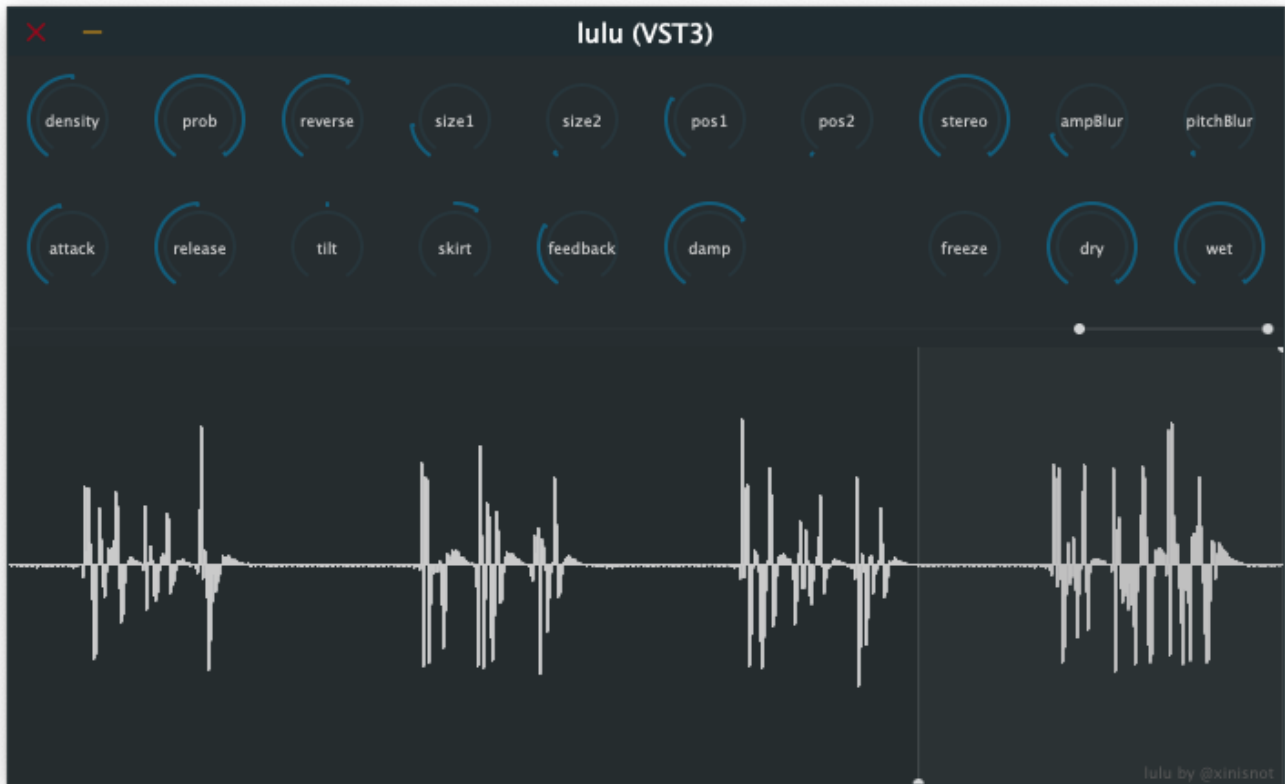


# lulu

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**lulu** is MIDI-controlled live-granular effect. When receives MIDI note-on message, lulu starts to generate grains from a loop-recording buffer of 5 secs. According to received MIDI note number, grains can be pitch-shifted.



## About GUI

By double-clicking each dials, a number box which lets you tweak values will appear.

Two range-bars positioned in lower half are linked to the following dial.

- size1, size2
- pos1, pos2

Input sound is displayed on the oscilloscope. *Note: current version will reset oscilloscope drawing when window is closed. There's no problem in using.*

# How to use

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Although lulu is an audio effect plugin, it must receive MIDI note-on message in order to sound. Middle C is the standard for grain pitch, and no pitch shift occurs.

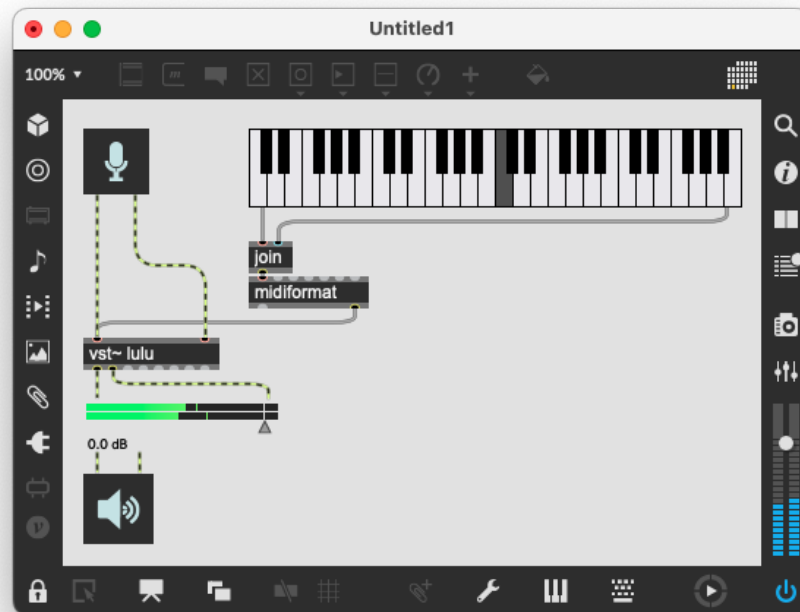
## Example. Apple Logic

Make a MIDI track and write notes in the MIDI regions. Select lulu from the "AU MIDI-controlled Effects" as the instruments for the made track. In the "Side Chain", select the track to which you want to apply lulu.



## Example. Cycling '74 Max

Patch like the following.



## Parameters

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Each dial is assigned to a parameter which is used for automation or mapping.

### density

- `trigger/density`
- Trigger frequency to generate grain. (unit: Hz)

### prob

- `trigger/probability`
- Probability of trigger being fired.

### reverse

- `cloud/reverse_prob`
- Probability that the playback of grains will be reversed.

### size1, size2

- `cloud/grain_size1`, `cloud/grain_size2`
- Grain size (unit: msec).
- For each grain, value is randomized in a range of two values.

## pos1, pos2

- `cloud/position1`, `cloud/position2`
- Position of recording buffer from which the grain is generated (unit: msec).
- For each grain, value is randomized in a range of two values.

## stereo

- `cloud/stereo_spread`
- Stereo-spread.

## ampBlur

- `cloud/amp_blur`
- Amplitude deviation of grains.

## pitchBlur

- `cloud/pitch_blur`
- Pitch deviation of grains (unit: cent).

## attack

- `envelope/attack`
- Attack time on note-on (unit: msec).

## release

- `envelope/release`
- Release time on note-off (unit: msec).

## tilt

- `cloud/window_tilt`
- Shape of grains.

## skirt

- `cloud/window_skirt`
- Shape of grains.

## feedback

- `feedback/amount`
- Feedback amount (unit: dB).

## damp

- `feedback/damp`
- Lowpass filter for feedback.

## freeze

- `record/freeze`
- Pause look recording.

## dry

- `mixer/dry`
- Pre Fx (unit: dB).

## wet

- `mixer/wet`
- Post Fx (unit: dB).

# About me

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[xin](#)