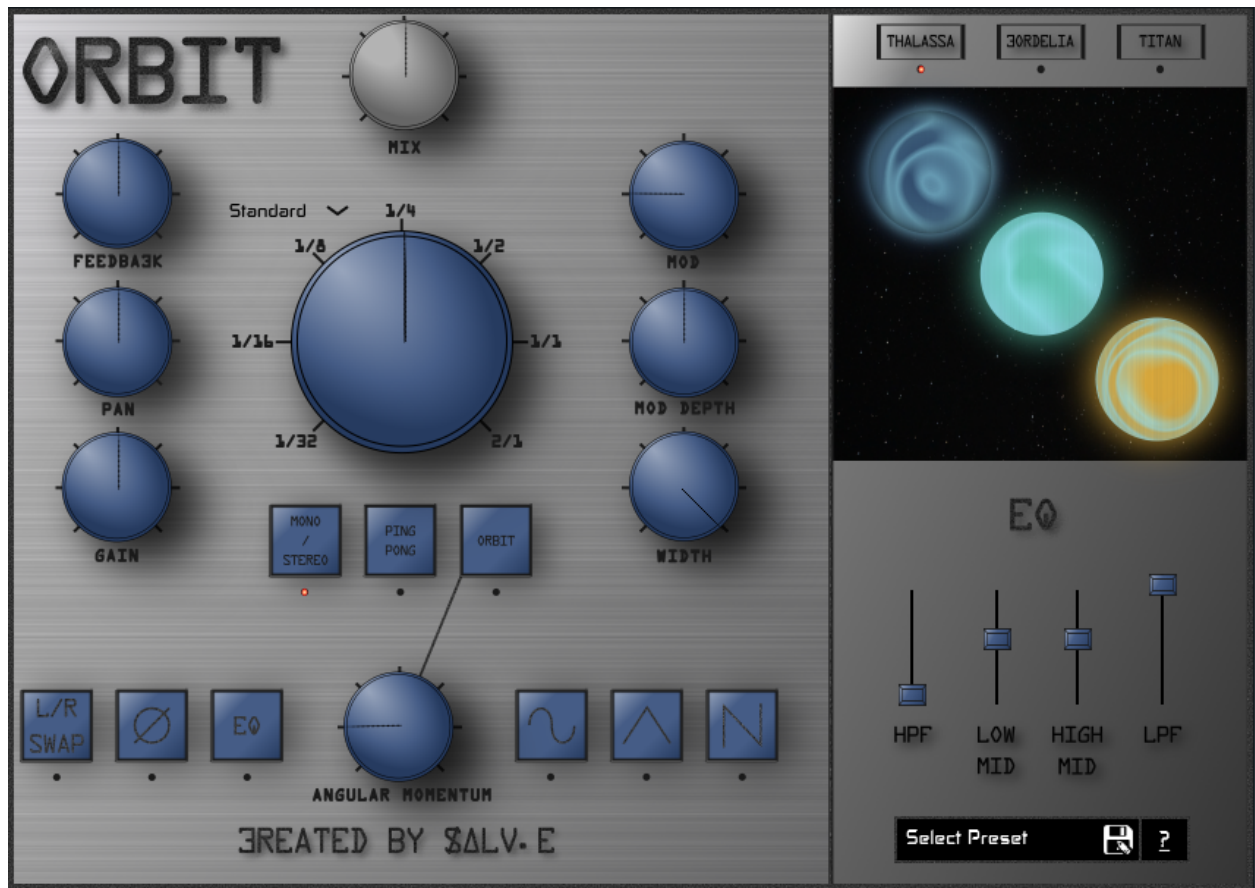


Orbit Manual

9/15/22

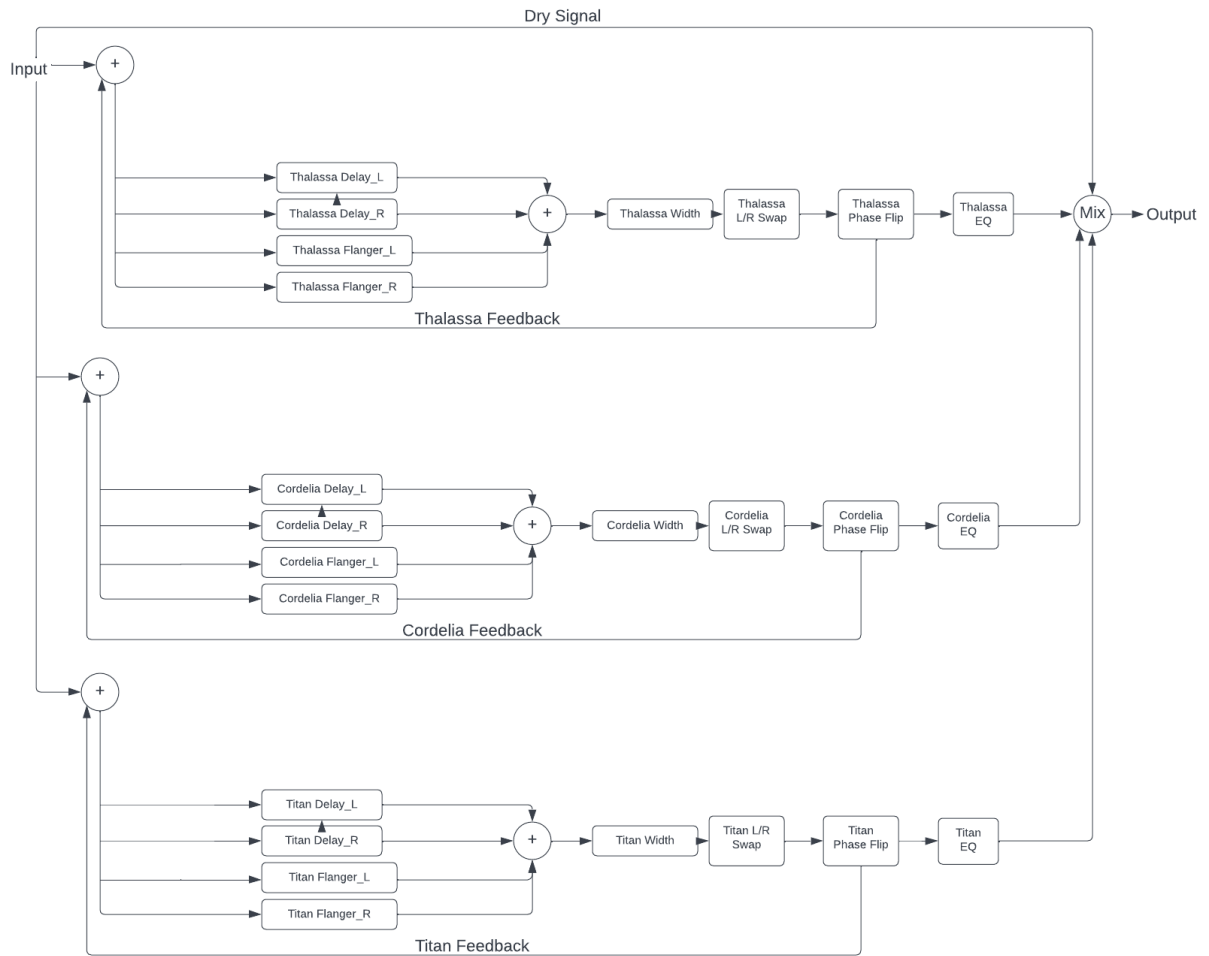


Overview:

Orbit is a multi delay line plugin. Typically delay plugins have a single delay line that creates a singular modifiable echo. In this plugin there are three different moons which are all independent delay lines running in **parallel**, and they are independent of one another. See the signal flow below to see a visual representation of this.

This creates possibilities to create anything from very simple delay effects, to very modulated and spacial sounds.

Signal Flow Diagram:



Moon Section:

For this section there are three different moons: Thalassa, Cordelia, and Titan. By selecting these buttons you turn that moon (Delay line) off. All of these moons have independent delay settings that correspond to the others.

If you wish to access a moon without turning it on or off, simply click on the respective moon below the button.

Blue Moon - Thalassa

Aqua Moon - Cordelia

Yellow Moon - Titan

Delay Parameter Section:

Parameter	Description	Values
Feedback	In a delay effect, a signal passes through the processor, is delayed and sent out as an echo of the original sound. If some of the delayed signal is tapped off and sent through the delay circuit again, a second repeat will result. By increasing the amount of signal sent back through (or fed back, or regenerated) the number of repeats is increased.	0 to 0.5
Length	Note length.	1/32, 1/16, 1/8, 1/4 , 1/2, 1/1, 2/1 If in note type "Free" mode, this is in milliseconds between 0 and 2000 ms.
Width	The stereo width of the signal, at 0 it's mono.	0 to 240 samples of delay.
Pan	Stereo location of sound from left to right	-100 to 100

Modulation Parameter Section:

Parameter	Description	Values
Mod	Modulation frequency in Hz.	0.0 to 2.0 Hz
Mod Depth	Amount of modulation.	0 to 0.8
Filter	Filter frequency cutoff	80 Hz to 18,000 Hz
Gain	Amount of gain applied to delayed signal.	0 to 4, 2 is unity.
Angular Momentum	The velocity of circular movement in Hz.	0.1 to 3 Hz.

Note Types (left to right)

Parameter	Description
Standard	Delay length shown on knob.
Dotted	Delay length * 1.5.
Triplet	Delay length * $\frac{2}{3}$.
Free	Delay length in milliseconds, between 0 and 2000 ms.

Delay Type:

Parameter	Description
Mono - Stereo	In this mode, the width controls the stereo width of the delayed signal. If at zero it is mono, as the width knob is increased it becomes more stereo via the haas effect.
Ping Pong	Ping pong mode is essentially two separate mono delay lines, one is double the length of the current length. This allows for a “ping pong” effect going from one ear to the other.
Orbit	Orbit mode is a special mode unique to this plugin, it functions by moving the delayed signal in a circular motion in the stereo field. This movement’s velocity is determined by the angular momentum parameter.

Other Effects (left to right):

Parameter	Description
L/R Swap	Swaps left and right delayed channels.
Phase Flip	Flips ONLY right channels phase.
To EQ	Sends signal to EQ section.

LFO Shape (left to right):

Parameter	Description
Sine	Used for vibrato effects.
Triangle	Used for flanging effects.
Sawtooth FM	Used for intermodulation distortion effects. This is between 450 and 1550 Hz.

Filter Type (left to right):

Parameter	Description
High Pass	High passes frequencies to current filter cutoff frequency.
Low Mid	Peaking filter statically set at 500 Hz.
High Mid	Peaking filter statically set at 2000 Hz.
Low Pass	Low passes frequencies to current cutoff frequency.

Presets:

Orbit comes with some base presets, this allows the user to get a feel for the possible sounds that Orbit can create, clicking the save button allows for users to create custom defined presets in which they can reload into the plugin from another or the same project.