grANALiser
VST Plug-in manual

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Introduction

Morfiki's **grANALiser** is a hybrid of granulator and delay. The plug-in is capable of complex FSU sounds and effects as well as chorus, pitch-shifter or ring modulation. It is build around the same morphing engine as our **redu(p)cer** plugin.

Features include :

- stereo processing (granulator pitch shift, size and rate, delay time with spread parameters)
- full featured granulator with pitch shift (±5 octaves, dropdown list with fixed values available), that can be tuned with grain size or synced to tempo.
- delay unit with feedback
- adjustable sample&hold lfo (randomizer) for pitch and grain rate/size values.
- all parameters are controlled by **MORFIKI preset system** (the system itself is described below)
- moderate cpu usage
- dropdown menus with fixed values for pitch-shifter scale tuning, spread transposition and tempo synchronization when available.

Installation

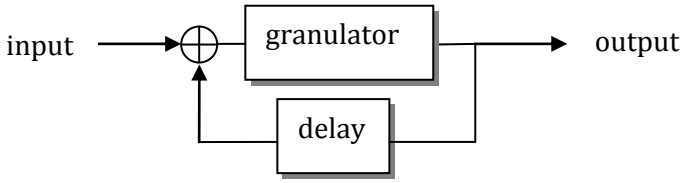
To install grANALister , simply copy „grANALiser.dll" file into your vst plugins folder.

WARNING! grANALiser plug-in can generate extremely high levels at its output (for example ,it can be caused by setting a high feedback level in delay unit) – it is recommended to set a limiter/soft clipper plug-in in a fx plug-in rack of your DAW right after the grANALiser.

NSFW CAUTION! grANALiser contains explicit pixel animation, that should be viewed only by adults. People who find such content inappropriate should not use our software. Viewer discretion is advised during usage.

Signal Flow

Signal is routed as follows:



The diagram is fairly simple and so is the signal flow. Granulator unit performs almost all of the processing. Its input and output is connected via feedback loop with delay unit. All signal blocks work in stereo (L & R channels are processed separately).

Basic Usage

GrANALiser is a complex plug-in – overview of all parameters and its functions is necessary to understand and use grANALiser to its full potential.

a) *Pitch Shift* section – first of 3 control groups for granulator unit. *Pitch* controls the speed of every single granule (tiny bit of input signal). There is a dropdown menu (activated upon clicking the name below knob) for this parameter – one can shift the frequency by ±24 semitones, ±3 - ±5 octaves or fine tune it (3 detune values). P-Spread spreads the frequency shift between L an R channel – similar dropdown list is also there.

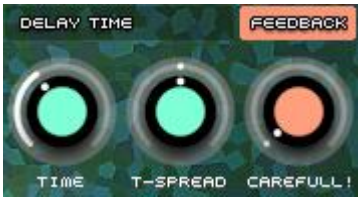
b) *Grain Size* section – second granulator control group, modifies the size of the granules. *G-Size* changes the size – dropdown list for this knob contains fixed values for scale tuning (between c1 and c7) as well as for tempo-synced values (1/4th of step to 16 steps = 1 bar). *G-Spread* changes the granule size between L and R channel, dropdown list available.

P > G parameter sets the amount of synchronization (in terms of equal tonality) between pitch and grain size. In position 0 (hard left) it is obsolete – turning the knob clockwise will make grain size more and more dependent on pitch value. 100% (hard right) gives full synchronization between those parameters.

c) *Grain-Rate* section – controls the rate of granule (or granular density). *Rate* can be tempo synced with use of its dropdown list. *R-Spread* works analogically to other spread parameters (yes, also has dropdown list).

d) *Randomizer* – *P-Random* and *G-Random* will modify the amount of random pitch and size/rate spread for every granule.

e) *Delay-Time* – It is a standard delay module. *Time* controls the delay, *T-Spread* shifts the delay between L and R channel (also, both parameters can be synced with host from dropdown lists). *Feedback* controls the amount of signal fed again into granulator input – be carefull!



NOTE: There is one more thing to consider, when using grANALiser. Plug-in will output audio after the granulator unit sampled one granule. This means that there is always latency (fairly small one in most cases) – its length is equal to size of a single granule. Delay unit is aware of this – hence, the total delay will be compensated in order to get accurate delay value (for example, when the granule size is 10ms and the *Time* is set to

200 ms – the total delay will be still 200 ms, as the delay unit will shift the audio by 200-10 = 190 ms).

f) *Levels* – Provides control for wet/dry signal output.

NOTE: Although some of the parameters allow to be synced to tempo, the function itself is **on demand only –** meaning that when tempo changes, the values **will not be updated.** When one of the synchronization option is selected, the plug-in retrieves tempo information from the host only at that point, adjusting the knob to the proper value. There is no constant monitoring for tempo changes – plug-in updates this information only when user do so, by selecting again fixed value from dropdown list.

MORFIKI preset system

MOFRIKI is the system of parameter control. It's the basic idea behind plug-in series, we are going to release. Our goal, is to let You manipulate Your sound easily, without lines of weird automation.

Every preset has five MORFIKI sub-presets. Use MORPH knob to slide between them. Use SHOW buttons to switch between sub-presets A-E. If MORPH LINK button is active - MORPH knob will follow. Use COPY buttons to copy knobs state from selected sub-preset.

It's so simple !

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Credits

Morfiki Team 2008 :
Dominik Popiński (LpD)– main development, gfx
Jacek Majer (Jackie)– occasional coding, beta testing, documentation

Visit us at: http://morfiki.blogspot.com/

Pixel animation by ***Emy***

Made with ***SynthEdit SDK***
Modules by: ***D. Haupt*** *,* ***P. Schoffhauzer*** *,* ***D. Larkin*** *and* ***K. Lynch***