

The SpecLab algorithm library packs a total of 32 algorithms : 13 reverbs, 13 delays, and 6 reverb+delay combined algorithms, categorized as follows :



REVERBS

Spatium (reverb : classic)

This is the 'mother' reverb of Specular Reverb V2/V3 pedal. Lush and spacious, with unprecedented clarity that never takes over your dry signal, even with *extreme wet* settings.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Warmth	Predelay	Low-Cut	High-Cut	Modulation	Wet Panning

Room (reverb : classic)

Small to medium room reverberation, rich in early reflections.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Warmth	Predelay	Low-Cut	High-Cut	Modulation	Wet Panning

Tile Room (reverb : classic)

A bright and lively tile-surfaced room with stunningly smooth tails.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Decay</i>	<i>Warmth</i>	<i>Predelay</i>	<i>Low-Cut</i>	<i>High-Cut</i>	<i>Modulation</i>	<i>Wet Panning</i>

70s Plate (reverb : classic)

The classic plate reverb, dense and smooth.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Decay</i>	<i>Warmth</i>	<i>Predelay</i>	<i>Low-Cut</i>	<i>High-Cut</i>	<i>Modulation</i>	<i>Wet Panning</i>

Spring (reverb : classic)

Recreation of the classic spring reverb. Tips : turn up the decay parameter to bring up that unmistakable *boink* !

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Decay</i>	<i>Warmth</i>	<i>Predelay</i>	-	<i>High-Cut</i>	-	<i>Wet Panning</i>

Modulated (reverb : atmospheric)

A touch of swirling chorus in the air.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Decay</i>	<i>Predelay</i>	<i>Intensity</i>	<i>Low-Cut</i>	<i>High-Cut</i>	<i>Warmth</i>	<i>Wet Panning</i>

Shimmer (reverb : atmospheric)

A Spatium-style reverb infused with regenerative octave components. The harmonized decay resembles the presence of multiple string pads accompanying your instrument.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Decay</i>	<i>Warmth</i>	<i>Intensity</i>	<i>Low-Cut</i>	<i>High-Cut</i>	<i>P.5th Octave</i>	<i>Wet Panning</i>

Swell (reverb : atmospheric)

Fades in the onset of the reverberation, allowing your dry signal to cut through even in the thickest reverb

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Swell Time	Intensity	Low-Cut	High-Cut	Sub.Oct Octave	Wet Panning

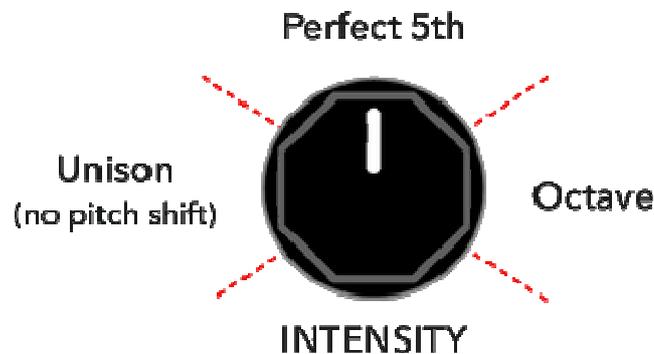
Vortex (reverb : atmospheric)

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Warmth	Intensity	Low-Cut	High-Cut		Wet Panning

Voices (reverb : atmospheric)

A Spatum-style reverb with a pitch-shifted secondary voice on top of it. Three interval choices : *Unison* (no pitch-shift), *Perfect 5th*, and *Octave*.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Warmth	Predelay	Low-Cut	High-Cut	Modulation	Wet Panning



Anti-Shimmer (reverb : atmospheric)

Sub-octave shimmer, heavy! *Doppler* mode takes you on an infinite-descend while *Rumble* mode adds a re-generative sub-octave growls that shatters the ground. Tips : works best with acoustic instruments / amps which preserve much of the low frequencies.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Warmth	Intensity	Low-Cut	High-Cut	Doppler Rumble	Wet Panning

Tremble (reverb : atmospheric)

Amplitude-pulsating ambience that injects rhythm to the Spatium-style reverberation.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Trem Speed	Intensity	Low-Cut	High-Cut	-	Wet Panning

Infinity (reverb : atmospheric)

This algorithm allows you to capture a brief snapshot of the sound you are playing, and hold it indefinitely, then you can play over it (with reverberation).

- **1-Layer mode** : You can fade out the sustained sound, and immediately fade in a new one.
 - **N-Layers mode** : You can add infinite number of layers of sustained sound, creating an ever-dense ambience goodness!
1. Adjust Blend and Decay knob to get the desired amount of reverb mix and reverb time. Leave Param and Intensity knobs at midpoint.
 2. Press and hold down both footswitches, when the LEDs start flashing the pedal began to continuously capture a snapshot of whatever you are playing. When you release the footswitch, the pedal will take the last 0.25 seconds of the captured sound and hold it indefinitely.
 3. Now adjust Intensity and Param to get the desired level and tonality for the sustained sound. The Intensity knob runs backward : sound gets louder as knob is turned counter-clockwise.

Now you can play over the sustained sound, and when you want to change the sustained sound with a new one, simply repeat step-2; the current sustained sound will fade out and then you can fade in a new one. The new sound will fade in to the level you've set previously. Or alternatively, use the *N-Layers mode* to add more -and more layers on top of existing ones.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Inf. Tone	Intensity	Low-Cut	High-Cut	1-Layer N-Layers	Wet Panning

+Digital Dly (reverb : hybrid)

This algorithm combines the Spatium-style reverb with the *Digital* delay algorithm.

+Analog Dly (reverb : hybrid)

This algorithm combines the Spatium-style reverb with the *Analog* delay algorithm.

+Echoes Dly (reverb : hybrid)

This algorithm combines the Spatium-style reverb with the *Echoes* delay algorithm.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
Blend	Decay	Reverb	Repeats	Low-Cut	High-Cut	Reverb Time	Wet Panning

DELAYS

Digital (delay : classic)

Clean and crisp delay with tweakable 'Warmth' parameter. Normal stereo or ping-pong mode available.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Warmth</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Ping-Pong</i>	<i>Wet Panning</i>

Analog (delay : classic)

Analog-voiced delay with tweakable 'Darkness' parameter. Normal stereo or ping-pong mode available.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Warmth</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Ping-Pong</i>	<i>Wet Panning</i>

Echoes (delay : classic)

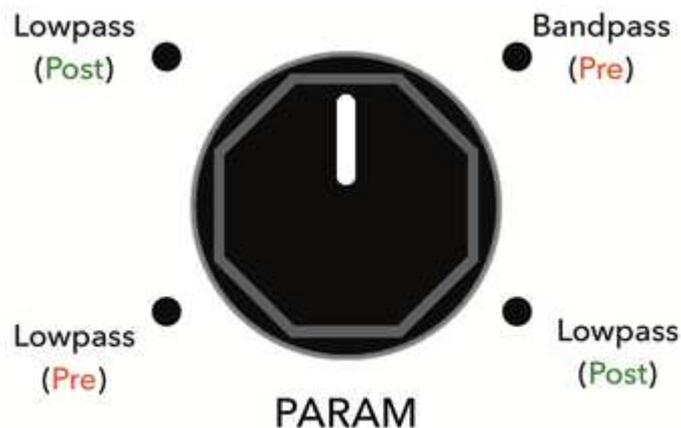
Gradually warming and softening echoes with tweakable 'Softness' parameter. Normal stereo or ping-pong mode available.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Darkness</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Ping-Pong</i>	<i>Wet Panning</i>

Filter (delay : esoteric)

Delay and Envelope filters, a wicked combination with 4 different arrangements.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Filter Types</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Sensitivity</i>	<i>Wet Panning</i>



Spectral (delay : esoteric)

Delay with sweeping spectral notches.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Warmth</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Sweep Speed</i>	<i>Wet Panning</i>

Formant (delay : esoteric)

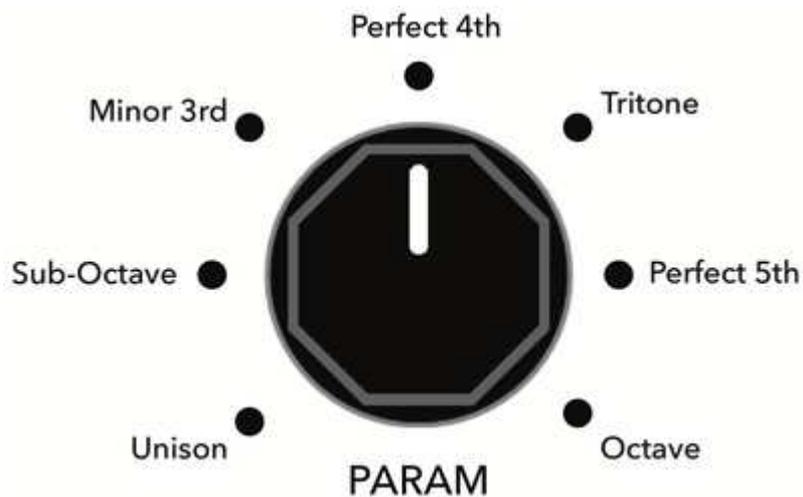
Formant filtered delay. Formant filter mimic the response of human vocal tract, an audio signal passed through a formant filter will sound as if it went through the human's vocal tract. Use the Param knob to set the formant frequency, at maximum setting the frequency oscillates automatically.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Frequency</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Depth</i>	<i>Wet Panning</i>

Transposer (delay : esoteric)

Pitch-shifted delay. Take a bold plunge into this colorful chromatic echoes machine!

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Pitch</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Direct Mix</i>	<i>Wet Panning</i>



Ambiental (delay : esoteric)

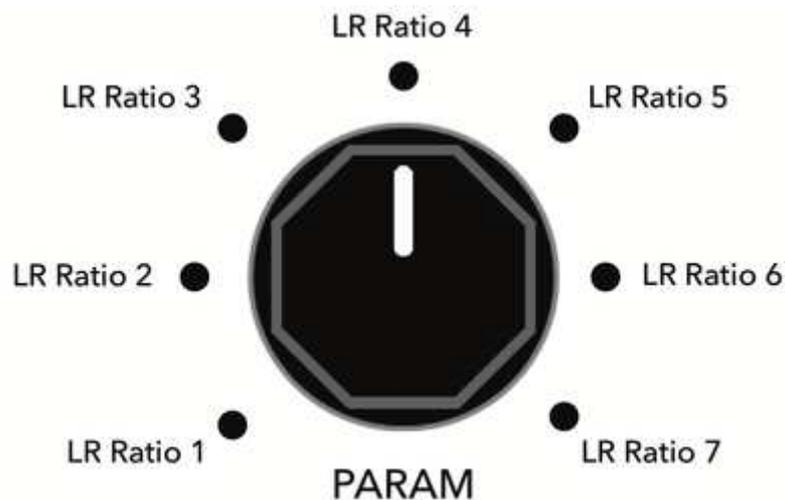
This algorithm blurs the distinction between delay and reverb. Echoes build up into a dense ambience wash while bouncing left and right in a rhythmic stereo fashion. A pitch-shifted overtone (*Glitter*) then adds a unique and hypnotic overtone. This is one of our favorite algorithm, so much wonderful textures to be discovered.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Glitter</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>P.5th Octave</i>	<i>Wet Panning</i>

Dual Stereo (delay : esoteric)

Two separate delays in parallel (Left / Right) arrangement. You choose the delay time ratio between Left and Right delays that you want and the echoes will pan from one side to the other depending on the ratio selected.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>LR Ratio</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Warmth</i>	<i>Repeats (R)</i>



Dual Dotted (delay : esoteric)

Two separate delays in series/parallel arrangement. One delay is set to Quarter Note and the other to Dotted 8th, the signature stacked-delay sound for worship music.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Mix</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Warmth</i>	<i>Stereo Spread</i>

Dual Gold (delay : esoteric)

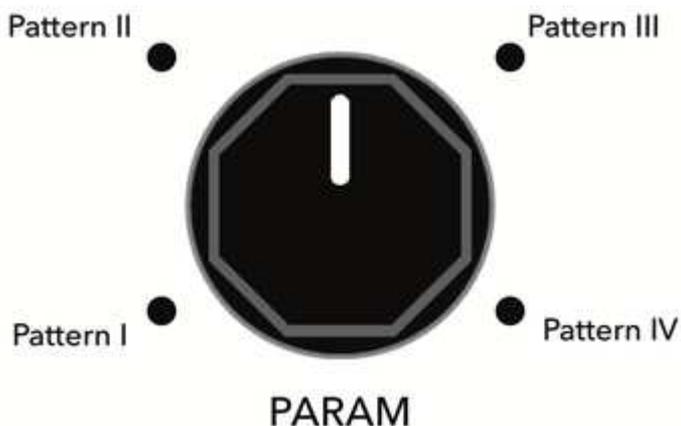
Same concept as Dual Dotted, but with *Golden Ratio* subdivision instead. Think ambience.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Mix</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Warmth</i>	<i>Stereo Spread</i>

MultiTap-3 (delay : esoteric)

Tape delay with 3 playback heads. Each input sound event is played back at thrice at different delay times, and signals from the playback heads are re-injected into the feedback loop, creating layers of warm and complex multi-tap echoes. Use the *Stereo Spread* parameter to widen the delay bounce in the stereo panorama.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Pattern</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Warmth</i>	<i>Stereo Spread</i>



MultiTap-4 (delay : esoteric)

Same concept as MultiTap-3 but with 4 playback heads.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Pattern</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Warmth</i>	<i>Stereo Spread</i>

Diffuse Dgtl (delay : esoteric)

Digital delay and reverb combo algorithm with repeats that gets more and more diffused at each iteration.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Reverb</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Ping-Pong Time</i>	<i>Reverb Time</i>

Diffuse Anlg (delay : esoteric)

Same concept as above but with Analog delay algorithm.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Reverb</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Ping-Pong Time</i>	<i>Reverb Time</i>

Diffuse Echo (delay : esoteric)

Same concept as above but with Echoes delay algorithm.

REAL PARAMETERS (KNOBS)				VIRTUAL PARAMETERS			
<i>Blend</i>	<i>Time</i>	<i>Reverb</i>	<i>Repeats</i>	<i>Mod-Depth</i>	<i>Mod-Speed</i>	<i>Ping-Pong Time</i>	<i>Reverb Time</i>