# 3.40 Beta 1

Beta 1 Release

Date - August 2, 2016

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## **New Features**

#### General

- ° A V-Ray for Rhino toolbar provides quick access to common V-Ray features
- New V-Ray for Rhino User Interface
- New progressive image sampler
- · Simplified main renderer user interface: basic/advanced/expert fly out panels for some sections; Hover quick tips
- Extensive optimizations for render speed, especially when using brute force GI
- ° The Intel Embree library is now integrated into the V-Ray core for static and motion-blurred geometry
- New streamlined installer
- ° Faster rendering of dynamic meshes, instances and VRayProxy objects
- Implemented probabilistic lighting and controls
- Implemented vrscene export
- Implemented Get View Aspect function in UI so users can import the exact screen aspect ratio by using the Get View Aspect function inside the Quality Quick Settings.
- Implemented Show Safe Frames in UI so users can now frame a view in Rhino to see the exact proportions you'll be rendering using the Show Safe frames function inside the Quality Quick Settings.
- GGX BRDF Support adds the Generalized Trowbridge-Reitz BRDF. With finer highlight controls, it's ideal for metals and reflective surfaces.
- Implemented V-Ray "1-Click" 6:1 Stereoscopic Cube render. A hardcoded way of rendering a dual camera stereoscopic 6:1 image for use with preferred VR headsets with a single click.
- o Implemented readymade V-Ray material library. Choose from a variety of (temporary until new library is created) readymade materials.

### V-Ray RT CPU

- ° Support for the VRayClipper objects
- Support for Rhino native Sections
- Support for VRayDirt, VRayFastSSS2, VRaySkinMtl materials
- Support for coherent tracing (may improve rendering performance)
- Basic support for rendering VRayDirt texmap
- Support for VRayEnvironmentFog Not yet implemented in Rhino
- Added support for displacement
- Added support for VRayMtl anisotropy
- Initial support for texture baking
- Support for spherical panorama cameras
- Support for spherical partoraria carrie
  Better support for AMD hardware
- Added support for VRayFur
- Added support for wRayFul
  Added support for mapped IOR of VRayMtl
- Added support for Mapped IOR of V Added support for VRayPlane

## V-Ray RT GPU

- ° Implemented QMC sampling for CUDA engine
- Support for using the light cache for GPU rendering

#### V-Ray RT GPU CUDA

- ° Support for the NVIDIA Maxwell GPU architecture
- Support for the VRayFastSSS2 material
- ° On-the-fly recompilation of the GPU kernel to include only features used by the particular scene

#### VRayStereoscopic

- Support for stereo spherical/cylindrical panorama cameras
- Added support for the Cubic 6x1 cameras

#### VRayProxy

- ° Support for Alembic 1.5
- Ability to specify starting path in Alembic files

#### VFB

- ° Added ability to load the render settings for an image from the history window
- ° Can be zoomed in/out with the regular +/-/\* keys (useful for remote access from mobile devices)
- Option to automatically save each render in the history (enabled from the VFB history options dialog)
- ° New color corrections contrast, HSL, color balance
- V-Ray RT GPU CUDA
- Support for the NVIDIA Maxwell GPU architecture
- Support for the VRayFastSSS2 material
- Initial support for hair rendering for Ornatrix and HairFarm
- On-the-fly recompilation of the GPU kernel to include only features used by the particular scene
- Deleting an image from the VFB history now sends it to the Recycle Bin

#### VRaySun / VRaySky

- New sky model (Hosek et al)
- Added ground color parameter

#### **VRayMeshLight**

° Implemented Mesh Lights

#### **Rectangle Light**

- Implemented Shape function in UI to allow change from rectangular to ellipse.
- When creating a rectangle light, you can now control the direction by holding shift.

#### Spot Light

 Implemented directional control. Adding a spot light to the scene you can now hold down the "Shift" key and control the direction, cone size and penumbra angle of the spot light right when its created.

#### V-Ray Dome Light

o Implemented function where when you add a dome light to your scene you can actually control its direction by rotating the in scene object.

#### The Light Intensity Tool

 Implemented a way to adjust any light in the scene by hovering over the light. Clicking and dragging up or down will change the intensity of your light will be adjusted in real time.

#### VRayEdgesTex

- Implemented V-Ray Edge Texture
- Implemented ray traced rounded corners when used as bump map

#### **Additional Textures**

- ° Updated and newly Implemented Textures in the procedural texture editor
- Falloff Emulates the Max Falloff texture
- Falloff Legacy 2.0 Legacy Texture
- Fersnel Emulates the Max Falloff texture
- Fersnel Legacy 2.0 Legacy Texture
- Noise Emulates the Max Falloff texture
- Noise Legacy 2.0 Legacy Texture

#### VRayCurvature

° A new texture similar to VRayDirt (useful for detecting mesh curvature)

#### VRayClipper

- Implemented V-Ray Clipper
- Support for Rhino Sections
- Support for nested (grouped) Sections
- Ability to clip against arbitrary meshes
- Support for nested arbitrary meshes

#### VRayFur

Implimented V-Ray Fur
 Implemented options for hair curling
 Faster rendering (accelerated by Embree)