST3, AU and AAX on Windows 10+ and macOS, Intel and Apple Silicon. That covers Pro Tools, Logic Pro, Ableton Live, Cubase, Studio One, FL Studio, REAPER and every other major host.