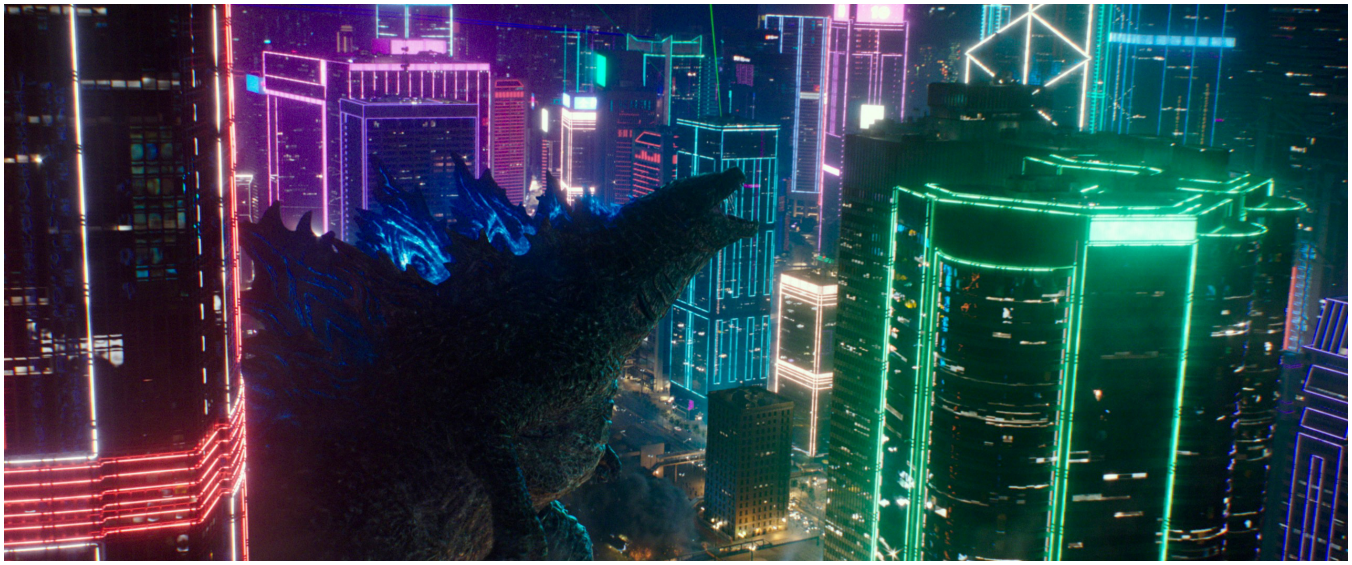
RenderMan

Pixar's Core Rendering Technology

For over 30 years RenderMan has been at the forefront of the visual effects revolution, and today RenderMan is a high performance renderer built to tackle the most complicated 3D scenes imaginable. With the new state-of-the-art ray tracing framework optimized for physically-based rendering, RenderMan can deliver unmatched flexibility for any production pipeline.



Godzilla vs. Kong © Warner Bros. Pictures

About RenderMan Pro Server

PhotoRealistic RenderMan (PRMan) is a rendering system that generates high-quality 2D images from 3D scene-description information, typically generated by a plugin to a content creation application such as Autodesk Maya. Scene descriptions are created through the RenderMan Interface and are typically comprised of:

- a description of the geometry present in the scene like teapots, aliens, and spheres,
- references to functions that describe how the geometry should be shaded creating things like glass, wood, and skin,
- specifications of light sources (type, position, and orientation), and
- a specification of the virtual camera through which the resultant picture is to be rendered.

The scene description may also specify the destination for the output image (e.g., a file or a frame buffer), as well as miscellaneous parameters that control the operation of the rendering system: how much effort to devote to avoiding *aliasing*, for instance.

Scenes need not be created by hand using an editor although they can be readable by humans. Plugins are provided for popular content creation applications for an artist-friendly and efficient workflow. RenderMan's suite of plugins allows an artist to focus on creation rather than technical details. The documentation for RenderMan covers many of these features and workflows in the form of tutorials and explanations and is ever expanding.

Please see the below sections for plugin descriptions and tutorials:

- RenderMan for Maya
- RenderMan for Katana
- RenderMan for Houdini
- RenderMan for Blender