Changelog 6.5

<u>6.5.58 - 2007-11-24</u>

3Delight

- The abort error handler now aborts on all errors, not just severe ones.
- Fixed a subsurface crash introduced in 6.5.57 if calling the shadeop when there is no subsurface.

<u>6.5.57 - 2007-11-22</u>

3Delight

- · Fixed incorrect subsurface() results with multi-segment motion blur.
- Improved deep shadow map creation speed with multiple threads.
- The illuminance gathering pass of the subsurface shadeop is now properly multithreaded.
- Improved computation of derivatives (Du(), Dv(), Deriv(), etc) over discontinuous values.

3Delight for Maya

Now correctly supporting non-integers frame numbers

<u>6.5.56 - 2007-11-13</u>

3Delight

• Fixed a bug in tdlmake which prevented conversion of bottom-up TIFF files.

3Delight for Maya

- Added support for "wave" noise type in the "noise" node.
- Fixed amplitude interpretation of Billow noise.
- More "noise" attributes can now have a dynamic value.
- Fixed incorrect camera name output when a camera is under a group.
- Fixed non working texture when "translate maya shaders" was unchecked.
- · Volume lights depth shadow maps should now work when the light has a scale applied on it.
- Depth map shadow attributes of volume lights are now honored just like other light types.

6.5.55 - 2007-11-06

3Delight for Maya

 It is now possible to override the choice of objects or inline archives for custom geometry types. Search for canUseObjectInstance in DL_renderPass.mel to see how it works.

<u>6.5.54 - 2007-11-02</u>

3Delight

- Fixed a deep shadow map bug which sometimes caused the shadows of nearly opaque objects to be too light.
- Fixed a bug in the windows idisplay driver which could cause handles to be kept to other output files, making them undeletable until i-display was closed.

<u>6.5.53 - 2007-11-01</u>

3Delight

- attribute("light:...", ...) now works as well in light shaders as in surface/displacement ones.
- The samplebase parameter is now used by the occlusion() and indirectdiffuse() shadeops and defaults to 1.

3Delight for Maya

- Fixed script incompatibility with Maya 7.0
- The "Copy Tab" button of the attribute editor now works with shader nodes.

6.5.52 - 2007-10-25

3Delight

- It is now possible to query light source attributes from a surface shader with the attribute() shadeop by using the "light:" prefix.
- The license server now displays machine names when queried with "licutils servermachines".
- Improved subsurface() shadeop performance.

3Delight for Maya

- Fixed incorrect fur distribution apparent when using poly meshes with rather narrow U and / or V coverage. Also fixed motion blur problems when several triangles cover the same UV area.
- Made it possible to add parameters to display drivers by adding a dspyDisplayParameters (with dspy == driver name) attribute to the render pass. It should contain extra code to be added to the RiDisplay mel call (eg. -p "compression" "string" "deflate").

Fixed a bug that prevented some kind of NURBS from rendering properly.

6.5.51 - 2007-10-18

3Delight

- Fixed bake3d and texture3d shadeops not compiling when parameters were in the "wrong" order.
- Fixed miscompilation of for loops with a varying condition and continue statements.

3Delight for Maya

• Any node with "shadingCode" and "shadingParameters" attributes is now handled as a rendermanCode node, allowing custom node types to use that system.

6.5.50 - 2007-10-15

3Delight

· Added the "hitmode" parameter to environment(), trace(), transmission(), occlusion(), indirectdiffuse() and gather() to allow overriding the intersected object's shading mode.

3Delight for Maya

- · Added "specular no shadows", "specular intensity", "specular intensity no shadows", "key lights specular intensity", "key lights specular intensity no shadows" and "color no shadows" AOVs.
- The 3DFM SL_INCLUDE_PATH variable can now specify a colon separated list of paths where to look for .h files to translate shading nodes. "@" or "&" can be used to insert the default path in the list.
- Added plugins for maya 2008.
- Added a toggle to the light attribs node to include (or not) motion blur in shadow maps.
- Fixed 3Delight Render Settings UI on Linux.
- ٠ Improved the Render Pass UI sensitivity for Quantize and secondary displays options in general.

6.5.49 - 2007-10-03

3Delight

• tdlmake now understands truevision targa files.

3Delight for Maya

- The fur on polygon meshes should now be perfectly stable across time samples or frames.
- Added "key light "light attribute that can be used along with the new "key light diffuse intensity" and "key light diffuse intensity no shadow" AOVs
- Added "luminance depth" AOV, which is a grayscale image of the depth, taking into account the camera's clipping planes.

6.5.48 - 2007-09-28

3Delight

· Added the zmin and zmax filters for AOVs which can't be composited.

3Delight for Maya

- The "Receive Shadows" attribute is now honored by translated hypershade networks.
- The "Casts Shadows" attribute is now used for shadow maps when no specific object set to include is specified.

6.5.47 - 2007-09-26

3Delight

- It is now possible to use the gather statement to gather light from an environment map efficiently. This is meant as a flexible interface for image based lighting.
- Added the envlight2 shader to replace the old envlight. This is a good example of using gather on environment maps. It provides lighting and shadows far more accurate than the previous envlight.

3Delight for Maya

- Fixed incorrect pre-scale / post-scale computations that were not taking the film offset into account.
- Added "diffuse no shadow", "diffuse intensity" and "diffuse intensity no shadow" AOVs.
 New 3dfm_shave plugin allows rendering of "Shave and a Haircut" nodes directly with 3Delight for Maya.

6.5.44 - 2007-09-13

3Delight

Fixed a crash and a performance issue when using the gather statement on point clouds.

3Delight for Maya

Fixed place3dTexture node not working well when parented to an animated transform.

- Connected matrix plugs now animate correctly when rendering a sequence.
- Added some tokens recognized in file paths, such as <project>, <scene> and <layer>, that are automatically replaced with their current value.
- Batch rendering is now working.
- · Fixed some shading issues with bump2d, 2d textures that use a projection and shadow aov for volume and point light.

6.5.43 - 2007-09-10

3Delight

• Improved memory use for shaders which output a lot of variables unused by any display.

6.5.42 - 2007-09-08

3Delight for Maya

Fixed AOVs sometimes not working for hypershade networks because shaders were not rebuilt.

6.5.41 - 2007-09-06

3Delight

• The windows uninstaller will now undo the changes of the installer to all environment variables.

3Delight for Maya

• Fixed rotation generated by an instancer.

6.5.40 - 2007-09-05

3Delight

• Point based occlusion is now more complete: we support the "_area" parameter as well as the "_radiosity" parameter for color bleeding. Additionally, "hitsides", "falloff" and "falloffmode" are also supported.

3Delight for Maya

- Implemented the remapValue hypershade node.
- Fixed hypershade translation bug when the same file node is used in several shaders on the same mesh.

6.5.39 - 2007-09-02

3Delight for Maya

- Fixed an issue with node names that caused errors for hypershade nodes using textures.
- The render region button in the Maya Render View now work with the current 3Delight render settings.
- The Render Region 3Delight option menu in the Maya Render View works with the default 3Delight render settings.
- All renderable layers are now rendered and composited together when launching a 3Delight rendering via the Render Current Frame menu
 option or the Redo Previous Render button in the Maya Render View.

6.5.38 - 2007-08-31

3Delight

• Fixed an issue with multithreading which caused files (textures or archives) to sometimes not be found, especially on slow networks.

3Delight for Maya

- Fixed object visibility sampling when rendering a frame sequence. Visibility is checked at shutter open time if there is motion blur, or on the frame being rendered if there is no blur.
- Updated documentation of 3Delight render settings and command line rendering options.

<u>6.5.37 - 2007-08-29</u>

3Delight

• Fixed the idisplay display driver which stopped working on some windows versions (probably due to a security update).

3Delight for Maya

• Added support for animated image sequences in hypershade file nodes.

6.5.36 - 2007-08-28

3Delight

- Fixed the issue of shaders containing a large number of functions not compiling on windows.
- Made tesselation of non planar polygons more stable.

6.5.35 - 2007-09-24

3Delight

- Point clouds now use the texture cache so their cumulative size can exceed available memory.
- Improved point cloud performance in multi-threaded renders.
- Fixed format information which was incorrectly written to point cloud files.
- Fixed tesselation of some polygons with both large and tiny edges.

3Delight for Maya

- Added an overview display of the render pass selected for rendering in the Render Settings dialog.
- Added support for time and animated attributes of "fractal" Hypershade node.

6.5.34 - 2007-08-15

3Delight

- Fixed a rare bug with arrays when compiling shaders with -O3.
- shaderinfo and the Slo_SetShader API now accept shaders with an extension other than .sdl.
- Fixed slightly wrong radius stored in baked point clouds.
- Point clouds with less than 64 points were not returning the good point count through the Ptc API.
- Fixed the performance of large inline archives and RunProgram procedurals on Windows.

3Delight for Maya

- Fur is now concentrated in the 0-1 UV space, similar to what Maya does.
- 3Delight is now a registered Maya renderer and also works in batch mode and command line.

6.5.33 - 2007-08-09

3Delight

- Fixed RxTransformPoints().
- extern arrays of unknown size are now allowed (eg. 'extern float foo[];')
- The number of point cloud files in use concurrently is no longer limited by the system.
- · Fixed a performance issue with multithreaded rendering of scenes with high depth complexity.

3Delight for Maya

- Fixed broken "Ignore Archived Objects" attribute in render pass
- Added a raytrace bias attribute in the geo attribs node.
- Fur on polygon meshes is now rendered with the correct UV set.

6.5.32 - 2007-08-08

3Delight for Maya

- Fixed Hypershade translation to avoid wrapping uv coords of 1.0 to 0.0.
- Light Attribute node now has a shadow camera UI.
- Added preliminary support for Maya batch rendering.
- Added support for camera Film PreScale and PostScale attributes.
- Fixed sparse secondary display list handling that produced "Invalid context for 'RiEnd'" messages.

<u>6.5.31 - 2007-07-29</u>

3Delight

- RIB output now writes integer light handles when possible (eg. 3 instead of "3").
- Fixed the spline shadeop to work with varying arrays.

3Delight for Maya

- Added mel bindings for the RiMake... family of functions.
- The normal of the surface onto which fur is grown is now exported as "surfacenormal" with the fur.

6.5.30 - 2007-07-24

3Delight

- The "-stats" option to renderdl was disabling other RiOptions in RIB. Fixed.
- area() now accepts an optional "strategy" string (can be either 'dicing' or 'shading')
- Added support for a new SIMD-capable dso shadeop API.
- Fixed a bug with subdivision meshes when mixing facevarying and facevertex variables.
- The license server now retakes licenses more rapidely from dead processes.

3Delight for Maya

• Added support for motion blur on particles using an instancer whose geometry changes in time.

6.5.29 - 2007-07-07

3Delight

- Fixed passing of variable length arrays to dso shadeops.
- Fixed RiDetail parameter order.
- Option "searchpath" "dirmap" now applies to display drivers and the RiMake* calls.

3Delight for Maya

- Render Passes that only translate Maya shaders will not cache the scene anymore.
- Added scene caching progress indicator.
- Fix missing motion samples bug.
- Only modified or missing shaders are now generated and compiled.
- Made progress output more console-friendly and improved progression visualization.

6.5.28 - 2007-06-28

3Delight

Photons hitting chrome, glass and water surfaces are now modulated by the surface color.

3Delight for Maya

- Added support for RGBA vertex colors (only RGB was supported)
- Photons are now correctly modulated by surface color in case of chrome, glass and water.
- Fixed a crash when exporting subdivs on some systems (depends on runtime lib versions).
- Instancers connected to other nodes than particle systems should now work.

6.5.27 - 2007-06-22

3Delight

- Color, point, normal and vector components can now be accessed using the var[idx] notation.
- Added the midpointratio hider option for the midpoint depthfilter.

3Delight for Maya

- Fixed a crash when exporting subdivs with creased edges on a triangular face.
- Fixed a bug that caused the AE gadgets to be grayed when reloading a shader node.

<u>6.5.26 - 2007-06-21</u>

3Delight

- Fixed Slo_SetPath() to accept the "@" path to mean default search paths.
- shaderinfo now looks in rendermn ini for a shader search path if DL_SHADERS_PATH is not set.
- Fixed the illuminance construct to accept named parameters even if the four basic ones are not all present.

3Delight for Maya

- Fixed bug that prevented a RenderPass node from rendering only a sequence of shadow maps (without displays).
- Renderman shaders with dso shadeops will no longer produce errors if DL_SHADERS_PATH is properly set to find the shadeops.
- Fixed rendermanCode node to work with string parameters.
- Added 'shader_input' parameters to rendermanCode node which become inputs of the shader.

6.5.25 - 2007-06-13

3Delight

- Fixed a precision issue with Deriv().
- Added point-based occlusion. No color bleeding or arbitrary distributions yet.
- Added "int flips", "int flipt" and updated "string compression" to RiMakeTexture().
- Added an API to read and write point cloud files.
- Fixed tdlmake's -flips and -flipt parameters. Made it correctly reprocess flipped textures.
- Added the "adaptive" and "minsamples" parameters to the occlusion() shadeop.

3Delight for Maya

- Fixed an error when creating texture reference objects. It could mess up renderman shaders on any objects duplicated after the error occurs.
- Changed the displacementShader node to displace in world space instead of object space.
- Added a prepare prefix to the plugs that might be connected to other nodes for proper shading network traversal for the projection and the shadingMap nodes.
- Added support for the lensSqueezeRatio camera attribute.
- Implemented the lightInfo hypershade node.
- Fixed a bug in the setRange hypershade node (output was not clamped).
- · Avoid outputing geometry shader archives for translated maya shaders when the "Use Maya Shaders" attribute is off.

<u>6.5.24 - 2007-06-05</u>

- Fixed a performance problem when compiling a shader to a windows network drive.
- · Added the new int visibility attributes to the attribute() shadeop.
- Added "int progress" and "int separateplanes" to RiMakeTexture() which enable the corresponding flags in tdlmake.
- Empty searchpaths (such as in "@:", ":" or "/aaa/::/bbb/") are now ignored. They would previously break automatic shader recompilation. They were, however, behaving as if "." had been specified (ie. "@:.", ":." or "/aaa/::/bbb/" for the previous example). This undocumented behavior is no longer supported. Other paths in the same path specification are unaffected.

3Delight for Maya

- Added support for exporting polygon mesh sharp edges and creases as real creases when using the "Poly As Subd" mode in geo attribs. There are two new options for this in the same location as "Poly As Subd". This lets a low resolution mesh rendered as a subdivision surface be very close in shape to the subdivided polygon mesh.
- When outputting a RIB, its path is logged in the script editor.

<u>6.5.23 - 2007-05-31</u>

3Delight

• Fixed a potential bug in compressed RIB output introduced in 6.5.22.

3Delight for Maya

• Improved performance of the delightShader node UI.

6.5.22 - 2007-05-30

3Delight

- Made point cloud files use texture search paths.
- Fixed RxTransform in RIB output mode.

6.5.21 - 2007-05-25

3Delight

· Fixed logluv compression in tdlmake.

3Delight for Maya

- · Fixed pixel aspect ratio.
- Fixed potential shader name clash with namespaces (eg. a:b and a_b).

<u>6.5.20 - 2007-05-23</u>

3Delight

• Allow hostnames of the form user@host with renderdl -hosts

3Delight for Maya

- Fixed secondary displays UI on OS X (would loose the variable name sometimes).
- Fixed bugs which caused mel errors on some scenes.

<u>6.5.19 - 2007-05-22</u>

3Delight

• Allow the DELIGHT_CONF env variable to be a colon or semi-colon separated list of paths.

3Delight for Maya

• Allow negative frame numbers in the render pass.

6.5.18 - 2007-05-20

3Delight

• Fixed a shader compiler bug when the first parameter of the option, attribute, rayinfo, rendererinfo or textureinfo shadeop is a variable instead of a constant string.

3Delight for Maya

- Added support for fur on polygons.
- Fixed several bugs in projection node and finished implementation of the perspective mode.
- · Fixed shader generation bug when lightsources are references.
- Implemented camera film offset.
- Adds UI for trace subsets in the geo attribs.