

# Changelog

## 1.5.5 - 2019-7-24

- Introducing a new **random walk** subsurface scattering algorithm. The algorithm allows for richer rendition of the subsurface effect and replaces the now deprecated dipole approximation and all its variants. [To switch back to the old dipole approximation algorithm, please define the following variable: `RANDOMWALK\_SSS\_0`](#)
- Fixed a crash bug with NSI Procedurals.

### *3Delight for Maya*

- Fixed the Viewport2.0 rendering of 3Delight shaders.

### *3Delight for Katana*

- Don't create a NetworkMaterial node inside a ShadingNode when using the 'S' 3Delight menu (when creating new shading nodes).

### *Materials*

- Principled material now uses the new subsurface algorithm.

## 1.5.0 - 2019-7-12

- Improved time to first pixel in many scenarios:
  - Significantly improved startup times when a very large amount of textures is present. For a large asset with 2000 textures we reduced the time to first pixel by 20%.
  - Improved the NSI API for multi-threading operation. This will positively affect the time to first pixel of multi-threaded exporters such as Katana. An improvement of 20%-50% is to be expected for multi-threaded exporters that can saturate the NSI API.
  - Fixed startup time in multi-camera renders which contained a large amount of instances. This problem was causing important slowdowns in multi-camera renders. After this fix, there is no difference in time to first pixel between single camera and multi-camera renders.
- Cubic curves are now rendered smooth to sub-pixel accuracy.
- Fixed a corner case crash with subdivision surfaces.

### *The Nodal Scene Interface*

- Introducing the "procedural" node for dynamic loading of procedurals in a multi-threaded fashion.
- Adding a public API to query OSL shaders (`ShaderQuery.h`). This allows application linking with 3Delight to query OSL shaders without the need to link with the OSL libraries.

### *3Delight Cloud*

- PTEX textures are now efficiently rendered on the cloud.
- Optimized upload of assets. Large scene can see a x2 improvement in initial scene synchronization.
- Optimization of scene loading and initialization significantly reduces the cloud renders cost for large assets. On Disney's Moana asset we see 30% price drops on batch renders a 50% price drops on interactive renders.
- Optimized thread usage on sustained syncing tasks. This was causing some machines to be non-responsive.
- Fixed a bug where renders wouldn't receive all the buckets even if the render is "completed".

### *3Delight Display*

- The Thumbnail View is now standard Qt widget. This adds some free features such as "rubber band scrolling" and better Drag & Drop.
- Improved design and content displayed in the image info's "Stats" tab.

### *3Delight for Katana*

- Disallow creation of shading nodes in locked groups.
- 3Delight Display now properly communicates colors to Katana when using the Light Mixer Tool.

### *3Delight for Maya*

- Added a complete and easy to use [Custom AOV](#) system.
- 3Delight Principled and 3Delight Metal materials now have a good VP2 shading.



3Delight for Maya has been made [open source](#).

## 1.4.0 - 2019-5-27

- Fixed UV interpolation problems on seams of subdivision surfaces.
- Made the sampling pattern (for anti-aliasing) varying in time. This is the best behaviour for most scenarios (animation, stereo rendering, etc).
- Improved multithreaded performance on light scenes (up to 5%).

### 3Delight Cloud

- Added documentation with performance measurements - see [Cloud Rendering Speed](#).
- In 3Delight Display, the sync progress shown in the image view is now synchronized accurately with the progress shown in the dashboard.
- Fixed a potential problem with Abort renders (jobs wouldn't abort on rare occasions).
- Fixed a hanging problem with cloud renders started by `renderd1` on Linux systems.
- Improved statistics stored with the image: texture statistics are now shown properly and CPU time matches closely the 24-core minutes charge.
- Project name now shows correctly for sequences on the 3Delight Cloud dashboard (3Delight Display).
- Fixed a problem where 3Delight will not receive the image correctly after scene synchronization (the Sync wheel would hang until user stops the render).

### 3Delight for Katana

- Scene parsing is now fully multi-threaded. Speed improvements are scene dependent; simpler scenes gaining 30% and larger ones parsing up to x4 times faster.
- 3Delight Cloud is now available out-of-the-box in Foundry's Katana (through an option in the preference dialog). It allows artists to launch interactive renders on the cloud (Batch not yet supported).
- Connect shaders to terminals in NetworkMaterialGroup (in Katana 3.2 and higher).

### 3Delight for Maya

- Added a user friendly AOV system. Artists can now output matte and texture AOVs easily.
- Fixed a crash bug in sequence rendering.
- Optimized Environment node drawing.
- Added support for Texture Reference objects (#7338)

### Materials

- Fixed a problem with the glass shader when the camera is inside the volume defined by the enclosing geometry. In some situations the volume scattering simulation would disappear.
- Fixed soft max and hard max in Worley Noise (UI improvement).
- The *White Hair* parameter in the Hair & Fur shader now works on Dye color too. It was previously only applied to color produced by melanin levels.
- Made a slight optimization in the Hair & Fur (5%)

## 1.3.28 - 2019-4-20

- Fixed 3Delight's depth output. It was incorrect in IPR sessions as well as in Multi-Camera rendering.
- *Prelit* renders now produce a "relighting\_reference" AOV which contains all the elements together. These AOVs are accessible in both Katana's and Maya's *AOV Selector*.
- Fixed bugs in *Prelit* renders which made some surfaces appear brighter than they should.
- Faster *Prelit* renders by a factor of x2.
- Fixed crashes with 3Delight's automatic tangents generation. This affected assets that used anisotropic materials.
- Improve quality of tangents generated by 3Delight.
- Fixed automatic texture conversion for textures lying on Samba mounts. This affected Linux systems only.
- Fixed a memory leak. The leak was too small to cause any real issues.
- Fixed crashes in 3Delight's OSL `getAttribute()` implementation.
- Fixed the Z output (AOV). It was showing a wrong uniform value.
- A more powerful `quantize()` closure now accepts separate color data for each auxiliary AOV. Needed for the infinite number of controls desired in the toon shader. The major downside is this uses more memory now. But we can now have separate quantized colors for each detected outline.
- Better alpha on outlines.

### 3Delight Cloud

- Fixed problems with memory consumption during the Sync phase.
- Improved overall performance when rendering long sequences.
- Fixed crashes with multi-threaded scene export in Katana.
- Improved upload speeds during the *Syncing* stage. Transfers can go as much as x10 times faster.

### 3Delight for Maya

- Now showing the 3Delight -> AOV section in the *Hypershade*. It is now possible to add AOVs that output attributes set on objects. AOVs are shown automatically in the AOV Selector.
- Fixes to array connections in *HyperShade* now allows artists to connect to color arrays (e.g. Ramp shader).

### 3Delight for Katana

- Added Multi-Camera functionality. This allows artists to render multiple-views simultaneously.
- Fixed filename tags in DISettings. The `<light>` tag was not functional for example.

### Materials

- Improved Hair shader *Specular* parameter behaviour: it is now more linear across the entire range.
- Implemented `gettextureinfo("exists")`.
- `plusMinusAverage` (from Maya) is now supported for floating point input/output.

### 1.3.19 - 2019-3-25

- Rendered DeepEXR files now contain 3Delight statistics.
- `quantize()` closure can now output quantized AOV components as well (specular, diffuse, etc.)
- NSI objects can now be tagged as contributing or not to the `quantize()` closure.
- Avoid sending incomplete buckets to *3Delight Display* and files when stopping a render.
- Introducing the `quantize()` closure to OSL. This allows quantization of local illumination for stylistic effects (e.g. toon shading).
- Fixed CPU usage overload during preview renders. 3Delight was taking all the available CPU power and this was making the machine sluggish on Windows.
- Fixed an instancing bug that could result in a crash when using instances of instances.
- Fixed a bug on Windows with automatic conversion of textures that are larger than 2GB. These textures were converted unnecessarily at each render.
- Fixed a problem with displacement on instances (displacement would appear as bump, #7378).
- Adding `renderdl --callprocedurals` to expand any NSI procedurals present in a give `.nsi` file.
- Fixed a crashbug that can occur if a render is aborted during the the initialization phase of the renderer. This mostly affected *Maya* renders (#7377).
- **Implemented a substantial memory optimization for OpenVDB volume rendering. Memory savings are up to x8.**
- **Critical performance optimization for extremely large scenes (millions of primitives or instances). This problem affected startup time in such scenes.**

#### 3Delight Cloud

- Fixed a problem with sequence rendering that stopped image rendering.
- 3Delight Display's *Cloud Dashboard* now shows a project and frame indicator when necessary.
- 3Delight Display's *Cloud Dashboard* now shows completed renders in a subdued shade.
- 3Delight Display's *Cloud Dashboard* now shows the average number of cores used for completed renders.
- Better behaviour of the "sync wheel" in 3Delight Display for very short renders.

#### 3Delight for Maya

- Fixed a crash in Material Viewer when modifying shader parameters.
- Fixed a problem with Material Viewer that made objects appear black.
- Introducing distortion capabilities to the camera.
- The `quantize()` closure now accepts an array of up to 8 points to specify the quantize regions.
- Improved OSL's `concat()` function performance (x20 faster).
- Fixed a problem with custom plug-in registration.
- Fixed live render problems with nodes such as `place3Dtexture`. Adding such a node during an IPR session was not working properly (#7052).
- Fixed a UI problem in the Render Settings: the currently active resolution and aspect ratio were not shown.
- Silenced a warning about `particleCloud` shader.
- `_3DFM_OSL_PATH` and `_3DFM_USER_OSL_PATH` can now contain a list of paths separate by either a semi-colon or a colon. Using the semicolon is preferred on Windows as it allows for a user friendly editing using "Edit Environment Variable" functionality.
- The `dlopenVDBShape.filename` attribute is now tagged as "usedAsFilename" so that it appears in Maya's *File Path Editor*.
- Thanks to newly available displacement capabilities, the *Material Viewer* can now show displacements created by 3Delight shaders.
- Allow for custom export delegate for dependency nodes.
- Support array of numeric attributes (including strings) on shading nodes.

#### 3Delight for Katana

- **Vastly improved memory usage when using array instances.** For large scene users will see a x4 improvement.
- The transform on the instance array location was not used. Now fixed.
- Removing and adding an instance array location in live render caused the sources to be permanently removed. Now fixed.
- Fixed live render crash.
- Support live render operations on the Render Working Set.

#### NSI – The Nodal Scene Interface

- Faster parsing of double precision floating points in the *NSI* stream.
- Introduced a special encoding for double precisions matrices for fast read.
- Introducing a new `instances` node to efficiently describe a very large number of instances.

#### Materials

- Fix Overlay blend mode in `dlColorBland` shader.
- 3Delight's OpenVDB volume shader now allows density re-mapping using a ramp widget. Both Maya and Katana benefit from this feature.
- Displacements can now be rendered directly from the surface material and are easily interchangeable with Bump mapping. This improves usability as it allows artist to develop the look of an asset in the most logical place: the surface shader. Creation of separate displacement nodes is not necessary both in *Maya* and *Katana*.

#### 3Delight Display

- The `i-display` command now accepts the `-metadata` flag to print any metadata attached to images rendered with 3Delight. For now, this amounts to rendering statistics.
- Fixed thumbnail view glitches with dual monitors.

- Optimized how images are transferred to 3Delight Display.



This release contains a 3Delight Display which is incompatible with previous packages.

### NSI – The Nodal Scene Interface

- Introducing a procedural API to NSI. An interesting design feature of this API is that NSI procedurals do not have to pre-link with any rendering library, making NSI procedurals *truly* rendering agnostic.

#### 1.2.16 - 2019-2-01

- Optimized OSL optimization step for very large groups of shaders.
- Fixed bad values in *CryptoMatte* output when using half data types and floats.
- **Fixed a major performance issue with instancing: scenes with millions of instances suffered from very long startup time.**
- Fixed a bug with image intensity when using very low shading samples.
- Fixed the Blackman-Harris filter in 3Delight.
- The *Relighting Multiplier AOV* now contains proper alpha (for *Prelit* workflow).
- Overall improvements to the *Prelit* output. Some regions of the *Relighting Multiplier AOV* appeared too bright previous to this fix.
- **Fixed a potentially serious performance problem on Window platform which could make renders several times slower than they should. The main symptom is a very low CPU usage when rendering larger scenes.**
- Fixed a crash bug with displacement on Windows.
- Fixed stack trace output on Windows. The stack trace now contain more meaningful information, helping us pinpoint potential problems more rapidly.
- Reduced OpenVDB memory usage when the same OpenVDB is re-used.
- macOS packages are now properly signed. Installation won't mention an "unknown publisher" anymore.
- Floating point textures compress x2 better when optimized.
- 20% faster displacement in scenes with a lot of displacement. This also improves time to first pixel.
- Fixed normal interpolation along curves (it was not smooth).
- Fixed crashes and hangs at the end of renders affecting Windows packages.
- The path tracing algorithm can now deal with *Prelit* materials as described in: [Prelit materials: light transport for live-action elements in production rendering](#)



Environment maps were flipped in the X direction prior to version 1.2.0. This affects both *Katana* and *Maya*.

### 3Delight Cloud

- 3Delight Display window opens much earlier for cloud renders. This allow the "sync wheel" to show up earlier and provide more information to the user.
- 3Delight Cloud renderer in Maya is now visible to all users.

### 3Delight for Maya

- Fixed handling of invisible objects feeding instancers.
- Updating UI for *Matte* and *Prelit* attributes.
- Allow a dISet to be used as a group for Multi-Light output.
- It is now possible to render many frames simultaneously using 3Delight Cloud. This is possible by setting a frame range in the render settings and selecting 3Delight Cloud as a renderer.
- Fixed OpenVDB crashes when a file can't be read.
- Fixed a crash bug when using OSL lens shaders.
- Batch renders are now using the horizontal bucket order instead of the spiral. This means that files save on disk will contain complete row of pixels early during the render process.
- Added ability to write custom OSL shaders that have message based parameter. For example, connecting a Maya camera to a string parameter now works (the shader will receive the name of the Camera's transform).
- Added *Prelit* workflow. This means *Prelit* attributes on objects and sets as well as a new AOV : "Relighting Multiplier".

### 3Delight for Katana

- Always use local material for live render updates.
- Default filter is now Blackman-Harris as is to provides a nice balance between definition and softness in a variety of situations.
- Updating UI for *Matte* and *Prelit* attributes.
- Fixed dISet AE template.
- Export arbitrary attribute with `pointcloud` geometry.
- Added support for `pointcloud` geometry type.
- Export all arbitrary attribute along with geometry. Shaders can now access these attributes using the `dIPrimitiveAttribute` shading node.
- Added support for Curve primitives. Linear and Cubic (b-spline and camtull-clark) curves are supported.
- Fixed slowdown issues happening on Katana 3.1.
- Fixed rare exception on `DISettings` creation on Windows machines.
- Added a *Prelit* attribute in the Visibility section as well as a *RelightingMultiplier* output variable.

### 3Delight Display

- Fixed renders that were sometimes sent to the wrong image.

- Improved light mixer performance when using many layers.
- Fix display problems when the device pixel ratio is not an integer (more usual for high resolution such as 4K displays).
- Fixed magnifier tool when looking outside of the image region.
- Fixed crash with OCIO profiles.
- Live renders from Maya now respect the crop window as a *priority window*. In other words, this is the "follow mouse" feature for live renders.
- Fixed a performance issue on macOS when using sRGB color space.
- The mouse scrolls wheel can now be used to zoom in/out the image.
- A multi-touch trackpad can now be used with two fingers to pan the image and zoom in/out (pinch to zoom).
- Fixed Re-Render when renders are started from Katana.

### Materials & Shaders

- Solved a problem with the bias parameter in SolidFractal shader.
- Introduced a projection node for camera and planar projections.
- Fix an orientation problem in place3dTexture.
- Fixed a problem with dlPrincipled when backfacing to the viewer.
- Fixed shadows from Glass shader when using scattering. Shadows appeared opaque.
- dlPrimitiveAttribute shading node can now read integers and float[4] attributes.
- The Glass shader is now significantly more powerful as it allows rendering of absorption and scattering of light inside the medium. This shader can now be used to render, e.g., realistic volumes of water.
- Fixed IOR controls in Glass shader.
- Fixed a crash when using getattribute( "global:..." ) inside OSL shaders.

### 1.1.12 - 2018-11-1

- **Implemented multiple scattering in volumes.**
- Introducing PreLit workflow to easily integrate real footage into VFX shots.
- Fixed a crash during live renders when the main camera was deleted.
- Further improvements to displacement algorithm (mostly rare corner cases producing cracks).
- Improvement to 3Delight's geometric displacement algorithm. This important enhancement removes cracks due to difficult topology.
- Improved license management; 3Delight now communicates less often with the license server.
- Fixed many cases of cracks in displacements (mostly visible near screen edges (#7256)).
- Completion of recently introduced PTEX support. Quad polygonal meshes and non quad-polygons are now supported.
- Fixed PTEX for clockwise winding meshes (currently affects KATANA only).
- Preserve user's [3delight.config](#) file when re-installing the software on macOS packages.
- Fixed hard edged shadows appearing on polygonal surfaces.
- Automated texture optimization is now handled directly by 3Delight (see [Handling of Textures](#)) and offers better error reporting.
- UDIMs render about 8% faster.
- Fixed a performance issue in OpenVDB rendering. Scene with relatively large amount of textures (hundreds of megabytes) will have an acceleration between x2 and x3.

### 3Delight Cloud

- Fixed support of UDIMs on the cloud.
- Fixed 3Delight Cloud renders that sometimes could hang for very short renders.
- 30% faster syncing (upload) for models and shaders when using 3Delight Cloud.
- 30% faster startup (time to first pixel) when using 3Delight Cloud.
- Fixed rendering of VDB volumes on 3Delight Cloud when renders are started from a Windows platform.
- Fixed 3Delight Cloud issues when rendering high resolution images (eg. 4K) with several AOVs. The problem was sudden "jamming" of the application during rendering.

### 3Delight Display

- Improved performance when receiving high resolution renderings (>2K) and while in the *Contact Sheet* mode.
- Fixed Re-Render feature when renders are started from Maya.
- Changed hotkey for *Zoom to Fit* functionality to "=".
- Small presentation improvements in the Cloud tab (with links to the users' online account).
- Fixed the minute usage shown in the Cloud tab. It was underestimating the total usage.
- The "rendering" state in the cloud tab was sometimes overridden by "parsing". Fixed.
- The content of the sidebar can now be scrolled when the window is too small.
- When using the Loupe tool, a single click on the image freeze the Loupe view for a couple of seconds.
- Improved reliability of the progress indicator for Syncing stage when using 3Delight Cloud.

### 3Delight for Maya

- Added a mechanism for plug-ins to register attributes in the 3Delight section of Maya nodes.
- Fixed classification with auto-loaded shading nodes.
- Added multiple scattering option to Volume shader.
- Fixed dlAtmosphere and dlColorVariation look in the *Channel Box* editor.
- Improved presentation of 3Delight for Maya shading nodes in the Node Editor.
- Fixed issue where the Attribute Editor would show wrong attribute values after selecting a new node in some cases.
- Refined the UI of some of 3Delight for Maya shading nodes.
- Fixed a limitation with the Free 3Delight<sup>NSI</sup> preventing simultaneous renders in different Maya views.

### 3Delight for Katana

- Added multiple scattering option to Volume shader.
- Fixed ROI.

## OSL Shaders

- Revisited the bump mapping implementation in Skin, Metal and Glass. It is now inline with Principled.
- Substance transparency is now a float.
- Lambert shaders now uses the same default values as Maya.
- Added a "Open GL" normal map orientation option to 3Delight Principled material.
- *Transparency* has been replaced by single-channel *Opacity* in 3Delight Principled.

### 1.0.12 - 2018-9-21

- Fixed timing statistics in relation to the "other" category.
- Fixed non-deterministic renders. Using different number of threads was not producing exactly the same image.
- Fixed visible intersection artefacts when using subdivision surfaces and sub surface.
- Introduced partial PTEX support.
- Fixed an issue in the rendering core affecting instances organised in hierarchies (#7212). This issue caused objects to be clipped.
- Faster render stops during the synchronisation phase of 3Delight Cloud renders.
- Corrected `renderdl -h` output.
- Improved accuracy of ray intersection to remove various "bias" problems. (Issues #7179 and #7216).
- Removed various legacy include files from package.
- Fixed rendering of OpenVDB volumes with 3Delight Cloud.
- User friendly error messages for 3Delight Cloud error conditions.
- Fixed minor memory leak.

## 3Delight Display

- Improved status reporting in the [3Delight Cloud Dashboard](#) dialog. Also, sequences are now listed as un-foldable items.
- More consistent alignment of values with using the picker (using the "P" key).
- Better presentation of the cross in the Loupe tool. It is now precisely centered.
- Fixed support of .3DL color space file format.
- Cloud renders now receive progress and statistics exactly as local renders.
- Added a progress indicator for 3Delight Cloud scene synchronisation.
- 3Delight Display has a new application icon and an updated *About* dialogue.
- Fixed various issues with the loupe tool, including the zoom factor to be consistent across screens of varying DPI (including Retina displays).
- [The sign in condition is remembered upon exit and start of 3Delight Display.](#)
- Added Sign In tab in 3Delight Display's sidebar. This will work only for users registered for beta testing 3Delight Cloud.

## 3Delight for Maya

- Removed the texture directory workspace option as this is now handled directly by 3Delight (see [Handling of Textures](#)).
- The workspace UI has been removed as it is now empty.
- 3Delight Glass now show transparency in the VP2 viewport.
- Added a Volume AOV.
- Fixed 3Delight Display on Retina displays when started from Maya. The issue was causing the doubling of pixels.
- Fixed Abort button behaviour for Cloud renders. It was non-responsive and sometimes resulted in the application to crash.
- Fixed Material Viewer. Viewing and editing of both shaders and environments are supported.
- All 3Delight<sup>NSI</sup> error messages are now shown in the *Script Editor* instead of the terminal. This is particularly important on macOS and Windows where the terminal is not always available, making error messages not shown at all.
- Improvements to the templates generated for auto-loaded OSL shaders.
- An NSI file export now has the same scene output as a batch render. This means frame buffer and overrides options are not exported in the NSI file.
- [Fixed dlMetal presets \(Presets menu in the Attribute Editor\).](#)
- Updated URLs for Help and updated About dialogue.
- Removed obsolete icons.

## 3Delight for Katana

- Removed the texture directory preference as this is now handled directly by 3Delight (see [Handling of Textures](#)).
- Added a volume AOV.

## OSL Shaders

- Improved documentation for supported shaders.
- Added 3Delight Principled material. To become the standard material across all plug-ins.
- Added support for Volume AOV both in Atmosphere and OpenVDB shaders.
- Added *3Delight Car Paint* and *Random Material*.
- Added *Random Color* utility shader.
- Added *Flake* 3D texture shader.
- Added a *Facing Ratio* utility shader.
- Added a *Worley Noise* and a *Flake 3D Textures*.
- OSL shaders can now declare a classification string. This is in preparation of an automated way to create *Maya* shading nodes directly from OSL shaders. This string has no effect in Katana.



3Delight Material is being deprecated and replaced by 3Delight Principled. The later provides all the functionality provided by 3Delight Material, plus the ability to render metals, with less parameters and better usability (such as better parameter ranges, better naming, and better UI).

The 3Delight Material is still part of the package for backward compatibility.

## 1.0.0 - 2018-8-31

- 5% to 15% faster rendering, depending on the scene.
- Fixed a problem with refractions (GGX BRDF) causing noticeable darkening.
- Fixed an error on linux when using 3Delight from python.
- Update of the first passes of a live render are now much faster (up to x2 times faster).
- Faster time to first pixel for scenes with large emissive meshes. Scenes with millions of light sources could start as much as x10 times faster.
- Added support for rendering VDB velocity from three float grids instead of a vector grid.
- Fixed some live render crashes related to instances.
- Fixed VDB emission.
- Added new python binding to NSI.
- Fixed changes to camera shutter in live render.
- Improve performance of sky shader.
- Fixed performance of displacement after a change in live render.
- 3Delight Display has a new Sidebar with a new Light Mixer UI and a new Loupe tool.

### 3Delight for Maya

- Improved VDB rendering speed in viewport.
- Add support for Maya's Light Editor. This includes ability to output a light group as a multi-light layer.
- Add *Color Blend* utility node. This node has a similar functionality to the Layer Shader.
- Better support of Light Linking. Light links to sets and shading groups are now supported.
- Fixed a problem with instanced objects when each instance has a different shader.
- Support Maya's built-in UDIM tag, including support for UDIM tiling on file node.
- Improved UI for all materials and shaders.

### 3Delight for Katana

- Instantaneous opening of VDB files, even large ones.
- Fixed a crash with some VDB files.
- Draw lights behind the selection too instead of in front (usability suggestion by Matthew Bennett).
- Multi-Threaded scene export and scene export optimization.
- Find OSL shaders without Katana Resources.
- Various fixes to XGen loading.
- Do not link with Katana's Python libraries anymore. Those are not needed.
- Implement automatic conversion of textures into TDLs (mip mapped tiff files).

For strings defined inside *res/strings\_xx/description* returns *"StrNotFound"*.