ILLUMINE User Guide Addendum

New Features - Firmware Version 2.0

Summary

Firmware Version 2.0 (v2.0) adds 3 effect algorithms:

- Room Reverb
- Reverse Reverb
- Wet Reverb v2

Six new Factory Presets were added to demonstrate these new effects. The presets they replaced are available as part of the ILLUMINE Bonus Presets Pack at neunaber.net.

New Factory Presets

#	Name	Description
3	W2 Spaced Out	Large ambient reverb using the Wet v2*
5	Room Ambiance	Tiny room for adding a touch of ambiance*
6	Vocal Room	Small, slightly modulated room for vocal thickening
7	Small Darkroom	Small, dark room (updated in v2.0)
23	Reverse 90BPM	Example reverse reverb for 90 BPM source
24	Ghosted	Ghostly gated reverb with delay*

*Factory Presets with an asterisk were created by Drew Schlesinger.

New Effects

Room Reverb

Room reverb is designed specifically to emulate a smaller acoustic space and is designed to have a wider stereo soundfield compared to our other reverbs. This reverb excels at adding natural ambience to a dry signal, thickening without a long reverb tail, and widening a mono signal. Due to its versatility, the Room reverb works well with all sound sources.

The Compression parameter affects only the reverb. Compressing the reverb on highly-dynamic signals allows louder sections to be more present (less effected) and can help to de-accentuate plosives in vocals.

Reverse Reverb

Reverse reverb emulates the process of reversing the dry signal, processing it through a reverb, then re-reversing the signal. Instead of decaying, the reverb builds over the Tail Length time (in Effect Options).

The Rev Decay (reverse decay) parameter sets the time-reversed decay time of the reverb tail:
- Smaller values result in the reverb increasing more abruptly toward the end of the Tail Length time.
- Larger values result in less buildup. At 100%, the reverb tail is constant, similar to a gated reverb.

A delayed version of the dry signal may be added after the reverse reverb tail and is delayed by the Tail Length time. The Delayed Dry parameter adjusts the mix between the reverse reverb and delayed dry signal.

When reverse reverb is applied in real-time to a rhythmic signal, Tail Length may be calculated as 60,000 / BPM (round down).

Wet Reverb v2

This version of the Wet Reverb was in the Immerse Mk I and in Expanse as "Wet Reboot."

The FX In Level parameter is exclusively for expression control. FX In Level controls the input level to the wet signal path, which allows trails to persist when controlled by an expression pedal. If you do not have this parameter assigned to expression control, set it to 100%.

New Effect Options

Option	Description
Tail Length	The length of the reversed reverb tail; i.e., the time between the dry and delayed dry signals

Available Options per Effect

- Pre Dly = Pre-Delay
- Tail Len = Tail Length
- Mod Wdth = Modulation Width
- Mod Rate = Modulation Rate
- HP Filt = High-Pass Filter
- LP Filt = Low-Pass Filter
- HF Dmp = Hi-Freq Damping
- Sens = Sensitivity

Effect	Pre Dly	Tail Len	Mod Wdth	Mod Rate	HP Filt	LP Filt	HF Dmp	Sens
Room	✓		✓	✓	✓	✓	✓	
Reverse		✓	✓	✓	✓	✓		
Wet v2	✓		✓	✓			✓	

New Parameters

Parameter	Description
Compression	Controls the amount of compression applied to the reverb only
Rev Decay	Controls the time-reversed reverb decay (depth)
Delayed Dry	Controls the mix between reverb and delayed dry signal
FX In Level	Controls the input level to the wet signal path

Effect-Dependent Parameters

Effect	Parameter 1	Parameter 2	Parameter 3
Room	Depth	Tone Tilt	Compression
Reverse	Rev Decay	Tone	Delayed Dry
Wet v2	Depth	Tone	FX In Level

Screen Saver

To reduce OLED display burn-in, the brightness will reduce to 50% after 15 minutes and text will scroll after 1 hour with no activity.