

Shape Design & Styling
Real Time Rendering 2 (RTR)

CATIA V5R19



Real Time Rendering

Enable designers to interactively create realistic and dynamic renderings and animations in real-time, by extensively using all the hardware features available.

Product overview

Real Time Rendering 2 (RTR) enables designers to interactively create realistic and dynamic renderings and animations in real-time, by extensively using all the hardware features available. The user can dynamically create and manipulate materials, lights and environments and immediately view the result of any modification. By providing the ultimate dynamic display of your mock-up, Real-time Rendering 2 allows efficient design evaluation and validation at any time during the product development process.

Product Highlights

- ▣ Realistic and dynamic renderings through the creation and manipulation of materials, lights, environments and Stickers
- ▣ Advanced rendering capabilities like improved reflections, ground shadows or adaptive texture mapping
- ▣ Ability to define reusable scene settings
- ▣ Simple and powerful animation capabilities
- ▣ Virtual reality capabilities
- ▣ Offers the same ease of use and user interface consistency as all CATIA V5 applications

Product Key Customers Benefits

In addition to the Real Time Rendering 1

(RT1) functionalities, Real Time Rendering 2 (RTR) delivers...

Realistic and dynamic renderings through the creation and manipulation of materials, lights, environments and Stickers...

Designers can interactively create material texture definitions with controlled parameters such as color, luminance, transparency and reflectivity. User-defined specification families help designers in organizing these materials. In order to enhance every detail of the mock-up, the user can create spot, directional or point light sources. Environment capability allows the model to be shown in a virtual 'real life' context. The user can enrich the visualisation of his model with virtual stickers.

Advanced rendering capabilities like improved reflections, ground shadows or adaptive texture mapping...

RTR provides some specific reflection functionalities. The user has the ability to define one environment image per material, in order to display reflections that will exactly fit with the object. Environment images can easily be created thanks to the imbedded environment image generator or imported from Realviz Stitcher. Non linear reflections will enhance the specular color of the object and thus slightly improve the quality of the mock-up visualization. Ground soft or hard shadows of a mock-up can be displayed either on each planar wall of an environment or on a virtual plane. The manual adaptive mapping enables textures to cross slightly sharpen edges. In a mock-up review

perspective, the user can copy material parameters from an existing material, which provides material switch capability.

Ability to define reusable scene settings...

User-defined rendering objects like environments, lights or cameras can be stored in a catalog and thus enable the user to reapply a successful anterior solution in any future project. A default catalog containing several samples is also delivered.

Simple and powerful animation capabilities...

CATIA - Real Time Rendering 2 (RTR) allows to create dynamic animations that reinforce the playing aspect :

- Turntables enable the display of the model rotation around a user-defined axis.
- Extended animations enable to play with all the parameters defining a camera, a light, an environment or material.
- User can change the display point of view at any time during the animation

Virtual reality capabilities...

CATIA - Real Time Rendering 2 (RTR) supports several virtual reality technologies, enabling large presentations and design reviews :

- Multi-screen display and Multipipe™
- Stereoscopic View
- VisionDome

Offers the same ease of use and user interface consistency as all CATIA V5 applications...

The unique ease of use of CATIA V5 and the consistency of its User Interface across all applications drastically reduce training cycle time and unleash designer creativity.

ABOUT CATIA V5R19

CATIA is Dassault Systemes' PLM solution for digital product definition and simulation.

www.3ds.com/products/catia

