

CATIA Rendering

As designers or engineers you constantly need to visualize, present, and share your ideas. From design review to marketing material, visualization is an essential process to communicate your product and concept.

CATIA Rendering delivers all the appropriate tools for real-time visualization and photorealistic rendering. You can interactively create and manipulate your materials, lights and environments and visualize your product in real-time. With CATIA Rendering, you can also produce photorealistic images with the integrated mental ray® system, or with the interactive iray technology to obtain quick results. CATIA Rendering is a key advantage that accelerates the validation process and reduces the need of physical prototypes, allowing faster decisions and cost reduction!

Key capabilities

Advanced material definition to match reality

Designers can easily apply material definitions using standard Windows drag-and-drop or cut-and-paste methods and edit/modify them in the 3D context. CATIA Rendering provides a library of 203 predefined materials ready to apply. These preset materials are based on 20 CgFx shaders to provide highly realistic results.

Creation and manipulation of scenes

CATIA Rendering provides all the capabilities needed to author a scene. You can define cameras, light sources, environments, as well as stickers so that you can visualize your product within its context and create several labeling and graphic variants on a product for review. It also includes a library of more than a

hundred predefined scenes (including backgrounds and tuned lights), allowing occasional users to directly render mock-ups out of the box, without having to setup a stage by themselves.

High end, real-time rendering visualization

Life-like visualization experience for all Available at the core of CATIA V6, a cutting-edge, real-time visualization is offered for an astonishing lifelike experience for all. Once set and activated with the Realistic Rendering workbench, all the scenes can be visualized and reviewed at any time in any regular CATIA installation with no requirement for additional products. The predefined lighting environment and real-time shadows within CATIA V6 make the lifelike visualization better than ever. Ambiances All

Customer benefits

- Persuade and accelerate design validation
- Decrease the need for physical prototypes
- Benefit from native integration with CATIA design environment
- Experience high-performance, real-time visualization
- Create high quality, photo-realistic images based on NVIDIA® mental ray®
- Interactive ray tracing rendering solution based on NVIDIA® iray®
- Use with ease

CATIA configurations come with ready-to-use advanced visualization capabilities. These capabilities are synthesized in all-in-one predefined sceneries called ambiances that are directly accessible from the contextual menu of the background, just as if you would like to modify your desktop wallpaper. Some ambiances are adapted for design creation and other are for design review activities. Others come with a significant visualization enhancement called SSAO (Screen Space Ambient Occlusion) that provides an accurate perception of the 3D object by adding soft shadows between surfaces.

Photorealistic rendering with NVIDIA® mental ray®

Produce high-quality photo-realistic images of a digital mock-up, with NVIDIA® latest generation rendering software component mental ray®. Its powerful ray-tracing engine dramatically enhances the realism of generated images by computing real soft shadows, accurate reflections, refractions of light, anti-aliasing, final gathering, global illumination, caustics, etc. The product provides a set of photographer-oriented tools, which allows advanced users to control depth of field, aperture, shutter time, exposure or any parameters that are usually accessible on a real camera. You can also compute images bigger than the full screen resolution.

Interactive ray-tracing based on NVIDIA® iray®

CATIA Live Rendering is an interactive, physically correct, and

photo-realistic rendering solution, based on ray tracing engine iray® from NVIDIA®, that is fast and simple to use. CATIA Live Rendering is as simple as a Camera. You select your lighting environment from a library of HDRI (High dynamic Range Image), then apply and tune your material color & settings and interactively choose your point of View. Producing your high end rendering is only a print screen or ?save as? image workflow.



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