psychicmodulation

phonec

Phonec v1.0 by Psychic Modulation

VST for Windows

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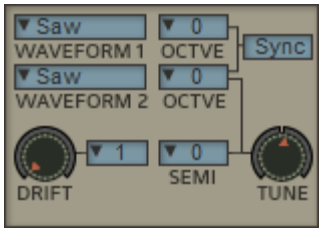
Introduction

Phonec is best described as an 'analog flux synthesizer'. Inspired by the mystique of video logo synth scores from worn out VHS tapes, Phonec was ultimately designed with character in mind. However Phonec is capable of producing a wide range of sounds such as vintage analogue tones, lo-fi synthscapes, ethereal pads, minimal techno sequences, and synthwave leads and basses. Phonec has an intuitive GUI that attempts to strike a balance between form and function, making it a very usable tool that can be a real inspiration to work with. Apart from it's character and excellent workflow, Phonec has several unique features that set it apart from the crowd. Here is a brief overview that highlights the most important aspects:

- Dual oscillators that can be combined in various ways
- Analog-style oscillator drifting
- A unique Melt feature that adds instant character to any patch
- Arpeggiator
- Accent Sequencer
- 3 LFOs (2 monophonic, 1 polyphonic)
- HFO (High Frequency Oscillator)
- 2 Modulation Envelopes
- Echoshifter Delay Unit
- Universal Value Display
- Double Click Parameter Reset
- 128 presets

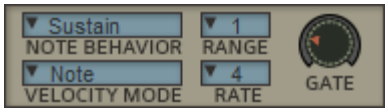
Oscillators



Phonec uses dual oscillators as it's main sound source. The two waveforms have the ability to be combined in various ways including ring modulation, oscillator sync and various math functions. Experimenting with these can produce interesting and unexpected results. Each waveform has it's own ***octave*** setting, while waveform 2 has options for ***Semitone*** and ***Fine*** tuning. Try different semitone settings to get a more jazzy sound.

The ***Drift*** control determines how much the oscillaors drift in and out of the set pitch range. This can give Phonec an unstable sound reminicent of analog synthesizers. Each oscillator will drift seperately unless synced, so it may produce a detuning effect. To the right of this control, the drift rate can be set for faster or slower movement.

Arpeggiator



Phonec's on board arpeggiator can work by itself or accompanied by the accent sequencer below it. Here is a brief overview of the Arpeggiator's basic functions.

The ***Note Behavior*** option determines what happens when a midi note is triggered. If this is set to ***Sustain***, the arp is bypassed and a MIDI input will trigger regular sustained notes. To activate the arpeggiator, select a note ***cycle***. Depending on which cycle is selected, the notes will travel through the octaves in various ways when a key is held.

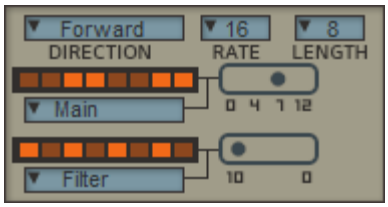
Range determines how many octaves the arp will cycle through.

Velocity Mode allows you to choose how the arpeggiated notes respond to velocity. Choosing ***Note*** will apply velocity to each note individually, while choosing ***Constant*** will apply velocity over the whole range of notes overlapped, the velocity will remain constant until all notes off.

The ***Rate*** option controls the speed of the arpeggiator in beats.

The ***Gate*** knob determines the length of the arpeggiated notes. Turning this control to the left can produce choppy, gated arps, while turning to the right allows for maximum note length. In order for ***portamento*** to have an effect on arpeggiation, the gate control must be set all the way to the right.

Sequencer



Phonec's Accent Sequencer is a cross between a modulator and a gate. Rather than triggering MIDI notes, it will modulate the pitch and velocity in steps. This allows the Sequencer to work alongside the Arpeggiator. The arp controls the MIDI notes, while the sequencer accents the pitch and velocity afterward. However, the sequencer can be used by itself if desired.

The two 8-step grids have seperate functions. The top grid sequences the ***pitch.*** According to the target selection, it can sequence the overall pitch or that of each oscillator seperately. To create a sequence, just click the steps in the pattern grid. Activated steps will be higher in pitch according to the ***range*** control to the right. If set to ***4***, the pitch will be four notes higher and so on. The bottom grid sequences the velocity of the ***filter*** or ***amp***, depending on which is selected. It's range control works in a similar way, activated steps will decrease in volume or cutoff according to the control. If set to ***0***, activated steps will have zero volume. If set to ***10***, the volume or filter will be unaffected.

The top three displays have universal options for both sequence grids. The ***Direction*** setting determines if the sequence will play forward, backward, alternating or random. The ***Rate*** setting controls the speed of the sequencer in beats. The ***Length*** setting lets you determine the length of the sequence, from 1 to 8 steps.

Modulation

The Modulation section is consolidated into a multipage panel with a switchboard at the top for . The ***blue switches*** select the modulation editing panel, and the orange ***on/off*** switches show which modulator is currently activated. This can be usefull in determining which modulator is currently active. The modulators consist of 3 LFOs, an HFO, and an envelope panel with 2 mod envelopes. Below are descriptions of each of these.

LFOs

Phonec has three LFOs (Low Frequency Oscillators) that can modulate various parameters such as pitch, filter cutoff, panning, etc.

LFOs 1 & 2 are ***monophonic***, meaning that the modulation will flow the same path regardless of when a note is hit. This is standard for most LFOs and makes them ideal for use with the arpeggiator.

LFO 3 is ***polyphonic***, which means that each note will trigger a new modulation path. This LFO can also be tracked accross the keyboard range for creating very interesting effects. This is an uncommon feature and is suitable for creating rythmic modulations with long sustained notes.

Aside from these differences, all three LFOs share similar features that are detailed below.

The ***Target*** setting chooses which parameter the LFO will modulate.

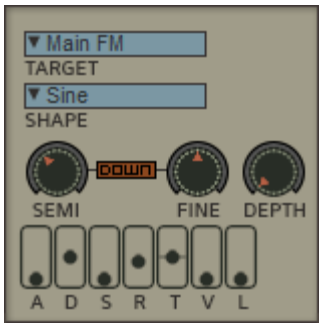
Shape allows you to choose the waveform that the LFO will travel during modulation.

Activate the ***Retrigger*** switch to restart the waveform at the same position on each note. **Note:** if the LFO timing becomes unsynced somehow, just click this switch on/off, and it will reset the LFO path. This can be helpful if you need to just reset the LFO once without having it retrigger on each note, for example with Arps.

The LFO ***Rate*** can be set to ***Sync*** or ***Manual.*** When the ***Sync*** switch is activated, you can define the LFO rate with a tempo synced time selector. When deactivated, the LFO will change to ***Manual*** mode and display a knob that allows the rate to be adjusted freely by turning the control from left to right (slow to fast). The ***Track*** switch will track the speed of the LFO across the keyboard range. This function is only available on LFO 3, and only works in manual mode.

The ***Depth*** knob controls the amount of modulation produced by the LFO. Turn on the ***Subtle*** switch to create a low-level modulation. This is handy for times when you need modulation to acheive a much more subtle effect.

HFO



The HFO is a unique modulator that is best described as a hybrid cross between a standard LFO and an FM Oscillator. HFO stands for ***High Frequency Oscillator***, so basically it's a really fast LFO. It can produce interesting effects like FM style bell tones, metalic noise and strange telephone sounds.

The ***Target*** setting chooses which parameter will be modulated. The HFO can be routed to each of the oscillator's pitch or frequency, independantly.

The ***Shape*** setting allows you to choose the waveform that the HFO will use for modulation.

The ***Semi*** knob is a stepped control that can select the semitone of the HFO. This can help with keeping the HFO musical and less chaotic.

The ***Fine*** knob allows you to detune the pitch between semitones.

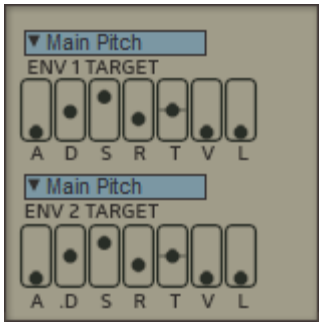
The ***Down*** switch is for downshifting the HFO one octave. This can be useful for getting different types of effects with a slower modulation like telephone sounds, sirens, etc.

The ***Depth*** knob controls the overall level of modulation.

The HFO also has it's own envelope section. Here's a brief rundown of each control:

A - Attack: When a note is played, this control determines the time that the HFO reaches it's maximum level.
D - Decay: Once the attack level is reached, the decay time kicks in and brings the level down into the next stage.
S - Sustain: Once the sustain stage kicks in, it is held at this level until the note is released.
R - Release: When the note is released, this control determines the amount of time it takes the HFO level to fade out.
T - Time: This control has a default center point. If raised above the center, the overall envelope will increase in time or length, for a much slower envelope. Bringing the slider below the center will decrease the length for much shorter envelopes.
V - Velocity: If set above 0, high velocity notes will have a higher value, whereas low velocity notes will have a lower value. If set to 0, all notes will have the same value.
L - Envelope Level: Sets the level of the HFO envelope.

Envelopes

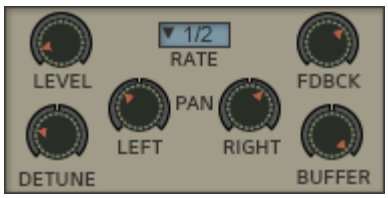


The Envelope panel consists of two modulation envelopes, both of which can be powered by the on/off switch. The envelopes can each be assigned to several targets. Aside from modulating the usual suspects like oscillator pitch, they can be assigned to many different parameters such as the LFOs, HFO and of course, the Melt control. Using envelopes and velocity on these parameters opens up sound design possibilities, add a lot more character and achieve modulations on things that might otherwise get overlooked.

Below is a brief rundown of each of the envelopes' controls:

A - Attack: When a note is played, this control determines the time that the target value reaches it's maximum level.
D - Decay: Once the attack level is reached, the decay time kicks in and brings the target value down into the next stage.
S - Sustain: Once the sustain stage kicks in, the target is held at this level until the note is released.
R - Release: When the note is released, this control determines the amount of time it takes to reach the original level from which it started.
T - Time: This control has a default center point. If raised above the center, the overall envelope will increase in time or length, for a much slower envelope. Bringing the slider below the center will decrease the length for much shorter envelopes.
V - Velocity: If set above 0, high velocity notes will have a higher value, whereas low velocity notes will have a lower value. If set to 0, all notes will have the same value.
L - Envelope Level: Sets the level of the modulation envelope.

Echoshifter



The Echoshifter is an on-board stereo delay unit with subtle pitch-shifting capabilities that can create detuned echos cand eerie ambient backdrops.

The ***Level*** knob controls the overall delay volume.

The knob labeled ***Fdbck*** controls the delay feedback.

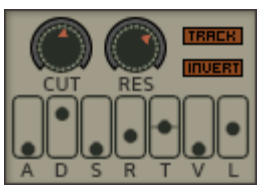
The ***Left/Right*** knobs can be used to control the seperate panning of each delay. The delays widen when the controls are furthest apart.

The ***Rate*** selector chooses the BPM synced delay time.

Detune will tune the pitch of the delay one octave up or down.

Buffer adjusts the space between echos.

Filters



The Filter section has 10 modes to choose from such as various High and Low pass filters, a Bandpass and a Notch filter. This section is comprised of the standard filter controls, an independent envelope and some extra functions that are all described in detail below.

Cut - The filter cutoff frequency
Res - Filter resonance
Track - Tracks the filter across the keyboard from low to high
Invert - Inverts the envelope

A - Attack: When a note is played, this control determines the time that the filter reaches it's maximum cutoff frequency as set by the cutoff knob.
D - Decay: Once the attack level is reached, the decay time kicks in and brings the filter cutoff down into the next stage.
S - Sustain: Once the sustain stage kicks in, the filter cutoff is held at this level until the note is released.
R - Release: When the note is released, this control determines the amount of time it takes the cutoff level to reach the original level from which it started.
T - Time: This control has a default center point. If raised above the center, the overall envelope will increase in time or length, for a much slower envelope. Bringing the slider below the center will decrease the length for much shorter envelopes.
V - Velocity: If set above 0, high velocity notes will have a higher filter cutoff, whereas low velocity notes will have a lower cutoff. If set to 0, all notes will have the same filter cutoff as set by the cutoff knob.
L - Envelope Level: Sets the level of the filter envelope.

Amp

The Amp section has it's own envelope that controls the amplitude or volume of the overall sound.

A - Attack: When a note is played, this control determines the time that the amplitude reaches it's maximum level.
D - Decay: Once the attack level is reached, the decay time kicks in and brings the volume down into the next stage.
S - Sustain: Once the sustain stage kicks in, the volume is held at this level until the note is released.
R - Release: When the note is released, this control determines the amount of time it takes the volume to fade out.
T - Time: This control has a default center point. If raised above the center, the overall envelope will increase in time or length, for a much slower envelope. Bringing the slider below the center will decrease the length for much shorter envelopes.
V - Velocity: If set above 0, high velocity notes will have a louder volume, whereas low velocity notes will have a lower volume. If set to 0, all notes will have the same volume.

Melt

The ***Melt*** control is an unusual feature that takes the idea of 'Analog Character' much further. This single knob can make Phonec sound as if it were coming from a worn out VHS tape, causing subtle, random jumps in pitch and drops in volume. It can be controlled directly by the modwheel, or alternativley by the modulation evelopes and LFOs. This feature is meant to be used subtly, but can have a more extreme effect at high values. If the knob is turned all the way to the left, the effect is bypassed.

Beneath the Melt knob is a 'grip' like area that can slide open when clicked to reveal a set of internal controls. These controls can modify the overall effect of the Melt control. Pitch and Amp adjust the level of which they are affected by the Melt function. Speed determines how fast the modulation, and Blend controls how smooth the modulation. Turning each control left produces a less/slow effect, while to the right is more/faster. To return to the main panel, simply click the 'grip' above the controls to close it.

Mixer

The Mixer section controls the overall volume output of each individual oscillator as detailed below.

Osc1: Controls the volume of Oscillator 1
Osc2: Controls the volume of Oscillator 2
Sub: Controls the volume of the Sub Oscillator. This is a basic sinewave oscillator that is tuned one octave down from Oscillator 2.
Noise: Controls the volume of the Noise Oscillator. This is a basic white noise generator with a high pass filter applied to it for a more crisp and lighter background noise.
Gain: This control produces a gain in overall volume that can cause distortion when pushed to high values.

Master Controls

This section is for universal controls.

Porta: This controls the Portamento Time, which is the time it takes for the pitch to slide from one note to the next. This function will work in Mono/Legato modes, with the arpeggiator as well as sequencer. Note: when using the arpegiator, portamento will only work when the gate control is set to max. This bypasses the gate function and allows the notes to blend together.
Pan: This controls the overall panning, from left to right.
Volume: This controls the overall volume output of the synth.

Useful Features

At the bottom center of the GUI is an area for controlling patch and parameter functions as explained below.

Clicking on the small downward triangle reveals a dropdown menu with five options: ***Copy Patch:*** This allows you to copy a patch from a certain range as set in the pop-up window that displays when this option is selected. By default it will automatically be set to copy only to the next patch, but can also be setup to cover larger ranges if desired. ***Load Inst:*** This allows you to load an individual patch or FXP from your hard drive. ***Save Inst:*** This allows you to save a patch onto your hard drive. ***Load Bank:*** Let's you load a bank or FXB. ***Save Bank:*** Let's you save an FXB.

The center display shows the curretnly selected patch. Click anywhere on this display to bring up a menu of 128 patches that are categorized by type.

The smaller display to the right shows the numerical value of the currently selected control. These values can be edited by double-clicking on the display. This can be very useful for inputing specific values for ultra-fine tuning.

Another very useful feature that might get overlooked is the ability to double-click on any control to reset it to it's default value. The default values reflect the parameter values of patch 128 named 'DEFAULT'.

Credits

Phonec was developed by Psychic Modulation using SynthEdit.

Thanks to the following for use of their modules in this VSTi:

Chris Kerry - www.chriskerry.f9.co.uk

David Haupt - www.dehaupt.com

SynthEdit by Jeff McClintock

VST Plugin Technology by Steinberg

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Support Information

Homepage: **www.psychicmodulation.com**

Visit the official KVR support forum:

http://www.kvraudio.com/forum/viewforum.php?f=78

Email: support@psychicmodulation.com