

Changelog 8.0

8.5.44 - 2009-11-26

3Delight For Maya

- Updated the shader nodes AE popup menu; "Hide Shader Attributes" entry fixed and the menu is easier to access.
- Added "Hide attributes over x shader parameters" in the preferences.
- Added "Edit" menu in the relationship editor's object pane; this menu allows to highlight in the objects pane currently selected objects, and to select currently highlighted objects.
- Flipped the surfacev maya fur primitive variable so it fits with what is output for regular geometry.

3Delight

- Fixed a crash bug that was triggered when using class-based atmosphere shaders and "standardatmosphere" was set to 0.

8.5.43 - 2009-11-17

3Delight For Maya

- Added a "Hide Shader Attributes" operation in the relationship editor contextual menu for shader nodes. Turning this on for shaders that have a lot of parameters makes the AE refresh much faster. It also hides these attributes in all other editors.
- Added a contextual menu in the shader AE. It currently offers "Hide Shader Attributes" and "Reload Shader".
- Fixed issue with frame layouts when clicking "Copy Tab" in a shader node AE.
- Fixed issue with particle systems variable output where the default behaviour of outputting some default variables was sometimes ignored.
- Added "particleId" to the list of particle system variables.
- Added "Per Particle Color As Surface Color" attribute, which renames the "vertex color rgbPP" primitive variable to "vertex color Cs".

8.5.42 - 2009-11-10

3Delight

- Optimized occlusion() and indirectdiffuse() on densely tessellated geometry. Scenes with such geometries will render up to two times faster. This includes all RiBlobby geometry.

3Delight For Maya

- Added several primitive variables available for output when rendering Maya Fur.
- Added a "Maya Fur" attribute group in the geometry section of the geometry attributes node. This attributes are meant to be attached to FurFeedback nodes and provide control on which primitive variable will be produced when rendering Maya Fur.
- Small fixes to keep the shader manager working with the new shader node types.
- Fixed bug with "Replace Shader With File..." operation in the relationship editor.
- Fixed bug when "Export UVs" option is turned on in Shave Globals (and when 3dfmShave plugin isn't loaded).

8.5.41 - 2009-11-05

3Delight

- Introducing multi-camera rendering.
- Improved deep shadow map creation time and reduced the amount of temporary disk space used.
- Fixed problems with coshader classes and built-in variables.
- Fixed cleanup of per thread and global data in RslPlugin.

3Delight For Maya

- 3Delight shader nodes now have distinct node types and outliner icons.
- The relationship editor now has separate "Show Atmosphere Shaders" and "Show Interior Shaders".
- Fixed some issues in the relationship editor with custom shader nodes. IMPORTANT: custom volume shader nodes should be updated to work properly in the relationship editor; their "shaderType" string attribute is expected to contain either "atmosphere" or "interior". Look at DL_shaderNode.mel's DSN_init(string \$node) procedure for a suggestion on how to update old nodes.
- Fixed support for Shave globals's "Export Normals" toggle when rendering without the "3dfmShave" plugin.

8.5.40 - 2009-10-29

3Delight

- The network cache is now available on windows. Automatic detection of network files isn't supported yet so the paths to cache must be specified with Option "netcache" "includepaths".
- Fixed bad area of points when bake3d() is inside a conditional.

8.5.39 - 2009-10-28

3Delight

- Added Option "netcache" "includepaths" and Option "netcache" "excludepaths" which will force some files to be always or never cached, ignoring if they are on the network or local.
- getshaders() now always returns co-shaders in the order that they were specified in the RIB.

8.5.38 - 2009-10-26

3Delight

- Fixed crash when trying to output matrices to a display.
- Fixed missing displacement in ray tracer when using a class with displacement method.
- Fixed a crash in netcache's output caching mode introduced in 8.5.37.

8.5.37 - 2009-10-23

3Delight

- Fixed occasional infinite values in brick map lookups.

8.5.36 - 2009-10-20

3Delight

- Added "[searchpath.shader](#)", "[searchpath.texture](#)", etc to option() shadeop and RxOption() function.
- Added support for DspyRegisterDriverTable in ndspy.h.
- Fixed a very rare crash in the ray tracer.

3Delight For Maya

- Added support for Maya 2010.

8.5.35 - 2009-10-16

3Delight

- Improved filtering in tdlmake.
- Fixed crashing on OS X introduced in 8.5.34.
- Statistics now include information on memory use.

8.5.34 - 2009-10-14

3Delight

- Improved memory use and performance of subsurface precomputation.
- Procedural geometry expansion is now multithreaded. If a procedural which is not thread-safe needs to be used with 3Delight, this can be disabled with Attribute "procedural" "integer reentrant" 0
- Improved performance of pointcloud API. This affects mostly ptcview and ptcmerge.

3Delight For Maya

- Avoid irrelevant locking of the RIB archive node's bbox attributes.
- Added "Bbox Scale" attribute in RIB archive node.
- Added "Ignore Rib File Bbox" attribute in RIB archive node.
- Added mi_metallic_paint shader.
- Added mi_bump_flakes shader.
- Basic support for Maya Level of Detail groups added - now taking the "LOD Visibility" attribute into account when rendering.
- Added "camera space normal" AOV.
- Fixed issue when attempting to manually edit a display's "output variable" text field.

8.5.33 - 2009-10-06

3Delight

- Users can now extend implicit surface primitives using a plug-in architecture.

8.5.32 - 2009-10-02

3Delight

- Message passing now works with static and re-sizable arrays.
- Fixed a recently introduced bug with LOD.
- Fixed the "primitive" hitmode so it correctly fetches primitive variables at ray intersections.

3Delight For Maya

- Added support for mib_glossy_refraction shader.
- Fixed the framing of shadow maps for spot lights with a negative penumbra angle.
- Fixed object pane display when bringing up the relationship editor, which sometimes could ignore currently selected "Show" options
- Added support for "DL_userGetAllDisplayAOVs" and "DL_userGetAllDisplayAOVDeclarations" to allow customization of the predefined AOVs option menu.
- Fixed issue when rendering a scene with shave nodes while "3dfm_shave" plugin is not loaded.
- Added support for <output_variable> token in render pass display filenames.

8.5.31 - 2009-09-24

3Delight

- Fixed a bug with RslArrayItr in a RslPlugin when used inside a varying condition.
- Fixed crash when getshader(), getshaders(), getlight() or getlights() were called inside a construct() method.
- Fixed getlights() when called with a "category" parameter: it was resizing the array even if no light sources were found.
- Fixed a crash when using gather() to collect uniform output variables of a shader.
- Fixed compilation error "FATAL ERROR: expression not treated by inlining".
- Fixed shaderinfo for parameters of type 'shader'.
- Added RxGetRixContext().

3Delight For Maya

- Introducing RIB Fragments. This feature speeds up the processing required before the actual image rendering begins when rendering a frame more than once or when rendering a frame sequence. See section 3.7.3 "RIB Fragments" in the documentation for details.
- Added mib_glossy_reflection material.
- Major improvements to the relationship editor's responsiveness. The editor is fastest when no name filter and when "Show" menu options are all on. "3 panes, collection as passes" mode can still be slow at times.
- Added a "Duplicate Display" item in the displays popup menu (available when right-clicking above a specific display).

8.5.30 - 2009-09-16

3Delight For Maya

- Introducing car paint shader (mi_car_capaint_phen).
- Introducing mib_illum_lambert and mib_illum_phong shaders.
- Fixed incorrect bounding box when outputting a RIB archive without transforms.
- Added "Composite Objects Behind" attribute in the geo attribs node, visibility section. It corresponds to 'RiAttribute "hider" "composite"'.
- DL_userPreGeoMel is now expected to also take a string \$attribs_nodes[] parameter. The older syntax will still work but produce a harmless error message.
- Added support for DL_userLightPreRenderMel and DL_userLightPostRenderMel, DL_userPostGeoMel, DL_userPreRenderMel and DL_userPostRenderMel, DL_userPreFrameMel and DL_userPostFrameMel, DL_userPostOptionMel, DL_userPreWorldMel. All these user scripts are executed *before* their delight node attribute counterparts.

8.5.29 - 2009-09-10

3Delight

- Fixed NDC, screen and raster space access for secondary cameras, this was introduced in 8.5.26 but was not working properly.

3Delight For Maya

- Added a new mean of rendering Shave hair nodes. Refer to doc section 4.3.6 "Shave and a Haircut Tips" for details.
- Fixed issue with view button on Linux 64.

8.5.28 - 2009-09-03

3Delight

- Fixed a crash with some motion blurred NuCurves.

8.5.27 - 2009-09-01

3Delight

- Fixed getlight().
- Fixed PtcSafeOpenPointCloudFile().

3Delight For Maya

- Shader previews are now prevented from overwriting bake files.

8.5.26 - 2009-08-28

3Delight

- Documented access to 3Delight's deep buffer, in section 9.2.3 of the user's manual.
- NDC, screen and raster space are now accessible for each RiCamera. Refer to table 6.3 in user's manual.

3Delight For Maya

- Fixed issue with Background render mode introduced in 8.5.24
- Fixed popup menu that would not appear when right-clicking on a display's output variable text field in some versions of Maya 2009.

8.5.25 - 2009-08-25

3Delight

- Fixed a crash with photon maps on windows.
- Fixed a crash with multiple subsurface() calls in the same shader (for ptc-based subsurface lookups).
- Added "limits:gridsize" to the options which can be queried by option() and RxOption().
- Fixed ptc2brick's '-maxerror' option.

3Delight For Maya

- “Primary Display” and “Secondary Displays” of the Render Pass node have been redesigned into a single “Display” section. Please refer to the documentation for all details.
- Users can now define their custom display driver list by defining “DL_userGetAllDisplayDrivers()”.

8.5.24 - 2009-08-10

3Delight

- Added the ability for particles and other types of sprites to have a thickness in deep shadow maps by outputting a “float __thickness” variable from their shader.
- Fixed rendering of interior and atmosphere shaders in deep shadow maps so they appear to occupy a volume instead of a surface.
- Fixed RiHider making everything visible to photons for hidere other than “photon”.

8.5.23 - 2009-08-04

3Delight

- Fixed a crash with very large deep shadow maps.
- Fixed a crash in tdlmake with TIFF files having more than 4 channels.

3Delight For Maya

- Render stats attributes should now be ignored for the few node types that don't allow the user to edit them.
- Added support for outputting vertex primitive variables on NURBS with 'delightVertex...' attributes.

8.5.22 - 2009-07-28

3Delight

- Added RifGetTokenName() API to retrieve the name of a token from an inline declaration. This is a complement of RifGetDeclaration().

3Delight For Maya

- Worked around a crash with shave 5.1.

8.5.21 - 2009-07-26

3Delight

- Invalid gzipped RIB no longer aborts 3Delight/Maya/Softimage.
- The idisplay driver now behaves better on machines with a poor network setup (for name resolution).
- Fixed a crash with a RslPlugin when a string variable is used as both input and output.
- Fixed artifacts with cube shadow maps when heavy blur is used.
- Fixed Ri filtering of RiReadArchiveV.
- Fixed the space of the “environmentdir” output of occlusion()/indirectdiffus() in point based mode. It is now in “current” space as with the raytraced version.

3Delight For Maya

- The camera's focus region scale attribute is now considered when computing depth of field.
- Added “Select” option in some panes of the 3Delight Relationship Editor.
- The render pass “Layer to Render” attribute now defaults to “<current>”. **IMPORTANT:** The command line rendering will no longer render all renderable layers when the “-rp” flag is used to specify a render pass and when that pass’ “Layer to Render” attribute is not set to “<current>”.

8.5.20 - 2009-07-21

3Delight

- Implemented a point-based subsurface() call. This enables the reuse of the pre-computation values across many frames.
- renderl's -progress option now correctly overrides any progress option set in the RIB.
- Added support for C99's _Pragma operator to shaderl's preprocessor.
- The license server can now be installed as a system service on windows. See the installation guide for more information.
- Extended the Ptc API: PtcSafeOpenPointCloudFile(...) is now supported and PtcGetPointCloudInfo(...) supports a number of new queries.

3Delight For Maya

- Added annotations to allow some customization of RenderMan shaders user interface in the attribute editor.
- Fixed issue with empty texture filenames in the Hypershade.
- Fixed issue with shadow map rendering when some light's shadow map contains no objects at all.
- Fixed possible crash with particle system.
- Fixed issue where RenderMan shader node attributes would not be visible in other editors than the Attribute Editor.
- Fixed issue where RenderMan shader node attributes lacked the regular AE popup menu and color coding when keyed, locked, etc.

8.5.19 - 2009-07-01

3Delight For Maya

- Fixed a crash with swatch preview of RenderMan shaders in Maya 8.0 and 8.5.
- Fixed issue with color slider gadgets in RenderMan shader nodes introduced in 8.5.18.
- Reverted default gadget for float params of shader nodes to a float field.

8.5.18 - 2009-06-30

3Delight

- Fixed a performance and memory use problem with objects very close to the camera when depth of field is used.

3Delight For Maya

- Fixed a crash when creating a new RenderMan shader node right after previewing another one in the AE (since 8.5.15).
- Fixed possible issue regarding motion blur / fur placement differences between frames for quads. **IMPORTANT:** The exact root position of rendered fur curves may not be exactly the same compared to earlier versions.

8.5.17 - 2009-06-23

3Delight

- Improved filtering of cube shadow maps to avoid missing shadows near the edges.

8.5.16 - 2009-06-19

3Delight

- The gather() construct now supports a varying number of samples.

3Delight For Maya

- Added the rampShader's environment ramp to the reflection and env_reflection AOVs.
- Fixed some issues for supporting old delight nodes.
- 3Delight messages are now redirected to the script editor on OS X.

8.5.15 - 2009-06-16

3Delight

- Fixed cppdl include search behavior. The first directory searched is now the directory of the file being read instead of the current directory.
- Fixed crashes when ray tracing with very high recursion levels.
- Added a DELIGHT_VERSION predefined macro to shaderdl.
- Fixed the extensions used when searching for DynamicLoad procedurals.
- The global context used by all RenderMan API functions is now thread specific. This fixes some rare race conditions with procedurals and should allow better integration into a multithreaded application.

3Delight For Maya

- Luminance Depth aov is now taking opacity into account.
- Fixed support for "Receive Shadows" render stat.
- Relative paths specified in a light attrbs node's shadow map filename are now assumed to be relative to what is specified in the current project's "_3Delight_Shadow_Maps" entry.

8.5.14 - 2009-06-11

3Delight

- Fixed out of range values (eg. negative when input is positive) produced by some PixelFilter settings.
- Fixed particles (RiPoints) not showing up in the image when display subsets are used.
- Fixed a crash with signed textures.
- Fixed an infinite loop in ribdepends.
- Fixed fresnel()'s transmission vector when N.I > 0. This may change shaders which were arguably broken.

3Delight For Maya

- Added support for the vertex class in the output of custom primitive variables on shapes from maya attributes. The attribute name should now contain the class and type of the desired variable (eg. "delightVertexPointSomething" to output "vertex point Something"). This supports vertex /uniform/constant and point/vector/normal/color/float. The previous method without class/type in the name is still supported for uniform /constant color/float as well as constant string.
- Fixed issue with parented place3dTexture nodes; their placement matrix would appear static.
- Fixed issue with delight node assignments on nodes with multiple namespaces.

8.5.13 - 2009-06-04

3Delight

- Fixed a crash with invalid or unreadable textures.
- "licutils serverlicenses" now displays the expiration date of licenses.

8.5.12 - 2009-06-02

3Delight

- Improved performance of ribdepends.

3Delight For Maya

- The Geometry Attributes Node's "Particle Size Override" attribute now overrides any particle system attribute we fetch to output the "width" or "constant width" primitive variable.
- The Geometry Attributes Node's "Particle Size Space" attribute is now always output when it exists.

8.5.11 - 2009-05-29

3Delight

- Added ObjectBeginV to Ri filters.
- Improved memory use when rendering some large RiCurves primitives.

3Delight For Maya

- Fixed errors in translating hypershade networks with some weird connections.
- Fixed some attributes which were not properly copied when creating instances of an object.

8.5.10 - 2009-05-27

3Delight

- Fixed a memory leak with motion blurred cubic curves.
- Fixed length limit when using RiArchiveRecord with a "%s" format on Windows.
- Fixed possible crash when tracing a large number of samples on some systems.

3Delight For Maya

- Custom shader node types can now be registered so they can be assigned like regular delightShader nodes. Read the comment at the start of DL_shaderNode.mel for more information.
- Fixed an issue with the delight node assignment that could happen in some cases when several maya objects were selected for the assignment operation.
- Fixed issue that could prevent the relationship editor's first pane popup menu from being available while in "Collections as Passes" mode.
- Fixed incorrect assignment highlighting in the relationship editor when more than one collection is selected.
- Implemented the "Shadow Attenuation" attribute for shaders which support it.
- Fixed opacity of shaders with refractions enabled when computing shadows.

8.5.9 - 2009-05-21

3Delight

- Fixed rendering of curves with negative width.
- The OpenEXR libraries to use may now be specified with the DL_OPENEXR_LIBRARIES environment variable, in case several versions are installed or they are not in the default location. This should take the full name of the library to load (eg. libIlmImf.so.6.0.0 or /usr/local/lib/libIlmImf.so).

3Delight For Maya

- Modified the Shaders / Attribs panel "Show" menu in the relationship editor. It now offers "Volume Shaders as Atmosphere" and "Volume Shaders as Interior" options. Enabling only one of these two options controls if the relationship editor assign / unassign select volume shaders as atmosphere or interior. When both options are enabled, the relationship editor will ask for the assignment type.
- Fixed object filtering in the relationship editor while in 3-panes, "collections as passes" mode.
- Fixed a few refresh problems after operations via the shaders / attribs contextual menu in the relationship editor.
- Hypershade-translated shaders are now compiled with the source code embedded.
- Tags in network cache directory attribute are now properly expanded.
- Fixed issue with render pass template save operation.

8.5.8 - 2009-05-20

3Delight

- Fixed a crash when writing a point cloud file was impossible.
- Improved error reporting for point cloud files.
- Default radius baked to point cloud files is now based on dicing area instead of shading area.

3Delight For Maya

- Mia_material now properly reacts to "emit sepcular" toggle in light sources.

8.5.7 - 2009-05-19

3Delight

- Fixed RiElselF.
- Fixed some subdivision surfaces causing crashes on 64-bit windows.

3Delight for Maya

- Fixed issue with collection light shaders. They appeared properly assigned but the assignment was ignored for rendering.

8.5.6 - 2009-05-18

3Delight

- NuCurves now support vertex class normals.

3Delight for Maya

- Fixed light attribs MEL script evaluation so they can use the \$attribs_node variable.

8.5.5 - 2009-05-15

3Delight

- The special shader parameters to specify displacement bound now work on surface shaders and classes as well as displacement shader.
- Implemented the "category" parameter of getshaders().
- Added -nooutputs to ribdepends for separate control of Display path processing.
- Ri filters can now be specified without the extension (eg. "filter" instead of "filter.so" or "filter.dll").
- ".dso" is no longer accepted as an extension for RSL plugins. Plugins must have the appropriate extension for their system (".so" on linux, ".dylib" on OS X, ".dll" on windows).
- Fixed a bug which could cause bad orientation of normals when invalid transforms were present (but unused).
- Fixed an occasional crash when using an unprocessed TIFF as a texture.

8.5.4 - 2009-05-13

3Delight

- Added support for vertex width to the NuCurves primitive.
- Fixed a rare and random crash in the ray tracer.

3Delight for Maya

- Added the RiProcedural binding which supports RiProcDelayedReadArchive, RiProcDynamicLoad and RiProcRunProgram. The RiDelayedReadArchive and RiDynamicLoad bindings are thus deprecated and will warn about it (simply replace by RiProcedural).
- The RenderMan shader node swatches are now auto-refreshing.
- Shader preview preferences are now also accessible through a right-click popup menu on the preview swatch.
- Fixed issue with absolute paths in Project settings. They are now expanded properly.
- It is now possible to create a render pass node from a template directly in the 3delight relationship editor.
- Added a popup menu in the "Collections as passes" pane to manage render pass to collection assignments. It also allows collection creation.
- PreGeo MEL and PostGeo MEL scripts are now executed with the "string \$render_pass" variable defined.

8.5.3 - 2009-05-11

3Delight

- Fixed occasional crashes when writing to point cloud files.
- Face edits on hierarchical subdivision meshes can now alter visibility.

8.5.2 - 2009-05-09

3Delight for Maya

- Added RenderMan shader preview swatches. Currently the swatch will be refreshed once the user clicks on it.
- New Shader Preview preferences allows some customization of the shader previews both in i-display and in the swatches.

8.5.1 - 2009-05-08

3Delight

- Improved performance of raytraced displacement.
- Added options -gamma, -rgbagamma and -colorspace to tdlmake.

8.0.60 - 2009-05-04

3Delight

- Fixed a crash when tracing rays with bad direction vectors.
- Added support for environment variables of the form \${VARNAME} in output file names.

8.0.59 - 2009-05-04

3Delight

- Fixed licserver not working on some configurations of Windows Vista.

3Delight for Maya

- Improved performance when exporting scenes with a large number of instances.
- Fixed a possible issue with RenderMan shader string parameters default values.
- Fixed previously ignored "Shadow Mask" attribute of the "Use Background" hypershade node.

8.0.58 - 2009-04-24

3Delight

- Fixed ptcview crash when opening a point cloud with no data besides P, N and area.
- Fixed a crash when trying to raytrace, no object is visible to rays and statistics are enabled.
- Fixed a bug in the new raytracer space partition which caused some scenes to render far too slowly (easily 5-10 times too slow).

3Delight for Maya

- Improved performance of shader/attribute assignment to a very large selection.
- Fixed output of string array shader parameter values.

8.0.56 - 2009-04-21

3Delight

- Improved bake3d with "interpolate" set to 1.
- Improved licensing behavior when a client only gets some of the licenses it needs. This used to cause some licenses to be held up for about 5 seconds after the client finished.

3Delight for Maya

- Fixed ignored assignments when rendering objects in a namespace.

8.0.54 - 2009-04-16

3Delight

- Improved the license server's behavior under heavy load or with slow (eg. swapping) clients.

8.0.53 - 2009-04-15

3Delight for Maya

- Fixed plugin which did not load in maya 2009 on 64-bit linux.
- Further improvements in the performance of scene translation to 3Delight, which reduces the overall time spent for rendering in Maya.

8.0.52 - 2009-04-14

3Delight

- New, more efficient space partitioning algorithm is now the default for the ray tracer. It will start up faster, render faster most of the time (much faster with displacement) and use less memory. If you find otherwise, let us know. The old algorithm can still be enabled with this key in rendermn.ini: `option/trace/partitiontype space`

3Delight for Maya

- Improved the performance of scene translation to 3Delight, which reduces the overall time spent for rendering in Maya.

8.0.51 - 2009-04-09

3Delight

- Fixed compilation of shaders which initialize arrays with a single scalar value. This was broken in 8.0.50.

3Delight for Maya

- Fixed an error message when opening/importing a scene caused the plugin to be loaded.

8.0.50 - 2009-04-07

3Delight

- Switched to a newer compiler on windows for a faster 3Delight. **32-bit windows packages now require a processor with SSE2 support.** This means a Pentium 4/Athlon 64 or more recent. If you need packages for older CPUs or systems, please contact us.

8.0.49 - 2009-04-03

3Delight for Maya

- Fixed shadowmap fov for spotlights with a penumbra.
- Fixed render sets when they contain instances of groups.

8.0.48 - 2009-03-25

3Delight

- Improved behavior of shadowmaps with a scale in their camera transform.
- Fixed behavior of a rare case of shadowmap lookup.
- Fixed built-in variables (P, s, t, etc) which would not show up in displays if the surface shaders are not using them.
- Fixed motion blur of patch type RiPoints.

3Delight for Maya

- 3D texture nodes now use texture reference objects if the appropriate geo attrib is set to export the reference geometry.

8.0.47 - 2009-03-19

3Delight

- Added "newer" parameter to RiMakeTexture().
- Changed handling of the arrays in Ptc API. This makes arrays incompatible with 8.0.46. The API now accepts and returns types of the form "color[4]" where necessary. Point clouds without arrays are unaffected.
- Fixed a crash with some polygons having uniform string parameters attached.
- Added the Dspy... helper functions to ndspy.h and 3Delight.

8.0.46 - 2009-03-17

3Delight

- Fixed licutils and the license server of the 64-bit OS X package.
- Fixed ptcview -info which only showed the last channel of the file.
- Fixed handling of arrays in bake3d() and texture3d() shadeops.

8.0.45 - 2009-03-16

3Delight

- New OS X universal package which includes ppc, i386 and x86_64 architectures. Houdini users will need this as Houdini is 64-bit only on OS X. You can also grab it if you want to run 64-bit for whatever reason (it's about 10% faster). Note that if you render directly from Maya you will **not** be using 64-bit code as Maya is 32-bit and will thus load the 32-bit plug-in. Use the background render mode to work around this.
- Fixed motion blur of subdivs when there is deformation which extends beyond the shutter range but the transformations there are not well defined.

8.0.44 - 2009-03-12

3Delight for Maya

- Fixed possible issue for sprite particles with a height of 0.
- The <camera> tag is now replaced with a modified render camera name that contains only characters legal in file names.

8.0.43 - 2009-03-10

3Delight

- Linux packages are now built with a more recent compiler. This provides significant speed gains for most renders and also means we link with a more recent C++ library on 32-bit linux (libstdc++.so.6 instead of libstdc++.so.5). **The 32-bit linux packages now require a CPU with SSE2.** This means a Pentium 4/Athlon 64 or more recent. If you need packages for older CPUs or systems, please contact us.

3Delight for Maya

- Worked around a bug in maya which caused occasional crashes when renaming parameters of a rendermanCode node.
- Translated hypershade nodes now use the reflectionLimit attribute.
- Fixed bad mixing with reflected color when oversampling reflections.
- Fixed issue in the 3Delight Relationship Editor with scenes that contain objects with identical names that come from different scene references.

8.0.42 - 2009-03-04

3Delight

- Added support for writing point cloud files in multi-process mode.
- Fixed compilation of shaders with very large comments.

8.0.41 - 2009-02-26

3Delight

- Fixed the direction of generated photons with envlight2.
- Fixed a bug in indirectdiffuse(string, vector). This will affect the output for most envmaps.

3Delight for Maya

- Fixed issue with color attribute values when reloading a shader node.

8.0.40 - 2009-02-23

3Delight

- The master process in a network render will now timeout after 10 minutes if some jobs have not yet started properly. This can be configured with the /3delight/networkrender/jobtimeout entry in rendermn.ini.
- Improved behavior of network rendering when some jobs die.
- Fixed Attribute "dice" "referencecamera".

3Delight for Maya

- Added a "dicing camera" attribute in the geometry attributes node (in the "Culling and Dicing" section).
- Environment variable lookups for variables which don't exist are no longer removed from strings. They are instead output untouched so 3Delight can resolve them later.
- Fixed attribute/shader assignment to instances. They would sometimes end up stuck with the same attributes.
- Introducing the "3Delight Relationship Editor". The "Shader Manager" and the "Attribs Node Manager" are now considered deprecated.

8.0.39 - 2009-02-17

3Delight

- texture3d() now returns 0 when the file exists but some of the requested channels are missing.
- The dirmap option is now applied to point cloud files created with bake3d().

3Delight for Maya

- Fixed issue with the "Reload Shader" feature which was not preserving the float and float arrays attribute values.

8.0.38 - 2009-02-13

3Delight for Maya

- Fixed hypershade translation on Windows which was broken in 8.0.37.
- RenderMan shaders are now output with the shortest possible file path with respect to the render pass' shader search path.
- Environment variables can now be used to override any of the 3Delight for Maya project paths.

8.0.37 - 2009-02-10

3Delight for Maya

- Added support for lookup of environment variables using the \${VAR} form.
- Fixed bug where some inherited geo attribs nodes that affect how the geometry is output could be ignored.
- Old .sdl files are no longer left behind for hypershade networks which fail to compile.

8.0.36 - 2009-02-05

3Delight for Maya

- Fixed file path expressions for string attributes of rendermanCode nodes. This also applies to connected attributes.
- Added "Depth Filter" and "Volume Interpretation" in the Shadow Maps section fo the render pass. These attributes only affect shadow maps rendered in that render pass' primary or secondary displays.

8.0.35 - 2009-02-03

3Delight for Maya

- Added a "Output Render Progress" checkbox in the statistics section of the render pass, which outputs to stdout the rendered % of the display being rendered.
- Added a "-prog" flag to the command line interface (via the Maya Render utility) to control the new "Output Render Progress" render pass attribute.
- Added "sourceshapename" and "sourcefullshapename" tags for hypershade .h files. They behave like "sourcename" but give the shape name and full dag path to shape respectively.
- Fixed broken "3Delight Geometry Modifiers" menu (and on Maya 2009, Attributes menu as well).
- Added support for <camera> tag in string attributes; it gets expanded to the name of the camera shape used for rendering.

8.0.34 - 2009-01-30

3Delight

- The dirmap option is now applied to the current working directory and the RIB file names when doing a network render.
- Fixed a crash with particles using width in "raster" space.
- Fixed hang in windows to linux network render.
- Added the ability to set shader instance parameters using a new category of attributes: Attribute "shaderparam" ... This is carried on the attribute stack like any other attribute. It is applied to surface, displacement and standard atmosphere shaders.
- renderdl now behaves better on linux when trying to restore the current directory in a network render when there are symbolic links in the path.
- The RIB parser can now lookup user attributes and options inside strings, such as "sometext\${user:my_attribute}othertext".

3Delight for Maya

- Fixed issue where in some cases the Attributes menu of the AE would display only the “3Delight Geometry Modifiers” menu item on Maya 2009.
- Fixed rendering of Shave and a Haircut nodes in Maya 8.0
- Fixed i-display’s reload and crop commands when using Background Render mode.

8.0.33 - 2009-01-22

3Delight

- Fixed ray type which was incorrect after a gather statement.
- Fixed the envlight2 shader which was not producing shadows in reflections.

3Delight for Maya

- Fixed possible crash with particle system rendering.
- Fixed handling of default values for color and string array shader parameters

8.0.32 - 2009-01-18

3Delight for Maya

- Fixed “round edges” feature on “poly as subdiv” meshes so it defaults to off instead of on when maya smooth mesh preview is used.
- Fixed fur rendering with Maya 2008 for 64-bit linux (would complain about GLIBCXX_3.4.9).

8.0.31 - 2009-01-16

3Delight

- Fixed a bug which could cause wrong shadows when using transmission() in area lights.

3Delight for Maya

- Fixed a UI error in the CSG node when two groups contain the same object (transform and shape).

8.0.30 - 2009-01-15

3Delight

- Rif filters are now propagated to all hosts in multiprocess rendering.
- Using a standard atmosphere shader no longer prevents the surface shader AOVs from working.

3Delight for Maya

- Now calling DL_userPreGeoMel (if it is defined) right after the geo attribs node’s pre geo MEL script.

8.0.29 - 2009-01-14

3Delight

- Fixed a potential crash when using the envlight2 shader with a map with an alpha channel.
- Fixed some cases of deformation motion blur with object instances.
- Fixed some lights not being evaluated correctly at intersections when using indirectdiffuse() shadeop.

3Delight for Maya

- It is now possible to include 3DFM’s own .h files from a rendermanCode node safely by using the #include <somefile.h> form.
- Fixed-size array parameters of RenderMan shaders are now displayed in the Attribute Editor.

8.0.28 - 2009-01-10

3Delight

- Fixed a deadlock in subsurface() in some cases involving multiple groups.

3Delight for Maya

- Worked around a memory leak in the Maya 2008 and 2009 C++ API. This would be most visible when exporting several frames of a complex scene to RIB.
- Now looking for light shapes in all descendants of members of the “lights to render” set, just like we do for “objects to render” set.
- Undid the following change made in 8.0.23 as the Maya file browser deletes existing files when it is opened in “write” mode: “File browser for RenderMan shader node’s string attributes can now specify files that do not exist yet.”

8.0.27 - 2009-01-08

3Delight

- Added -preview8 option to tdlmake to generate 8-bit previews.
- Fixed particles which have both transformation and deformation motion blur.
- Fixed a crash in network render when using a custom display driver which does not implement all queries.

- Fixed shaderinfo to always include the current directory in its search path, even if it overridden by DL_SHADERS_PATH or rendermn.ini's /defaultsearchpath/shader to not include it.

8.0.26 - 2009-01-06

3Delight

- Fixed a crash with displays which don't open correctly in multi-process mode.

3Delight for Maya

- Added plug-ins for Shave and a Haircut for Maya 2009.

8.0.25 - 2008-12-30

3Delight

- Fixed a crash when huge numbers of particles start at the same location in the scene.
- -hosts option to renderdl is not rejected on Win32 platforms anymore.

3Delight for Maya

- Added mel binding for RiBound, RiDetail, RiDetailRange, RiOrientation and RiShadingInterpolation.

8.0.24 - 2008-12-22

3Delight

- Added special subsurface group "*" which can be used to flag procedural geometry which may contain several subsurface groups.

8.0.23 - 2008-12-20

3Delight

- Fixed some glitches with point based occlusion() and indirectdiffuse(), especially when used with a narrow cone angle.
- Fixed behavior of solar() in ray tracing when no cone is specified.
- Moved 64-bit linux build to gcc 4.0.4.
- Fixed handling of /display/dso/ option in multiprocess mode.
- Added extra checks to make slave processes stop if they loose the connection with the master in multiprocess mode.
- Fixed point based occlusion()'s "environmentcolor" output so it doesn't include color bleeding.
- indirectdiffuse() now supports the "environmentcolor" parameter just like occlusion(). It will retrieve only the contribution from the environment map.

3Delight for Maya

- File browser for RenderMan shader node's string attributes can now specify files that do not exist yet.

8.0.22 - 2008-12-15

3Delight

- Fixed return value of renderdl when using multiprocess rendering with rsh.

8.0.21 - 2008-12-11

3Delight for Maya

- Fixed issues regarding RIB archive node bbox values and sensitivity when reading the bounds from the RIB archive file fails.
- Renamed the geo attribs node's "Photon Mapping" attribute group to "Global Illumination". It can now also contain irradiance attributes.

8.0.20 - 2008-12-10

3Delight

- Fixed motion blur when there is a segment which begins precisely on shutter close or ends precisely on shutter open.
- Optimized memory use of RiProcRunProgram procedural.

3Delight for Maya

- Fixed issues about stray 3dfm output files when the project contains no entries about 3dfm.

8.0.19 - 2008-12-09

3Delight

- Fixed "falloff" and "falloffmode" parameters of occlusion() and indirectdiffuse() shadeops.

3Delight for Maya

- Empty UV sets are now output more efficiently.

- Added option to translate shaders with all AOVs defined even for non-RIB archiving render passes.

8.0.18 - 2008-12-06

3Delight

- Changed tdlmake's handling of TGA file alpha channel.
- Changed illuminance("category", P) to include ambient lights like illuminance(P).
- Fixed missing subsurface patches with some geometry.

3Delight for Maya

- Improved checker node. Now has correct antialiasing and filter effects.
- Fixed 3dfm_shave plugin on OS X.
- Vastly accelerated the way we read the bounds in RIB archive files. This will also support RiBound statements in the archive files.
- Fixed issue when trying to change assignments to transform (group) nodes.

8.0.17 - 2008-11-29

3Delight

- Added Attribute "hider" "int composite" which, when set to 0, makes an object render as if there was nothing behind it. This gives direct control over the opacity of the image without any other objects showing through.
- renderdl now accepts -t to mean the same as -p.

3Delight for Maya

- Added support for useBackground hypershade node.
- Added an empty illuminance loop to run shaders in the 'bakelight' category at the end of translated hypershade networks. This can be used as a hook to do all sorts of stuff.

8.0.16 - 2008-11-27

3Delight

- Fixed some shadeops which did not recognize the "shader" and "object" coordinate systems.

3Delight for Maya

- Fixed crash when trying to render Maya fur using a uvSet not defined for every face of the mesh.

8.0.15 - 2008-11-26

3Delight for Maya

- Fixed generation of shaders from multiple shading groups when some groups don't have the required shader. This is most common with displacement shaders when using several surface shaders on the same mesh.

8.0.14 - 2008-11-24

3Delight

- Fixed a rare memory-allocation problem on win32 systems which caused crashes.

8.0.13 - 2008-11-22

3Delight

- Fixed a bug which caused message passing in some shaders fail with points, vectors and normals.
- Fixed a rare race condition which could cause subsurface() to return black on some of the first few grids being shaded.
- Improved accuracy of subdivision surfaces with semi-sharp creases and corners.
- Improved multi-thread performance of some scenes.

3Delight for Maya

- Fix Shave and a Haircut libraries lookup on OSX. This makes 3dfmShave work for Shave 5.0v47 and up, but will break compatibility with older versions of Shave.

8.0.12 - 2008-11-18

3Delight

- Ray-tracing curve primitives is now more memory efficient. Speed improvements up to 50% can be achieved on very large chunks of curves.

3Delight for Maya

- Fixed an issue where instancers in shadow objects set were not rendered in a shadow map.

8.0.11 - 2008-11-14

3Delight

- Optimized lookups outside a texture with the gaussian filter.
- Improved rendering of single sided primitives with heavy displacement.

3Delight for Maya

- Fixed issue with some shadow maps paths introduced in 8.0.10
- Added the `delightAbout MEL` command to retrieve the 3Delight version.

8.0.10 - 2008-11-12

3Delight

- Optimized lookups outside a texture with the box filter.

3Delight for Maya

- The internal lightsource AOV `_3dfm_unshadowed_intensity` has been removed. `_3dfm_unshadowed_cl` is used instead.
- Added several entries in the Maya project to define the paths where shaders, textures, fur files, etc. will be created.

8.0.9 - 2008-11-07

3Delight

- Fixed linear curves which were broken in 8.0.7.
- Fixed an artifact (thin white line) when using `occlusion()` on some polygon meshes.

8.0.8 - 2008-11-06

3Delight

- Changed the scale of the color output when using `gather("environment:...")`. It now interprets the map as power per steradian so existing shaders will need to divide it by 4π if they want the previous behavior.
- Fixing a problem with interior volumes and shadow maps.

3Delight for Maya

- Fixed an issue with motion blurred "A Shave and a Haircut" nodes.
- Improved RIB output performance.

8.0.7 - 2008-11-04

3Delight

- Fixed 180 degree shift of longitude when `latlong envmaps` were used with `indirectdiffuse()` `shadeop`.

3Delight for Maya

- The render pass "presets" have been renamed to render pass "templates". Fixed template listing in "Add Render Pass" menu on Windows.
- Fixed RIB archive node issue with archive file path containing spaces.

8.0.6 - 2008-11-01

3Delight

- Multi-segement `RiCurves` use less memory (about 20%) and render faster (up to two times faster).
- Fixed `occlusion()` and `indirectdiffuse()` when using an environment map as a distribution and the coordinate system specified for that map includes a scale.
- Improved photon map quality when generating it with multiple threads.
- Fixed an occasional ray tracer crash with multiple threads.

3Delight for Maya

- Introducing "Pass Presets": it is now possible to save a given render pass as a preset and create new passes based on existing presets.
- Fixed hypershade shading of reversed single sided NURBS.
- Fixed a few issues with the edge rounding code.

8.0.5 - 2008-10-29

3Delight for Maya

- Added "round edges" toggle and the associated start angle, end angle, start sharpness and end sharpness attributes.

8.0.4 - 2008-10-28

3Delight

- Improved performance of RIB reading on Windows to match that of other operating systems.
- Improved memory usage of curve primitives (up to 20% savings for large chunks of curves).

3Delight for Maya

- Fixed an issue where coordinate system nodes could be considered as archived objects and mistakenly ignored.
- Fixed a performance issue with scenes referencing many other files.
- Fixed an issue with Hypershade nodes that have animated transforms.
- It is now possible to assign geometric shaders and attribs nodes to sets.
- Fixed bad hypershade shading of reversed single sided primitives.

8.0.3 - 2008-10-22

3Delight

- Class shaders now accept a "construct" method.
- occlusion() and indirectdiffuse() now support "falloff" and "falloff" mode parameters in the ray-tracing case (point-based case was already implemented).
- Conflicts between license servers are now resolved by favoring the server with the most licenses.

8.0.2 - 2008-10-16

3Delight

- Fixed a bug that caused tdlmake to crash on .tga files when -preview option was used.
- The shader compiler is more permissive when it encounters a function that contains references to unknown variables: if the function is not used in the final shader then no errors will be reported.
- Trailing whitespace is now ignored when reading rendermn.ini.

3Delight for Maya

- Fixed issue that prevented correct configuration of log viewer in the preferences.

8.0.1 - 2008-10-04

3Delight for Maya

- Fixed Mac OS X build. It now runs correctly on Mac OSX 10.4.10.4
- Improved performance of changing current time when there are many archive nodes in the scene.
- Fixed a bad Illuminate call with custom light node output.