



SquidNet

Release Notes

3.21/3.89 (Nov 4, 2019):

- **Special Instructions:**
 - **New:** 64-bit release. Existing installation will still use current "C:\Program Files (x86)\SquidNetSoftware\SquidNet" (32-bit). New installations will install to "C:\Program Files\SquidNetSoftware\SquidNet" (64-bit)
- **General changes:**
 - **New:** Support for Daz3D.
 - **New:** Support for Octane Standalone.
 - C4D Template:
 - Added Arnold Render flags "-arnoldLogToConsole true -arnoldAbortOnLicenseFail true" command line.
 - Nuke Template:
 - Updated template to support latest Nuke features.
 - Maya Template:
 - Prohibit use of output format (-of) flag when using redshift renderer
 - Set maya "-r renderShift" render switch for web jobs.
 - Added Octane to supported GPU renderers list
 - LightWave Template:
 - Support for render passes in cloud output slice folders.
 - Fixed double-quote issue on LW 2018 (MacOS only)
 - New LightWave submission plugin
 - Fixed issue with jobs not starting when memory-recall option was disabled.
 - New input logic to separate batch and single job submissions. Prevents single job submissions from getting stuck behind hundreds on jobs in standard input queue.
 - Fixed issue that prevented CPU/GPU distribution if CPU or GPU delay was set in advanced settings.
 - Fixed memory leak in preview image generation logic
 - Added to advanced feature to automatically place slices in error state if the render count exceeds a specific limit.
- **Bridge Interface:**
 - Clear "bridge ignore" flag on a manual submissions.
 - Allow for jobs with "Email Notify" download method.
 - Only show "active" CPU and GPU nodes on client side displays.
 - Support C4D output resolution from the command line.
- **Web/JSON Interface:**
 - Enhanced browser interface.
 - New JSON Commands:
 - SLICE_QUEUE_GET
 - SLICE_PREVIEW_IMAGE_GET
 - HISTORY_SLICE_QUEUE_GET
 - HISTORY_PREVIEW_IMAGE_GET
 - FTP_ARCHIVE_USER_CREATE
 - Added "SuspendNow" property to JOB_SUSPEND JSON request.
 - Validate existence of scene file when issuing JSON JOB_CREATE request.
 - Return job submission content when issuing JSON JOB_CREATE request.
 - Fixed issue with APP profiles not being updated via JSON STUDIO_UPDATE request.
- **GPU Interface:**
 - Support for Nvidia RTX GPU cards.
 - Show GPU render credits and OB node scores in real-time
 - Optimizations to use unused cards when jobs specify GPUs per slice to '0'.
 - Increase lazy GPU detection time to 30 mins after server startup.
- **Cloud Interface:**
 - Fixed Windows10 permission issues when installing CUI while CUI is already running.
 - CUI Installer now runs as administrator (Windows only). Sets full-permission access to register keys
 - Fixed issues with missing gaps between preview images.
 - New feature to create FTP account for archival image access.
 - Added option to leave completed jobs queue for N number of hours.
 - Auto-reset transfer protocol nightly (only if protocol switched due to error condition)
 - Fixed issue with "dead" jobs not being removed per default settings.

3.20/3.88 (Mar 20, 2019):

- **Special Instructions:**
 - None.
- **General changes:**
 - **New** Maya drag/drop interface.
 - **New** support for FStorm GPU renderer.
 - **New** "GPU Prioritization" feature for mixed CPU/GPU node configurations. On GPU nodes, allows GPU nodes to take precedence over CPU jobs.
 - Added node list to CPU/CPU concurrent rendering feature.
 - Redesigned "CPU/GPU Delay between slice" logic. Now reflects true delay time between slice submissions.
 - Updated Linux build to include latest posix run-time libraries.
 - Fixed small issue related to concurrent CPU/GPU rendering on the same host.
 - Only run server health-check tests on render farm services only.
 - KeyShot Template: Workaround for "step-frame" issue.
 - Fixed issue where "wipe database" feature was not removing local jobs.
 - Fixed GUI lag issue when displaying preview images in cloud job queue window.
- **Bridge Interface:**
 - On bridge client side, show server's render credit profile.
 - Allow bridge slices to be downloaded even if bridge profile is disabled.
 - Display Bridge Profile Name in Upload/Download manager window.
 - Fixed issue with displaying all render queued instead of queues enabled on the farm.
 - Fixed CUI-Direct download issue.
- **GPU Interface:**
 - Fixed issue with single-gpu jobs (gpuPerSlice = 1) leaving GPU card in "rendering" state.
 - Prevent checking on status of GPU cards when GPU card is disabled or host is "locked".
 - For single-gpu slices, allocate all available GPU cards on one host before allocating GPUs on the next host.
- **Cloud Interface:**
 - New SYNC Protocol:
 - Sync (in real-time) any size user project to render farm server.
 - Fast: Only uploads files that have changed on user side.
 - Support for all non-ASCII (foreign) characters (Chinese, Russian, Hebrew, etc...): Foreign characters stored as UTF8 formatted strings.
 - Real-time (Windows Only): Changes on local file system are automatically updated on server farm. No more delays on job submission.
 - No more project compression on job submission. Instead, content is compressed during actual SSL data transfer.
 - Assignment to users can happen globally or applied to studio account.
 - New Root Project Settings:
 - Isolates all synced projects to single folder on render farm server
 - Fixed issue where CUI transfer can get into endless loop if server path no longer exists.
 - New Auto-cancellation of jobs that haven't been accessed in N days by user.
 - Added "Last Access Time" to cloud job queue list.
 - Fixed issue with CCL "--takeList" feature when job names contained spaces.
 - Prevent CUI installer to run as elevated process. Now defaults to "user". (Windows Only)
 - CUI auto-restart if connection to server is lost.
 - Added environment variable settings to render plugin profiles.
 - Fixed issue with intermittent display of render credits values (no multipliers applied)
 - Fixed "Close Lease" button issue. (Dialog not being closed if "Close" button was pressed.
 - Fixed issue with CUI hanging when scene file selection was too deep in project folder tree structure.

3.19/3.87 (Jan 12, 2019):

- **Special Instructions:**
 - None.
- **General changes:**
 - Upon slave startup, auto-queue any slices that might have been on that node before restart.
 - SQL Database performance improvements:
 - Delete operations are now 12 times faster.
 - Removal of redundant database triggers. (decreased overhead with table updates)
 - Automatically add "rogue" slave nodes to jobs ignore list.
 - Small cosmetic changes to MUI.
 - Don't allow master configuration path to be applied to invalid directories.
 - C4D Template: new CCL "--takeList" option to specify an unlimited number of render takes from a single job submission.

- Blender Template:
 - Support for GPU-based tile rendering.
 - Added drop list for GPU renderer (RedShift, Octane, Cycles)
- New "Use GPU" and "GPU's Per Slice" field for Maya and 3dsmax templates.
- Fixed issue with removing local render accounts (from Render farm accounts window) .
- **Bridge Interface:**
 - Don't revert to backup transfer protocol for bridge jobs.
 - Added studio account "exclusion" list.
 - Added ability to specify number of GPU cards to use per slice.
 - Added option to download archive images to local farm if CUI "Direct Download" option is enabled.
 - Fixed issue that allowed bridge server to fetch slices of suspended client jobs.
 - Fixed issue with render log not being properly displayed when selecting bridge slices.
- **GPU Interface:**
 - Fixed with auto-detecting AMD Radeon Vega cards.
 - GPU config: Removed "Enable GPU" and "Single GPU" flags are no longer valid. Setting will be determined as follows:
 - "Enable GPU": Determined by number of GPU cards on the farm
 - "Single GPU": Determined by "gpuPerSlice" setting in CCL command (please check your plugin settings. "0" means use all GPU's.
- **Cloud Interface:**
 - Download CUI plugins directly (instead of adding to download queue)
 - New "GPU's Per Slice" field for Maya and 3dsmax templates.
 - Added "Processor Usage" column to frame list window.
 - Add select column menu item
 - Render credit system redesign.
 - Fixed intermittent issue with remotely restarting CUI. ("Force CUI Restart" menu option)
 - Allow users to close CUI when pressing windows "close" button.
 - Maya Template: Fixed issue with spaces in working directory field causing slice errors.
 - Only add slices with render counts that are 1 or greater to history database.
 - Small cosmetic changes to CUI.
 - Fixed issue with last environment variable in studio account not being removed from account.
 - New cloud config setting to automatically assign Redshift, Octane or Prorender jobs to specific GPU pool.
 - Removed memory-based cloud input queue and replaced with SQL-DB queue. Improves performance and reliability.

3.17/3.85 (Nov 26, 2018):

- **Special Instructions:**
 - None.
- **General changes:**
 - C4D Template:
 - Tile/Bucket rendering support. Options: Automatic stitching, image resolution and frame number.
 - New "Render Queue Manager":
 - Assign maximum number of render nodes per render queue
 - Assign specific nodes to each render queue.
- **Bridge Interface:**
 - New bridge profile option to allow CUI to download render content directly from bridge server.
 - Additional option to specify slice folder size.
 - Support for Tile/Bucket rendering.
 - To prevent backup of download queue, throttle access to next rendering slice.
- **GPU Interface:**
 - None.
- **Cloud Interface:**
 - **New:** Pre-flight Check:
 - Allows users to determine credits needed to render an animation sequence.
 - Admin-selectable max number of frames to render (1 thru 10)
 - User's get email with pre-flight analysis.
 - Available in CUI and in CCL interfaces.
 - **New:** Demo mode:
 - Forces CUI to permanently enable pre-flight check. Used for demoing CUI functionality.
 - Fixed option to prevent CUI installer from running as an elevated process. (Windows only)
 - Added option to change location of cloud temporary work in progress folder.
 - Enhanced connection retry logic to CURL/FTP transfer protocol. Fixes timeout issues when server download queue is backed up.
 - Fixed issue that prevented uploads/downloads from functioning if cloud TEMP folder location was changed.

- Added automatic password reset option to JSON "STUDIO_ACCOUNT_CREATE" request. Example: "Flags" : "resetPassword"
- Fixed issue with too many unused file left in cloud TEMP folder.
- Returned expired leases to users when they login into CUI. Shows negative credits (if applicable)
- C4D Template:
 - New feature to overwrite C4D render options: image resolution, image format and render engine (CPU or GPU)
- Check local CUI disk space before uploading new project.
- Fixed memory leak that occurred with each preview image sent to CUI.

3.16/3.84 (Nov 4, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - Fixed issue with comparing local and server 3rd plugins used to quantify which jobs are available for bridge server update.
 - Solved issue with excessive slice render retries.
 - Solved transfer issues related to transferring large projects from clients to bridge servers.
 - Allow multiple client application profiles to be mapped to a single server application profile.
 - Auto-suspend job on server if no output content was detected or if jobslice error. Allows job to continue rendering on client farm.
- **General changes:**
 - C4D Template:
 - Added support "-take" option.
 - Added GPU rendering support for RedShift, ProRender, Octane and Cycles
 - Added "Num GPUs per slice" option to CUI and main GUI
 - Fixed issue with slave nodes randomly getting stuck removing crashed C4D processes.
 - New OnCondition profiles:
 - Requeue slice and reboot render node.
 - Requeue slice and shutdown render node.
- **GPU Interface:**
 - None.
- **Cloud Interface:**
 - Fixed GUI performance issues when downloading multiple archive images.
 - Resolved UAC/UIPI Windows 10 permission issues with mapped drives and network UNC paths.
 - When using JSON interface to set lease credits, for the description field to be unique (avoids duplicate entries from web server.
 - Auto-switch to PASSIVE_OPENSSL if CURL/FTP protocol is not supported at customer site.
 - New CUI Drag/Drop interface:
 - Drop/drop individual scene files.
 - Drag/drop folders for batch submissions.
- **Microsoft Azure Interface:**
 - None.

3.15/3.83 (Oct 14, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - Allow suspension, resume and cancellation of bridge jobs from client interface.
- **General changes:**
 - Allow main gui tabs to be movable when in tabbed mode.
- **GPU Interface:**
 - None.
- **Cloud Interface:**
 - New "OPENSSL_PASSIVE" transport protocol that transfer content over a control port and a data port.
 - Option to create CSV output for render reports.
 - Added support for "FTP over TLS".
 - Added template icon to archived image folders.
 - New option to select backup transfer protocol.
 - Increased CUI robustness and efficiency when downloading large amounts of content by offloading download request messages to separate threads.
- **Microsoft Azure Interface:**
 - None.

3.14/3.82 (Oct 7, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - Ignore local OnCondition profiles for bridge slices.
 - Fixed issue that prevented bridge from removing non-existing client jobs.
 - Added retry attempts to the downloading of slice images from bridge server.
- **General changes:**
 - Updated clinfo.exe for AMD PRORENDER GPU card detection (Windows ONLY)
 - sqn command line:
 - Added '#' characters will generate random ids. Example: ... --jobId myJob_#####
- **GPU Interface:**
 - None.
- **Cloud Interface:**
 - Support for connections to multiple render farm services.
 - On CUI startup, cleanup any jobs left in a bad state.
 - Fixed issue that removed user archive images if the same job was submitted multiple times.
 - Enhanced CURL transport interface. If configured, curl is now 100% utilized on all content transfers.
 - Support for custom CUI installers (logo, icon, etc...).
 - Fixed a few issues related to the archival of user images.
 - Main GUI:
 - Add option to remotely restart CUI.
- **Microsoft Azure Interface:**
 - None.

3.13/3.81 (Sept 23, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - Added "Bridge Reset" menu option.(Remove job from bridge server then re-uploads)
- **General changes:**
 - None.
- **GPU Interface:**
 - None.
- **Cloud Interface:**
 - Redesigned cloud user interface.
 - Auto-create plugins directory for C4D R20.
 - New Curl/FTP-Server transport interface. Increases upload/download efficiency.
- **Microsoft Azure Interface:**
 - None.

3.12/3.80 (Sept 4, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - Only allow jobs in rendering or queued states to be uploaded to bridge server.
 - Fixed issue with submitting bridge jobs manually.
- **General changes:**
 - Prevent slice rendering on slaves when CineBench or OctaneBench is running.
 - New "Render Credit Usage" Window (located under help Window)
 - Apply priority multipliers to local jobs.
 - Fixed issue with no display of OctaneBench score on hosts with single cards.
 - New "Email Notification" download method.
- **GPU Interface:**
 - Fixed issue with GPU nodes remaining in a "rendering" state if local host ran out of memory.
- **Cloud Interface:**
 - Verify the render job submitted from CCL can be accessed by CUI. (Related to new Windows 10 mapped drive security issues).
 - Removed "Today's Render Credits" from cloud queue window.
 - Removed "Render Farm Calculator" from CUI. (no longer relevant)
 - Obsolete "Always apply multiplier" feature.
 - Slice memory check automatically applied to all cloud and bridge jobs.
 - New option to ignore project reference counts when queuing new job from the same project folder.
- **Microsoft Azure Interface:**
 - None.

3.11/3.79 (Aug 5, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - Added new "Idle Time/Priority" criteria option.
 - Remove unused pool, render queue and plugin entries from bridge profile.
 - Lots of improvements !!
- **General changes:**
 - Integrated OctaneBench GPU performance benchmark tool.
 - Integrated CineBench CPU performance benchmark tool.
 - Fixed small memory leak on master node. Occurred when master was set to process jobs.
 - Added slice image preview image to slice window.
 - Fixed mutex resource handle leak associated with cloud jobs.
 - Fixed SQL object allocation leak (within image preview workflow).
 - Fixed server log file issue that prevented proper logfile rollover.
 - Added "UpTime (O/S)" column to network node window.
 - For improved main GUI performance, the default "Job State" in job queue will default to "Rendering".
 - Updated to latest Windows threading libraries.
 - Upgraded OpenSSL to version: OpenSSL 1.0.2o 27 Mar 2018
 - Improved GUI performance: Optimized content panels to not get content from server when panel is not visible.
- **GPU Interface:**
 - None.
- **Cloud Interface:**
 - New "Resource List" windows for both main GUI and CUI. Display render credit charges for resources and 3rd party plugins.
 - New "Render Plugin Manager" to control usage of 3rd party plugins.
 - Automatically allow server to accept jobs from CUI Instances that don't match the current cloud API version of the master node.
 - Fixed CUI issue when rendering more than 5000 frames.
 - Added slice image preview image to frame window.
 - Moved cloud folder cleanup task to separate thread (increases server startup times).
 - Improved GUI performance: Optimized content panels to not get content from server when panel is not visible.
 - Resource Manager: Added CPU and GPU dropdown lists.
 - Added preview image to each archived job in SQL database. Displayed in job reports search on CUI and main admin GUI.
 - In-app Plugin Manager:
 - Fixed issue with in-app plugins not being installed for C4D R19 release.
 - Prompt user to manually enter application installation paths for applications not found during the initial installation.
 - Added "Password Reset" option to "Manager Studio Users" menu list.
 - Changed user "Password Reset" feature to change to a random password and to email user new password and login information.
- **Microsoft Azure Interface:**
 - None.

3.10/3.77 (May 7, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - Major enhancements:
 - Local GUI tabs for CPU, GPU and Job queue entries from bridge farms.
 - Support for job control operations: Suspend, resume, requeue, slice logs, etc...)
 - Added new upload criteria options.
 - Fixed bridge job slice viewing from CUI and from local GUI.
- **General changes:**
 - Fixed license manager registration issue when node was converted to a MASTER (only occurred with fresh render farm configurations).
 - Fixed issue with path translations db file not getting correct file permissions (MacOS only)
 - Change Windows reset-counter from 2 days to 3 hrs (Windows only)
 - Added SquidNet build data and version to Render Farm CPU Nodes window view.
 - Fixed OnCondition profile issue that repeatedly requeued slices.
 - New "OnCondition Events" window that show's recent events.
 - Added "Credits" and "Template" options to "sqn --jobQueueShow" command.
 - Fixed SSL issue with PEM file not being loaded property when initially created.

- Fixed intermittent issue where a job's last slice was stuck in "Rendering" state even though job was marked as "Completed"
- Modified job advanced options to better highlight enabled options.
- Modo Template:
 - Added support for turntable rendering.
- Autodesk 3dsmax Template:
 - Added Corona *.cwr and *.cjpg image format support.
- After Effects Template:
 - Created workaround for issue on MacOS that would leave TMP00001 file locked preventing access from contributing render nodes.
- **GPU Interface:**
 - None.
- **Cloud Interface:**
 - Relabeled change priority and suspend menu options to be more user-friendly.
 - Added image header (logo) to all email notifications. (see cloud settings).
- **Microsoft Azure Interface:**
 - None.

3.09/3.76 (Mar 22, 2018):

- **Special Instructions:**
 - None.
- **Bridge Interface:**
 - **(BETA)** New Bridge configuration dialog. (See "Bridge Configuration" option in Render Farm Dialog. Requires Bridge License)
 - Features:
 - Auto-upload local jobs to bridge server.
 - Auto-download frames rendered on bridge server to local farm.
 - Bridge server negotiates with local server on which frames need to be rendered.
 - More features to be added in upcoming releases
- **General changes:**
 - Added "Reset PPI" menu option to master configuration menu.
 - Vendor License Manager: Add option to allocate licenses on NODE or SLICE basis.
 - Replace auto-shutdown selection drop-down box with slider object.
 - Fixed missing job slice log issue that occurred when rendering application streamed non-ascii characters.
 - Added timers to auto-reset "Show All" settings to default values, Prevents excessive resource usage on server.
 - Fixed issues with incorrect auto-shutdown values being saved for client/slave sliders.
 - Set SquidNet Service auto-restart recovery settings to 1 min. (Windows only)
- **GPU Interface:**
 - Fixed issue with the same jobslice being sent to the same render node. Only occurred if single GPU rendering was enabled.
 - Auto-cancel GPU slices left in rendering state. Occurred if C4D rendering application got stuck during rendering process.
 - Added GPU card number to job slice status window.
 - Fixed issue that would send job slices to disabled GPU cards.
 - Fixed issue with single-GPU card rendering. (Master only sent slices to the first GPU card)
- **Cloud Interface:**
 - New "Delayed Job Removal" option. Specify delay in removal of completed jobs from queue. (See Farm Configuration settings)
 - Fixed bug that would apply image resize constraints to rendered images if a resize option was present in "Lease Edit" dropdown list.
 - Fixed sync bug that would pause CUI uploads to pause if server jobs were in a QUEUED state.
 - Fixed bug that would add upload prefix id to start of transfer files (only occurred on single file uploads)
 - FIXED: The log file is indeed gone from the drop down list but you can still view it if you double click on the job slice.
- **Microsoft Azure Interface:**
 - None.

3.08/3.76 (Feb 12, 2018):

- **Special Instructions:**
 - ***Maintenance Release: Dozens of small fixes and enhancements.***
- **General changes:**
 - Fixed job queue priority issue where lower-priority jobs were being rendered before higher-priority jobs.
 - On startup recovery, start recovery node in separate thread. Increases start-time performance.
 - Multi-thread SquidNet software updates when selected from main user interface.
 - Extended display of job logs to 10 min.
- **GPU Interface:**

- Automatically remove GPU from Farm GPU list if GPU is removed from render node.
- Improved detection of idle GPU nodes when server is under heavy CPU job load.
- **Cloud Interface:**
 - Added ccl "--jobPrefix" command line option. Allows for setting of server job folder path inside of scene file.
 - If CUI job is present on server's local NAS, auto-copy job slices to that path and mark as downloaded.
- **Microsoft Azure Interface:**
 - Faster detection of Azure render nodes at startup time.
 - Azure VM deallocation option (completely removes VM from Azure subscription).
 - Better and faster detection of running and deallocated VMs.

3.07/3.75 (Jan 15, 2018):

- **Special Instructions:**
 - Update all render nodes (including slaves).
- **General changes:**
 - Fixed timing condition on render nodes that would cause available core count to be less than zero.
 - Allow Windows SSA user account password to be greater than 16 characters.
 - Added "User Master Account" option to Change SSA Account dialog.
 - Added "RDP - Remote Desktop" menu option to Network menu (Availability->Remote Desktop...).
 - Prompt user before "Removing all Offline Nodes" from Render Farm Node list.
 - Allow '.' (period) characters inside application profile names.
 - Added command line install options (ie; silent mode) to Windows installer.
 - Set Windows SquidNet service to auto-restart from unexpected shutdown (see SquidNet service properties "recovery" settings for details.)
 - Minor enhancements and bug fixes.
- **GPU Interface:**
 - Added 5 min startup delay to check for GPU devices. On occasion, the SquidNet service before the GPU devices are fully initialized by the operating system.
 - Added "Use Session ID 1 For All GPU jobs" option in Master advanced options settings.
 - Blender Template:
 - Plugin updates for new Blender 2.79 release.
 - Added Support for GPU Tile rendering.
- **Cloud Interface:**
 - Major overhaul of upload/download transfer framework. Migrated to new transport library.
 - Added "Select Columns" menu options to Project and Job Queue mouse menus.
 - Optimizations to transfer download re-connects. Continuous download retry attempts.
 - Fixed some instability problems related to downloading dozens of completed at the same time.
- **Microsoft Azure Interface:**
 - Full support for WOL, Starting and Stopping of VM render nodes.
 - Added VM attributes to render node properties: VM Source, VM Type, VM Resource Group, VM Region and VM Public IP Address
 - Automatically set Window user account permissions when SquidNet is installed on VM images.
 - Fixed issue with Master being able to properly set SSA account on render nodes.

3.06/3.74 (Dec 26, 2017):

- **General changes:**
 - When master is processing jobs, update slice processing time in jobslice window.
 - Added "log limit reached" to end of slice log file when buffer limit has been reached.
 - Fixed KeyShot issue with Windows UNC paths not correctly detected on slaves.
 - Fixed issue that caused server crash if multiple job logs were opened at the same time.
 - Mac OS:
 - Don't hide popup windows when main application loses focus.
 - Don't allow tile render submissions until STITCH pool and ImageMagick components have been installed.
 - Created render command performance boost by creating render execution scripts before render process is forked.
 - Small bug fixes and enhancements.
- **Cloud Interface:**
 - Added "Open Destination Folder" and "Open Source Folder" menu options to Transfer Queue window.
 - Fixed issue that sometimes left the last slice of a job in a "Queued" state while the job was marked as "Rendering". Only occurred on GPU jobs.
 - Upload/Download transfer framework:
 - Added transmission timeout and retry logic.
 - Automatically cancel jobs that don't get synced correctly on server.
 - CUI:
 - Mac OS: Fixed tile rendering issue with Blender, Maya and Modo job templates.

3.05/3.73 (Dec 3, 2017):

- General changes:
 - Updated SquidNet (Windows) to use the latest Windows compiler and linker libraries.
 - Support for High Sierra Mac OS.
 - After Effects Template: Fixed issues with missing quotes around some command line parameters.
 - Tile/Bucket Rendering:
 - Mac OS: Updated stitching libraries.
 - Fixed intermittent issue what could possibly start stitching operation before the last tile completed rendering.
 - **New *Render Exception Manager***: Send users emails with recommendations on specific issues with their submit rendering jobs.
- Cloud Interface:
 - For sync'd projects on server, don't compress single files before uploading.
 - Optimized and streamlined upload/download operations logic.
 - Added **HISTORY_GET** and **HISTORY_SEARCH** JSON request types.
 - Optimized the detection and uploading of changed files on synced projects.
 - Added "**Live Preview**" button to cloud custom email notification manager.
 - Added "**Enable Display of CUI Render Logs**" checkbox to main configuration settings.
 - Verify that any project or file is a complete ASCII path before attempting to upload. Prevents the hanging up of upload tasks in the transfer queue.
 - Automatically remove "dead" jobs from job queue. Applies to any jobs that were aborted or cancelled by user or left in queue because of an aborted upload.
 - Fixed JSON lease creation issue when setting "waterMarkEnable" flag.
 - CUI:
 - Display server decompression rate and remaining time to transfer view window.
 - Added "-useGPU" option to Lightwavejob template.
 - Fixed issue that caused CUI to download watermarked images before the server had completed finished writing the images to the storage server..

3.04/3.72 (Nov 20, 2017):

- General changes:
 - Added "runas user" Master advanced feature for Mac OS and Linux renders. This allows for specific user accounts to execute renders. By default, all renders are executed by the "root" account.
 - New KeyShot job template for local cloud submissions.
 - Automatically notify user of new SquidNet versions. (Update title in main GUI)
 - Fixed local job issue that left job in queued state if multiple pools were selected.
 - Fixed issue with MacOS/Linux render nodes not correctly removing alternate bash render scripts.
 - Improved detection of active Ethernet devices on Linux hosts. Support for eth, eno, ens, enp and enx network devices.
 - Allow multiple vender licenses to be applied towards the same application profile.
 - Fixed Linux issue that prevented the uploading of project sizes greater than 2GB.
- Cloud Interface:
 - Fixed image preview issue with server. Only create preview images for supported file formats (png, ext, tif, etc...)
 - Added real-time render farm stats to Cloud Rendering View (uploading, compressing, active, downloading, etc...).
 - CUI:
 - Fixed issue with Frames tab showing frames for jobs longer queued.
 - Fixed issue that incorrectly opened the project folder when attempting to open the output folder.
 - Render Farm Service:
 - Modified watermarking feature to tile watermarks (as apposed to one-single water mark).

3.03/3.71 (Nov 12, 2017):

- General changes:
 - Updated Autodesk rendering application logos.
 - New Houdini3D job template.
 - Added support for Furryball and Thea GPU renderers.
 - Added new "--cpuRenderer" to sqn command line tool.
 - Added CPU_TYPE and GPU_TYPE selection options to Vendor License Manager.
 - Fixed issue that would intermittently place jobs in "Queued" state even though all slices completed rendering.
 - Added "Filter Check" column to Job Queue View. This column shows the reason why a job slice was not distributed to the farm.
 - Fixed issue that would put jobs in error state if job priority was set to a value that was greater than the max (25)

- When main GUI is started, prompt user to convert local node to a PEER if MASTER node is not accessible.
- Linux Support:
 - Update installer to support latest distribution packages (Ubuntu, Fedora, CentOS, etc..)
 - Fixed license registration issue.
- Main GUI:
 - App Path Manager: Validate application paths in separate thread to avoid blocking main interface workflow.
- Cloud Interface:
 - Prevent the adding of multiple leases to main "Renderfarm" account.
 - Added new "--cpuRenderer" to ccl command line tool. Possible options include: V-Ray, MentalRay, Arnold, Renderman, Maxwell, C4D Standard and C4D Physical.

3.02/3.70 (Oct 25, 2017):

- General changes:
 - Fixed issue with server incorrectly requeueing slices that were thought to be timed-out.
 - Fixed 3dsmax tile rendering issue with local render jobs.
 - Removed "not-enough-cores" popup messages from main GUI.
 - Fixed GPU slice distribution issue when using Redshift renderer.
 - Added default application profiles for common rendering apps (3dsmax, Maya, C4d and AE)
 - Minor bug fixes.
- Cloud Interface:
 - Added global option to set number of concurrent compression/decompression tasks within the SQN server and CUI client process.
 - Updated 3rd party compression/decompression libraries.
 - Fixed issues related to properly displaying preview images in job completion reports.
 - Fixed issue that prevented uploaded projects from rendering until the upload queue was empty.
 - Fixed issue that intermittently prevented download of completed slices due to extremely large file size (18,466,000,000,000)
 - Fixed small issue that requeued jobs to input processing queue if decompression step took too long.
 - Optimized batch job submission logic on master server. Improved queuing times when submitting dozens of jobs at the same time.
 - Fixed improper display of render farm service logo when logo was changed on host server.

3.01/3.69 (Oct 6, 2017):

- General changes:
 - New "User multi-user account" checkbox in master advanced settings dialog.
 - Window "Detach" option on "Render Timeline" and "CPU/Memory" usage graphics.
 - Added commonality (Windows, MacOS, Linux) configuration path settings for supported O/S platforms.
 - Simplified selection of email notifications. (now a single checkbox on job submission form)
 - Fixed issue with jobs getting stuck in queued position when selecting "FrameCheck" checkbox.
 - Mac OS:
 - Fixed issues where SquidNet service was taking up 100% CPU time.
 - Fixed issue with application logs not displaying when searched in jobs database.
- Cloud Interface:
 - Studio Accounts: Added "Disable CUI Password Reset" option.
 - Wake up idle nodes when job transitions from "Dependency" state to "Queued" state.
 - Fixed issue that would randomly leave cloud jobs in a "Queued" state.
 - Fixed issue with multiple job completion emails being sent to admins and users
 - Added job history purge feature (30 thru 730 days). Enable in cloud configuration window.
 - CUI:
 - (Beta) Allow non-render-farm-service users to use CUI (under default "RenderFarm" account)
 - Moved job stats progress bar to the bottom status bar.
 - Fixed bug that left jobs showing in queue after they've been cancelled.
 - Hide "Show Profiles" menu item when user is not logged in.
 - More reliable job queue listing. Fixes prior issue where job queue didn't reflect the actual state of the jobs.

3.00/3.68 (Sept 18, 2017):

- General changes:
 - **Official 3.0 Release**
 - Enhancements for new website updates.
 - Optimized memory reclamation when dealing with large text file edits.
 - Fixed automated email support forwarding issue.
 - Fixed incompatibility issues with the latest version of Mac OS.
 - Fixed After Effects issue when spaces were present in output path.
- Cloud Interface:
 - Optimized After Effects local texture map references updates.

- Added upload/download indicators to CUI bottom status bar.
- Added "Render Node" column to "Slice Information" section of job completion report.
- Fixed JSON bug that returned 0 for render-credit usage in "Studio Get" request.
- Added SQN_CLOUD_JOBSLICE_INDEX environment variable to render slices.
- New studio account settings:
 - Maximum allowed upload limit (in GB).
 - Maximum sync storage limit (in TB).
- On server, moved compression/decompression of download content to sqn command line. Frees up SQN server for other tasks.
- In CUI, moved compression/decompression of download content to ccl command line.
- Replaced proprietary upload/download content packing framework with zLib compression:
 - Compress/decompress is now done outside the SquidNet server and CUI processes.
 - Support for non-ascii filenames in uploaded/downloaded content.
 - 10X performance compression/decompression boost.
 - Reduces SquidNet master server overhead.
- Fixed issue with XSI template not setting "Single GPU Rendering" flag option.
- GPU:
 - Redshift: Allow for unlimited GPU cards when selecting single-GPU rendering from with either the local or cloud interfaces.