LiquidSonics’ Seventh Heaven is dedicated to the reproduction of thirty of the best reverbs from the Bricasti M7 in an incredibly easy to use and extremely powerful native reverb plug-in.

Each of the presets has been meticulously sampled to provide unparalleled flexibility true to the original hardware to produce rich, organic reverb of up to thirty seconds with full control over the early, late and very low frequency components. A flexible pre-delay, tempo-synced delay module and over-sampled low/high cut filters provide further opportunities to sculpt the perfect reverb for any mix.
# Table of Contents

1. **Installation and License Activation**
   - iLok License Manager 3
   - Installation on Windows 3
   - Installation on macOS 5

2. **Quick Help System** 6

3. **Plug-in View Mode** 7

4. **Preset Selection / Save / Recall** 7

5. **Decay Time** 8

6. **Pre-delay** 8

7. **Delay (Late Reverb)** 9

8. **Master Filter** 9

9. **Settings** 10
1. Installation and License Activation

To install Seventh Heaven an Intel Mac or Windows DAW PC is required. 64-bit DAWs with 8 GB and above are highly recommended to minimise the impact of system memory restrictions. Approximately 600 MB of free disk space is required depending on the plug-ins selected.

iLok License Manager

Before installing the plug-ins, install the iLok License Manager (http://www.ilok.com), then redeem your Seventh Heaven activation code to your iLok account. Then drag this license on to your iLok.

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). Initially select the plug-in formats required, an example is shown below selecting all 64-bit plug-in formats.

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.

| 32-bit plug-in, 32-bit Windows or 64-bit plug-in on 64-bit Windows | c:\Program Files\Steinberg\Vstplug-ins  
c:\Program Files\Common Files\VST2 |
| 32-bit plug-in on 64-bit Windows | c:\Program Files (x86)\Steinberg\Vstplug-ins  
c:\Program Files (x86)\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.

The presets are installed as part of the fixed System install option, and will be installed to the main system disk in the `c:\ProgramData` area unless an alternative location is selected - around 500 MB is required. All are from the Bricasti M7 algorithm v1 revision.

Selecting an alternative location such as:

D:\Sample Packs\Seventh Heaven

would result in files being stored as follows:

D:\Sample Packs\Seventh Heaven\Data\Chambers1\<files>.7th

The full selection of Bricasti M7 presets is available in Seventh Heaven Professional, but these presets are not binary compatible with Seventh Heaven so disk resources cannot be shared.

If at a later time you wish to move the files it is recommended to re-install but also you can refer to the macOS installation section to see how to tell the plug-in where to find a 'Data' folder that you have
moved manually. By doing this, the uninstaller will not know where you have moved the files so would not be able to remove them automatically so it is better to use the installers.

**Installation on macOS**

Run the Setup Seventh Heaven installer, and progress through it until asked which plug-ins to install. These are mixed 32-bit and 64-bit plug-ins, but it is strongly recommended to use them in a 64-bit DAW.

During installation preset files are copied to the /Library/Application Support area on disk. Around 500 MB will be required.

You may prefer to keep the files on a different disk than the system drive after installation. The location of the files is illustrated in the Finder image below. To move them, either drag the 'Data' folder in Finder (indicated with an orange ellipse) to somewhere else and go and delete the original files, or do a copy-move (command+c when 'Data' is highlighted, then command+shift+v in the new location).

Doing this will mean the plug-in does not know where its data files are anymore, but this can easily be corrected in the settings menu of the plug-in. Click the cog icon (shown in orange), then "View/Modify Disk Location", then click the down arrow indicated in green and then 'Select new location'; choose the newly moved 'Data' folder; and then close settings with the X icon.
2. Quick Help System

Once the plug-in is loaded help is available within it by clicking the question mark icon and activating the interactive assistance function. Then hovering over a control will bring up additional information.
3. Plug-in View Mode

The plug-in has a compact and full view as shown below. Clicking the down arrow will expand the view. It can be collapsed again clicking the up arrow.

4. Preset Selection / Save / Recall

The presets in Seventh Heaven are presented on a large selection dial for rapid auditioning. Clicking the preset name will also bring up a selection list of all presets.

All thirty presets are from the v1 algorithm and have static tails with modulated early reflections and modulated very low frequency reverb components. The v2 presets available in Seventh Heaven Professional contain modulated tails.

Any modifications to loaded presets will be stored in the DAW save for project save/recall purposes, the files on disk are not modified.

User modifications of presets can be saved to disk by clicking the load (right) and save (left) icons indicated below. This will store XML files that can be used for later recall if desired. These are not
integrated into the factory default lists shown, and should be recalled using the load button (right, below)

![Load and Save buttons]

**5. Decay Time**

The decay time indicates how long the reverb takes to decay to 60 dB below its initial value (known as the RT60 time). This can be selected from one fifth of a second (200 ms) to thirty seconds.

Traditionally in a convolution reverb it is possible to extend a decay time perhaps a little, and to reduce it, but in neither case will the reverb structure change as it would with the hardware. As a decay time is increased and reduced, the very low frequency reverb time will non-linearly track the decay time, and the structural size of the room will adapt to the larger physical dimensions of the room. Due to the multi-sampling in Seventh Heaven, this is recreated much more accurately than ever before.

The decay time displayed beneath the preset name corresponds to the time the reverb takes to decay to 60dB below its initial value. The decay time label can be treated like a dial; modification is possible by mouse wheel or by the usual click/drag operation of a dial. It can also be modified by single-clicking the time and typing a new number (it is not necessary to also type 'sec'). Alternatively click the <> chevrons to increment or decrement the decay time in steps (these correspond to the steps on the original hardware). Holding the chevron buttons down will rapidly advance through the steps.

![Seventh Heaven GUI with Decay Time set to 2.15 sec]

**6. Pre-delay**

The pre-delay in a reverb provides part of its essential character, and the ability to modify it is of critical importance when there is a need to change the vibe or dimensions of the room. In the M7, altering the pre-delay only affects the late and very low frequency reverb components, not the early reflections (these are totally unaffected - if you require a pre-delay on the early reflections the best option is to use a post-delay effect in the DAW's channel).
The pre-delay inherent in the sampled M7 preset is reproduced in Seventh Heaven. So on the hardware - if it was 4 ms on the hardware it is shown in Seventh Heaven as 4 ms. This pre-delay can be modified to anything in the range 0 ms to 500 ms and appropriate offsetting is handled within the plug-in (hence a sampled pre-delay can be removed or increased as required with full consideration of its effect on the VLF and late reverb components).

A further capability is the ability to use tempo-synced delays in a range of common time signatures (e.g. eighth notes). This allows rhythmic pre-delays to be quickly configured without a need to refer to BPM to delay time tables. This mode can be enabled by clicking the metronome icon.

7. Delay (Late Reverb)

The delay facility feeds a delayed copy of the dry signal back into the late reverb line with 6 dB of attenuation. This can also be configured to use the tempo-sync option as per the pre-delay.

8. Master Filter

Two 12 dB / Octave low and high cut filters are provided acting on the entire reverb signal. These can be used to reduce frequency content within the presets.

It should be noted that these are distinct from the roll-off filters in Seventh Heaven Professional which have access to wideband source content allowing the reverb roll-off for the early and late components to be modified as per the original hardware.
9. Settings

The behaviour of the plugin in a number of areas can be controlled via the settings menu. This is accessed via the cog icon in the top left.

Presets

Initial preset

Select the initial preset to load at start-up (this is not supported in AAX).

Hold values on preset update

When changing presets it is sometimes desirable that not all of the parameters switch to the new settings. For instance, if a specific decay time and roll-off are working well but it is desirable to audition different combinations of size/diffusion/density, it would be possible to lock the filters and decay time while rapidly moving between presets.

Modify data file location

Allows the data files to be moved to an alternative folder. This is more fully described in the macOS installation section. On Windows it is recommended to move files via the installer rather than after installation.

Interface

Advanced controls

The default visibility of the advanced controls panel can be specified.

CPU Efficiency

A number of options for reducing load on the system can be selected. If in doubt about the compromises using these features may present you with then leave them at their default values or contact support to discuss your specific situation (all CPU saving features are initially turned off).

Host compensated latency

Allowing the reverb to be processed in larger batches of audio reduces CPU load. This introduces processing delay, but this is reported to the host for automatic delay compensation where possible.

Sample rate limiting

All reverb samples are recorded at 96 kHz and then re-sampled to the current DAW rate so that the reverb can run at the host’s native rate. Higher sample rates increase processor demand on the system.

It is possible to under-sample the Fusion-IR processors when using sample rates above 48 kHz. For 88.2/96 kHz a 2x under-sample rate can be selected, and for 176.4/192 kHz a 2x or 4x under-sample rate can be selected. For instance, a 96 kHz project can run the reverb at 48 kHz; a 192 kHz project can run the reverb at 48 kHz or 96 kHz.

Running the reverb at a lower sample rate than the rest of the DAW reduces CPU load. There is much less benefit using a convolution reverb at high sample rates than for many other types of processors like saturation or synth effects unless preservation of high frequency sample content is critical; however even in this case, running above 96 kHz is of little benefit (other than to avoid
unnecessary resampling filters) because the original hardware does not produce any reverberation above this rate.

High-quality linear phase anti-aliasing filters are used to minimise any acoustic impact when using the rate limiting modes. Delays introduced by the linear phase resampling anti-alias filters are automatically compensated.

*Fusion-IR VLF processing*

The early and VLF reverb components typically use independent modulation at slightly different rates for maximum reproduction authenticity. Enabling this option synchronises the processing of these two components (as a result the VLF modulates at a slightly faster rate) which lowers CPU processing requirements. This does not affect reverb quality but can slightly affect the authenticity of the low reverb response relative to the hardware.

It is expected that many users will not notice an appreciable acoustic difference when enabled (especially if not making direct comparisons to the hardware reverb), so using this mode would typically be recommended if lowering CPU consumption is of interest.

It is not recommended to use this mode if you make use of VLF level automation.