

V-Ray Next, Update 2

Official release

Date - Feb. 18, 2020

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Installation & Licensing

- V-Ray AppSDK updated to version 4.3
- V-Ray for SketchUp, the Chaos License Server, V-Ray Swarm and the Chaos Cloud client app are now installed in a single step. Configuring each sub-installer individually is still an option
- Chaos License Server updated to version 5.3.0
- Chaos Cloud client application installer updated to version 1.6.5

Workflow Improvements

- RTX support implemented. The engine selector now presents three options - CPU, CUDA and RTX. The image results produced by the new engine are identical to the ones rendered in CUDA mode (previously called GPU). No scene adjustments are required. Going back and forth between the two engines will only modify what devices are used, so there's minimal effort to compare the two to see which works best for your scene. The new engine takes advantage of the RT Cores (dedicated to ray-tracing calculations) of the new NVIDIA RTX cards which leads to average speedup of 40%
- The support of native material color corrections in SketchUp is improved. Make sure that the 'Extensions / V-Ray / Tools / Colorize Textures' option is enabled for the color corrections to be rendered. The option is no longer considered 'Experimental'
- Partial Proxy Scene export implemented. Export only the selected objects as a .vrscene file containing geometry and applied materials. Lights and V-Ray objects, such as Fur, can also be included
- A set of material slots is automatically generated as part of every Proxy Mesh asset. Use the slots to assign materials to the Proxy without having to rely on a Multi Material
- Proxy Mesh assets using the new built-in material system (described in the previous point) now automatically store the materials when saved to the library (or exported as .vrmat files)
- Automatically calculated exposure and white balance values can now be applied to the scene camera. Use the Auto Values controls to get the most recent results and apply them to the camera
- The Advanced Camera / Bokeh parameters have been updated and made more user friendly. The additional parameters are no longer grayed out when the Blades option is disabled
- SpotLight Cone and Penumbra angle sliders' min and max values are now correct
- The UI of the Configuration settings section is improved
- Right-clicking on any color or number input field now provides the option to reset them to their default value
- A new option allowing color space control of all color sliders is available in the Asset Editor's Configuration settings rollout
- Implemented material attribute icons for easier recognition
- Modifications done to the SketchUp model hierarchy are now handled in a better way by the V-Ray Fur, Clipper and Mesh Light components
- Tri-Planar Projection texture placement mode added to the VRScan material. It works similarly to the Triplanar texture and removes the need for UV mapping of the shaded objects
- Proxy Scenes are now by default affected by the global Material Override. To disable this behavior uncheck the new 'Use Mtl Override' option
- 'Use Mtl Override' option added to the Proxy Mesh asset. It disables the global Material Override effect for all material slots using plain colors
- Material Random Color render element is implemented. It generates randomly colored selection masks based on the material assignments in the scene. Unlike the Material ID Color element, it does not require adding Material ID attributes to all scene materials
- VFB window no longer appears upon vrscene export

Theme

A new Bright color theme can now change the appearance of the Asset Editor, File Path Editor, Color Picker and the Progress Log windows. The UI Color Theme selector is located in the Configuration settings rollout. The theme selection persists between sessions. Note that it does not affect the V-Ray Frame Buffer (VFB)

Color Assistant

Color Assistant extension added to the V-Ray Color Picker. It presents hue, saturation and value variations of the current color to help with picking the exact color that is needed. Adjust the range values for more subtle or more pronounced variation. Right-click on any of the Assistant suggestions to regenerate variations using it as reference

Materials

- Some common material settings have been redesigned as Attributes. Attributes are sets of options that can now be created or removed for each material. An 'Add Attribute' button is added next to the 'Add Layer' one below the material preview. The list of attributes includes - Translucency (Two Sided), Bump, Displacement, Raytrace Properties, Override and Material ID. New materials are created lean with the option for other attributes to be added later. This way the scene shaders are optimal for both management and rendering
- The new Translucency attribute can be used instead of the Two Sided material keeping the shader structure simple. This also simplifies material /texture size management when dealing with translucency
- The Generic material layer names are improved. The V-Ray BRDF is renamed to V-Ray Mtl, Metallic - V-Ray PBR, Diffuse - Diffuse Coat, Reflection - Reflective Coat, etc. The Refraction layer is removed. Use the V-Ray Mtl instead
- There is a unique icon for each material layer. This is useful visual indication for the layer type in case the layer name is changed
- Newly created scene materials now use an optimized underlying shader structure. Displacement, Material ID and Render Stats attributes are no longer added to every material. If any of the attributes is required it has to be manually added from the 'Add Attribute' menu

Other Changes & Bug Fixes

- Instance face deletion no longer requires multiple Undo commands to get undone
- Activating V-Ray in a project for the first time no longer prevents undoing prior actions
- The 'Camera Vertical Tilt' option is renamed to 'Vertical Lens Tilt'
- Uninstalling V-Ray no longer leaves some files behind
- Initiating a render multiple times in quick succession no longer makes the V-Ray UI unresponsive
- A number of issues related to Proxy Meshes are resolved
- Importing or creating V-Ray-specific geometries now updates correctly during interactive rendering
- Enabling the global Lights switch now correctly provokes an interactive rendering update
- Toggling Safe Frame on and off during Viewport rendering (VPR) no longer stretches the output image
- Toggling Safe Frame during interactive rendering after an aspect ratio change no longer distorts the image
- Batch renderer now behaves correctly even when the Scene Transition time is set to 0
- A number of texture colorization issues are resolved. Using the option (Colorize Textures) on Mac OS in GPU mode no longer leads to a crash
- The 'Export' button of the Export Proxy window is no longer disabled if the window is brought up for the first time during the session
- Exploding Components containing a Section Plane no longer generates a phantom asset
- Creating multiple materials in rapid succession no longer causes issues
- Trying to rename material layers using illegal characters now correctly cancels the operation, keeping the original layer name
- A number of issues related to 2D Texture Placement are resolved. Uneven U and V Repeat values combined with texture Rotation no longer skews the texture
- Embree is now used for hair and motion blur rendering
- Proxy Meshes created during interactive rendering now appear correctly in the scene
- Modifying assets during Interactive no longer hangs SketchUp on macOS
- Fixed an issue with the Scene Importer failing to import specific vrcene files
- VFB window no longer appears when Viewport rendering (VPR) is initiated
- Fixed an issue with SketchUp 2020 VPR only refreshing when focused
- Proxy Export toolbar button is no longer grayed out if the selection does not contain regular geometry
- Using the VFB's 'Render Last' button for animations (if no prior rendering has been done) no longer causes an error
- Fixed a crash when deleting a blend material together with its sub-materials