

SOLITVDE

MODULAR REVERB

User Manual

// horse parade

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1 Overview

Solitvde is a modulating shimmer reverb. An eight-line feedback delay network forms the tank, and pitch-shifted voices recirculate inside it so the tail takes on a glassy shimmer the longer it rings. Almost every control can be driven by Solitvde's own modulation sources, so a still room can breathe, sweep, or wander.

It is built around one principle: changing a parameter never introduces a click or a pop. Every control is modulation-safe from the start, which is what turns routing a source to almost anything into a musical move rather than a glitchy one. It runs as an AUv3 audio unit on macOS and iOS, with a standalone demo app alongside.

Key features:

- Eight-line feedback delay network with Size, Density, and a true RT60 Decay
- Octave and fifth shimmer voices with four interval recipes plus a reverse mode
- A modulation matrix: two LFOs, a random source, and an envelope follower, routable to almost any control
- Per-fader source assignment plus a full routing grid with bipolar amounts
- Tempo-syncable LFOs, random source, and envelope follower
- Side-chain input to drive the envelope follower from an external signal
- Multimode filter, placeable before, inside, or after the reverb tank
- Freeze (as a variable amount) to hold the tail indefinitely
- Pre-delay, stereo width, early reflections, and a placeable output level

2 Installation

2.1 macOS

1. Open the Solitvde application
2. The audio unit extension registers automatically with the system
3. Open your DAW and scan for new audio units
4. Solitvde appears under the *Horse Parade* manufacturer name

2.2 iOS / iPadOS

1. Install Solitvde from the App Store
2. Open Settings → Audio Units to verify it is enabled
3. The plugin appears in compatible hosts such as GarageBand or AUM

3 Parameters

3.1 Space

The reverb tank: an eight-line feedback delay network fed through a diffuser.

Size — Scale of the space, from 0% to 100%. Sets the length of the tank's delay lines, so the tank moves from a tight drum room toward a large hall.

Decay — Reverberation time as a true RT60 length, from 0.1 s to 60 s. This controls the length of the tail, independently of size: A small room can ring for a long time, and a large hall can decay quickly. Displayed logarithmically.

Damping — High-frequency roll-off applied as the tail fades, from 0% (bright, no roll-off) to 100% (dark, fast roll-off). Models the absorption of energy via air or surfaces.

Density — Diffusion thickness, from 0% to 100%. Redistributes the tank's line delays around their mean, moving from a sparse, fluttery scatter toward a smooth, dense wash.

Freeze — Holds the tail, from 0% (off) to 100% (held indefinitely). Raises the recirculation toward unity so the tail sustains indefinitely. Freeze can also be modulated, for an infinite sustain that still welcomes new input.

3.2 Motion

Pitch-shifted voices read the recirculating tail, transpose it, and crossfade the result back into the tank. Each recirculation gets repitched, so the tail climbs. Warp and Ensemble live here too as modulation-only chips (no fader); see the matrix.

Shimmer — Amount of pitched signal blended back into the tank, from 0% (dry tail) to 100% (full shimmer). Routinely automated from the matrix for a shimmer that rises and falls.

Grain — Grain size of the pitch voices, from 0% (short, articulate, a touch metallic) to 100% (long and smooth, up to ½ second — a sustained hum). The absolute length scales per mode (lower-pitched modes afford longer grains).

Mode — The interval recipe for the four voices:

Octave — All four voices an octave up. The default voicing.

Fifth — All four voices a fifth up.

Two Octaves — An octave plus two octaves, for a brighter, glassier climb.

Octave + Fifth — Two intervals at once (an octave and a fifth).

Reverse — The voices read grains backwards, smearing transients and transforming the texture.

3.3 Filter

A multimode state-variable filter, plus an input low cut. The filter can sit before the tank, inside its feedback loop, or after it (see Placement).

Cutoff – Filter corner frequency, from 20 Hz to 20 kHz.

Resonance – Emphasis at the cutoff, from 0% to 100% (Q 0.7–4.0).

Type – Filter response: low-pass, high-pass, or band-pass.

Placement – Where the filter taps the signal path: Pre, Tank, or Post. Pre filters the send before the tank, colouring the input once. Post filters the wet after the tank, colouring the tail once (the default). Tank runs the filter inside the feedback loop, so a low-pass darkens, a high-pass thins, and a band-pass focuses the tail progressively as it recirculates.

Low Cut – A high-pass on the input send, from 20 Hz to 400 Hz. Trims low energy before the tank so the tail stays clean and stable.

3.4 Output

Mix – Wet/dry crossfade from 0% (fully dry) to 100% (fully wet). Uses an equal-power crossfade curve.

Width – Stereo spread of the wet signal using a mid-side splitter. 0% sums to mono, 100% is the unaltered stereo image, and 200% exaggerates the side.

Early – Level of the early reflections, from 0% to 100%. The discrete early field that arrives ahead of the diffuse tail.

Level – Attenuates the wet signal, from 0% (silent) to 100% (unity). Its placement chip sets where it acts: Pre (before the diffusion), or Post (after the tank). With a source routed it can become tremolo, ducking, or a reverse-style swell.

Pre-Delay – Gap before the reverb begins, from 0 ms to 500 ms.

3.5 Modulation

Solitvde's defining feature: four modulation sources that can be routed to almost any control. Sources are inert (and cost nothing) until a destination picks them up.

3.5.1 Sources

Source	Controls	Sync	Stereo
LFO 1	Rate 0.01–20 Hz; Shape (sine, triangle, saw up, saw down, square); Spread	Yes	Yes – Spread offsets the L/R phase

Source	Controls	Sync	Stereo
LFO 2	As LFO 1, independent rate and shape	Yes	Yes – via Spread
Random	Rate 0.01–20 Hz; Slew (glide between steps); Spread	Yes	Yes – Spread blends in an independent right-channel stream
Envelope	Attack 1–250 ms; Release 1–2000 ms; Sensitivity 10–1000%; Delay 0–500 ms	Yes – Release + Delay	No – mono; follows the summed send (or side-chain)

LFO 1, LFO 2, and the Random source can run free (in Hz) or sync to the host tempo at a note division from 8/1 down to 1/32. The Envelope follower is driven by its input: it has no rate, and a louder input yields a larger envelope. Sensitivity scales that drive: high values produce wider modulation, low values keep it gentle. Attack sets how fast the envelope rises to a transient, Release how slowly it falls, and Delay is an onset delay that makes the modulation lag the input. The Envelope's own Sync toggle expresses Release and Delay as note divisions rather than milliseconds (Attack stays a millisecond time).

Source – The chip below Sensitivity picks what the follower listens to – Input (the signal passing through Solitvde) or External (a second, side-chain input). See Side-chain input.

3.5.2 The matrix

Each modulatable control carries a small source chip below the fader. Tap it to assign one of the four sources to that control. To view a separate modulation matrix view, open the Matrix (the grid button) to see every destination, set its source, and dial in the Amount.

Amount runs from –200% to +200%. Amount is applied as a modulation from the current control position. +50%, the default, corresponds to a quarter of fader depth, and ±200% is full depth. A negative amount inverts the source.

Most destinations are also faders you can set by hand; routing a source then moves them around that hand-set value. Two (Warp and Ensemble) have no fader at all: they are modulation-only, and produce no effect until a source is routed to them. In the table below every destination accepts Modulation; a check under Parameter marks the ones that also have a hand fader, and Stereo marks the ones a stereo source spreads across the field. See the notes beneath.

Destination	Control surface		Stereo
	Parameter	Modulation	
Size	✓	✓	
Decay	✓	✓	
Damping	✓	✓	

Destination	Control surface		Stereo
	Parameter	Modulation	
Density	✓	✓	
Freeze	✓	✓	
Shimmer	✓	✓	
Filter	✓	✓	✓ ¹
Width	✓	✓	
Early	✓	✓	
Level ⁴	✓	✓	✓
Warp ²		✓	✓
Ensemble ³		✓	✓

¹ Filter: the source's L/R sweep the two per-channel filters independently.

² Warp: a wet-output mod-delay vibrato, with an independent wobble per channel.

³ Ensemble: a per-line detune of the tail, a chorus spread across the stereo field.

⁴ Level: the wet attenuator (Pre or Post placement); a spread source auto-pans, a mono source tremolos.

Warp and Ensemble are inert until a source is routed; there is no fader to set them by hand.

3.5.3 Side-chain input

Solitvde exposes a second stereo input – a Side-chain bus – so the Envelope follower can track an external signal rather than the input audio signal. Set the Envelope's Source chip to External and route a signal into the side-chain bus in your host; the follower then ducks or blooms the reverb from that source – a kick ducking a pad's reverb, for example.

Side-chain routing is dependent on the host's audio routing support.

4 Signal Flow

Stereo input passes a Low Cut high-pass and Pre-Delay, into a diffuser that smears the transients. The Pre-Delay and Post-Diffusion signal are routed through the early amount into the wet.

The diffused signal feeds into a feedback delay network (the tank), where Size sets the line lengths and Decay sets the RT60. Density redistributes those line delays for thicker or thinner diffusion, and Damping rolls off the highs as the tail fades.

Inside the tank, the Shimmer voices read each line's recirculating feedback, pitching it by the chosen topology of the shimmer Mode, and crossfade it back in, so the tail continues to climb in pitch as the lines recirculate. Freeze lifts the recirculation toward unity to hold the tail.

The wet tail runs through the multimode Filter (in its default Post placement; it can instead colour the send before the tank, or run inside the loop), a stereo Warp modulating-delay (when routed), the Level attenuator (Post by default, or Pre – back on the send, before the diffuser), and the Width stage, then Mix crossfades it against the dry input. Any matrix routing modulates its destination along the way.

5 Presets

Solitvde includes a preset browser for managing factory and user presets. Open it by tapping the Presets button in the plugin interface.

5.1 Browsing & Loading

The preset browser shows two sections: Factory presets (read-only, sorted alphabetically) and User presets (sorted by most recently modified). Tap any preset to load it immediately. The currently active preset is highlighted.

5.2 Saving a User Preset

Tap Save Current at the bottom of the preset browser to save the current parameter state as a new user preset. You will be prompted to enter a name.

5.3 Renaming & Deleting

Long-press (iOS) or right-click (macOS) on a user preset to access the context menu. From there you can rename the preset or delete it. Factory presets cannot be renamed or deleted.

5.4 Sharing & Preset Folder

Tap Open Folder to reveal the user preset directory:

- macOS: ~/Documents/presets/ opens in Finder.
- iOS: The directory is accessible via the Files app under the Solitvde app container.

Each preset is stored as a standalone JSON file. To share a preset, copy the .json file from the presets folder. To install a preset someone else has shared, drop the .json file into the same folder.

6 Accessibility

Solitvde ships with two independent accessibility toggles that apply to both the host and AUV3 instances.

6.1 Where to Find the Toggles

Expanded view – Open the About overlay from the side rail. The footer of the panel exposes both switches.

Compact view – Tap the Info tab. The footer below the description exposes both switches.

6.2 Accessible Theme

When enabled, Solitvde switches to a high-contrast palette designed for low-vision use and bright-light environments.

6.3 Reduce Motion

When enabled, Solitvde damps animation throughout the UI. If you have any accessibility requirements, we'd love to hear from you. Shoot us an email at support@horse-parade.com.

7 Thanks

Solitvde has only been possible due to the generosity of others in sharing time, effort, advice and knowledge.

- Gavinski – for the keen feedback on the early builds, and the push to make the interface a more polished, legible, and much better version of itself.
- Paul Mathews – for his work on the original Flora Creative project, and his guidance through the design and build.
- Signalsmith Audio (Geraint Luff) – for writing and talking so openly about a different approach to reverb topology. Demystifying how to approach a good reverb has been instrumental in carving out what Solitvde has become.
- The Valhalla DSP blog – a long-running, generous resource from some titans of the industry, who've shared both the history of digital reverb and a few flavours of their own.