



# Dispersion v2

Bouncing-ball delay

**AAX + AU + VST** effect plugin for Mac/Windows/Linux

Designed and developed by **Sinevibes** ©2017-2024



# INTRODUCTION

**Dispersion** is a bouncing ball delay effect plugin. It has up to 32 sequential delay lines whose times are spread exponentially via a special formula developed at Sinevibes, in order to produce sound repetitions akin to a bouncing ball. The key feature is that a single round of such delay bounces is always summing up to a precise tempo fraction - making this a rhythmical effect. **Dispersion** can also gradually spread the pan of the bounces left to right and vice versa, so that the imaginary ball moves within the stereo field. With an optional inverse time spread, multiple feedback shaping features, and trademark alternating-polarity modulation, **Dispersion** is capable of a whole universe of unusual yet musically rich effects which simultaneously combine the characteristics of delay, reverb, chorus ensemble, and stereo widening.

# SPECIFICATIONS

## SOUND ENGINE

- Up to 32 sequential delay lines with tempo-synchronized “bouncing ball” time spread
- Gradual and stepped feedback modes
- Optional two-pole low-pass or high-pass feedback damping filter
- Adjustable delay bounce stereo pan spread
- Delay time modulation with unique alternating-polarity routing and variable stereo phase offset
- Lag filters on all continuous parameters for smooth, click-free adjustment
- Supports mono > mono, mono > stereo, and stereo > stereo channel configurations

## GRAPHIC INTERFACE

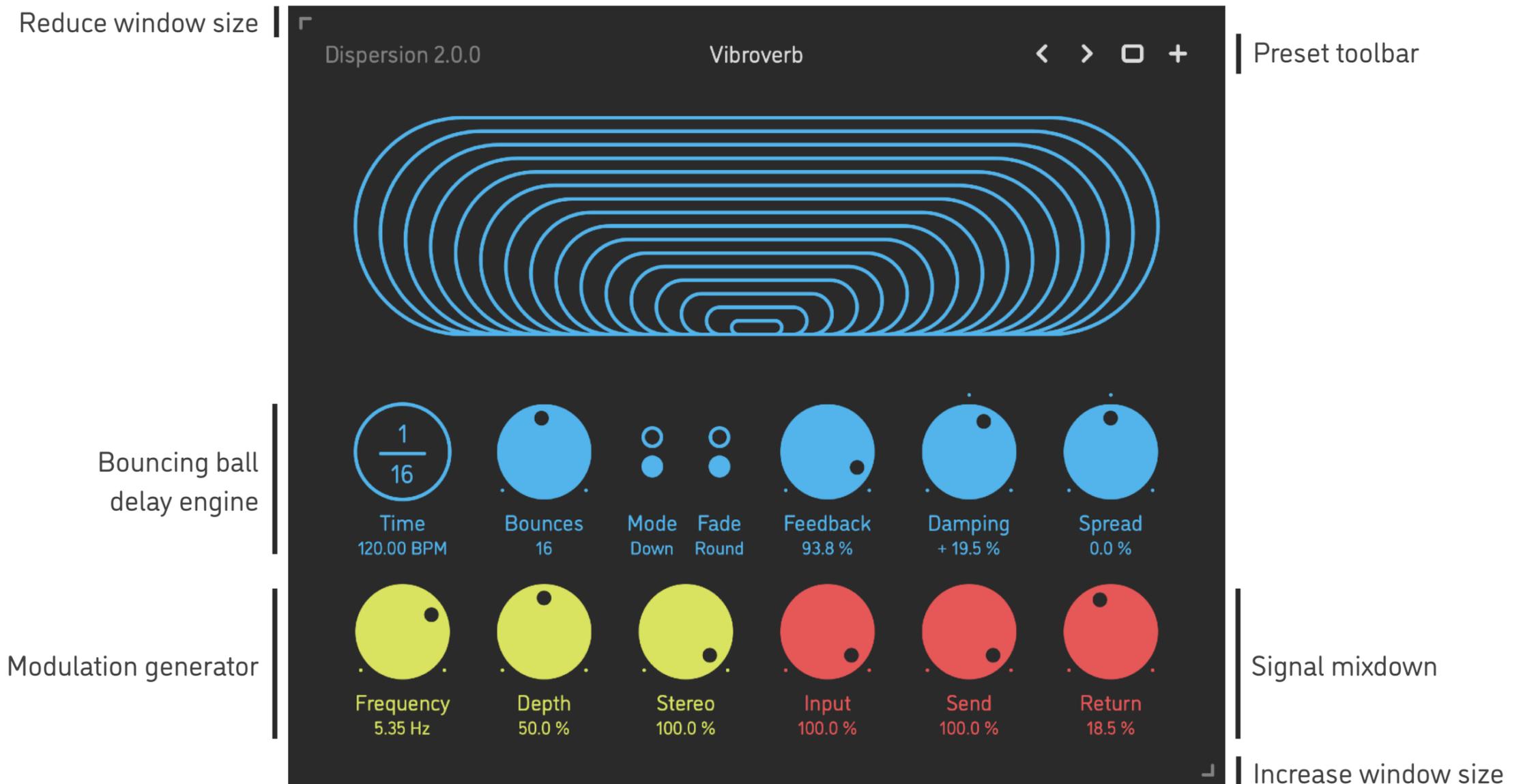
- Color-coded graphic elements
- Consistent name, mapping, value, and unit implemented for all parameters in both graphic user interface and host control/automation
- Built-in preset management functions
- Supports window size scaling up to 200%

## SUPPORTED FORMATS

- **Mac:** 64-bit **AAX, AU, VST3** plugins for Intel and Apple Silicon processors, requires Metal graphics support and macOS 10.9 or later
- **PC:** 64-bit **AAX, VST3** plugins for x86 processors, requires Windows 8.1 or later
- **Linux:** 64-bit **VST3** plugin for x86 processors, requires a fairly recent Linux distribution

# INTERFACE

**Dispersion** features a fully vector-based interface, with color-coded elements for effective visual grouping. The plugin allows you to change its window size from 0.8x to 2x in 20% increments. The last size you set is stored in a preference file and is recalled the next time **Dispersion** is loaded.



- Hold *shift* and drag a knob to adjust the parameter with increased resolution.
- Use *option-click* (Mac) or *alt-click* (Windows, Linux), or *double-click* any knob to recall its default setting.
- To fully initialize all plugin's parameters, load the preset named *Default* from the *Factory* or the *User* bank.

# PARAMETERS

<b>Time</b>	<b>1/16 .. 16/1</b>	Duration of one round of delay bounces, as a fractional ratio of the current host tempo (time numerator and denominator are adjusted independently)
<b>Bounces</b>	<b>1.. 32</b>	Amount of delay bounces in one round (maximum single bounce duration: 32 seconds or 16 bars at 120 BPM)
<b>Mode</b>	<b>Up</b> <b>Down</b>	Delay times are spread from shortest to longest Delay times are spread from longest to shortest (bouncing ball style)
<b>Fade</b>	<b>Bounce</b> <b>Round</b>	Feedback is applied per each bounce, producing a gradual tail fadeout Feedback is applied per one round of bounces, producing a stepped tail fadeout
<b>Feedback</b>	<b>0 .. 100 %</b>	Amount of output signal being fed back into the delay engine
<b>Damping</b>	<b>-100 .. +100 %</b>	Amount of low-pass (-) or high-pass (+) filtering applied within the feedback loop
<b>Spread</b>	<b>-100 .. +100 %</b>	Amount of pan spread applied on the output of each delay bounce: from left channel to the right channel (-) or vice versa (+)
<b>Frequency</b>	<b>0.25 .. 10 Hz</b>	Sine-wave modulation generator frequency
<b>Depth</b>	<b>0 .. 100 %</b>	Amount of modulation signal applied onto delay time
<b>Stereo</b>	<b>0 .. 100 %</b>	Modulation generator phase offset between left and right channels
<b>Input</b>	<b>0 .. 100 %</b>	Dry input signal level
<b>Send</b>	<b>0 .. 100 %</b>	Amount of input signal being sent into the delay engine
<b>Return</b>	<b>0 .. 100 %</b>	Wet output level of the delay engine

# PRESETS

**Dispersion** features simple built-in functions for saving and loading presets, as well as for quickly switching between presets within the same bank. All these functions are accessed via the top toolbar.

Preset Name

Click the preset name at the top to show the list of presets in the current bank. Use *command-click* (Mac) or *control-click* (Windows, Linux) to reveal the actual preset file in the system file browser.



Switch to the previous preset in the current bank. The current bank is automatically set to wherever the last preset was loaded from.



Switch to the next preset in the current bank.



Show open file dialog with the list of preset banks. By default, the plugin includes two banks: *Factory* and *User*. However, you can freely create additional banks – simply by creating new subfolders.



Save current preset. Please note: due to the limitations of the typeface, you can only use latin letters when naming your presets



**SINEVIBES**

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