General

Version 9.8 requires a re-activation of your license. If you have a valid v9.7 license, then the license is automatically updated to include the new 9.8 version and the re-activation is as simple as clicking the Activate button. Contact licensing@assimilateinc.com if you have any question on licensing for version 9.8. Also note that this version is not fully backward compatible. You should not downgrade from this version and open a project in a lower version after it has been opened in v9.8 or before. Always create a **backup** of your projects before upgrading and we advise not to upgrade in the middle of a project.

Release

Graphics Pipeline

- The primary element of this release is an update of the application's underlying graphics pipeline to enable it to be fully Metal based on the Apple Mac and using the latest OpenGL interface on Windows. This ensures future proof software and was a prerequisite to further enhancement and expansion of many existing functions, which have been on hold for the graphics pipeline update to complete. Next to that, the graphics update also, especially on the Mac, offers a *considerably increased performance* of various processes: e.g. processing ProRes RAW / Canon RAW / Sony RAW media, transcoding to ProRes or the color sampling for large numbers of DMX fixtures in Stage Lights.

Live FX

- Added a Media Selector companion-panel to the Projection Setup panel where you can more specifically set the projection and media to use per LED wall. This allows you to create more complex setups by selecting multiple media layers, rather than having to build the full projection composition tree in the Player manually. The Projection Setup also deals better with top/side walls, planar projection positions and 2.5D projection setups. Furthermore, the naming of the Nodes is now more straightforward to identify the various parts of the composite.
- USD - Storm Hydra renderer updates. USD 3D media is now also supported on the Mac. The underlying Hydra Storm renderer has been updated to version 0.24.8. The processing of USD scenes has been improved to get much faster initial loading times and better initial positioning. Note that also the color processing is different, and the

scene display might be different from the previous version. Furthermore, added the option to set a domelight texture from an external file (jpg, png, exr) and added a new dropdown to control the various light elements: Disable Lights, Headlight Only, Full Lights, Wireframe. The dome light is now enabled by default for any scene loaded. The Full Light option in the dropdown includes all scene lights and the dome light (when enabled) but excludes the Headlight.

- Added a new Cylindrical Projection node to make working with cylindrical media easier and not having to first convert it into equirectangular. When selecting the cylindrical media type in the projection setup panel, the new projection mode is selected automatically. The cylindrical projection has, like the equirectangular projection, two modes: the camera position determines the centre of the cylinder, or the cylinder can be positioned independent from the camera. The latter one is like the dome-projection with spherical media.
- The Stage Manager shows a model of the sphere/cylinder that is used with a corresponding projection, to give a better understanding of how the position and size of the camera and sphere/dome/cylinder affect the image on the LED wall. The Stage Manager also has an extended settings dropdown where you can toggle the different displayed elements on/off.
- Stage Manager operability was improved. The mapper section now uses snapping and selecting a wall or display can be done by clicking in the mapper view. The model view now allows panning the view by holding down shift and dragging the view. Also improved navigating using ctrl + mouse or mouse wheel. When creating a wall from the Stage Manager, you can now set the curvature per tile rather than having to specify the full curvature.
- Various updates on the Frustum Projection node. The node can now use the alpha channel of the source image to allow to composite the foreground over the background or to composite the projection node on top of other projection nodes. The node has an Enable-button to en-/disable the background when compositing on top of another projection node. Furthermore, a Use Source Alpha button was added to use and pass the alpha channel of the source image, and an option was added to display a colored frustum border. The Extend Foreground option was removed.
- You can now select to use frustum highlighting on a specific wall or on all walls. The former will result in a less complex composition tree, since most often you only require frustum highlighting on the main wall and not on top or side walls. Furthermore, when enabling frustum highlighting for planar or spherical projections, an additional layer is added that allows to show the frustum border. The layer is in-active by default but makes adding the border just a matter of enabling the layer rather than having to extend the composition manually.
- Added user preference setting (gear menu) to toggle auto-start playback in Live FX on/off.

- When in pause mode in the player, Live Link data (e.g. tracker data) continues to be processed and live linked controls now correctly reflect the new values.
- Added a new 'Layer Cue Up' function with the OSC live link source to be able to 'rewind' a fill on a layer and start playback from the start. Also, next to referencing a specific layer by using its name in the OSC tag, you can now also specify the name of a specific node (in a composition) in the tag. The general tag format is: [../node_name/layer_name].
- In the Channel Controller, the Master / Input options - which were used to activate either master grading or input grading on the Switcher node - have been removed. This setting seemed to cause more confusion and sometimes harm (e.g. inadvertently activating camera settings on an input projection node). Using the node tree works more natural and efficient.
- Switcher and Videowall nodes can now be created from the Wrapper dropdown control in the Construct without first having to select nodes on the construct. In that case they are created with 3 underlying color bar nodes, which can be easily replaced at a later stage.

Stage Lights

- Added a new method for patching fixtures.
  - Rather than setting a fixed channel count per universe, you can now 'fill' up universes by repeating fixture pixels. The fill-universe mapping method comes with the option to maintain the start channel number of the first universe into the subsequent universes, as well as an option to align filling a universe with complete pixels rather than jumping to a new universe halfway through a pixel.
  - Changed the use of the so-called global DMX channels: you now set the from-till channels to specify the pixel/DMX channel-range that is to be repeated.
  - You now set a specific sample grid size (rows and columns) rather than using a segment-size. This is a bit more straight forward and gives more flexibility of mapping fixtures. With that also come more options to set how pixels in a fixture are ordered (left to right, top to bottom, inverse, etc. variations).
  - Added the option to Flip/Flop the sample region of a fixture, this accounts for both DMX and Video fixtures.
  - Added a Crossfade control that sets how to mix/use the sampled color versus a selected solid color. Because of this new set of controls, the extended color selector was replaced by the standard color selector method. Note that the Crossfade setting can also be animated to be able to animate to or from a full solid color.
  - With the above changes, the mixer menu has been updated. It no longer has a

Fixed color button, but rather clicking the color button now always opens the color selector to set the solid color. The former (F)ixed color button is replaced with a color circle button that opens the grading panel which in turn includes the crossfade setting.

- Updated the console patching function.
  - A new 'Latest Takes Precedence' setting to only process DMX value changes and with that allow for UI updates that are not overwritten by the console output. The new setting is available from the Settings tab in the Patch panel.
  - You can now create custom mappings and are not forced to create a predefined profile. From the Patch panel you can select a profile or select the Custom option, which will open the Custom Patch panel where you can pick any combination of functions and map them to a universe/channel address.
  - Added a new profile for patching the input of a Switcher node. You can assign a construct as the switcher clip library and based on slot/version index select which clip to use for each input of a Switcher node. The profile also allows you to set the in- and out-point of the clip, the playback speed, and the repeat mode (once, loop, bounce). This allows you to fully control all inputs of a Switcher node from a console.
  - Adjusted the Lightcard profile where before the single profile contained a total of 10 Lightcards, the new profile only contains a single Lightcard that can be instantiated as many times as needed. This makes dealing with it multiple Lightcards easier.
  - In the Sampler profile, the color-range patches were removed to make it a more basic and straight forward profile for purely controlling the sample area of the image.
  - All the profile updates have been included in a new version of the .gdtf file and (Excel) dmx table document: Download.
  - Video fixtures that sample from a Switcher node and that do not have a specific input reference set, should sample from the same (active) channel as the main UI is set to display.
- When tagging a fixture column as standard DMX column, you can now tag it as 16bit and as such, also enter a 16-bit value.
- Added an option in the Configuration menu to continue to show the fixture overlay while in the Live FX tab. The overlays are drawn in different color as to not get in the way of layer outlines. The setting is available in the Config tab of Stage Lights.
- **Extra warning** - due to the fundamental changes to the fixture mapping method, your Stage Lights setup is **NOT** backward compatible. Once you upgraded, you cannot go back to a previous version and maintain your setup unless you made an explicit backup of the project database or exported the setup before upgrading and restore that backup after installing the previous version.

Live Assist

- Added a Global Timecode Provider settings in the Settings tab. This can point to the system time or a specific Video IO channel. Each Live Assist Channel can be set to use its own timecode or use the Global timecode Provider (e.g. when the camera input does not provide a timecode).
- Fixed a potential issue where audio could be offset from the video when recording a signal that temporary dropped.
- Fixed an issue where the (unintendedly) disconnecting of a Video IO device could stop a recording, while it was not involved in that recording.

General

- Added a new Copy Mode in the node tree-view in the Player to determine if a shot that is added to a composition shot is added as a reference or as a copy. When dropping a shot into a composition node - through the tree-view, the fill/matte-menu or the input-menu - the function first checks if the shot is already part of the composition. If not, then a copy of the shot is made, and the shot is added. This continues existing behaviour and prevents references to shots elsewhere in the project. If a shot is already part of the composition shot, then a shot reference is used, unless it would cause recursion (a shot using itself as input). In that case a copy is made. But the default is creating a shot reference if the added shot is already part of the composition elsewhere. Note that this only applies to media nodes, not to plug-in nodes. The main purpose of this function is to allow for more efficient processing of media nodes by effectively only reading the media once and use it multiple times. The Copy Mode function - represented by the 'C' button in the tree-view, can change this behaviour. By enabling the copy mode, adding a new node will always create a copy of that node and never create a reference. Another way to prevent a reference is by starting a drag in the node view and holding down the Ctrl key.
- The display of node-references in the tree view has been updated. If a composition shot contains multiple references to the same shot, then that shot is displayed with a blue border. When selecting the node, a dotted line is drawn to the other references of that node in the composition shot.
- Updated the OCIO implementation. Version 2.3 is now used, and the installation comes with a default ocio-config file. You can still specify an alternative ocio-configuration file to use through Advanced System Settings or an Environment variable. The OCIO plug-in now shows the full hierarchy of transforms in a multi-level dropdown menu (you

can adjust the collapse speed of the menu with the “Menu control timeout” Advanced System Setting). The transform selection is now stored based on the transform name – rather than the index, which could lead to changing results if a different ocio-config file was used.

- Added file reader to read Radiance HDR(i) files.
- Added a setting in the Player-Settings-Monitor menu to always show the top composition node on the reference output (Dual Head or VideoIO), independent of which input node is selected in the node-tree. This setting prevents switching away from the primary image on a LED wall or theatre display in a client-session when working on an element of a composition node.
- Updated Beamr 5 HEVC SDK to version 4.7.3.11. and fixed an issue that could under certain circumstances lead to decoding errors or even the wrong frame being displayed.
- Updated Blackmagic RAW SDK to version 4.3.1.
- Fix for BMD VideoIO where setting the HDR metadata did not always trigger a display into the correct HDR mode.
- Added network adapter selection to the Sync Player panel to be used on systems with multiple network adapters.
- Added a 16k option to the Stich setup panel, where before it was limited to 8k max.
- Added vari-speed controls in the Input menu to set a framerate multiplier and offset per input. Note that this vari-speed option is just an adjustment of the framerate, where frames are repeated or skipped. For more advanced re-timing you should use the Editor option, the Re-timer plug-in or an external plug-in.
- Added a USD-export option in the Camera menu to save camera properties as well as animations data to the USD file.
- Show tooltips in the structure view when hovering about the image, not only above the label.
- If the ProRes RAW proapps.modelname metadata is "FC4280" then write "FC4280" as the UniqueCameraModel exif tag so Davinci Resolve offers DJI D-Gamut and D-Log debayer options. If the proapps.manufacturer metadata is empty then write the proapps.modelname as the UniqueCameraModel exif tag.
- Updated NDI to 6.0. (note that this does not use the Advanced SDK with HDR Metadata).
- The OpenFX API is now fully compatible with version 1.5, including colorspace handling and new binary control support.
- Automated loading of Op-Atom audio files for Panasonic P2, that are stored in a particular folder structure. Also added support for 16-bit audio in Panasonic P2 OP1B MXF files.
- Added a '#camera' code to get the translation, rotation, focal length or field of view of the current camera. The code has two parameters: The first indicates 0:Z, 1:Y, 2:Z, 3:Pan, 4:Tilt, 5:Roll, 6:Focal Length, 7: FoV (vertical). The second parameter specifies

the number of decimals to use.
- Added an Advanced System Setting to (not) process renders within the same construct in parallel / serial. The default remains to process in parallel but for some jobs with big plates, rendering to Notch LC just becomes too much to do in parallel.

Fixes

- Various fixes on importing csv data in the Animation editor. The column selection panel did not always show up properly, and opening the panel multiple times could lead to invalid animation channel selections. When the parser does not find a traditional delimiter, it will now use a space as delimiter. When the file does not contain column headers, it will now show column numbers to select from.
- Sony Burano 2:1 anamorphic media was loaded with the wrong aspect ratio.
- Ctrl+click to reset a control in the Projection-Switcher node would inadvertently create a key-frame in the underlying projection nodes.
- Fixed a sync issue where after deleting a layer, the controls were not always updated to the newly selected layer.

Assimilate Support
https://www.assimilatesupport.com/akb/Download51056.aspx