# LiquidSonics

# CINEMATIC ROOMS

User Guide

Applies to version 1.000 (and above)

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# 1. Installation

To install Cinematic Rooms an Intel Mac or Windows PC DAW is required.

64-bit DAWs are required. The plug-in is not compatible with 32-bit DAWs.

#### Installation on Windows

The install process will request a number of file locations and the type of plug-in you wish to install (VST for most hosts or AAX for Pro-Tools). Select the plug-in formats required.

If you included a VST2 plug-in in your selection(s) you will be asked where those plug-ins should be installed. Typically Windows VST plug-ins are installed in one of the following locations although many options are available so you should select which is most suitable for your system such as:

c:\Program Files\Steinberg\Vstplug-ins
c:\Program Files\Common Files\VST2

AAX and VST3 plug-ins are stored in standard locations, so there is no need for the installer to ask where they should be installed to.

#### Installation on macOS

Run the installer progress through it until asked which plug-in formats to install.

# 2. License Activation

#### iLok License Manager

Install the iLok License Manager version 5 or above available from the <u>http://www.ilok.com</u> website. If the version of license manager is too old it may fail to find a valid activation even if you correctly activate the licenses.

Redeem your Cinematic Rooms activation code to your iLok account and select a location to activate to. You may activate to:

- An iLok 2 or 3 USB dongle
- A local computer hard drive location
- iLok Cloud

Drag this license on to your iLok or local computer location to activate to a physical location. Or if you wish to use your license with iLok Cloud simply click 'Open Cloud Session' from the 'File' menu in iLok License Manager once you have redeemed your code.

# 3. Supported Channel Configurations

All versions of Cinematic Rooms support the following channel modes:

- Mono to stereo / surround
- LCR
- Stereo
- 4.0 / Quad
- 5.0 and 5.1
- 7.0 and 7.1
- 7.0.2, 7.1.2
- 7.1.4, 7.1.6 \*

In all x.1.z versions the LFE channel is treated as pass-through. Various asymmetric channel configurations are provided; options include mono to stereo, mono to 7.1.2, stereo to 5.1, 5.1 to 7.1, and so on.

\* At the time of writing Pro Tools supports a maximum channel width of 7.1.2. In order to support 7.1.4 and 7.1.6 workflows an additional two stereo auxiliary outputs are provided by the plugin. These serve additional decorrelated crossfed audio to help improve spatialisation in the mix. In order to use these create an instance of the plugin on a 7.0, 7.1, 7.0.2 or 7.1.2 channel, create 2 additional stereo aux busses, and select the input for the stereo aux channels to be the auxiliary outputs of the plugin. These can be routed to objects to supplement a 7.1 or Atmos 7.1.2 bed. Given these can only be provided as outputs there is no way to pan into the .4 and .6 channels when using Pro Tools.

For a 7.1.4 mix it is recommended to use a 7.1 track with 2 stereo auxes routed as Atmos objects situated in elevated front and rear positions. For a 7.1.6 channel the .2 elevation of a 7.1.2 bed could be routed to elevated sides.

The auxiliary outputs are disabled by default to save CPU usage if not required. Then can be enabled through the settings menu. This is a global setting affecting all instances, and requires a restart of all plugins to take effect.

In Pro Tools the 7.x auxiliary outputs are always present but can only be used when the plug-in is operating in 7.0 and up mode. Auxiliary outputs are not provided in other plug-in formats.

Full support for 7.1.4 and 7.1.6 inputs supported with the VST2 or VST3 versions depending on host capabilities.

# 4. Supported Channel Topologies

Three surround processing topology modes are available. These can be selected from the settings menu when the channel count is 4 or more. They apply to the current plug-in instance, irrespective of the preset loaded.

#### Full Surround Crossfeed Propagation

Audio received on each channel produces reverb and reflections heard in its own channel and which also floods into every other channel. All crossfeed reverb is decorrelated.

This is the default option.

#### True-Stereo Plane L/R Propagation

The plug-in can be virtually divided into a set of true-stereo reverbs along the stereo plane lines. For instance, in a 7.x reverb this would mean the front L/R, side L/R and rear L/R become partitioned and operate independently, plus a further mono reverb for centre that is completely isolated. Audio received on the front left channel would create reverb in the front left and front right (as per true stereo processing), but would not propagate to any other channels.

This could be thought of as a 'multi true-stereo' option.

#### All Crossfeed Propagation Disabled

The reverb algorithm can be further partitioned so that each channel is fully isolated from all others. With no crossfeed between any of the channels, this is similar to a 'multi-mono' configuration.

#### <u>Centre Mute</u>

To avoid reflections and/or reverb feeding into the centre channel the 'centre mute' options can be enabled. Audio received on the centre channel will crossfeed into other channels in surround topology mode, but the centre channel can be kept free of other processing.

Centre mute mode can be selected independently of the propagation setting.

This is off by default.

# 5. Plug-in Overview

Cinematic Rooms is split into the following key areas:

- 1. Preset selection
- 2. Settings
- 3. Assistance (tool-tips / manual)
- 4. Reverb decay time
- 5. Reverb decay contouring
- 6. Reflection roll-off filtering
- 7. Reverb roll-off filtering
- 8. Reflection definition
- 9. Reverb definition
- 10. Metering
- 11. Mix and level control



### 6. Parameter Locks

Many of the controls can be held (locked) when preset changes occur so that if certain settings are known to be set as desired the presets can be changed without affecting those parameters.

Plug-in locks can be enabled or disabled by clicking the lock icons shown next to parameter names. When locks are not enabled (shown grey) hovering over their location next to the parameter name will cause them to illuminate ready for selection.

To enable locks for all reflections or all reverb parameters, right click any parameter and select from the menu. You may also clear or set all locks using the menu.

# 7. Interactive Assistance

Once the plug-in is loaded help is available within it by clicking the question mark icon and hovering the mouse over a control to view a description of its function.



Using the assistance menu it is also possible to access this manual and to bring up additional information about the plug-in such as the version number.

# 8. Plug-in Controls Overview

A brief description of all controls is given below.

#### <u>Reverb Time</u>

The time taken for the reverb to reach 60 dB below its initial level. Values from 0.2 seconds up to 45 seconds are available, and finally 'infinite' tail where the reverb does not decay.

#### Reverb Contour

Rooms often reverberate for different lengths of time in different frequency bands depending on the content in the room and materials of construction. The Cinematic Rooms contouring controls allow the reverb time above and below the contour frequencies to differ relative to the main reverb time. Contouring is fixed at 6 kHz for treble and 800 Hz for bass.

#### Reverb Low Boost

The low frequencies at the very beginning of the reverb can be accentuated using the low boost control. The length of the boost is automatically determined based on reverb time so to give a solid boost for small reverbs without overwhelming longer reverbs with excessive low end.

#### <u>Reverb Pre-delay</u>

To enhance the perception of distance the reverb's pre-delay time can be set from 0 to 500 ms, and can optionally be syned to DAW tempo.

#### <u>Reverb Bloom</u>

The time taken for the reverb to bloom to maximum energy can be controlled, allowing the perceived size of the late reverberant space to be controlled. This, in conjunction with the pre-delay, provides powerful spatial control over the late decay.

#### Reflection and Reverb Roll-off

The equalisation roll-off control allows you to control the high frequency content of the reflections and reverb over a wide range of frequencies with a slope of 6/12/18/24 dB per octave.

#### **Reflection Proximity and Reflectivity**

Select from a range of pre-defined reflection patterns to control how close the reflections appear to sound from the source. This is used on conjunction with pre-delay to define how the source sits in a space. The reflectivity control affects the enveloping of reflections around the peak which can be used to control how reflective a given space sounds.

#### Reflection Size

Controls the spacing between reflections giving a very direct means of specifying the perceived size of the space arising from initial auditory cues.

#### <u>Refl / Reverb Mix</u>

Controls the balance between the early reflections and the main reverb. Biasing towards the reflections will tend to make the source sound closer to the mic, biasing to the reverb will tend to place the sound deeper within the space.

# 9. Metering

#### Stereo Metering

When using the plug-in in stereo a combined view of in/out and refl/reverb level meters is shown.

INPUT / OUTPUT LEVELS	Refl / Rev Mix 🗄	Master Gain 🗄	Dry / Wet Mix 🔒	REFLECTION / REVERB LEVELS	
Input L Input R Output L Output R	$\bigcirc$			Refl Refl	R - -
dB -60 -48 -24 -12 -6 0 +6	Equal Mix	0.0 dB	Wet	-60 -48 -24 -12 -6 0 +6 dE	

#### Surround Metering

In surround views it is possible to monitor either the reflection and reverb levels, or the input and output levels. Simply select from the settings menu or click one of the titles to change the view (e.g. 'Output Levels').

REFLECTION LEVELS	Refl / Rev Mix 🗄	Master Gain 🖁	Dry / Wet Mix 🔒	R	REVERBER	ATION	LEV	ELS
Front Centre Side Rear dB -60 -48 -24 -12 -6 0 +6	Equal Mix	0.0 dB	Wet	-60 -4	18 -24 -1	2 -6	0	Front Centre Side Rear +ó dB
INPUT LEVELS	Refl / Rev Mix 🖯	Master Gain 🗄	Dry / Wet Mix 🔒		OUTPU	JT LEV	'ELS	

# **10.Factory and User Presets**

User and factory presets are accessed using a menu activated by clicking the preset name in the top left corner of the plug-in. Presets can be auditioned quickly by using the chevron arrows to move between them.



The A / B feature allows the user to quickly switch between two presets within the same plug-in instance.

# 11.Settings

#### Interface Scale

The size of the UI presented by the plug-in can be selected in steps between 70% and 125%.

#### <u>Preset Filter</u>

Presets can be excluded from the drop-down menus and from navigation with the chevron icons based on their reverb time. This allows you to audition presets within restricted time ranges such as less than a half second or between 1-2 seconds. Simply select the desired upper and lower bounds from the settings menu.

#### Centre Mute

When in surround channel modes of 5.x and greater, reverberation arriving in the centre channel can be muted to avoid conflicting with sources such as centrally positioned speech.

#### Metering

The meters can be set into input/output or reflection/reverb mode if the channel count is sufficient.

#### Reduced CPU Processing Mode

The low CPU processing mode enables a range of special optimisations in the reverb and reflection algorithms that considerably reduce load on the system. It imposes a processing delay of 8192 samples (reported to the host for compensation).