

V-Ray 5, Update 2

V-Ray 5, Update 2.3

Official release, update 2.3

Build: 5.20.23

Date: Apr 5, 2022

New Features

V-Ray

- Adaptive Bucket Splitting;
- Support for Max 2023;
- Ability to bake metalness and roughness;
- Add an option to include the Rest LightMix channel when saving to file;
- Add fit aspect ratio to material/bitmap functionality for VRayDecal;
- Add an option in VRayDenoiser for denoising the alpha;

V-Ray IES

- Expose IES light shape and size to MAXScript;

Modified Features

V-Ray

- Update Open Image Denoiser to version 1.4.2;
- Allow higher Max Size for GPU textures, when mode is set to Resize;
- Import for Cosmos materials with non-square textures;
- New Shortcut (N) in the VFB2 to EDIT notes in the History;
- Resumable rendering support for deep images;

V-Ray, VRayIES

- Make the VRayIES file button larger;

VFB

- Show more information when corrupted OCIO file is loaded regarding the error;

VRayOSL, V-Ray

- Support for vector-like structures;

Bug Fixes

V-Ray

- Crash with VRayMultiSubTex;
- V-Ray Material Library path is not updated after installation if provided by environment variable;
- V-Ray Standalone cannot load 3rd party plugins dependencies from arbitrary locations;
- Cosmos importer fails to import asset with VRay2SidedMtl;
- Viewport IPR option disappears from the viewport menus when using max.vray as a default setting (Custom default switcher menu);
- Crash when rendering a specific scene file with 3dsmax frame buffer;
- Render artifacts on the voxel borders of a V-Ray proxy geometry with Displacement modifier;
- Modifying denoiser parameters in VFB2 with OIDN denoiser switches the denoiser type to Optix;
- OCIO2 config might fail to load depending on locale settings;
- VRayMultiSubTex produces incorrect results with Random Hue and Sat when exported;
- Incorrect render time after enabling A/B compare and selecting an A image and then saving to history;
- Missing parameters for the VRayUnclampedColor element;
- Crash when loading .tx sequences in VRayBitmap;
- Add support for Anima4D models export with Motion Blur;
- Map connections are lost when drag and drop material from V-Ray Material Library to the Compact material editor slot;
- Animated TyFlow cache with UVWmodifier is not exported as expected;

- The "All" LightMix parameters values are not saved to presets and history;
- Error on render resuming after enabling or disabling DR;
- Crash in V-Ray IPR with Forest Color map and latest Forest Pro version;

V-Ray, V-Ray GPU

- Incorrect results with VRayDecal during IPR debug shading;

V-Ray GPU

- Skipped frame when rendering non continuous frame list with V-Ray GPU;
- GPU rendering not showing correctly with 3ds Max frame buffer;
- Crash when using Matte objects, VRayAISurface and Glass ;
- VRayMtl in SSS with Matte object crashes in animation using V-Ray GPU;
- Crash with CUDA CPU on MacOS;
- Swapping GPU devices in the same 3Ds Max session crashes IPR and production rendering;
- GPU LC is slower to render with big resolutions;
- VFB Display correction is briefly reset while preparing for rendering with V-Ray GPU;
- Rendering with CUDA a scene with BakeView produces black output;
- V-Ray GPU does not bake all pixels when rendering to textures;
- Crash when rendering scenes of objects with translucent materials and a shadow catcher;
- Artifacts with layered VRayDecal objects;
- VRaySun disc is rendered with offset in V-Ray GPU lately;
- VRayDecal does not project VRayEdgesTex;
- Texture baking doesn't work correctly with GPU;
- Lighting discrepancy between CPU and GPU results when LightDirect is used with Intensity higher than 1;
- Shadow Radius parameter of Directional and Omni light does not work;

V-Ray Light

- Make rendering of instances of disabled lights instanced via VRayInstancer consistent between Max and Standalone;
- Random crash in V-Ray IPR when creating VRayLight;
- Disabling the affectSpecular and affectReflections options of a Dome light leads to inconsistent results;

VRayMtl

- Crash when creating a Physical material in slate material editor using 3dsmax 2018;
- VRayMtl shortmap buttons are representing wrong maps when older scene is loaded in Max 2018;

VRayOSL, V-Ray

- MDL displacement is not exported correctly;

VRayVolumeGrid

- VDB caches with invalid min/max channel value metadata are not handled;

VRayIES

- VRayIES lights' include and exclude lists broken in MXS;

V-Ray 5, Update 2.2

Official release, update 2.2

Build: 5.20.02

Date: Dec 16, 2021

New Features

V-Ray, VRayPhysicalCamera, V-Ray GPU

- Support for the texture mode of the lens distortion option in 3ds Max's Physical camera and VRayPhysicalCamera;

V-Ray

- VRayCryptomatte support for Refraction and Reflection;

Modified Features

V-Ray

- Add a "Manage Chaos License Server" button in Settings;
- Add a warning in the Analyze exporter tool about gif assets;
- Integrate the new RailClone API additions allowing non-geometric (light) objects instancing;
- Support for modifiers which affect Railclone objects in Standalone and Cloud;
- Add an option for V-Ray GPU IPR to use the Render states/counts/iterations/modes instead of the viewport ones;

V-Ray, V-Ray GPU

- Add an option for backface projection in VRayDecal;
- Improve VRayDecal viewport representation;
- VRayDecal to respect bounding box positions for ordering;
- Animatable VRayDecal parameters;
- Support for Phoenix Simulators and Particle Shaders in the V-Ray Atmosphere RE with V-Ray GPU;

V-Ray GPU

- Reduce kernel compilation times by up to 60%;

V-Ray Hair Mtl

- Change the default Compensate Energy in VRayHairNextMtl to OFF;

V-Ray Light

- V-Ray lights' settings to be set to default value with right click on the spinners;
- In creation mode the V-Ray light should inherit the parameter values of the previously edited light;

Bug Fixes

V-Ray

- UDIM textures with more than 99 tiles in one dimension do not work;
- Mapped fog color is not preserved on export with Preserve refraction in OverrideMtl;
- Uninstallation of Chaos Thumbnail Handler may cause errors if it fails to complete fast enough;
- Multiple VRayFastSSS2 materials do not export properly when they use the same VRayColor2Bump texture;
- Crash when changing decal angle parameters in Max 2019;
- VRaySoftbox's gradient handles are linked;
- Spinner controls steps in the plugins with Qt native UI are not adaptive;
- Anima characters not following walkway path on scene export;
- Switching between two instances of VRayBitmap does not update all parameters in the Compact editor;
- Wrong Lens Effects with Denoiser and Sharpen/Blur layers on big resolutions;
- 3ds max 2017 crash when creating lights from VRayToolbar;
- Anima Rigged characters' textures not rendering properly;
- Crash when using VRayDecal and Cryptomatte Render Elements;
- Closing the render settings window while GPU IPR is running resets Test resolution;
- The selected color space for OCIO is blank when using specific modified OCIO file in 3dsmax 2019;
- V-Ray not utilizing more than 64 threads in some cases on Windows 11;
- Bump is reversed in reflections;

V-Ray Material Library

- Create a new material library from a .max file doesn't work;

V-Ray GPU

- Black Light Cache prepass on high resolution renders;
- VRayDecal doesn't work with VRayFur and Ornatrrix in V-Ray GPU;
- Different GI results with enable/disable render elements and HairNextMtl;
- Textured VRayDecal does not work with on-demand-mip-mapped mode ;
- The LPE don't capture the scattered self illumination of the EnvironmentFog or the VolumeGrid;
- Crash with multiple instances of VRayDecal;
- Crash in V-Ray GPU IPR when moving camera;
- GPU Light cache freezes with certain scanned materials;
- Memory leak with Light Cache Subdivs;
- Increasing the GI depth during GPU interactive rendering causes a crash with specific scenes;
- The Light Mix render element does not work correctly on GPU when the camera Auto Exposure is enabled;

V-Ray, V-Ray GPU

- Issues with Anti-aliasing (bucket sampler only) when using VRayCryptomatte mask and Multi/Sub-object material assigned to single object;
- VRayDecal V-Ray GPU IPR crash related to include/exclude lists

V-Ray, V-Ray GPU, VRayMultiSubTex, VRay Triplanar Tex

- VRayDecal doesn't work with texture randomizations;

V-Ray, VRayFur, VRayPhysicalCamera

- Composite map as a VRayDecal mask does not render on scene open;

VFB

- VFB1 history right click menu is bugged;

VRayGLSL, VRayOSL, VRayMDL

- Wrong tooltips with VRayMDLMtl;

VRayIES

- VRayIES lights custom shape override is not working when scene is reloaded;

VRayLight

- Dome light is created with wrong multiplier after scene reset;
- Wrong VRayLight type when picking different light from VRayToolbar while in creation mode;
- Dome light with units different from "Default" renders differently from the production renderer;

VRayVolumeGrid

- Crash during rendering the Helicopter Cosmos Asset and a Volume with Ray-traced scattering enabled;
- Memory leak of the uvw and nonDisplacedVertices buffers when rendering in mesh modes;

VRayMtl

- Enabling one of the new Translucency modes of the BRDFVRayMtl during interactive rendering causes issues;

V-Ray 5, Update 2.1

Official release, update 2.1

Build: 5.20.01

Date: Nov 4, 2021

New features

V-Ray, VRaySun/VRaySky/VRayAerialPerspective

- Add atmospheric contribution options to the VRaySun light;

Bug fixes

V-Ray

- Crash when using VRayDecal and Cryptomatte RE;
- Graphical glitches after adding color correction to a VFB composite layer with Cryptomatte mask;
- Normal Bump maps crash 3ds Max when rendered in Material Editor swatches;
- Previous render clear mode does not work with most render masks;
- Crash when baking VRayAO with gpu;
- Crash with Anima 4D characters when Production render has been started after a Viewport IPR session;
- Cosmos material drag and drop doesn't work in 3ds Max 2018;

V-Ray GPU

- Crashes with VRayDecal in GPU IPR;
- Cryptomatte with progressive sampling - issues when there is denoiser channel added;

VRayDirt

- Slowdown when blending materials with displacement using VRayDirt as blend amount;

VRayMDL, VRayGLSL, VRayOSL

- Misplaced configuration files;

V-Ray 5, Update 2

Official release, update 2

Build: 5.20.00

Date: Oct 26, 2021

New features

VRayDecal

- An easy way of projecting one material on top of another;

VRayLight

- Add contribution per light for atmospheric;

Cosmos

- Cosmos Materials support;

VRay

- Override material preserve functionality option for material displacement;
- Override material preserve functionality option for Reflection/Coat/Sheen;
- Curvature texture support for isolating Convex or Concave values;
- VRayBlendMtl material to blend the displacement maps of the sub-materials;
- Add support for animation exporting for the OSL plugin in Max;

VRayMtl

- Implement the thin-walled mode of the VRayMtl on the GPU;
- Implement the new volumetric translucency modes of the VRayMtl on the GPU;

V-Ray, VRayInstancer

- Lights as source objects for the VRayInstancer;

.vrscene exporter / Chaos Cloud

- SiNi Software scattering plugins export;
- Anima 4D characters support for V-Ray GPU and Chaos Cloud;
- Dot-delimited frame number option in VRayStandalone;

V-Ray, VRayScene

- Initial USD support in VRayScene node;

VFB

- Add a Sharpen/Blur post effect layer;
- Integrate rendering log in the new frame buffer;
- Option to create an "effectsResult" channel when only Lens Effects layer is enabled (no Denoiser);
- Option to bake Lens Effects intensity into the Glare channel;
- Add an option for adding VFB color corrections to all render channels when saving to separate files;
- Add option to set shortcuts for all VFB2 menu items;
- Batch image processing in VFB2 for vrmg files;
- Ability to add color corrections to the VFB Background layer

VRayDisplacementMod

- Support for Creases modifier with VRayDisplacementMod subdivision;

V-Ray, VRayMultiSubTex, VRayTriplanarTex, V-Ray GPU

- Extend the randomization options in VRayMultiSubTex;

V-Ray GPU

- Implement support for the total lighting render element;
- Support for Sparse Volumes on GPU using Nvidia's NanoVDB library;

VRayIES

- Expose IES light shape and size to MAXScript;

VRayMultiSubTex

- Element recognition in VRayProxy;

VRayOSL, V-Ray, VRayGLSL, V-Ray GPU, VRayMDL

- Support for camera shaders;

VRayVolumeGrid

- Add Absorption color for the Volumetric Shader for CPU rendering;

V-Ray, V-Ray GPU

- Cryptomatte with progressive sampling;

Modified features

.vrscene exporter/Chaos Cloud

- Add a warning that default lights are unsupported when exporting scenes with no other lights;
- Warning that 3ds Max output is not being saved with Standalone when there is a Separate render channels output;
- Auto rename and add a warning if there are render elements with the same name;

Cosmos

- Set the default Cosmos browser width to 480 pixels;
- Switch Cosmos proxies to preview from file, when previews are available;
- Cosmos HDRI "Import" button should replace/set the map if a Dome Light is currently selected;
- Use whole mesh (and not the embedded) preview for certain assets (vehicles) on import;
- Cosmos Import Options remembered after 3ds Max is closed;
- Bring Cosmos browser to front if it is behind other windows and the user clicks the Cosmos Browser toolbar button

V-Ray

- Improved LPE material label system;
- Update Embree to 3.13.0;
- Apply color corrections to the RGB channel when saving;
- Remove the Subdivs parameter from V-Ray Light Lister;
- Remove Quick V-Ray render settings from the Customize UI;
- Add VRaySpecularMap and VRayReflectionMap bake render elements;
- Ability to specify a camera to determine reflections for texture baking;
- Missing parameters in the MAXScript vrscene export function;
- Preserve the cosmos dialog size (and position) after 3ds Max restart;
- Preview for UDIM textures in the realistic (Nitrous) viewport;
- Auto rename duplicate channel names when auto creating LightMix render elements;
- Display an error and abort the render if there are Progressive Caustics and DR set;
- Install thumbnail handler for the VRScans files with V-Ray;
- Consistent IPR scene update with IPR camera selected when View to Render has been locked;
- Improve the data window values when using Auto mode for the VrayOptionRE;
- VFB Lens effects were exported even when V-Ray VFB is disabled;
- Per frame export for animated parameters of Composite map;
- Better performance of dynamic geometry and tiled textures on many-core machines;
- Add a custom color option for background in VRayExtraTex render element;
- Implement Qt-based user interface for VRayMtl, VRay2SidedMtl, VRayALSurfaceMtl, VRayClipper, VRayColor, VRayFastSSS2, VRayProxy;
- Particles rendering with Embree;
- Rename the VRay Asset Browser's 'Add to Scene' option to 'Add to Material Editor' or relevant;
- Improved anisotropy for the V-Ray material;
- Rename the VRay Asset Browser's 'Add all to scene' to 'Add all to material editor'

V-Ray GPU

- Use small buckets when rendering with CUDA CPU Only;
- VRayDirt with "Ignore Invisible Objects" enabled should not be affected by lights that are invisible;
- Spot Lights with narrow cones have wrong penumbra with V-Ray GPU compared to CPU;
- Improve VRayTexOCIO on GPU;
- Expose VRayTotalLighting RE in V-Ray GPU UI;
- Oversaturated rendering of Mix map when mapped with values above 1

V-Ray Toolbar

- Integrate Vantage Live Link with V-Ray for 3ds Max;
- Replace the Create VRayMetaballs button in V-Ray Toolbar with Create VRayDecal button;

V-Ray, V-Ray GPU

- Improve the machine info printed in the log in V-Ray Standalone or by the -version flag;
- Calculate LC only on the GPU when V-Ray GPU is used;
- Add support for tiled textures with large amount of tiles on V-Ray GPU;
- V-Ray GPU fails to load and render tiles texture with Mudbox filename format with lowercase \$u and \$v;

VFB

- Elapsed time is not showing in the VFB Stats tab when rendering in Bucket mode;
- Add a new function vfbcontrol #historysize that exposes current history size to MAXScript users;
- Add MAXScript command to transfer LightMix to scene;
- Add an icon for the "off" state of the VFB layers;
- The curve color correction in VFB2 shows visible banding for very low intensity images;
- Change the Source back to RGB in VFB if the VRayBackToBeauty element is disabled;
- Implement VRAY_VFB_GLOBAL_PRESET_FILE environment variable for the new VFB;
- Allow masks for Render element layers;
- Improve the Lookup table VFB2 correction;
- Cameras in Render Pull-Down button in VFB to be listed in a sorted order;
- Possible to load/save VFB2 shortcut configuration from/to file;
- VFB2 should remember collapsed state of history and layer widgets;
- Reset VFB position button in the Render Setup window;
- Disable Layer controls if the layer is disabled;

VRayCurvatureMap

- Option to ignore bump in VRayCurvature;

VRayDirt

- Streaks breakthrough for VRayDirt;
- Blur effect for streaks in VRayDirt;
- Ignore bump option for VRayDirt;
- Thin mesh mode for VRayDirt;
- Add output section to V-Ray Dirt texture;

V-Ray, VRayInstancer

- Support for reading custom data channels from Phoenix's PRT Reader in V-Ray Instancer;

V-Ray, VRayInstancer, VRayTriplanarTex

- Thinking particles instancing to support Data Channels from TP (tPDCbitmap);

V-Ray, VRaySun/VRaySky/VRayAerialPerspective

- Change the name of the "Improved" model in VRaySky to "PRG Clear Sky";

V-Ray, VRayTriplanarTex, V-Ray GPU

- Add "by node handle" randomization mode in VRayTriplanarTex;
- TriPlanar texture make textureable the "frame_offset" and "texture_rotation" parameters;

VRay2SidedMtl, VRayColor

- Implement the UI of VRay2SidedMtl and VRayColor in Qt;

VRayAO

- Ability to exclude objects / lights from VRayAO render element;
- Add the "Ignore invisible objects" option to the VRayAO pass;

VRayBitmap

- Add "auto" mode for the color transfer function in VRayBitmap;
- Open browse window with VRayBitmap creation in 3ds Max 2022;

VRayDenoiser

- Fall back to Intel Denoiser when there is no suitable hardware for the NVIDIA Denoiser;
- Add an option to the Denoiser to take under consideration that you are rendering 360 panorama;

VRayDistanceTex

- Add the possibility to remove multiple objects from VRayDistanceTex list;

VRayEnvironmentFog

- Gray out the mapping options in VRayEnvironmentFog when the current renderer is V-Ray GPU;

VRayFastSSS2

- Implement Qt UI for VRayFastSSS2 Material;

VRayLight

- Make the button for texture in VRayLight larger;
- V-Ray lights' settings to be set to default value with right click on the spinners;
- Remove some old stale options from the UI to reduce complexity;
- Hide the No Decay option of V-Ray lights for new scenes;
- VRayLights to only accept multiplier values above zero;
- Don't disable adaptive dome lights if all excluded for shadows objects are already invisible for shadows;

VRayLight, VRayMtl

- Extend the Drag and drop Cosmos HDRI textures;

VRayMDL

- Ability to suppress the MDL search path prompt;

VRayMtl

- Implement new physically correct GTR anisotropy based on linear stretching of the microsurface;

VRayOSL

- Add support for animation exporting for the OSLMap plugin in Max;

VRayPhysicalCamera

- Link the values for EV and ISO to update together in VRayPhysicalCamera;

VRayScene

- Make the Auto mode of "Flip Axis" in VRayScene node to work for USD files;
- Scale setting for VRayScene node;

VRayStochasticFlakesMtl

- Remove Subdivs parameter from VRayStochasticFlakesMtl's UI;

VRayToonMtl

- Remove Subdivs parameters from VRayToonMtl's UI;

VRayUVWRandomizer

- Minor UI improvements for VRayUVWRandomizer;

VRayVolumeGrid

- Speed up frame blending with Time Bend controls;
- Enable Probabilistic Volumetrics by default for new scenes;
- Sparsify VDBs exported by the Phoenix simulation or the cache converter;
- Probabilistic shading should have an effect only with V-Ray in 3ds Max;
- Enable GPU preview and velocity streamline preview in 3ds Max 2022;
- Allow animating of the Solid, Wetting and Voxel Mode Override node properties in 3ds Max;
- Move the Preferences and About dialog from the Simulator to the Phoenix FD menu;
- Make Huffman compression of particles multi-threaded and break up the channels into pieces like the grid channels;
- Make Zip compression of particles multi-threaded;
- Sequential Tab ordering of the dialog controls in 3ds Max;

Bug fixes

.vrscene exporter/Chaos Cloud

- VRayBitmap's Mono output set to Alpha doesn't work with Mix and Composite maps when exported;
- Anima Subscription models are not rendered properly with Standalone and V-Ray GPU;
- Wrong export of ColorCurveGrad.osl and SetFloat.osl;
- The cache size for tiled textures is not exported;

- Cache normals option in V-RayDisplacementMod has no effect in vrsScene;
- Discrepancy with V-RayUVWRandomizer's Random by Instance ID and Random by Particle ID modes in V-Ray Standalone;
- Incorrect export to .vrsScene of the mirror option in the Coordinates rollout;
- MultiTexture results in V-Ray Standalone don't match V-Ray for 3ds Max when randomizing by object;
- Forest Color results in V-Ray Standalone don't match V-Ray for 3ds Max when "random strength min" is greater than "random strength max";
- Scene with empty name is exported incorrectly as .vrsSceneUntitled;
- Add a warning that V-RayBitmap's Noise options do not render in Standalone;
- V-RayUVWRandomizer random by name / by element distribution on geometry mismatch with V-Ray Standalone;
- No error code when exporting vrsScenes to wrong paths;
- Access violation on "Export and Render" in case of issues with finding V-Ray Standalone installation;
- V-RayMultiSubTex Random by Name distribution on V-RayLight mismatch with V-Ray Standalone;
- Exporting .vrsScene zip or folder to existing one merges the assets instead of overriding them;
- Archive as ZIP is greyed out if we open another scene to export;
- OpenSubdiv Preserve Geom Bnd/Preserve Map Bnd options are not exported to .vrsScene;
- Wrong vrsScene export - skipped switch material in blend;
- Displacement texture of V-RaySwitchMtl sub-material is not exported;
- Some of the MultiSubTex modes are not properly exported to Standalone;
- Motion blur shutter efficiency is not exported;
- Disabling the 'generate render elements' option in the V-RayDenoiser has no effect when exporting .vrsScenes;
- vrsScene export doesn't register V-RayDisplacementMod amount animation;
- V-RayDistanceTex with hidden reference object is not exported properly to vrsScene;
- Animated Gradient ramp is not exported with .vrsScene file;
- Show a warning for unsupported image filters when exporting to vrsScene and Chaos Cloud;
- Discrepancy with V-RayTriplanar's Random by Instance ID and Random by Particle ID modes in V-Ray Standalone;
- Negative anisotropy values are clamped to 0 in vrsScene export;
- V-RayEnvironmentFog with loaded animated atmospheric gizmo is not exported to .vrsScene;
- Warnings during scene export fail backburner jobs;
- Incorrect scene export with Forest Pro with camera motion blur and forest camera density/scale checkboxes enabled;
- V-RayMtl's animated map multipliers / color swatches are exported incorrectly;
- Animated self illumination multiplier of V-RayMtl is not exported to Standalone/Chaos Cloud when a map is used;
- Mapped Fog color of V-RayMtl is not exported properly;
- Per frame export for animated Phase parameter of V-RayNoiseTex map;
- Per frame export for animated parameters of V-RayNoiseTex map;
- Forest Pack 7 "Limit to visibility" feature doesn't work with animation export

Cosmos

- Cosmos import options window for 3ds Max 2018 is not properly scaled and moved;
- Cosmos importer settings should be persistent across 3ds Max sessions;
- Bump amount of imported Cosmos assets doesn't scale properly depending on the 3ds Max Units Setup;
- Wrong Cosmos gallery size in maximized browser window after reopen;
- Cosmos browser exceeds desktop height on higher desktop scale (250%);

Installer

- Installer displays wrong destination paths for 3ds Max 2022;
- Some of the shortcuts that V-Ray installs are not visible in the Windows Start Menu;

Phoenix

- Rendering animation to vrsScene or on the Cloud during simulation will render only the first cache from the sequence;
- Transforms of Render Cutter, Glass geometry or Fade volume do not contain animation when exported to vrsScene from 3ds Max;
- Rendering in Mesh Mode with Smoothing and Motion Blur enabled loses the smoothed normals in 3ds Max;

V-Ray

- Crash with camera shaders on process exit;
- Fish eye auto-fit option is ignored on vrsScene export;
- Normals render element is wrong with texture baking when a bake camera is specified;
- Crash when successively deleting cameras in V-Ray Camera Lister;
- MaxScript error (and no export) with the VRMat converter when a V-RayMultiSubTex is present in the shader;
- 3ds Max freezes on scene reset if there is a corrupted vrmg file in VFB2 image history;
- V-Ray Spawner is restarted on second V-Ray DR render;
- Typos in the usage text of Material Library Downloader;
- Crash with Slate material editor when the material renderer is V-Ray but the production renderer is another;
- Crash with printing warning on scene export having MultiScatter in the scene;
- vfbcontrol #historyload returns control back to the caller before the image is loaded;
- V-Ray Scene Exporter Analyze UI is messed if Cloud submitter is opened over it;
- Difference between material displacement with and without a modifier with the same settings;
- Register V-Ray menus writes in Program Files when no user settings are present;
- Crash when rendering specific scene with Physical materials in Standalone;
- Rendering with VFB2 in V-Ray Standalone prints QObject::installEventFilter message;
- Pixel aspect is not applied on render begin but only if toggling the pixel aspect option;
- VFB2 menu shortcuts are listed multiple times in 3ds Max 2018 and 2019;
- .vrsScene exporter / Chaos Cloud's V-Ray path browse button doesn't work in 3ds Max 2022;
- Thinking Particles normal meshes (non instanced) are no longer rendering along with Instances or when Instancing is turned on in tP.;
- JSON validation when trying to load layer presets with MAXScript;
- Wrong render with V-Ray GPU when the frame being rendered is outside the active time segment;
- Error with Max Batch resulting from Cosmos importer connection on 3ds Max startup;
- Incorrect shadows on alembic file when including it to a light;

- Problem with reflections when baking VrayCompleteMap;
- Material IDs are not rendered properly on Thinking particles using instancing;
- ThinkingParticles are not rendered at all with Render Instance enabled if they don't have explicit Shape instancing;
- Standalone generates artifacts when switching the material slot (of a multi material) in animation;
- Create V-Ray Physical Camera command is missing in main menu;
- Exception when rendering with V-Ray GPU from viewport that is set to align with some light;
- V-RayDRBucket render element could be denoised;
- Image file paths are not listed in the asset tracker for V-RayBitmap texmap with <UDIM> tiles;
- Difference in displacement between 3ds Max and Standalone;
- V-RayInstancer doesn't render VolumeGrid with motion blur enabled;
- Laggy Cosmos Browser when the create light operation in Max is still active;
- V-RayInstancer, V-RayMetaball, V-RayPlane, V-RayScene, V-RaySphere are incorrectly named in the Modifier list in Max 2022;

V-Ray GPU

- V-Ray GPU crashes on render end in scenes with V-RaySun and disabled atmospheric effects;
- Remove Prepass samples option from GPU render settings;
- Gray out "Multiply color by opacity" option of the V-RayLightMtl when V-Ray GPU is selected as engine;
- Crash in V-Ray GPU IPR when switching GPU Light cache on/off and restarting IPR;
- Specific UDIMs are not supported on GPU;
- Crash with GPU Light cache from file on second render;
- GPU Light cache from file is not working;
- Simple scene renders much slower with adaptive dome light and specific dome texture;
- Crash with CUDA-CPU and k2 on the 3990x threadripper;
- Incorrect results with V-RayMtl SSS translucency if the 'Scatter Radius' has zero components;
- V-RayOCIO does not convert V-RayColor;
- Missing highlight with thin-walled glossy refraction;
- Environment changes are not reflected in IPR with GPU LC unless another change is made after them;
- Artifacts with V-RayClipper using C++/CPU rendering;
- Crash in hybrid mode with specific setup with refractive material, bucket sampler and kernel 2;
- Incorrect results with invisible lights behind objects with refraction glossiness;
- GPU crash with a specific setup including V-Ray UVWGenExplicit and BerconNoise;
- GPU Light Cache has 0 num samples in several test scenes;
- Error 700 with GPU LC and self illumination test scene;
- Endless GPU LC calculation with OptiX on RTX hardware;
- Animated V-RayLight is not rendered on proper position;
- UVs break when using demand Mip-mapping with .tx files;
- Freezes during K3 on scenes containing ALSurface;
- Copying objects during Optix IPR is not considered;
- Artifacts in shadow when rendering scene with V-RayFur;
- Light cache error when render is stopped during Light cache;
- Wrong alpha in specific scene when k3/ooc geometry is used;
- Wrong dirt in extra tex with k3/ooc geometry in specific scene;
- Wrong extra_tex render in specific scene when kernel3/ooc is enabled;
- Missing particles from nightly scene when k3/ooc geometry is used with V-Ray GPU;
- Wrong SSS render in nightly scene when k3/ooc geometry is used with V-Ray GPU;
- Multicamera VR does not render correctly with GPU in Standalone/Cloud;
- Artifacts when AL grid is loaded from light cache;
- GPU Light cache Error when aborting render during Loading bitmaps phase;
- The MultiMatte render element renders different result in V-Ray GPU compared to V-Ray;
- V-RayLightMtl Compensate camera exposure not working properly on other than Standard camera modes in GPU;
- Crash with V-RayExtraTex RE, visible lights and GPU Light cache;
- IPR crashes with GPU Light Cache when changing the Background color quickly;
- Incorrect V-RayLightSelect RE with GPU light cache and multiple light selects containing the same light;
- Fireflies with refractive materials;
- Crashed various test scenes with Out of core on Linux with GPU;
- Darker GI with matte objects when matte for refl/refr is off;
- Artifacts in V-RayLightSelect RE when rendered with LC GPU on multiple GPU machine;
- Exception with GPU Light cache and RTX with specific scene;
- Artifacts in IPR with GPU Light Cache when adding/cloning/moving point lights (like IES, Omni, Spot);
- Difference in rendering V-RayMtl with sheen color inside V-Ray2SidedMtl in CUDA;
- Shutter efficiency has no effect on motion blur with CUDA;
- Adaptive Lights with Distributed Rendering and Point light artifacts;
- Render artifacts with shelled glass geometry intersecting the bounding box of the Volumetric grid on V-Ray GPU;
- Grid artifacts when rendering Particle Shader in Fog mode under the liquid surface with V-Ray GPU;
- V-Ray GPU crashes with enabled motion blur and "Default geometry type" set to "Auto";
- Crash when rendering V-RayCarPaintMtl2 in animation;
- Objects render black on using Metalness with no reflection color;
- Crash on second render with GPU Light cache and Resumable rendering;
- Artifacts in IPR with GPU Light Cache when adding/cloning/moving point lights (like IES, Omni, Spot);

V-Ray GPU IPR

- Off in viewport for modifiers also disables them in V-Ray GPU IPR;
- Max switches to ticks for the whole duration of V-Ray GPU IPR;
- Freeze in V-Ray GPU IPR with GPU Light cache when moving camera or geometry;
- Incorrect IPR update with GPU LC when drawing render region in VFB;

V-Ray GPU, V-Ray

- Crash when sliding timeline during IPR session with hybrid mode, OOC and GPU Light cache;

V-Ray IPR

- V-Ray IPR restart loop with Anima 4D characters;
- POV viewport menu selection doesn't affect IPR render view after selecting camera in VFB;
- Crash when stopping IPR after using debug shading with isolate selected material;
- Exposure control from V-Ray camera is not immediately applied in IPR when switching views;
- Environment (Physical camera) exposure control not updated during IPR;

V-Ray Material Library

- Material Library No preview for materials/libraries with non-standard names;
- Material browser preview data table is highlighted on mouse hover without being interactive;
- Minimum width for the Asset preview window (Material Library);
- V-Ray Asset Browser (Material Library) to preserve the material name when added to the scene;

V-Ray Toolbar

- When loading application package from arbitrary location the toolbar icons are not loaded;
- Cosmos browser button(s) missing in 3ds Max 2016 & 2017;

V-Ray, VRayPhysicalCamera

- VRayPhysicalCamera with Exposure Value Mode is affected with 0 and negative shutter speed;
- Particles created by the simulation sometimes have invalid or repeating IDs;

V-Ray Bitmap to VRayBitmap converter

- Output selections of Bitmap are not transferred when converting to VRayBitmap;

VFB

- Non-latin characters not displaying properly in VFB Source:LightMix;
- V-Ray crashes when reading VFB2 Layer presets with unexpected format;
- Color correction layers are not disabled when Render element is selected in VFB;
- Crash when zooming a lot in image files with Exposure correction in VFB2;
- It is possible to drag color corrections above the display correction;
- VFB2 curve "Save As Type" file filter is incorrect;
- Curve or White balance pipette tool stays active after layer is disabled;
- Coat and Sheen specular render elements are visible into LightMix menu;
- Black VFB when aborting a subsequent render if Denoiser is enabled;
- VFB2 Layers tree is reset in V-Ray Standalone if quotation symbol is used in a layer's name;
- Reset all to default doesn't reset removed hotkey after Resolve conflict;
- Lens effects do not work correctly when using VRayStereoscopic helper;
- Overbright Lens Effects in an image with NaN pixels;
- Black buckets when loading a denoiser layer via an image in the History while rendering;
- VFB2 fails to load vrimg file in specific case when there is a rendered image and History is disabled;
- Incorrect values for render region in VFB2 with MaxScript control function;
- Crash when applying Curves correction in VFB2 when the loaded image has no RGB channel;
- Color picker window is not contained in the desktop boundaries;
- Possible incorrect output with disabled Post Effect layer;

VRay

- Opacity mapped objects are incorrect in VRayZDepth with Don't filter environment option enabled;

VRayBitmap

- UDIM files are not resolved when using User defined attributes in VRayBitmap;
- Different filtering of VRayBitmap if mapping source is a VRayTriplanarTex texture;
- UDIM textures with \${VAR_NAME} are not working;
- Regression in resolving paths from User defined attributes in VRayBitmap;
- Textures with <UDIM> and <UVTILE> tags and relative paths are not loaded in VRayBitmap;

VRayClipper, VRayPlane

- V-Ray Clipper with "Use object material" turned on crashes with Forest;

VRayCurvatureMap

- VRayCurvature map's name gets reset on scene reload;
- Difference with VRayCurvature in V-Ray Standalone;

VRayDenoiser

- VRayDenoiser's denoising engine dropdown is grayed out for machines without any dedicated GPUs;

VRayDirt

- V-RayDirt set to Inner occlusion appears in Reflection RE with V-Ray Standalone;
- Debug shading Ambient occlusion mode is wrong for displaced geometry in V-Ray GPU IPR;
- Crash when V-RayDirt with Streaks enabled is used for OverrideMtl and Preserve options;

VRayDisplacementMod

- Graphic UI elements mismatch and out of borders in V-RayDisplacementMod;

VRayDistanceTex

- Discrepancy with Particle Systems and V-RayDistanceTex between Max and Standalone/Chaos Cloud. Max rendering improved;

VRayEdgesTex

- Crash when rendering specific scene with V-RayEdgesTex as bump and increased number of light cache bounces;

VRayEnvironmentFog

- Crash with incorrectly merged Environment's fog objects;

VRayEnvironmentFog, V-RaySun/V-RaySky/V-RayAerialPerspective

- Wrong consistent render elements of scenes with V-RayAerialPerspective;

VRayExposureControl, V-Ray

- V-Ray Exposure Control is not working with EV value from V-RayPhysicalCamera;

VRayFastSSS2

- Crash when rendering rectangular 3ds Max light with V-RayFastSSS2;
- Wrong effect of V-RayScatterVolume with very high values of SSS color;

VRayGLSL, V-RayOSL

- Crash when loading scenes with changed shader paths and null fingerprints;

VRayGLSL, V-RayOSL, V-Ray GPU

- In OSL shaders some built-in global derivatives are wrong on GPU;

VRayIES

- Known system exception when loading ies files via MAXScript;

VRayInstancer

- Crash when rendering V-RayInstancer with animated instanced object and motion blur;
- Crash with old scenes with V-RayInstancer using Thinking particles;

VRayLightingAnalysis

- Incorrect (larger) lighting analysis illuminance values with area light sources;

VRayLightSelect

- Crash on render with V-Ray Light select RE and refractive matte object intersecting another geometry;

VRayMtl

- Crash with clear coat material and subdivided geometry and very high material reflection depth;
- NAN pixels with refractive material with negative Fog bias;
- Wrong Preserve refraction with Thin-Walled option;

VRayMultiSubTex

- It is not possible to set a number lower than 1 for ID of V-RayMultiSubTex;

VRayMultiSubTex, V-Ray GPU

- Output of the randomized maps is clamped with V-RayMultiSubTex;

VRayNormalMap

- Animation of V-RayNormalMap map rotation parameter is not exported to vrsScene;

VRayOSL

- Help text indented with spaces is not displayed correctly in V-RayOSLTex;
- V-RayOSLTex Clear doesn't remove the applied texture maps;

VRayPhysicalCamera

- V-RayPhysicalCamera's Tilt corrections don't match the viewport;

VRayPluginNode

- V-RayPluginNode unlinked textures are still rendered;
- V-RayPluginNode UVW generators are not animated as expected;

VRayPluginNodeMtl

- Crash when setting Gradient Ramp map for V-RayPluginNodeMtl BRDFStochasticFlakes Random color map;

VRayProxy

- Preview levels list becomes disabled and empty when switching display modes;
- Creating a new V-RayProxy with "preview from file" uses the default cube for viewport selection;
- V-RayProxy fails to show viewport preview when opening a scene;

VRayScannedMtl

- Difference in the clear coat layer of VRScans car paint materials between NEXT and 5;

VRaySoftBox

- V-RaySoftbox should use the Base color swatch if a base map is not specified;

VRaySphere

- V-RaySphere does not work with V-RayInstancer;

VRayStochasticFlakesMtl

- Crash with V-RayStochastic flakes and random hue in specific scene;

VRaySun/VRaySky/VRayAerialPerspective

- No effect of Sun invisible and Sun size multiplier options in V-RaySky with specified V-RaySun node;

VRayToonMtl

- The V-RayToon effect does not work with some camera types and FOVs around 180;

VRayVolumeGrid

- Increase/Decrease Grid Resolution buttons scale the simulator size after merging a scene in 3ds Max 2022;
- Changing the frame during 3ds Max V-Ray IPR CPU distorts the Phoenix mesh when it has modifiers;
- Phoenix mesh renders incorrectly in animation with V-Ray Standalone when it has 3ds Max modifiers applied to it;
- Retiming particles without IDs causes them to disappear in blended frames;
- Particles rendered as Bubbles inside of a liquid mesh render darker when exported from 3ds Max to vrsce;
- All types of Phoenix previews are drawn on top of and occlude V-Ray's Viewport IPR in 3ds Max;
- Surface Channel of the Liquid Simulator resets to Liquid when rendering starts in 3ds Max;
- Re-timed particles using Time Bend Controls lose their ID channel;
- Out of memory Error during building mesh with Phoenix liquid when rendering a scene with V-Ray Standalone on Linux;
- The voxel preview in 3ds Max 2022.1 is multiplied by the object color;
- Active Body simulation with many bodies is very slow in 3ds Max with Macro Recorder enabled;
- Crash when rendering Phoenix Simulator with Export as Particle plugged into V-Ray Instancer's Particles list during simulation;
- Hiding all Phoenix nodes translates the instances when the Phoenix Simulator is used as Particles in V-Ray Instancer;
- The Beer and Ocean presets are rendering differently in V-Ray Standalone for 3ds Max and Maya;
- Phoenix GUI license is taken with 3dsmaxbatch.exe simulations;
- Crash when meshing grids nearing or over 2 billion voxels;
- Crash if A_StopSim() is called on changing the timeline frame during simulation in 3ds Max;
- Crash when constructing the scalar Speed channel of VDBs whose bounding box does not start at 0,0,0;
- Starting or restoring the simulation sometimes randomly fails on Threadripper 3990X;
- Crash when resimulating liquids to VDB, since Phoenix 4.10;
- Crash during IPR of a Particle Shader in Bubbles mode with Render as Geometry ON;
- Crash when exporting the ID channel of a particle system with more than 536'870'911 particles;
- The cache is appearing skewed in the Extended GPU Preview when the selected viewport is turned into the extended GPU Preview Window;
- Repeating Undo in the Phoenix MAXScript window will ultimately erase all the script;
- Splashes Foam on Hit Amount is named Size Distribution in Track View;
- Probabilistic volumetrics render particles in Point mode incorrectly when combined with Smoke;
- Fire and fire lights illumination are not visible in Reflection render element with V-Ray CPU;
- No motion blur from translation with more than 10 Simulators/V-Ray Volume Grids in Volumetric mode in 3ds Max;
- Maya viewport gets stuck when using a Particle Texture as a Surface Channel for meshing;