

Colonnade Delay

User guide · version 1.1.0



What it is

A dual-engine character delay that stages its echoes on a real depth axis. Two independent delay lines, four machines living inside the feedback loop, and one Depth control per engine that drives level, air absorption, smear, arrival time and width together. Zero samples of latency at every setting. VST3, AU and AAX for Windows and macOS.

The A and B decks are complete, independent delay lines: character, time, feedback, filter, pitch, diffusion, pan, width, level and depth each. Four characters live inside the feedback loop, so colour accumulates with every repeat the way it does in hardware. Studio is clean digital at any feedback setting. Tape carries program-dependent saturation, head bump and high-frequency loss that track tape speed, with wow and flutter built from measured machine behaviour. Bucket is a bucket brigade on a virtual clock that darkens as times stretch, compander pumping and all. Ghost is companded bit reduction that breathes with the signal. Each engine has its own Age control, calibrated new to worn, plus drive and an optional noise layer.

Depth is the control the name is about. It runs from -100, in front of the dry signal, to +100, far behind it, driving level, air absorption, smear, arrival time and stereo width together, so a repeat recedes instead of just getting quieter. The echo stage draws every repeat where it actually sits, at its real time and depth, on a

beat grid when synced, and the head node is grabbable: drag sideways for time, up and down for depth, with a HUD reading the values as you move.

Time runs 1 ms to 4 s free or across 21 sync divisions with dotted and triplet, changed by Repitch, a tape transport glide, or Fade, a crossfade at constant pitch. Both are click-free, including through host tempo changes. Feedback goes to 120 percent: self-oscillation begins at 100 and stays bounded and musical, limited inside the loop the way tape saturation limits a real echo machine. A pitch shifter in the loop covers ± 24 semitones for shimmer ladders that build per repeat, diffusion runs from discrete repeats to a washed smear without moving the echo off the grid, a multimode resonant filter sits in each feedback path, and ducking rides the dry signal. Routing is Dual, Ping-Pong, Serial or Mid/Side, and synced engines take swing from 50 to 75 percent plus a ± 30 ms nudge either side of the pocket.

Zero latency at all settings, and nothing is reported to the host because nothing is needed. Echo placement is sample-accurate at 44.1, 48, 96 and 192 kHz, and both engines working cost about 1.4 percent of one core at 48 kHz. There are 44 factory presets in six sections, freeze, per-engine reverse, kill dry, mix lock, output trim, global width, tap tempo, A/B with copy, undo and redo, and a window resizable from 1000x680 to 1860x1260.

Colonnade Delay has no oversampling or high-quality mode, and no modulation matrix: it is a character and depth instrument, not a modular routing environment. If your work needs those, this is not the delay for that part of it.

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

Key features

- Two independent delay lines: character, time, feedback, filter, pitch and depth each
- Studio, Tape, Bucket and Ghost inside the feedback loop, so wear accumulates per repeat
- Depth from -100 front to +100 back: level, air, smear, arrival time and width in one move
- An echo stage that draws every repeat at its real time and depth, with a grabbable node
- Routing Dual, Ping-Pong, Serial or Mid/Side, with swing 50 to 75% and a 30 ms nudge
- Zero samples of latency at every setting, pitch in the loop to ± 24 semitones, 44 presets

Working the stage

The stage draws each engine's repeats as lamps of light at their actual times, staged by depth, on a beat grid when synced. The first repeat is grabbable: drag sideways for time, up and down for depth, and the node follows your pointer with a HUD reading TIME and DEPTH as you move. The lane rides time, the decay grip rides feedback, and a wheel over a lane leans the regeneration in or out. Shift is a fine adjust, double-click resets, and right-click opens the lane menu. Drags are anchored, so pressing or releasing Shift with a stationary pointer does not move the value.

The decks

Each deck carries the character row (STUDIO, TAPE, BUCKET, GHOST and REVERSE), the TIME block with its EDIT chip and SYNC, TAP and REPITCH or FADE beneath it, FEEDBACK, the DEPTH rail and value, and the page tabs MACHINE, FILTER, SPACE and OUT. Every continuous value can be typed: click it, enter a

number, press Enter. TIME takes free milliseconds and seconds or a sync division. Along the bottom sit FREEZE, GROOVE (swing and nudge), DUCK (amount, attack, release), MIX (kill dry, mix, lock) and OUT (width, output). Routing chips, the preset menu, A/B with COPY, UNDO, REDO and BYPASS sit in the top bar.

Typical uses

- **Vocal slap and throw.** A close studio eighth on A for presence, a worn tape quarter far back on B for the throw, ducking keeping both out of the phrase.
- **Guitars.** Bucket brigade darkening into every repeat, feedback leaned into self-oscillation at the turnaround, and the stage showing exactly where the trails sit.
- **Synths and keys.** Pitch shifting inside the loop builds shimmer ladders per repeat. Quartz mode keeps it glassy; Slide glides between times like a tape transport.
- **Mix FX.** Mid/Side routing puts one engine on the centre and one on the sides. Freeze holds a loop click-free while you ride filters and depth live.

Full specification

- Two independent delay engines, A and B, with full per-engine control
- Per-engine character: Studio, Tape, Bucket or Ghost, all inside the feedback loop
- Studio: clean digital repeats at any feedback setting
- Tape: program-dependent saturation, head bump, HF loss tracking speed, measured wow and flutter
- Bucket: bucket brigade on a virtual clock, darkening as times stretch, compander pumping
- Ghost: companded bit reduction and sample-rate reduction that breathe with the signal
- Per-engine Age control, calibrated new to worn
- Per-engine drive and an optional noise layer: tape hiss and splice, clock whine, warble
- Depth axis per engine, -100 front to +100 back: level, air absorption, smear, arrival time and width in one control
- Echo stage display: every repeat drawn at its actual time and depth, on a beat grid when synced
- Grabbable head node: drag sideways for time, up and down for depth, with a gesture HUD
- Routing: Dual, Ping-Pong, Serial (A feeds B) and Mid/Side
- Time 1 ms to 4 s free, or 21 sync divisions with dotted and triplet
- Repitch (tape transport glide) or Fade (crossfade at constant pitch) time changes
- Click-free time changes, including through host tempo moves
- Feedback 0 to 120 percent; self-oscillation begins at 100 and stays bounded and musical
- Pitch shifting inside the feedback loop, plus or minus 24 semitones with cent resolution
- Quartz (clean granular) or Slide (glided) pitch behaviour
- Diffusion per engine, discrete repeats to washed smear, without moving the echo off the grid
- Multimode resonant filter (low pass, high pass, band pass) in each feedback path
- Ducking driven by the dry signal, with amount, attack and release
- Swing 50 to 75 percent in the MPC convention on synced engines

- Nudge, plus or minus 30 ms either side of the pocket, on synced engines
- Freeze: click-free loop hold
- Per-engine reverse, kill dry for send use, mix lock, output trim, global stereo width
- Tap tempo per engine, A/B compare with copy, undo and redo
- Host-automatable bypass with a click-free crossfade
- 44 factory presets in six sections: Vocals, Drums, Guitars, Keys and Synths, Mix FX, Ambient and Sound Design
- Tooltips on every control
- Freely resizable interface, 1000x680 up to 1860x1260
- Zero samples of latency at all settings, with nothing reported to the host
- Sample-accurate echo placement, verified at 44.1, 48, 96 and 192 kHz
- About 1.4 percent of one core at 48 kHz with a 512-sample buffer, both engines working
- Passes pluginval at strictness level 5
- VST3, AU and AAX, Windows and macOS

Installation on Muse Hub

Purchase, installation, updates, refunds and removal for this Muse Hub edition are all handled by the Muse Hub app. The plugin opens and runs directly: there is nothing to unlock inside it, and the status chip reads MUSE HUB. 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

What does the depth control actually do?

It moves an engine's repeats from in front of the dry signal to far behind it by driving five things together: level, air absorption, smear, arrival time and stereo width. That combination is what distance sounds like in a room, so the echo recedes instead of just getting quieter. Two engines at different depths give the mix a foreground echo and a background one from one insert.

Are the characters in the feedback loop or on the output?

In the loop. Tape, Bucket and Ghost colour the signal on every pass, so saturation, darkening and wear accumulate with each repeat the way they do in hardware. The tenth repeat of a worn tape setting is audibly further gone than the first.

Does it self-oscillate?

Yes, deliberately. Self-oscillation begins at 100 percent feedback and stays bounded and musical up to 120, limited inside the loop the way tape saturation limits a real echo machine. Grab the decay grip and lean in.

Can it do shimmer?

The pitch shifter sits inside the feedback loop with a range of plus or minus 24 semitones, so an octave setting climbs another octave every repeat. Quartz mode keeps the shifts clean and granular; Slide glides between pitches like a transport.

Does it add latency?

No. Zero samples at all settings, nothing reported to the host, and echo placement is sample-accurate at 44.1, 48, 96 and 192 kHz.

Does a tempo change click?

No. Repitch glides the transport and Fade crossfades at constant pitch, and both are click-free through host tempo moves. Bypass crossfades click-free as well.

What formats and DAWs does Colonnade Delay 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.

Support: support@vitricaudio.com · Product page: <https://vitricaudio.com/colonnade-delay> · Vitric Audio, Cleveland, Ohio.
This guide describes Colonnade Delay 1.1.0 as distributed on Muse Hub.