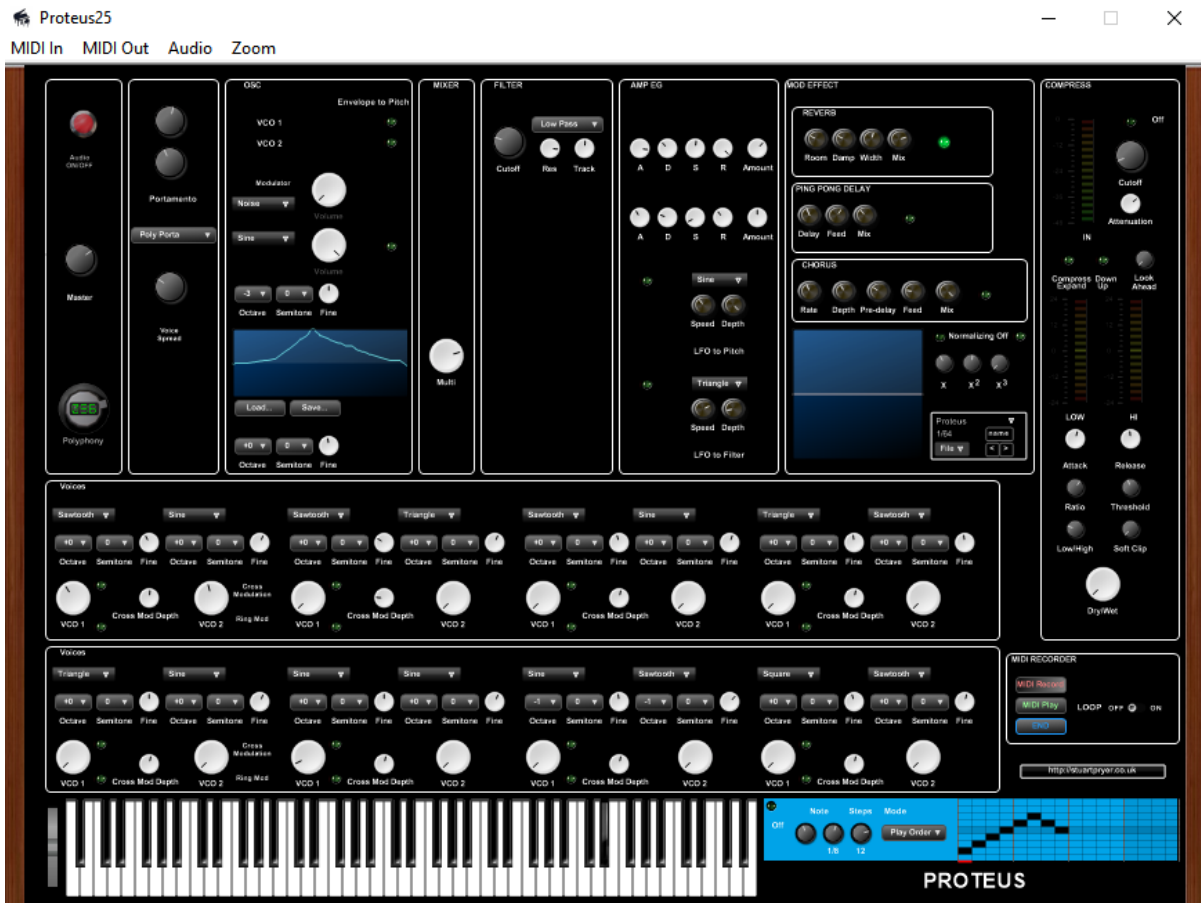


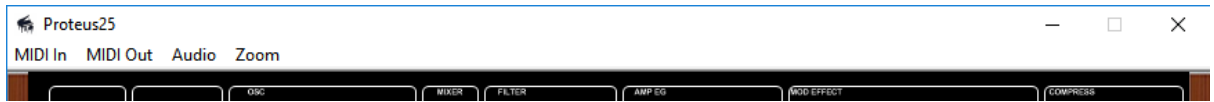
THE PROTEUS SYNTH



The Proteus synth is a virtual instrument which pays homage to the Korg Prologue 8/16. This digital recreation is not identical but has extra features not on the original, which is an analogue/digital hybrid. The standalone executable version proteus.exe will run on a Mac running Codeweavers Crossover 17 or higher. A VST version is also available proteus.dll


1. There are 20 factory sounds preloaded in the synth out of the 64 available program slots in each program bank. Programs/banks can be saved/loaded as text files or as fxp/fxb files using the host program or menu in standalone version. Midi enabled. The synth responds to Midi velocity changes (touch sensitive).

2. In the standalone executable - Top of window - menu bar. You can set midi in & midi out/audio out/zoom. For audio you must set Direct Sound or ASIO output and if you want to use MIDI input and/or output each time you run the program.



3. In VSTi with host software (Sonar, Cubase, Cantibil, Ambleton etc.) the host controls the audio and midi parameters above. In VSTi multiple instances of synth can be run. For VSTi place .dll in your normal virtual instrument folder.
4. Demo version - the vsti will produce noise at intervals, but it enables you to try the instrument before you buy it.

Panel Controls

	<p>The Audio on/off button is the panic button and switches off the audio if needed.</p> <p>Below it is the Master Volume knob.</p> <p>At the bottom is the control for the number of notes which can sound at once - Polyphony</p>
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Portamento adds a gradual change in pitch between notes. This portamento is polyphonic. The top knob changes the polyphony of the portamento. From 1 to 32 notes. The bottom knob - above the label 'Portamento' changes how quickly the note frequency moves to the next note.

The drop down box turns portamento off/single note or polyphonic.

Voice Spread - changes the delay between the right and left audio channels widening the stereo image.

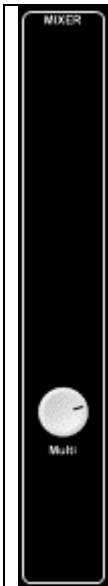


Oscillators - The green led buttons switches on/off the 'envelope to pitch' controlling all of the oscillators - the lower ADSR - see later.

There are 17 oscillators in all. VCO1 - 8 number, VCO2 - 8 number and Multi.

Multi is a user drawn waveform. Waveforms can be saved and loaded. It can also be a carrier waveform and can have a variable phase modulation applied to it. The frequency of the Multi oscillator can be varied by +/- 5 octaves.

The modulator waveform for Multi can be sine, square, sawtooth or noise. A second modulator can also be applied, normally noise. There is a volume control for each modulator. The frequency of the modulator can be varied by +/- 5 octaves.



The Mixer box has a Multi Oscillator volume knob.



This section applies a filter to the audio output. You can vary the cutoff, resonance and keyboard tracking. Filter types are low pass, high pass, band pass, band reject and peaking.



In the Amp EG box there are two envelope generators. The top one for controlling the signal volume over time. The bottom one for envelope to pitch etc.

Below them are two Low frequency oscillators which can be applied to the pitch (vibrato) and cutoff filter.



The Mod Effects box houses Reverb, Ping Pong Delay/flanger

and Chorus. The effects are turned on/off by clicking the green LEDs'.

There is also wave shaping using third order polynomials.

Also an oscilloscope to see the output waveforms.

At the bottom is a program/preset manager. Programs are saved as plain text files.



The final box houses the Compressor/Expander. The top green LED turns it off and on.

You can vary the cut off point and attenuation of the signal. The output signal can be compressed - if wide dynamic range or compressed if low dynamic range. The look ahead determines how far the signal is controlled by future signals.

The attack and release control how quickly the effect is applied and unapplied. Ratio controls how strong the effect is. Threshold when the effect is applied to the signal, Low/High how strong is the effect and soft clip reduced the severity of any clipping.

If set to dry you get the full effect without mixing with the source.



The pitch bend wheel when moved up or down raises the frequency of the note or notes being played.

The green LED is off by default. When an external midi instrument is used to play the synth this turns off the animation of the keys moving on screen. It prevents graphical updates affecting the sound and causing dropouts. It is particularly important to turn off if you are using Codeweavers crossover on a Mac.

Oscillators VCO1 and VCO 2 come in 8 pairs in the bottom two panels. You can vary their Tunings, Volume, Waveform, Cross modulation / cross modulation amount and ring modulation. The envelope to pitch led switches are in the Oscillator box. Green LEDs turn on/off cross and ring modulation.



- To the right of the keyboard there is an arpeggiator which can be programmed to vary speed, note lengths and edit the number of steps. The green LED turns it on/off.



- Finally there is a midi recorder/play back / looper . Click on 'MIDI Record' to start recording. MIDI PLAY plays back the recording. Clicking

the LOOP LED plays the recording in a loop continuously. END finishes playback.



Feedback and suggestions are welcome. For more information email me at stuartpryer@gmail.com

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