Ocean Swift Synthesis - OS00

The OS00 I/O

- Patch **inputs** are designated by a **red sleeve**.
- Patch **modulation inputs** are designated by a **gold sleeve**.
- Patch **outputs** are designated by a **silver sleeve**.

Controls

Oscillator Section

Waveform: A choice between four waveforms: triangle, saw, pulse, white.
Coarse: Coarse tuning of the osc.
PW: Controls the shape of the pulse. At the center position the shape is a square.

PWM: Depth of pulse width modulation of the pulse shape, applied to the connected modulation source at the input.
Osc Mixer Volume: Volume control for the osc.
Osc External Mod: Volume modulation (tremolo) depth applied to the volume of osc1 via an external modulation signal connected to the input.
Osc Patch Outputs:

- The osc's selected shape output, a retriggered sine output and a white noise output.

Osc Mod

Mod Gen: Modulation depth applied to the osc pitch via the tri/saw shape of the mod gen.
Envelope: Modulation depth applied to the osc pitch via the envelope.
Osc Ext: Modulation depth applied to the pitch of osc via an external modulation signal connected to the input.

Filter Section

Cutoff: The cutoff point of the filter.
Peak: The resonating quality of the filter.
Mod Gen: Depth of modulation applied to the filter by the mod gen's tri/saw shape.
Envelope: Depth of modulation applied to the filter by the envelope.
Ext: Depth of modulation applied to the filter by an external modulation signal connected to the input.
KBT: Bipolar midi note tracking modulation of the filters. At the center position no modulation is applied. Even when drone mode is set to note, the filters will still respond to midi notes (as long as the note input of the OS00 is connected to an MVC's note output)
Filter Patch Output: The output of the lowpass filter.

Envelope

Gate / Audio Trigger Switch: A switch to determine the source for the envelope's gate signal. When turned off the envelope will be gated by incoming midi gate's through a connected MVC. When turned on the envelope will be gated by incoming audio (audio triggering).
Trigger Threshold: Determines the sensitivity of the audio triggering circuit, only in use when the envelope is in audio trigger mode.
AD: Controls for attack and decay.
Decay Mod: The depth of bipolar modulation applied to the decay of the envelope by the decay external input.
Slope: Slope control for the decay and release portions of the envelope.
Vel: Bipolar velocity control over the overall level of the envelope. Center position indicates no modulation. The OS00 Vel input needs to be connected to an MVC's vel output in order for the envelopes to respond to velocity.
Envelope Patch Outputs:

- Three output points for the normal as drawn envelope shape, an inverted form of the envelope and an output for the gate signal (as generated by incoming audio into the external trigger input).

VCA

VCA External Mod Switch: When turned off the VCA is hard wired to and controlled by the envelope. When turned on the VCA is controlled by a modulation signal connected to the external mod input.

Mod Gen Section.

Shape: This knob affects both the internal pulse shape as well as the internal tri saw shape. For the pulse shape the width of the pulse is affected (center position is a square), while the tri-saw mixes between a triangle at the left position and a saw at the right position (with a mix of both in the middle).
Shape Mod: Depth of modulation applied to the shape parameter via modulation
Rate: The speed of the lfo when not in sync mode. From 0.01 to 400hz.
Div: The speed of the lfo when in sync mode. Measure divisions based on the device's BPM setting. Provided are 19 divisions: 64bar, 32bar, 16bar, 8bar, 4bar, 2bar, 1bar, 1/2p, 1/2, 1/2t, 1/4p, 1/4. 1/4t, 1/8p, 1/8, 1/8t, 1/16p, 1/16, 1/32.
Sync: Turns sync mode on and off.
Retrig: Retriggers the osc to start at the point specified by the phase knob with each new midi gate.
Invert: Inverts the shape of the Saw/Tri output.
Mod Gen Patch Outputs:

- Three LFO shape outputs: Saw/Tri, Pulse, Mix. The mixed output presents a mix of the saw/tri output with the pulse output.

Output Section

Main Volume: Master volume of the synthesizer section which goes to the synth output (but before the effects chain).
Volume Mod: Volume modulation (tremolo) depth applied to the main volume via an external modulation signal connected to the input.

Main Controls

BPM: Sets the tempo of the device from which the Mod Gen divider will calculate from when in sync mode.
Main Patch Inputs:

- **Freq:** Connect to a frequency source, typically an MVC's freq output.
- **Gate:** Connect to a gate source, typically an MVC's gate output.
- **Note:** Connect to a note source for the filter keyboard tracking, typically an MVC's note output.
- **Vel:** Connect to a velocity source, typically an MVC's vel output.

Main Patch Outputs:

- **Esync:** Connect to an MVC's e-sync input.
- **Synth Out:** Polyphonic output of the synth. Notice that when outputting from this output, you will need to include a poly out module within your patch in order to sum the voices.

Credits:

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