Acrobatics

Spirale

Stereo Morphing Delay VST Effect

How the delay works:

The original Acrobatics technology delivers clean, natural echoing using fractional delay algorhythm and adding subtle modulation to the feedbacked signal without introducing any unwanted distortion in your original audio material. The plugin features self-synchronization to the host, including odd time signatures and smooth adaption to value/tempo changes: that makes Spirale work perfect for the most modern dub tweaks and electronic twirls in studio or live performances.

How the morph works:

Beside sporting all the classic capabilities of an advanced delay effect (mixing, delay fine variation, highpass & lowpass rolloff filter, feedback and pan controls), Spirale features a brand new morphing section, allowing the user to arm up two completely different settings groups and then balance smoothly in-between with a dedicated slider for realtime changes delight at your finger!

Main features:

- Full stereo engine with fine delay, pan, feedback and filter controls.
- A-B double settings for each preset patch, allowing A to B morphing with adjustable responsiveness over time.
- 1-pole 6db lowpass/highpass switchable filter optimized for rolloff.
- Positive and negative feedback, zero to endless repetitions, optional feedback clipping.
- Pan drift section allows moving echoes across the stereo field.
- Routing and mixing options, input and output separate level knobs.
- Automatic, odd time signatures-proof synchronization to host.
- All controls are recordable and fully automatable in host.
- All knobs & switches receive external MIDI control changes.
- All sample rates supported, zero latency, pristine 32-bit audio processing, optimized coding for SSE and SSE2 processors.

Spirale

1. Check Value

Allows user to sniff detailed parameters settings for the effect patch or extract tempo/signature informations from the VST host. This control has no effect on sound processing.

2. A/B Set

Switches A/B Set edit and visualization, giving alternatively the Set values for delay rate (3) and front knobs (7,8,9,10).
The "Set" is a group of parameters that can be changed all at once using the morph slider (6).

3. Delay Rate

Selects delay time division in fractions of a bar. A and B sets can have different values, host-sync is fully automatic. On the drop down menu you get regular notes time on the left, triplet notes (2/3 of length) on the centre and dotted notes (3/4 of the length) on the right.

4. Routing Mode

This selector offers three kind of wet signals to cover different applications. Routing differs based on where the wet signal is extracted from the echo circuitry. You can choose one of the following:
> Direct - unfiltered instantly, then regularly processed
> Offset - unfiltered delayed by rate, then regularly processed
> Filtered - delayed by rate and regularly processed

Acrobat TIP: using Offset or Filtered modes, set the Mix slider on the WET position and use the Input Level on the back to push echoes at will. Delays will be "thrown out" just where the track needs them.

5. Filter Kind

Switches between lowpass and highpass rolloff filtering. Sets share the same filter kind and routing mode, however different rolloff frequencies (8) can be achieved on a morph between sets.

FLIP TO BACK VIEW

6. A-B Morph

Balances between value sets A (Left) and B (Right). Only delay rate and front knobs are effected by this slider. Changes can be faster or slower using the Morphing Speed knob (12) on the back of unit.

7. Delay Mod

Alters delay rate (3) for the active set, making it slower or faster and allowing fine-tuned offsets or real-time mangling. Fully clockwise the delay is doubled, fully anti-clockwise the delay is half of rate.

8. Rolloff

Sets the cut-off point for the rolloff filter in the active set. At each repetition, the feedback signal will progressively cut at the desired frequency. Ranges differs according to the Filter Kind (5) selected.

9. Feedback

Regulates the amount of feedbacked signal for the active set. Fully clockwise the repetitions are endless (as long as the rolloff filter is fully open). This section has further relative settings (14,15) on the back of unit.

10. Drift

Makes the signal pan progressively across the stereo field with repetions. The knob indicates feedback end-point and the dry signal will be placed at the opposite position in stereo. The original algorhythm ensures balance being preserved at the output.

11. Dry-Wet Mix

Balances between DRY original (Left) and WET processed (Right) signals. The wet signal follows routing mode (4) rules, then Input Level (13) attenuates its volume. Similarly, the mix result goes through the output level (16) before leaving the effect unit.

12. Morphing Speed

This knob decides how fast the Morph Slider will behave.
As each parameter in the Set will be a perfect mix of A and B values according to Morph Slider (6) position, the mixed values will be reached according to the speed (in milliseconds) selected here. Just turn left to make the slider work faster, right to make it slower.

13. Input Level

This knob regulates the signal coming into the delay processing part,. It acts before and regardless of Mix Slider (11) position, allowing full and complex articulation of the wet signal.

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WEB SITE

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FLIP
UNIT

Morphing Speed

WET - 24%
PASSED

Off ▐ On — FB Clipping

Acrobatics
MADE IN ITALY

Input

Pos ▐ Neg — FB Polarity

Output

AC POWER

FLIP TO
FRONT VIEW

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14. Feedback Clipping

Chooses if the feedback signal should be clip-limited at each repetition or not. When "On" the sum-up signal stays clear at each passage , "Off" leads to a dirtier processed sound.

15. Feedback Polarity

Selects the phase of feedback signal. "Pos" is the straight polarity, "Neg" is the inverted one, which lead to a slower saturation of the wet signal.

16. Output Level

This is the very last control that attenuates the signal coming out of the whole effect unit. At half position the gain loss is -6dB.

17. AC Power

Power switch simulator. Works also as a slow gate for the mixed signal.

ADDITIONAL INFORMATIONS ON CONTROLS

> Double click on front knobs and sliders to center values.
> CTRL-click on back mini-knobs to center values.
> CTRL-click on selectors to access additional drop-down menus.
> A/B Set view state, A and B settings for delay rate selector and front knobs are saved even if not on view.
> Remember to drag the morph slider far left or right to avoid blend of values while editing A/B sets.

Spirale
MIDI Implementation Chart

Control (knobs/sliders)	CC number	Min	Half	Max
A-B Morph:	CC # 2	A	A%B (blend)	B
Delay Mod	CC # 3	0.5X	Rate	2X
Filter Rolloff (LP)	CC # 4	2000 Hz	5656 Hz	16000 Hz
Filter Rolloff (HP)	CC # 4	40 Hz	565 Hz	8000 Hz
Feedback	CC # 5	0%	50%	100%
Drift	CC # 6	Left	Centre	Right
Dry-Wet Mix:	CC # 8	DRY	50/50	WET
Morphing Speed:	CC # 14	200 ms	1.6 secs	3 secs
Input Level:	CC # 19	-INF dB	-6dB	0 dB
Output Level:	CC # 20	-INF dB	-6dB	0 dB

Trigger (buttons)	CC number	Behaviour
Morph Set	CC # 23	Switches A/B visualization
Morph Restore	CC # 33	Restores preset value of the slider
Delay Copy	CC # 24	Copies current value: A->B or B->A
Delay Restore	CC # 34	Restores preset value in the active set
Delay Rate + Increase	CC # 31	List of divisions 1/X, 1/XT, 1/XD
Delay Rate - Decrease	CC # 41	List of divisions 1/X, 1/XT, 1/XD
Rolloff Copy	CC # 25	Copies current value: A->B or B->A
Rolloff Restore	CC # 35	Restores preset value in the active set
Feedback Copy	CC # 26	Copies current value: A->B or B->A
Feedback Restore	CC # 36	Restores preset value in the active set
Drift Copy	CC # 27	Copies current value: A->B or B->A
Drift Restore	CC # 37	Restores preset value in the active set
Mix Restore	CC # 38	Restores preset value of the slider
Filter Mode	CC # 28	Lowpass/Highpass rolloff
Routing Mode + Increase	CC # 30	Direct/Offset/Filtered routings
Routing Mode - Decrease	CC # 40	Direct/Offset/Filtered routings
Check Value + Increase	CC # 31	List of detailed parameters
Check Value - Decrease	CC # 41	List of detailed parameters
Feedback Clipping	CC # 70	Enables or disables feedback clipping
Feedback Polarity	CC # 79	Positive or negative feedback signal