Argotlunar

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Installation

Windows/Linux:

Copy the .dll or .so file to your VST plugins directory. The location depends on your particular system configuration. Refer to your sequencers manual.

OS X Audio Unit:
Copy the file to /Library/Audio/Plug-Ins/Components

OSX VST:
Copy the file to /Library/Audio/Plug-Ins/VST

Introduction

Argotlunar is a realtime delay-line granulator. It breaks up an incoming audio stream into short samples (grains). Each grain can have random settings of amplitude, panning, duration, delay, pitch, glissando, filter and envelope. The output of all grains is mixed and sent to the main output. The main output can be fed back into the main input.

Time-related parameters can be synced to the host tempo, for rhythmic or pulsing textures. Pitch-related parameters can be quantized for harmonic or melodic effects. Feedback can create chaotic and distorted sounds.

Most of the parameters can be *correlated*. Examples; Higher filter cutoff for grains with higher pitch, and vice versa. Grains with shorter duration can be panned to the center, and conversely the grains with longer duration can be panned wide in the stereo field.

Argotlunar is Free Software, licensed under GNU GPL v2.

Please feel welcome to send any comments, suggestions, or bug reports to argotlunar@gmail.com

Randomization

All controls labeled **(+)** or **(+-)** adjust the randomness of the corresponding parameter. A range of possible values can be set by a unipolar **(+)** or bipolar **(+-)** offset, relative to the main parameter setting. The exact range will be displayed in the parameter display area. Each Grain will choose a random value within this range.

Saving/Loading Programs

Your host sequencer handles the saving and loading of VST/AU programs/banks. But Argotlunar can also save and load its own internal format via the options menu. This allows sharing of presets between AU and VST versions.

Miscellaneous

Each bank contains 16 programs. The current program can be selected by the **+/-** buttons on the GUI, or by standard controls in your sequencer. But it is also possible to switch programs by an automatable VST/AU parameter named "program". The options menu allows disabling this parameter, for compatibility with preset randomizers.
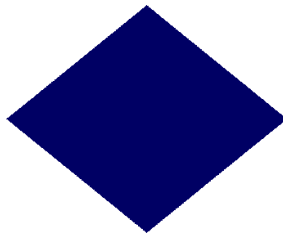
Parameter list

Grains The number of active grains.

Mix Dry/Wet signal mix.

InGain Amplitude of main audio input.

Amp Amplitude of each grain

Pan Stereo position of each grain.

Delay Delay of each grain.
(0 to 5000 ms) or (0 to 500 ms) in **short** mode.
Upper limit of 5000 ms (regardless of quantized delay settings)

Feedback Feedback level .
The main output is sent through a 100hz high-pass filter then back into the main input.

Trans Pitch transposition of each grain. (Quantized by **Scale** option.)
(Cents or semitones.)

Gliss Glissando of each grain.
The pitch will slide linearly from **Trans** to **Gliss** offset.
(Cents)

IOT Inter-Onset Time.
The length of time that a grain will silently pause, before processing with new parameters.
(0 to 2000 ms)

Dur Duration of each grain.
(0 to 500 ms) or (0 to 5000 ms) in **long** mode.

FType Filter type of each grain:
Highpass, Lowpass, Notch, Bandpass, Comb

Comb Filter is a short delay (0.05 – 50 ms), with feedback.
It sounds most effective with feedback set to maximum.

FFreq Filter frequency of each grain.

FQ Filter resonance (or Comb-Filter feedback) of each grain.

Scale The scale or chord to which the grain pitch will be quantized.

Scale Key The key of the selected scale or chord.

Gliss Toggle Enables or disables the **Gliss** parameter.

Freeze Toggle If enabled, the delay buffer will keep its current content and will not be overwritten by further input.

Env Type Amplitude envelope shape of each grain.

Env Sustain Controls the sustain period of the **Raised Cosine Bell** envelope.

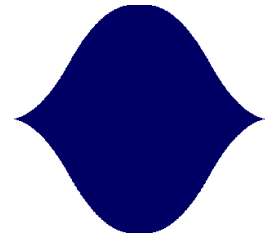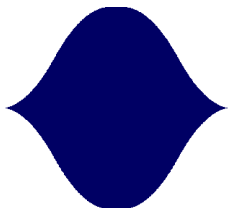**Env Skew**   Controls the shape of **Raised Cosine Bell** or **Triangle** envelope.
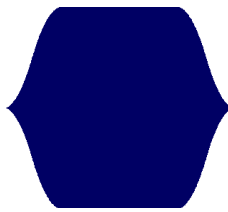
Envelopes
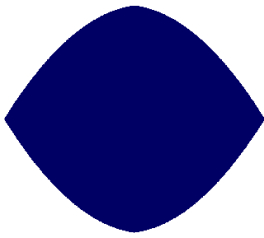
Parabola	Triangle	Raised Cosine Bell

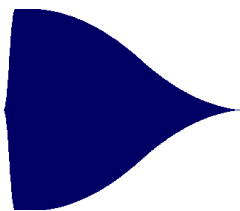## Sustain

Applies to **Raised Cosine Bell**
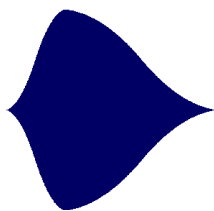
0	0.5	1

Skew

Applies to **Triangle** or **Raised Cosine Bell**
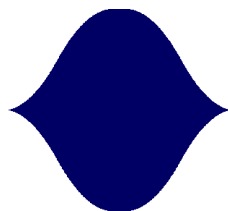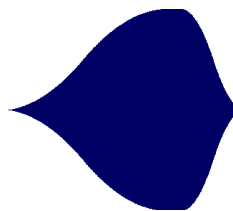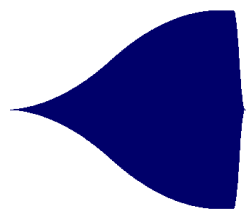
0.1	0.25	0.5	0.75	0.9

The above are screenshots of the actual grains, taken from **Wavosaur**.

Correlation Matrix

Parameters can be correlated, such that the value of one parameter (source) will influence the value of another parameter (destination).

The amount of correlation is controlled by the correlation slider, below the **Source** and **Dest** selectors.

There are two modulation modes, **Direct** and **Scaled** (chosen by the switch beside the correlation slider)

Scaled mode

The source will be **scaled** to the random range, then applied to the destination.
This works only if the source parameter random range is non-zero.
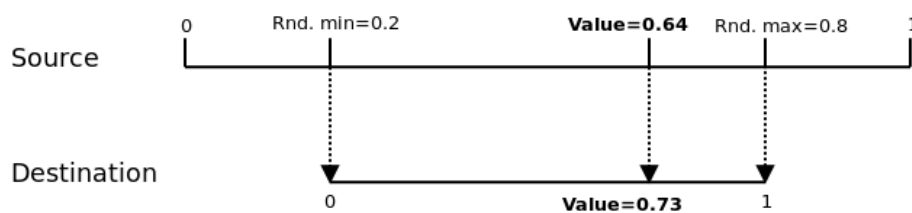
Direct mode

The destination value will be the **same** as the source value. The range min/max values are ignored.
This is most useful when the source has zero randomness, and we want the destination to follow the source parameter tweaking.
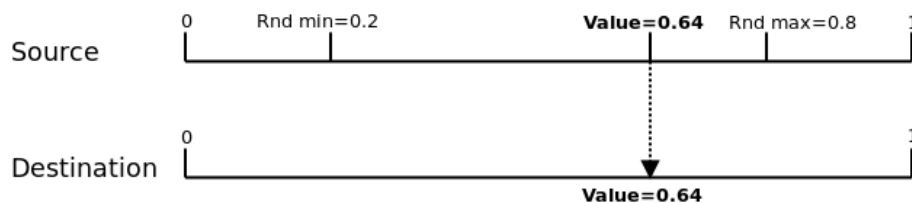
Notes

- In the above diagrams we assume the correlation is 100%

- If correlation is minus 100%, the destination value will be the opposite of the source value.
  (Equal to the inverse of the source, or 1.0 – source value.)

- If correlation is 0%, the destination will remain unchanged.

- Correlation between 0% and +-100% will crossfade the destination between fully random and fully correlated.