

# RenderMan For Katana 22.2

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## Welcome to RenderMan 22.2 for Katana

RenderMan for Katana (RfK) capitalizes on the changes made for newer versions of Katana and continues full support of the latest RenderMan ProServer 22.2.

We're excited to have improved Live Rendering. All manner of changes and edits can be made during a Live Rendering session. Waits are minimal and results are stunning, the renderer will continue to refine your image continuously should you take a coffee break and pick up where you left off on your return. We've worked hard to avoid making the artist restart the render to see updates and stability is improved.

This current release offers support for:

- Katana 2.6
- Katana 3.0
- RenderMan ProServer 22.2

Please see the release notes below for all the new capabilities and known issues!

## What's New

- Added a new [PxrCylinder](#) Light, you can use the GafferThree shortcut '0' to create one.

## Additional Changes

### Miscellaneous Changes

- The attribute "prmanStatements.traversal.evictHere" is now honored for serial traversal
- The Viewer Plugins now support texture maps with more than 4 channels
- instance.ID instances now output an object id
- The IntAttribute prmanSuppressMasterId turns off object ids on instance masters, enabling unique ids per instance
- Procedural string parameters which are empty are now correctly passed to the procedural as a single-quote-delimited empty string ("")
- Volumes can now be enabled and disabled during live rendering
- The new light learning selection scheme option is available in PrmanGlobalStatements. This option is off by default to preserve old behavior initially
- If stats are enabled the filename and/or xmlfilename are now printed to the log as: "RenderMan stats xmlfilename: /path/to/stats/filename.xml"
- Diagnostic output has been streamlined
- Handles for shaders are now used instead of the generic "terminal.<type>" when building shader nodes
- Aborting IPR renders on Windows no longer has a lengthy delay before returning control to the application
- RfK will now always report the number of threads requested of the renderer. Previously that message would only appear if the value had been overridden by Katana preferences
- The Katana scenegraph traversal time is now included in the Rendering stats under a new "Bridge" section. There is also an "Ops" section for displaying timers and counters from per-object "prmanStats" attributes
- Log messages have been standardized under the "RfK" namespace
- A missing RMAN\_TREE variable is now logged as an ERROR instead of a WARN
- Output messages for loading from specific shader paths are now logged as INFO messages
- The messages "Loading RenderMan shaders..." and "RenderMan shaders loaded." have been removed
- Restored support for "instance.ID" implicit instancing for groups

### Fixes

- Live render updates to the material.resourceVersions attribute on material locations are now respected
- Light filters and light filter references under a dome light with portals will now have the correct mute state
- The "exitat" checkpoint option will now work even if the "interval" checkpoint option isn't set
- primAttributes set on polymesh locations with facesets are now respected
- A live render edit that results in removing a parameter from an integrator's parameter list will now correctly revert the parameter to its default value
- RMAN\_RIXPLUGINPATH and RMAN\_SHADERPATH now correctly accept the ";" path separator on Windows
- Removed duplicated shader warnings when an OSL pattern was found on both the RMAN\_SHADERPATH and RMAN\_RIXPLUGINPATH. OSL shaders will only be loaded from the RMAN\_SHADERPATH
- Fixed a bug where motion blurred instance arrays with the instanceMatrix attribute defined as a DoubleAttribute would crash

- Live render edits to a mesh light will now work even if *only* the light location is enabled in the live render working set. The one exception to this is deleting the mesh location
- Defining unique coordinate systems per instance should now work for leaf-level instancing (instance.ID)

## Known Limitations

### Live Rendering

- Creating a mesh light from existing geometry will duplicate the geometry in-render. Restart the render to remove the duplicate.
- Cannot change a geometry primitive type during live rendering (e.g. from NURBS to polymesh)
- When assigning a material to a Scene Graph location, that location must be enabled in the live render working set

### Katana Limitation

- When rendering to "it" from Katana, do not stop the render from "it", abort the render from Katana. Your Katana session may freeze for a time if you abort from "it". If you make this mistake you can restore Katana to operation by terminating the prman render process manually. This will be fixed in a future version. You can also avoid this entirely by rendering to the Katana Monitor.
- Light Linking volumes is not currently supported
- We do not receive live render edits from Katana for nodes added at the end of the node graph, right above the Render node. If a no-op node (e.g. Merge) is inserted above the Render node and the node is added above that then the edit is received.
- Any live updates will cause interactive motion blur to be disabled. The render must be restarted.
- PRMan error handlers are not fully supported yet.
- Instanced lights with filters using the "Light Filter" coordsys have an incorrect transform. The workaround is to promote the light filter to a shared light filter using a light filter reference.
- There are a few live render limitations in Katana 2.6 that have been resolved in Katana 3.0 based on the improvements to 3.0, typically limitations with live working sets and adding/deleting locations in 2.6