Grain Cooler

Grain Cooler generates polyphonic streams of short grains. Each stream contains a frozen or stretched granulation of the input sound.

Grain Cooler runs on **Ableton Live 9.6** (or newer) with **Max for Live (Max 7.2)**. Please note that you need both Ableton Live and Max for Live to use this device.
It is compatible with both Mac and Windows platforms.

PARAMETERS
The Grain Cooler interface is divided in 4 panels from left to right.

FIRST PANEL

PanWidth: sets the stereo spread of the grains.

Env Smooth: this parameter sets the attack and decay phases of the envelope of each stream (see below, second panel). When it is 0 they are very fast (10 milliseconds), when it is 1 each phase lasts for half the stream duration: f.i. if the stream duration is 3 seconds and the Env Smooth parameter is 1, the attack and decay duration is 1.5 seconds each, and the envelope is actually triangular.

Dry/Wet: sets the Dry-Wet balance.

SECOND PANEL

Granul.: Duration of the grains inside the stream. The **Var** parameter on the right specifies a random variation of the Granulation parameter for each stream.

Duration: duration of a stream. The **Var** parameter on the right specifies a random variation of the Duration parameter.

Scan: this parameter sets a stretching factor for the granulation of each stream. When it is 0 the sound is frozen (i.e. a small fixed portion of the input sound is repeatedly granulated), when it is 1 the granulated sound can advance in time at the same rate of the input sound. For parameter values > 0 the Scan value for each stream is randomly chosen between 0 and the actual parameter.

Probab.: the probability a stream is generated.

Density: sets the density of simultaneous streams produced.

THIRD PANEL

Wob Freq: the amplitude of each stream can be modulated by a "wobbler" (a sinusoidal LFO). This parameter sets the wobbler frequency. The **Var** parameter on the right specifies a random variation of the wobbler frequency.

Wob Depth: when this parameter is 0 the wobbler has no effect. For values > 0 the effect increases and at 1 a full amplitude modulation is applied. For values > 1 the stream is periodically interrupted by the wobbler. The **Var** parameter on the right specifies a random variation of the wobbler depth.

Feedback: this is a multiplier for the amplitude of the stream which is sent back to the granulator.

Fb Damp: this is a damp factor for the feedback when there is no input signal.

FOURTH PANEL

Filter Freq: cutoff frequency of the filter. The **Var** parameter on the right specifies a random variation of the cutoff parameter.

LP, HP, BP switches: select a low pass, high pass or band pass filter. When two or three switches are on, a different filter is randomly used for each grain.

Filter Dry/Wet: Dry-Wet balance for the filter section.

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Requirements

Platform: Mac / Windows

Software: Ableton Live 9.6 with Max for Live (Max 7.2)