



SquidNet

Release Notes

General Comments:

- Fixed Mac OS/OSX networking issues with latest Apple updates. Mac OS users should update to version **2.66P2134** or later.

Cloud 3.62/2.66P2136 (Nov 30, 2016):

- Cloud Interface:
 - Disable frame list field in job templete if tile rendering is specified.
 - Plugin Manager: Auto-scan Windows registry for installed 3dsmax applications.
 - Added Suspend/Suspend-Now/Resume options to cloud menu in main GUI.
 - Fixed issue with download pack file remaining in output folder.
 - Added FileCatalyst transfer mode (UDP/TCP) to activity window.
 - New email notification when error render nodes are removed from a jobs pipeline.
 - Added filter field for impersonation dropdown list in CUI.
 - C4D template: Added "Use GPU" checkbox.
 - Fixed job render sorting issue.
 - Studio account frames-per-slice setting. (Overrides global setting)
 - Make sure CUI output folder exists before download starts.
 - FileCatalyst transport:
 - Java RTE (private) now bundled with CUI installer. (no longer need external installation)
- GPU Rendering interface:
 - Global setting to allow single GPU (per slice) rendering. Defaults to using all GPU cards per host.
 - New GPU logging class for debugging.
 - Added Blender "CYCLES" option to "--gpuRenderer" command line option.
 - Auto-remove removed GPU cards from node configuration
 - Auto-recover running GPU slices on server restart.
 - Fixed bug that left GPU "usage" status in wrong state if GPU host was rebooted unexpectedly.
 - Do not distribute GPU slice to nodes that are "locked".
 - Allow disabling of GPUs while rendering is in progress.
 - Streamlined GPU distribution algorithm. CPU/GPU jobs now work on same priority framework.
- Web Server interface:
 - None.
- Render Farm Interface:
 - **New:** Application profile manager. (globally add/remove app profiles from selected studio accounts)
 - **New:** Meta Render Log manager. Setup job slices to return meta render logs (redshift, maxwell, v-ray, etc...)
 - Fixed tile rendering issue that occurred if start/end frame was not specified in command line.
 - Fixed Blender Python stream issue with latest 2.78 releases.
 - OpenSSL version added node log.
 - Added "Open Master Log" to bottom of CPU nodes window.
 - Fixed main GUI crash that occurred when selecting WOL option in Pool manager.
 - Added "GPU Model" column to CPU nodes window in main GUI.
 - C4D template: Added "Use GPU" checkbox to main C4D template.
 - Real-time OnCondition string checking on render slaves.
 - Fixed C4D issue with Windows' path syntax.
 - New "Reboot/Shutdown after jobslice complete" menu option in CPU nodes window.
 - Added watchdog process to client and slave nodes.
 - Fixed intermittent slave crash that occurred when render jobs exceeded 24 hrs.
 - Added menu option to "Local Jobs" window to clear job node exclusion list.
 - Added menu option to "Slice Queue" window to clear node min-memory limitation.
 - Updated Pool Manager to use SQL database.
 - Fixed intermittent FFMPEG bug that didn't produce video for cloud jobs.
- Bridge Interface:
 - None.

Cloud 3.59/2.66P2136 (Oct 02, 2016):

- Bridge Interface:

- None.
- Cloud Interface:
 - Place holder screen on login screen fields.
 - **New** FileCatalyst transport support:
 - Alternate option to native TCP transport.
 - Automatic fallback to native TCP if FileCatalyst transport isn't successful
 - Automatic client detection and performance test.
 - Fixed sub-pool issue with RESERVED leases.
 - Fixed misleading renderpool/renderqueue message in CCL command line tool.
- GPU Rendering interface:
 - None.
- Web Server interface:
 - None.
- Render Farm Interface:
 - New Squidnet watch dog process to monitor server operations.
 - Fixed wmic pooling issues when retrieving specific system parameters.
 - Main GUI:
 - Allow password reset for multiple-user selections.

Cloud 3.56/2.66P2136 (Sep 04, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - fixed incorrect transfer time (was always set to 0 before) in event list.
 - Added option to open larger event list window.
 - Maxwell template:
 - Fixed cooperative render merge issue .
 - Added "-seed:xxx" command line option.
 - Added feature to ignore render nodes that return jobslice errors.
- GPU Rendering interface:
 - Support and detection of OpenCL GPU cards (Nvidia and AMD).
 - Fixed GPU suspend/resume bugs.
 - Support for AMD Radeon GPU ProRender
- Web Server interface:
 - None.
- Render Farm Interface:
 - Resolved intermittent server crash that was occurred when issue "Suspend Now" command on jobs with high slice count.
 - Fixed 3dsmax logging UFT-16 bytecode issue.
 - Now CUI correctly reflects slice status when restarted from local GUI.
 - New master advanced setting:
 - Maximum job slice log size (1MB thru 20MB)

Cloud 3.53/2.66P2136 (July 27, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - New CUI Dashboard:
 - Job activity window.
 - Job status notifications.
 - Automatic image preview display.
 - Global frames-per-slice now is max value allowed. If user-entered value is less than specified, global setting will take precedence.
 - Fixed bug that crashed CUI when job submit or save buttons were pressed multiple times.
 - Added icons to job CUI pushbuttons.
 - Added cloud disk space usage progress bars to job queue window.
 - Added last preview images to job queue window.
 - Maxwell Template:
 - Updated proxy image functionality.
 - New cooperative render functionality.
- GPU Rendering interface:
 - Added architecture type (CUDA, OpenGL) to GPU node window.
 - Redshift support in 3dsmax and Maya CUI template.
- Web Server interface:
 - None.
- Render Farm Interface:
 - Job slice distribution: Don't attempt to send slices to nodes that haven't responded in the last 15 seconds.
 - Script Manager:

- Job render-node script execution and specific node script execution.
- Assignment of script manager profiles to client jobs (studio account settings).

Cloud 3.51/2.66P2136 (June 29, 2016):

- Bridge Interface:
 - Added Bridge Configuration option in cloud configuration window.
- Cloud Interface:
 - Removed render credit discount pricing features. No longer needed.
 - Fixed error #47 issue when using CUI to submit job on behalf of user.
 - Added "Min RAM KBS" needed column to Frames tab.
 - Automatically split large frame-list ranges (ex: 1-25000) into separate job slices.
 - CUI no longer allows submissions of jobs that have installed plugins. (enable in preferences).
 - Added "Clear Render Order" option to Render Order Dialog. (Also available in main GUI queue window)
 - CUI: Don't display pool or render queue dropdown lists if there's only a single entry in the lease.
 - Fixed bug that prevented low-ppi render nodes from being picked up if lease contained specific render nodes (sub-pool list).
 - Fixed issue that wouldn't display "no more render credits available" message.
 - Fixed bug that wasn't counting SUSPENDED and RESUMED jobs towards max render node setting in user leases.
- Web Server interface:
 - None.
- Render Farm Interface:
 - New Script Manager:
 - User-defined scripts for jobs, deployments, maintenance and application templates.
 - Job and template scripts can be executed pre/post jobs and pre/post job-slices.
 - Maintenance scripts can be executed manually or scheduled.
 - Capture and emailing of execution log.
 - Fixed bug that prevented GPU render-credits-per hour value from being properly saved.
 - Added "Render Credits" field in studio job queue window.
 - Fixed bug that incorrectly calculated render farm usage for week and month (in cloud job queue window)
 - Re-prioritized master server threads to prioritize uploads and downloads over other operational threads.
 - Added "Ignore Application Profile" list to render node status note dialog.
 - Added Lease option to watermark user images but store un-watermarked images.
 - Decreased max compression/decompression threads to 3. (Limits excessive use of system RAM)
 - Fixed bug that would cause low-lever counter operations (when using internal container library).
 - Fixed server hang bug that occurred when cloud user lost connect while multiple connections were active.
 - SQN Command line:
 - Added "FTP Dir" option to "--studioAccountShow" option.
 - Pool Manager: Added "Find node filter" lookup filter.
 - Render Farm GUI:
 - Added "Pool" dropdown list.

Cloud 3.50/2.66P2136 (May 2, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Removed "not enough cores" notification emails.
 - Added option to studio accounts to ignore admin job completion reports for cancelled jobs.
 - If submitting CUI job to local output folder, don't download images. Instead, copy to output folders.
 - Removed all job completion details associated with render costs.
 - Allow multiple CUI OpenSSL "bad" connection messages before closing connection to server.
 - Increased master max CPU usage watchdog alert to 95%.
 - Added option to auto-requeue slices if render node memory usage exceeds 95% of total available RAM.
 - Fixed bug that incorrectly marked a cloud job as "local". (bug occurred during master server startup).
 - Re-introduced fix for \$SQN(WIP_OUTPUT_DIR) bug.
 - Serialized archive, output copy and FTP downloading threads. No more parallel operations.
 - Added studio account flags to ignore admin alert notifications and cancellation emails.
 - New farm status options:
 - Farm too busy message.
 - Farm busy warning (give users the option of submitting)
 - Free-form text for offline explanation
 - CCL command line:

- Added "--batchId" option
 - When selecting "ftpDownload" delivery method, create job ids under batch id directory.
- Web Server interface:
 - None.
- Render Farm Interface:
 - Fixed bug that was not correctly detecting different IP address change for DHCP render nodes.
 - Improved render farm usage performance statistics. Added progress bars to cloud job queue window.
 - Redesigned cloud job queue window in main GUI.
 - Cloud "recent" history tab:
 - New option to display job render report (double-click on job entry)
 - Pool manager: New option to global add/remove pools from studio leases.
 - Added "batchId" to job database search windows.
 - New render farm usage progress bars: Current, today, week and month.
 - New "Comment" column in "Render Farm CPU Nodes" window.
 - Master configuration:
 - New config item that attempts to re-sync job status on SQN master startup. Default is to clear all slices on all nodes.
 - Fixed incorrect showing of active render nodes in cloud render queue. (Occurred with nodes were "suspended now"_)

Cloud 3.47/2.66P2136 (Mar 30, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Added Output Image Filename field to Arnold template.
 - Increased OpenSSL timeout to 30 sec. (from previous default of 10)
 - Added text placeholders to CUI template fields.
 - If global jobs-per-slice is set to 1, also force selection in render frame list.
 - New Render Order option in CUI job queue. Allows users to select render order of their jobs in the queue.
 - Fixed C4D bug that had -oimage and -multi-pass fields switched.
 - Disabled I/O Caching for tile rendering jobs.
 - Per-studio-account option to disable applying render queue credit multipliers.
 - Added CUI option to allow users from same studio to share job profiles.
 - Maxwell template:
 - Fixed frame-list bug.
 - Clear jobslice output folder of any progressive images before rendering begins.
 - Reverted maxwell.exe process back to standard priority.
 - Prompt user before suspending jobs.
 - Redesigned archiving framework:
 - Images now stored uncompressed
 - Alternative archive network folder location.
- Web Server interface:
 - None.
- Render Farm Interface:
 - Identify local jobs as "LOCAL" in local job queue.
 - Ensure that SQN clients can't use the cloud interface features if there's a version mismatch.
 - Main GUI: Added studio text filter field in report window.
 - Fixed CUI password reset option.
 - Fixed intermittent server crash when CUI jobs were left in suspended state.
 - Added "Open FTP Folder" menu option to cloud job queue.

Cloud 3.46/2.66P2136 (Mar 16, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - New "Password Reset" option in login window.
 - Use OpenSSL non-blocking sockets to improve performance. Also, better handling of troublesome internet connections.
 - For upload/syncing, unpack files to local disk then copy for network storage location.
 - Fixed syncing bug: File not being properly removed from server sync folder.
 - Fixed "\$SQN(WIP_OUTPUT_DIR)" issue with job slices.
 - Moved default transfer channels and data streams to studio accounts.
 - Optimized OpenSSL connections to minimize memory footprint.
 - Automatically mark cancelled jobs as successfully completed if jobslices completed the total number of job slices.

- New cloud job queue option enabling/disabling the downloading of user jobslices/images.
- Fixed issue with job stitch node not archiving completed images.
- Fixed global frames-per-slice setting.
- Allow SQN client nodes access to cloud management interface.
- Web Server interface:
 - None.
- Render Farm Interface:
 - Don't accept jobs when server is using more than 2.5GB of RAM. Prevents excessive page faults.
 - Added filter field to cloud archive window list.
 - Added notes dialog to Pool Manager Pool.
 - Added option to export cloud job images to users' FTP account folder.
 - Added option to export archived images to users' FTP account folder or to a local disk directory.
 - New main UI cloud cancellation checkbox to "Mark Job As Successfully Completed"
 - Prevent over-stressing master CPU with heavy compression/decompression jobs by adding 15 second delay between attempts.

Cloud 3.41/2.66P2136 (Feb: 28, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Fixed CUI "hang" problem.
 - New I/O Local Disk caching:
 - Copy project content to render node for reading/writing to local hard drive.
- Web Server interface:
 - None.
- Render Farm Interface:
 - None

Cloud 3.40/2.66P2136 (Feb: 17, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Added popup window option to job queue menu.
 - Removed all references to render credit charges.
 - Added CPU cores and usage stats to CUI frames tab.
 - Fixed Blender (Mac OS) plugin installation issue.
- Web Server interface:
 - None.
- Render Farm Interface:
 - Allow connected (not logged in) connections to be forcibly closed.
 - Fixed excessive CPU usage on slave nodes.
 - New sqn command line commands for disk/network I/O performance benchmarking:
 - sqn --ioDiskWriteTest
 - sqn --ioDiskReadTest

Cloud 3.29/2.66P2136 (Jan: 16, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Remove connection key. No longer used. Instead, use render service URL, studio account, user name and password.
 - Added studio email to all admin email notifications.
 - Changed maximum cached project retention time from 3 days to 180 days.
 - Fixed render report search bug that was incorrectly returning results when "Last 3 weeks" option was selected.
 - Removed "Archive Images" from CUI. Archive setting now determined by studio account setting.
 - Added option to force user to change password when the default admin password is detected.
 - Fixed bug that created empty "slice" folders in output directory.
 - Fixed intermittent bug that would download the same jobslice multiple times.
 - Include preview image in job completion reports (user reports only).
 - Added render credits used/total values to render credit expiration email.
 - Added "Logged out" activity event to main GUI.
 - Added "Send email" menu option for jobs in cloud render queue.
 - Added CUI options to sync and update synced projects on the server.
 - Remove CUI render credit purchase buttons. No longer needed.
 - Main GUI: Prompt users before doing full search on job report database.
 - Batch email submission from cloud job queue window.
 - New customer email templates for the following events:

- New registrations.
 - Welcome to, ...
 - Initial login.
 - Lease render credits expired.
 - Purged studio accounts.
 - CCL command line:
 - Added "--reSubmit" option that resubmits any completed job that still has the sync folder present on the storage server.
 - Added "--search" option that returns results from render report database
 - Fixed bug with "--sync" option which wasn't working correctly.
 - CUI:
 - Added log message window.
- Web Server interface:
 - Added OpenSSL PFX to PEM certificate conversion utility (Accessible from render farm configuration window).
- Render Farm Interface:
 - None

Cloud 3.27/2.66P2136 (Jan: 5, 2016):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Fixed incorrect display of decompression percentage values.
 - Fixed "render queue error" job state. Master will auto-restart job after a 60 sec delay.
 - Added CCI/SQN execution commands to render report.
 - Added "Lease expiration timeout" to determine how long to wait for slices to complete before being cancelled.
 - CUI:
 - Added CCI/SQN execution commands render report.
 - Fixed CCL sync operation issue that made CCL uploads incompatible with CUI/PLUGIN project syncs.
 - CCL command line:
 - Added options to perform batch processing operations.
 - Added options to compress files and folders. Use SQN compression algorithm...
- Web Server interface:
 - None.
- Render Farm:
 - Added "--studioAccountShow" option to sqn command line tool.
 - Fixed server crash that occurred with doing converting large number of render reports to HTML formatted files.
 - Fixed master server crash issue with "Force connection" render nodes.
 - Performance:
 - For upload/download operations, don't compress already compressed file formats. Defaults to "exr,gz,jpg,jpeg,tif,rar,zip".
 - For upload/download operations, don't include specific file formats in transfer.
 - Fixed intermittent file corruption when packing large files (500MB+)
 - Main GUI:
 - Added "Status Note" to "Render Farm CPU Nodes" list. Used to add node notes for software, hardware issues, etc...
 - Added render farm statistics to the bottom of GUI (status bar).
 - Pool Manager:
 - Added list that shows pool's offline nodes.
 - Video generation from image sequence:
 - Fixed bug that wouldn't create video file if image sequence didn't begin with frames 0-4

2.66P2136 Patch (Date: Dec 23, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Removed idle timeouts functionality. No longer needed.
 - Plugin manager:
 - Fixed installer for MacOS C4D installations. Now installing to C4D preferences folder.
 - Added "Reinstall" option.
 - CCL interface:
 - Added "--unPack" "--unPackDir" options. Used to "unzip" SQN compressed files.
- Web Server interface:
 - None.

- Render Farm:
 - Fixed issue with sync project folders remaining in "PATCH" state.
 - Fixed Mac OS issue with downloaded images getting stuck in uncompressed state (Windows/Mac OS path conversion).
 - Performance improvements:
 - Added hash table for studio account lookups.
 - Changed studio account status update interval from 5 secs to one minute.
 - Pool Manager:
 - Added "Assigned Leases" section that shows assigned leases.

2.66P2135 Patch (Date: July 26, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Fixed server crash issue when uploaded project folder had files with no extension.
 - Changed maximum tile size to 1000 (combination of rows and columns).
 - Fixed projecting bug the increased sync reference count even though job was in a completed state.
 - Added "Min jobslice size" setting to cloud configuration. If jobslice falls below this size, the slice will be place in an error state.
 - Removed redundant email notification settings.(replaced by daily render reports)
 - Admin Alerts:
 - New "Job Completion Report" alert
 - New "Daily Render Report" alert
 - Maya template:
 - Added Maxwell, turtle and lightmap renderer options
 - 3dmax template:
 - Support for Maxwell renderer via backend pre-render script setting..
 - Report Generation:
 - Multi-threaded report generation.
 - Fixed timeout issue when doing long queries.
 - Tile Rendering:
 - New tile render viewer to see real-time display of image.
 - Based on number pool nodes, SQN will auto-determine the number of rows/cols for TR jobs ($rows/col = \text{square_root}(num_nodes)$)
 - No longer need to submit resolution that divides evenly between row/cols.
 - Support for any image resolution (ex: 1923x1087). The last row/col picks up the extra pixels.
 - 3dsmax Template: CUI support for up to 500 rows (or select "Auto" button to let master determine row/cols)
 - The 3dmax plugin now just needs a single "Tile Render" checkbox (you'll need to set the CCL "--tileAuto pool" option)
- Web server interface:
 - Added "LeasePurchaseOption" option to RENDER_ACCOUNT_CREATE JSON request. Values are 0 : Default CUI button, 1 : Hide button, 2 : Open Browser to user website.
 - Added "CONNECTION_KEY_EMAIL" JSON request to send connection license to specified users.
- Render Farm:
 - Fixed OpenSSL "error 241" issue. Caused by missing ssl_library_init() call.
 - Cloud history queue:
 - Limit in-memory list to the last 500 jobs.
 - Job history is no longer persistent between server restarts.
 - Admin Alerts: Added number of render credits to lease creation alert.
 - Fixed possible issue with sync folder corruption while queued for creating signature file.
 - New "Use Session 1 Id" setting for Windows-based rendering. Defaults to FALSE. Change in "Master Advanced Settings" dialog,
 - Main GUI:
 - Added "Expand/Collapse" button to pool manager.
 - Maya template:
 - Maxwell, turtle and lightmap renderer options
 - Tile Rendering:
 - Improved stitching performance.
 - Remove dependency that tile rows/cols device evenly into frame resolution.
 - Added "tileAuto" option to command line tools.
 - New sqn " --tileStitch" command. Use it to stitch together tile rendered images: Ex: `sqn --tileStitch --outputDir E:\TEMP\3dsmax\ --tileRows 16 --tileCols 32 --inputDir E:\TEMP\ae\ tiled`

2.66P2135 Patch (Date: July 6, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:

- New tile rendering options for 3dmax template.
- 3dsmax template: Fix to allow for spaces for "-workPath" option.
- New progressive window popup that shows progressive image rendering.
- Use HTML formatted email when sending connection license from CUI account manager.
- Web server interface:
 - Fixed job submission issue where job scene file was specified as "none"
 - Fixed JSON issue that prevented the creation of additional leases.
 - Added "UserIdleTimeout" field option to lease create/update request.
 - Fixed account login issue when account was created in CUI Account Manager.
 - Before user login, check farm status, studio account status, user account status and lease status.
 - Don't allow downloading of all job images until jobslice processing has completed.
- Render Farm:
 - Added "pool starting" state for jobs that have rendering nodes starting up.
 - Fixed server crash issue when submitting local render jobs while cloud jobs were active..
 - Fixed issue where Admin Alerts were continuously being sent for expired leases and jobs that error'd out.
 - Main GUI: Added "CPU Usage" column to Farm Work Queue window.
 - Tile Rendering: Support for 50x50 render grid. (Up to 2500 job slices per job)

2.66P2135 Patch (Date: June 28, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Reformatted connection key email. Converted to HTML. Text entered in window now appears in email message.
 - Added "slice errors before stop" and "slice timeout multiplier" render settings to all render jobs. Set defaults from Render Farm Configuration window
 - Administrator Notification Alert emails for specified events. Setup in Render Farm Configuration window.
- Web server interface:
 - Updated JSON/JSCRIPT examples for render farm admin via PHP scripts.
- Render Farm:
 - Added "no pool available" state for jobs that don't have active rendering pools.
 - Fixed bug that incorrectly set download size to '0' in cloud job reports.
 - Added "Job Complete" event to cloud activity log.

2.66P2135 Patch (Date: June 14, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - New image preview window that display images in a desktop window as soon as they're downloaded. Select from system tray icon.
 - Valid server license before allowing login.
 - XSI Template: When creating jobs, don't allow search for scene files in local backup folder.
- Web server interface:
 - New upload project folder option in Sync page.
 - Added reference scene file drop list to job submission forms.
 - New "Activity Logging" page.
 - New "Recent Job History" page.
- Render Farm:
 - Fixed SQN server crash that randomly occurred when batch submitting cloud jobs.
 - LW jobs: Fix to replace "RadiosityCacheFilePath" path with correct server path.
 - Fixed server file caching issue that randomly corrupted sync'd projects.
 - Added exception type and message filter to main GUI exception window.
 - Issue WOL packets to offline nodes immediately after job is queued. Previous settings only sent WOL packets when job input queue was empty.

2.66P2135 Patch (Date: June 7, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Support for spaces in project, scene file and output image paths.
- Web server interface:
 - Added job and slice state filters.
 - Fixed SSL-related issue that would randomly corrupt HTTP server (caused random crashes)
 - Reformatted HTML pages.
 - New Sync projects page.
- Render Farm:

- Prevent Windows ERROR 3 slice return codes from erroring out the entire job.
- Main GUI:
 - Cloud "Recent" menu: Change column from "Priority" to "Render Queue"

2.66P2135 Patch (Date: May 31, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Fixed CUI hang issue that occurred when CUI was connected to server from a workstation that hadn't been used before. Occurred during initial upload.
 - Fixed CUI crash issue with auto-updating version from redirected domain URLs.
 - Update SSL channels to use stronger SHA-256 hashing (was SHA-1).
 - Improved performance between render completion and download start times.
 - Fixed bug that prevented sync operation from starting if a reference job was in an error state.
- Web server interface:
 - Support for the following job templates:
 - 3dsmax
 - Maya
 - Blender
 - Modo
 - Features:
 - Project upload: Upload your project in zip format.
 - Image Preview: Show preview image before downloading of images.
 - Project syncing (coming soon...)
 - Project object uploading (coming soon ...)
- Render Farm:
 - Fixed server crash issue when submitting email requests with invalid SMTP server domains.
 - Changed Windows service timeout default from 30 secs to 60 secs.
 - Placed WOL message logic in separate thread to speed up job submission performance.
 - Main GUI:
 - When using power management functions, use all farm nodes in operation (instead of filtered nodes in window view).
 - Fixed "Render Nodes" status incorrect text in Render Farm View.

2.66P2135 Patch (Date: May 17, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Fixed display issue with "no valid license found" text not being properly displayed when no license were active.
 - Fixed bug that prevented admin users from logging in after connection key registration was completed. Only occurred if server was restarted immediately after key registration was completed.
 - Added feature to copy/move job profiles between project folders.
- Web server interface:
 - Added logic to allow updating of studio accounts and leases.
 - Added support for up to 10 concurrent project uploads.
- Render Farm:
 - Added "SQN_CLOUD_JOB_SLICE_OUTPUT_PATH" environment variable to all cloud job renders.
 - Added "No Distribution" job state. This state is set when the maximum job slice value is set to -1.
 - Fixed Windows issue which limits the maximum number of open files to 512. SQN Server would periodically crash if job log files couldn't be opened for writing.
 - Power management:
 - Added 100ms delay between WOL packets
 - GUI renderfarm shutdown command now only shuts down slave nodes (clients are no longer shutdown)

2.66P2135 (Date: Apr 26 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - Fixed CUI crash bug when connecting to server that wasn't online.
 - Fixed intermittent issue that created duplicate jobs in server render queue.
 - Fixed small memory leak when uploading new jobs to server.
 - Fixed issue with CUI hanging when restarting slices in error state.
- Web server interface:
 - Added render farm admin support for jsript/json requests from jsript code or from sqn command line tool. Includes support for:

- Studio account creation, retrieval and removal.
 - Studio lease creation, retrieval and removal.
 - Job queue retrieval for all jobs or for specific jobs.
- Render Farm:
 - Performance improvements:
 - Redesigned batch job interface.
 - Batch job performance improvements. Now capable of adding 2 jobs per second to the job queue from command line batch submissions.
 - Fixes problem with SQN licenses being disabled when job queue had more than 512 active queued jobs.
 - Improved job cancellation when queue contains thousands of jobs.
 - New job queue hashing algorithm for faster direct job access.
 - Maxwell template: Added "OS X Username" field to submission form.
 - Tile Rendering:
 - Added Ultra-HD image resolution selector.
 - Fixed issue that locked job for long periods of time when too many job slices were present.
 - SQN command line interface: Added "SQN_STATUS_TOO_MANY_JOB_SLICES_QUEUED" error code.
 - Added separate processing thread in main GUI for job restart tasks. Avoids hanging the GUI when doing restarts on large jobs.
 - sqn command line tools:
 - Modified "--maxJobslices" to allow setting of value to -1 to indicate that the master is not to distribute any job slices.

2.66P2135 (Date: Apr 7 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - All job profiles will now be stored on render farm server. Profiles will automatically be uploaded to render farm on first login.
 - Fixed issue with self-signed SSL certificate using the same serial number.
 - Non-commercial render farms no longer need leases. Default studio account is "renderfarm" and default lease is "renderfarm lease".
 - Fixed issue with pending slice downloads being marked as incomplete when CUI was restarted.
 - 3DSMAX Template: Set verbose logging default to "v:4"
 - Removed default SQN background and splashscreen images.
 - Added pushbutton to job submit form to auto-generate job id.
 - Modified CUI start links to always as for elevated privileges. Fixes issues with application update and image download permissions.
 - New option to leave completed jobs queued for a specific number of hours. Also, added "--removalMethod" and "--removalHrs" CCL (command line) options.
- Web server interface:
 - Added "etag" URI caching for improved browser performance.
- Render Farm:
 - 3DSMAX: Disable gamma correction for tile renders.
 - Lightwave: Set correct path for render elements.
 - Added "Reset Lease Credits" button to lease edit window.
 - Windows: Improved CPU usage detection.
 - Main GUI:
 - Added name filter to studio window.
 - Added name filter to lease window.
 - Place jobslice requeue logic in separate thread to increase performance.
 - Fixed bug that added multiple pools to cloud jobs if the lease was updated while the job was queued.
 - Linux:
 - Support for bonded network interfaces.
 - Added render node and SQN version to application log.
 - Updated FFMPEG binary.
 - Mac OS:
 - Updated FFMPEG binary.
 - Maxwell template: Allow start/end frames to be 0 (ie; no frame animation rendering)
 - Main GUI job forms: Disable priority slider for cloud jobs.
 - Set minimum job slice render credit usage time to 60 secs.

2.66P2134 (Date: Mar 22 2015):

- Bridge Interface:
 - None.
- Cloud Interface:

- Fixed CUI crash when expert mode was disabled.
- Prevent project folder sync operation from starting if synced project is being referenced on the server. Prevents possible sync folder corruption.
- Mac OS: change output folder permissions to chmod(r+w).
- New "Download Error" state for job slices that couldn't download successfully. Requires manual download from Frame tab in CUI.
- Automatically append version number to video files that are open (locked) during download operations.
- Allow the requeueing of job slices in a completed or downloaded state.
- Web server interface:
 - Use render service brand logo in login page and in page headers.
 - Job queue:
 - Added cloud priority queue column.
 - Added open job slices button.
 - Added cancel job button.
 - Page item to view job slice applications log
 - Page item to requeue job slice.
 - JSON (web management):
 - New interfaces for GET and POST commands.
 - "Renderfarm" account will always be responsible for submitting server management operations.
- Render Farm:
 - Added additional job input queue to better support batch jobs from command line interface.
 - Made archive default for studio accounts to 3 days.
 - 3DSMAX template: removed mandatory settings for output folder and image prefix. Defaults to scene settings.
 - Added "Select Columns" menu item to job slice window.
 - Added new "Change Render Queue" menu item to cloud render queue in main GUI. The changing cloud job priority from the "local" job queue will no longer be allowed.
 - Mac OS: Fixed bug that prevented the correct IP address from being used in non-DNS network configurations.
 - Added "render-ready" state to farm nodes to indicate that they've successfully connected to master and are in a state to accept job slices.
 - Lightwave template: Set correct output element paths for cloud jobs.

2.66P2133 (Date: Mar 12, 2015):

- Bridge Interface:
 - None.
- Cloud Interface:
 - New "Expert" mode. Installation default is basic CUI settings.
 - Fixed bug that prevented CUI auto-update version from started when Windows UAC was enabled.
 - Fixed bug that would allow the downloading of images from the same job on different instances of the cloud UI. (This would happen if the user switched CUI workstations).
 - Fixed email image preview bug.
 - Video options:
 - Added "Video Quality" slider.
 - Added "Video output format" list.
 - Set random job id for new jobs.
 - Lightwave template:
 - Removed project content field. For CUI, it should always point to the project folder.
 - Maya template:
 - Added image output format dropdown list.
 - For V-Ray renderer, disable filename format field.
- Web server interface:
 - Added new HTTP/HTTPS web server to master. Future Web services will be available thru <https://<master-node>:17389/login.html> URI.
- Render Farm:
 - Added "Render node filter" to Render Farm view on main GUI.
 - Don't remove sync profiles if NAS network drive cannot be detected.
 - Fixed incorrect platform indicator "?????" in render account window.
 - Create default cloud studio account "Renderfarm" and lease for non-commercial render farms.
 - Master now ignores broadcast messages from farm nodes that have multiple network interfaces.
 - 3DSMAX template: Fixed "camera name with spaces" issue.
 - FFmpeg
 - Fixed issue with FFmpeg encoder not accepting multiple "." characters in video filename.
 - Modified FFmpeg template to support multiple video generation formats (mov, mp4, mkv, etc...)
 - Added "Additional options" field to FFmpeg template.

2.66P2132 (Date: Mar 1, 2015):

- Bridge Interface:
 - None
- Cloud Interface:
 - Maya template: Prevent selection of image format for Arnold renderer (not supported by Arnold).
 - Fixed bug that wouldn't allow rendered frames to be requeued in frames tab.
 - Added "Video Only" download option for jobs that create videos from image sequences.
 - Added "Manual Download" option.
 - Fixed memory leak in frame progress tab.
 - Notify user that video generation requires at least 30 frames.
- Web server interface:
 - None
- Render Farm:
 - Better CPU type detection for Linux and Mac OS nodes.
 - Auto-requeue jobslices that return WINDOWS Error 32 exit codes.
 - Added "Show all users" checkbox to cloud active user's window.
 - FFMPEG:
 - Updated to the latest FFMPEG version.
 - Fixed issue with generated video files not playing in WMP and QuickTime.

2.66P2131 (Date: Feb 23, 2015):

- Bridge Interface:
 - None
- Cloud Interface:
 - Fixed CCL bug that prevented jobs from queuing when job caching was disabled.
 - Job submit option to leave job in server job queue.
 - Lease constraints:
 - Watermarking of output images.
 - Resolution reduction of output images.
- Web server interface:
 - Added "-jsonScript" option to sqn command line tool.
- Render Farm:
 - Make sure that previous sync'd folders are completely removed before a new one is created. Fixes an issues with .
 - Don't allow resuming of jobs that are not suspended.
 - Don't send WOL packets to PEER nodes.
 - Blender UNC path support.
 - Moved slice compress functions to separate to improve slice distribution performance.
 - Fixed "open folder" issues for all platforms.

2.66P2131 (Date: Feb 22, 2015):

- Bridge Interface:
 - None
- Cloud Interface:
 - Added "--exportRenderServiceIcon" option to CCL command line utility.
 - Lightwave Template: Added "--contentFolder" field to submit form.
 - Added Notes text box to job profiles.
 - Removed "Sync only scene file" option from submit form. (redundant feature).
 - Fixed timing issue where sync profile was removed by server if CUI was delayed in delivering "sync done" message.
 - Improved performance for jobs with large slice counts (500+).
 - Added "Allow to manage other jobs" setting to account manager.
 - Added user job count to system tray tooltip.
 - Improved performance for project folder synchronizations on server. Server now pre-calculates signature/delta files.
- Web server interface:
 - None.
- Render Farm:
 - Fixed "Account Filter" field in cloud queue window.
 - Added "Job and user filter" field to cloud queue window.
 - Added "SQN_CLOUD_JOB_OUTPUT_PATH, SQN_CLOUD_JOB_PREFIX, SQN_CLOUD_JOB_PROJECT_PATH, SQN_CLOUD_STUDIO_PREFIX and SQN_CLOUD_USER_PREFIX" environment variables to render nodes.

2.66P2130 (Date: Feb 8, 2015):

- Bridge Interface:

- None
- Cloud Interface:
 - When adding new jobs, allow job queue submissions while project folders are being synced.
 - Fixed issue where videos generated from job sequences were not being automatically downloaded when job completed.
- Web server interface:
 - None.
- Render Farm:
 - For cloud jobs, send WOL messages to nodes AFTER job is uploaded --- not when it's queued. (no need to power-up render nodes until job is actually ready to render)
 - Limit the number of WOL'd nodes to maximum number of job slices. For example, if job only has one frame to render, no sense starting up 50 nodes.
 - Update job queue position every second as opposed to when jobslices complete rendering.

2.66P2130 (Date: Feb 1, 2015):

- Bridge Interface:
 - None
- Cloud Interface:
 - Fixed issue that would remove all data transfers if CUI was connected to multiple render farm services.
 - Frame downloads now occur in the background. No longer need to be logged into CUI for frame downloads.
 - job queue status: Added transfer stats while job is uploading or images are downloaded.
 - Fixed an issue where jobs would remain in "syncing" state if the same project was sync'd at the same time.
 - Parallel syncing: Allow multiple projects to be synced at the same time.
- Web server interface:
 - None.
- Render Farm:
 - Updated PPI algorithm that doesn't hang CPU while calculation is running.
 - Automatically remove dead or user-cancelled sync profiles from cloud storage device.
 - Limit the maximum number of queued slices to 20,000.
 - New PPI generation algorithm that doesn't cause local node to become unresponsive during test execution.

2.66P2129 (Date: Jan 25, 2015):

- New features:
 - None
- Cloud interface:
 - Redesigned OpenSSL transport layer:
 - Increased OpenSSL transfer buffer size to 5MB to increase point-to-point performance.
 - Fixed OpenSSL issue where it was possible for some image transfers to stall in a "Downloading" state.
 - Detected and fixed a condition where it was possible for an SSL download to be stuck in an "error" state and occupying 1 of the 12 available SSL channels.
 - Add connection retry logic for slow internet connections.
 - Added logic to clean up dead cloud UI transfer connections.
 - CCL command line:
 - Added "--envList" option
 - Added "----dependentJobList" option.
 - Fixed interface crash issue when multiple leases were presented to user and none were selected when pressing "select" button.
 - Added "user render path prefix" to ccl --configShow command.
 - Replaced Windows O/S uninstall application name "SquidNet Network Manager" with the proper "SquidNet Cloud Interface".
 - Added reference count to sync profiles to prevent them from being removed while used by active jobs.
- Render Farm:
 - Main GUI:
 - Fixed issue in Render Queue selection window that incorrectly displayed render queue names in combo box.
 - AE Template: Allow the un-checking of the "Use All Cores" checkbox to allow for multiple AE instances running on a single slave.
 - Fixed main GUI issue where cloud service URL would be stored as "http://0" if http:// prefixed connection URL.
 - Cloud window performance enhancements for main GUI.

- Auto-recalculate PPI/RPI if hardware configuration changes.
- sqn command line:
 - Added "--renderQueue" option to cloud lease creation command.
 - Added "--renderQueueShow" command option.
- Linux:
 - Improved detection of hyper-threaded CPUs.
- OS X:
 - Look for up to 20 enX network interface. Previous limit was 5

2.66P2128 (Date: Jan 4, 2015):

- New features:
 - None
- Cloud interface:
 - New archive feature: Store job images on cloud server that users can manually download.
 - New cloud command line interface (CCL) for job submission from command line shells, scripts, etc... Supports the following job templates: Maya, Modo, Lightwave, Blender, 3dsmax, C4d, V-Ray, Vue, XSI and AfterEffects.
 - New system tray icon for CUI interface.
 - Only download image data from the same node that job was submitted from.
 - Fixed issue with server removing cloud jobs when server was restarted.
 - Increased download thread count to 10. Provides better performance when job queue has 50+ entries.
 - Fixed OSX issue with web browser not opening to render farm website when double-clicking on GUI icons.
 - Changed CUI icon on OS X installations.
 - OS X widget cosmetic fixes.
 - Updated Render Account Manager: Added option to send email notification to newly created user.
- Render Farm:
 - OpenSSL 1.0.1 rev J update.
 - For cloud render jobs, auto-resume jobs in admin-suspend state when render credits are made available.
 - Fixed CUI application panning issues when selecting pushbuttons and dropdown lists.
 - Fixed missing quotes issue with Maya template output filename field (when filename contained spaces).
 - Main GUI: Fixed issues with editable dropdown lists not being able to retain values between job submissions and saves.
 - Modo for Linux: Remove modo-created "/opt/squidnet/root/.luxology/.modo_cl*rc" files before submitting render job to modo. (Known modo issue)

2.66P2127 (Date: Dec 21, 2014):

- New features:
 - None
- Cloud interface:
 - Maya template: Disable output format if Arnold or V-Ray renderers are selected. The output format option is not supported by either renderer.
 - Fixed issue that wouldn't display proper jobslice state after being requeued.
 - Fixed random issue that would incorrectly calculate render credits used.
 - Fixed issue that caused new jobs to get stuck in "Preparing" state. This happened when the server was restarted and the CUI was not restarted.
 - Render farm server logo, background image and splash screen are now configured on the master main GUI (select "Branding" pushbutton in render farm configuration).
- Render Farm:
 - Added "--gammaCorrection:0" option the 3dsmax tile rendering stitch command.
 - Added missing Blender plug-in to OSX and Linux installers.
 - Modified Windows installer to support auto-restart node when in console/GPU mode.
 - Verify that current cloud version is included in CUI download links.
 - Added "Platform" column to render account list on main GUI.
 - Added "Show connection key" menu item to studio account context menu.
 - Added "Purchase Lease Button" option to studio account list. Options are default (open purchase lease window, hide and go to render farm service website).
 - Fixed small memory leak that occurred when jobslices were requeued.
 - Added "Logged in users", "Num Users", and "Render Credits Used" columns to studio window on main GUI.
 - New sqn command line options:
 - --studioAccountCreate
 - --studioConnectionKey
 - --leaseCreate
 - --studioAccountShow
 - --leaseDelete

- --studioAccountUpdate
- --leaseUpdate

2.66P2126 (Date: Dec 14, 2014):

- New features:
 - None
- Cloud interface:
 - Fixed "\$SQN(WIP_SLICE_DIR)" rendering issue with V-Ray GPU jobs.
 - Fixed "\$SQN(WIP_SLICE_DIR)" rendering issue with C4D jobs.
 - Added "OSX Username" field to AE template. Used by Mac OS based render farm.
 - Added CPU/GPU led indicator to job queue.
 - Fixed ON-DEMAND lease calculation issues.
 - Added email field to lease request window.
 - Fixed OSX cosmetic issues.
 - Verify correct CUI version before auto-downloading from server.
 - Double-clicking on logo opens browser to render farm service website. (make sure to set in render farm configuration settings)
- Render Farm:
 - Only allow a single instance of the server to run at any point in time.
 - Mac OS:
 - Detect "LOCAL.HOST" and rescan for correct local hostname.
 - Fixed modo scene parsing error.
 - Added CPU/GPU led indicator to cloud job queue
 - Fixed run-way thread (100% CPU usage) issue with node logging window in main GUI.
 - Added "Generic" template to application path manager.
 - Added "Platform" column to main GUI cloud queue window.
 - Added "Render Farm Website" field to Render Farm Configuration window on main GUI.
 - Linux:
 - Fixed issue that prevented the SQN server from terminating all Maya/Arnold processes.
 - Fixed main GUI issue with not being able to set client mode when node was Linux based.
 - Tile Rendering:
 - Fixed tile rendering issues with Blender 2.72.

2.66P2125 (Date: Dec 7, 2014):

- New features:
 - None
- Cloud interface:
 - Fixed issue with lease totals not correctly calculated.
 - Added "Suspend Now" menu item to CUI.
 - Fixed bug that would display empty splash screen on startup.
 - Added "Use GPU" flag to Blender job template.
- Render Farm:
 - Added "Project Cache" and "Idle Timeout" columns to studio window on main GUI cloud queue window.
 - Added small 500ms delay to limit job additions when doing hundreds of batched job submissions.
 - Fixed issue that wasn't updating cloud priorities when changed by administrator from main GUI.
 - Prevent user from opening output folder on non-cloud jobs. Use cloud job queue to open output folder.
 - Added "Use GPU" flag to Blender job template.
 - Added "envList" sqn command line option.
 - Support for Linux-based cloud server.
 - Support for macos-based cloud server.
 - Limit history and activity queue sizes to 50MB.
 - Added V-Ray format (*.vrimg) to 3dsmax template.
 - In main GUI, change node states in a background thread for improved performance.