Lucid
VSTI Manual

Lucid is a hybrid synth that combines Waveshaping, FM, Morphing and subtractive synthesis.

Features

3 Oscillators with one waveshaper each.
3 different FM modes (Algorithms).
4 different Osc combination modes. Mix, Morph, Meld and Vertical Morph.
1 ZDF Filter with 6 different modes.
3 LFOS with Audio rate modes of which two can be waveshaped.
2 ADSRs with adjustable slopes, Velocity control, randomization and Keytracking.
1 Polyphonic distortion (waveshaper).
1 Delay that can be modulated.
1 Reverb.
1 Randomizer, key triggered or run by LFO3.
384 presets

Oscillators

All three oscillators have sine, saw, pulse, triangle and noise waveforms. Each oscillator has its own waveshaper. Oscillator A and B can be morphed together in three different ways or just mixed together.

Morph and **Meld** are time based mixing of the signals.
When the morph knob is in the middle, the resulting waveform contains half a cycle of both oscillators. Moving the knob cuts off the cycle of one waveform replacing it with the cycle of the other. The tuning of each oscillator will affect the resulting waveform as well.

Vmorph is a Vertical Morphing mode that combines the top and bottom of the Oscillators. With the Vmorph knob at the Middle the top of Osc B will be combined with the Bottom of Osc A. With the knob at max position only Osc A is output. Minimum position outputs only Osc B.

Mix crossfades the amplitude of Osc A and B (A-B Mixer section) and Osc A + B with C (AB-C section). To get same level on all Oscs, set the A-B knob in mid position and the AB-C knob somewhere around 2 o'clock.

Oscillator A can be **FM**-ed by Osc B.
Oscillator A or A + B can be FM-ed by Osc C.
You can also modulate the pitches of any oscillator(s) with 2 modulators.

Using LFO1 in **ARO** mode with Keytracking for FM is possible too. Although it's not the same type of FM as with the Oscillators since it modulates Frequency instead of Phase.

OSC C can bypass the filter or everything with the **BYFL**(Bypass Filter) and **BYPS**(bypass all) options.

LFOs

The LFOs have different rate modes: **Very Low, High , Audio Rate and Normal LFO**. LFO1 and 2 also have a **Host synced LFO**. LFO2 has a mode called **Keyb** which means it will only change value at a triggered note.

LFO1 has standard VA waveforms, LFO2/3 has some extra waveforms. LFO1/2 can be **waveshaped**. LFO 1 is **polyphonic** and has **keytracking**, but takes more CPU. LFO 2 and 3 are Monophonic. All LFOs can be reset on new notes.

LFO 1 and LFO 2 levels and rates can be **modulated**. Remember that the LFO level knob actually **mixes** the LFOs default Level with the **Modulators level**. To set the level of an LFO only with a modulator set the Level Mod knob to max position.

ADSR Envelopes

Lucids ADSRs come with **adjustable slopes** for each stage. The knobs for adjusting curves are labeled **AC**, **DC** and **RC**. In the mid position they will be linear, while in the bottom position they are exponential which results in a curve in where the output signal steeps quite rapidly near the end. The max position will do the opposite.

ADSR A and B stages or Levels can be modulated by velocity or randomized. Take note that the randomization of the ADSRs is not using the *Randomizer* section. That's also why the options are named *ARND* and *BRND*.

ADSR B has an an additional **modulation source** called **note** which can be used for **keytracking**. While ADSR A has it's own knob for **keytracking** which affects the Attack, Decay and Release times.

Volume is linked to **ADSR A** but can be disconnected in the volume section with the ADSR button. Each note will still sound but without any adjustable envelope.

Filters

Lucid uses a **Zero Delay Feedback** filter with 6 different filter types: 12dB/Oct LowPass and HiPass. 6dB/Oct BandPass, BandReject, LowPass and HiPass. The filters have **positive and negative keytracking**.

Waveshape Editor & GUI

By pressing the **Edit buttons** you can select to edit the waveshape for that section, which will then become visible inside the Waveshape Editor. You can also use the section names under the editor for selection. Unfortunately there is no way to copy/paste waveshapes.

In most sections were there are mod (modulator) knobs. They usually modulate the setting of the knob to the left of them. Most modulators have a positive and negative range so you can do **inverse modulation**.

Lucid uses clickable text as buttons . Any text that is blue or grey can usually be clicked on to change or activate a feature. **Grey** text means the feature is **off or disabled**. **Blue** means a feature is **in use**.

Installing

Copy the Lucid.dll to your VST folder. If you have problems loading it **make sure that you allowed it to extract all its files**. If there is a folder called Lucid in the same folder as the Lucid.dll and there are files inside, then the installation should have been successful.

License

Lucid was made for the KVR Developer Challenge 2014 and is therefore also **Free.**

You **can sell anything made with it**.

Lucid VSTI can be **distributed** freely but you are not allowed to sell Lucid.**dll** itself.

Xenobioz is not responsible for any damage or loss due to the use of Lucid VSTI.

For support you can go to www.xenobioz.com to listen and share my music. I would be very grateful If you like/watch/share my videos on youtube.com/xenobioz

Credits

Lucid was made with Synthedit.

Big Thanks to Andrew/TD (timedomainblog.wordpress.com) for all his Modules and help.

Version History

1.1 Fixed a small optimization bug

Renamed Kgate LFO mode to Keyb

1.0 Initial Release