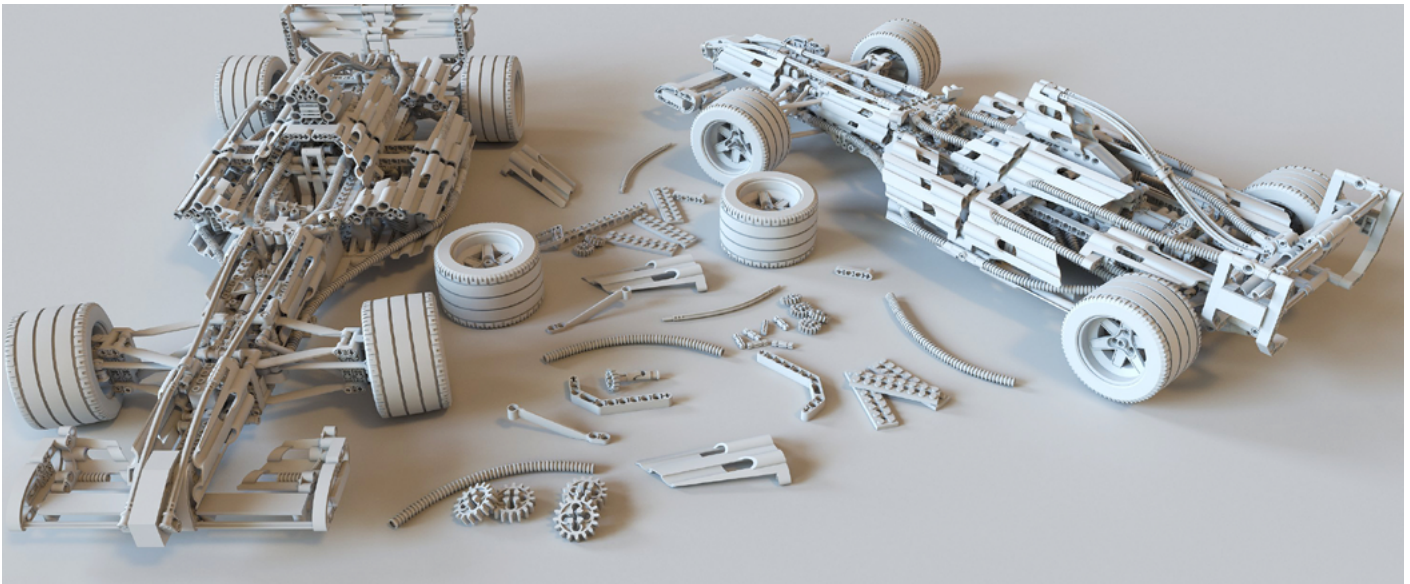




v-ray For
Rhino
VERSION 1.5

**Features and
Improvements**



Anti-aliasing

Adaptive Subdivision

- **Object Outline** - this option will cause the image sampler to always "super-sample" the object edges
- **Randomize Sampler** - displaces the sampler slightly to get better anti-aliasing of nearly horizontal or vertical lines

Parsing Time

Improvement on the parsing time; parsing time is faster

UI Interface

- **New toolbar icons**
- **Better UI arrangement**
- **V-Ray menu in the Rhino main menu with more options**

Physical Camera

- **Use any type of camera** - now you can use the physical camera to render any type of standard camera

Sun and Sky

- **Sky Options** - allow you to set up a sky independently from the sun
- **Water Vapor** - aqueous vapor in the gas phase of water
- **Photon Radius** - determines the radius of the area, in where photons would be shot. This parameter has effect when photons are used in the GI solutions or caustics.
- **Three new Sky modes** - allow you to control the appearance of your sky
- **Preetham et al**
- **CIE Clear**
- **CIE Overcast**

Indirect Illumination

- **Ambient Occlusion (AO)** - this option allow you to add ambient occlusion to the Global Illumination solution.

Lights

- **IES lights** - allows you to create photometric light
- **Dome Light** - streamlines your workflow when using image based lighting in your scenes. This saves you rendering time and increases the quality of the image based light and shadows.

Color Mapping

- **Clamp Level** - allows you to define the level at which color components will be clamped
- **Adaptation Only** - the color mapping will not be applied, however V-Ray will proceed with all its calculations as if color mapping is applied
- **Linear Workflow** - apply the inverse of the gamma that you have set up on the gamma option to correct the gamma to all of the materials

Geometry

- **On-demand geometry loading from the disk** - use V-Ray Proxy to render millions of polygons at maximum memory efficiency by storing the geometry on the hard drive

VFB Channel

- **Material ID** is now supported for post processing

V-Ray Frame Buffer (VFB)

- **Region render** - this option allows you to render a portion of the scene through the VFB.
- **History** - this option allows you to save the render directly on the VFB. It's very useful for render comparison.
- **Compare** - new compare option to easily compare two renderings directly in the VFB

V-Ray RT

- **V-Ray RT** is a very powerful interactive rendering solution that allows you to simultaneously work and render inside Rhino. You can now get instant visual feedback to make quicker design decisions. The current version of V-Ray RT is only supported on the CPU.

V-Ray Lens Effect

- **Lens Effect** - allows you to achieve bloom and glare effects in your renderings

MATERIALS

Reflection

- **Dim Distance** - allows you to limit the reflection to a certain distance
- **Interpolation** - determines the options for the interpolation of glossy reflections. They are very similar to the options for the irradiance map.
- **Exit color** - if a ray has reached its maximum reflection depth, this color will be returned without further tracing the ray
- **Ward Shader Type** - this new reflection type is very useful to create realistic brushed metal in conjunction with anisotropy

Refraction

- **Dispersion** - the new and improved V-Ray material comes with a complete support for light dispersion. This simple yet powerful feature allows you to create stunning close ups of refractive objects with caustics that dazzle the eye.
- **Interpolation** - determines the options for the interpolation of glossy refraction. They are very similar to the options for the irradiance map.
- **Fog bias** - this parameter allows to change the way the fog color is applied; by adjusting this parameter you can make thin parts of the object appear more transparent than normal, or less transparent than normal.
- **Emission** - controls the color of fog light emission (self-illumination)
- **Exit color** - if this is on and a ray has reached the maximum refraction depth, the ray will be terminated and the exit color returned. When this is off, the ray will not be refracted, but will be continued without changes.

Other

- **Per material displacement** - you can override the displacement option per materials
- **Better and precise material preview** - now the preview has almost the same appearance as the final render material
- **New material arrangement** - you can arrange the materials in your desired order by drag and drop by alphabetical order
- **New layer arrangement** - allows you move the layer to any location
- **Material preview** - once you made a material preview, the preview is cached for later use. Also the material preview is very close to the final render material for easy setup.
- **Roughness** - this parameter can be used to simulate rough surfaces or surfaces covered with dust (for example, skin, or the surface of the Moon)
- **Alpha transparency** - now V-Ray support direct alpha transparency on materials
- **Procedural texture mapping** - more texture mapping added to allow you create different effect on materials; now you have more freedom on the materials creation.

- **Falloff** - Granite - Dirt - Marble
- **Rock** - Smoke - Invert - Leather
- **Snow** - Speckle - Splat - Stucco
- **Water** - Wood

- **Including dirt** - to create ambient occlusion per materials

New material options

Located on the material editor under the "Option" section

- **Only visible in secondary** - allows you to hide the object from the camera, but get reflection on the reflective materials
- **Cast Shadows** - if this option is disabled the object will not cast shadow on the final rendering
- **Refract Max Depth** - allows you to setup a maximum depth that refraction will be traced per materials. When -1 is used, the refraction depth is controlled by the Global setting.
- **ID Color** - use this option to setup a color to be used on the Material ID channel
- **Can be Overridden** - allows you to exclude materials to be overridden using the global option

Texture editor

- More control of the texture mapping through the texture editor
- Texture multiplier is now outside the texture editor
- **Three different color spaces** - to correct the gamma of the images
- **Linear**
- **Gamma Corrected**
- **sRGB**

Rhino RDK

Support added for:

- **Edge Softening**
- **Shutlining**
- **Displacement**
- **Rhino document sun**

DR Spawner

- The command line DR Spawner tools allows you to render a scene without having to open Rhino

Global Switches

- **Force back face culling** - enables or disables (default) back face culling for camera and shadow rays. When this option is on, the surfaces of objects which are turned away from the camera (or the light source, when tracing shadows) will appear fully transparent. This allows to look inside closed objects when the camera is outside.
- **Displacement** - allows you to enable (default) or disable the V-Ray displacement