

# V-Ray 5

## Build 5.20.07

*Official release, update 2.7*

**Date** – Dec 08, 2022

[Download V-Ray for Cinema 4D](#)

### New features

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#### V-Ray

- Support for Cinema 4D 2023
- Implement V-Ray Mesh Light

### Modified features

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#### V-Ray

- Raise the max file limit on MacOS

### Bug fixes

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#### V-Ray

- Issues with Anti-aliasing (bucket sampler only) when using V-RayCryptomatte mask and Multi/Sub-object material assigned to single object
- Crash when tweaking lights during interactive rendering and LightMix enabled
- Cinema crashes when transforming cosmos assets during Interactive
- Missing values in exported vrscenes
- Cosmos browser freezes after interaction
- DOF is not rendering after the first frame
- V-Ray clipper doesn't work for more than 1 frame in animation in mesh mode
- Darker Buckets appear on M1 Mac Machines with Adaptive lights

#### VRayProxy

- Longer render and load time with Alembic compared to Vrmesh
- Compile geometry is slow when there are 735 proxy files referencing the same vrmesh file

## Build 5.20.06

*Official release, update 2.6*

**Date** - Jul 06, 2022

### New features

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#### V-Ray

- Implement an option for animating visibility in Object Properties tag

### Modified features

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## V-Ray

- Raise the max file limit on MacOS to improve stability

## Bug fixes

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### V-Ray

- Add support for the Reroute node
- Additional unused nodes in node materials
- Missing Add and Remove layer buttons from the layered node in V-Ray Node material on Cinema4D R26
- The V-Ray Node space is not registered in Cinema 4D S26.1
- Rendering Stereoscopic images in the Picture Viewer with Stereo Camera doesn't work in Cinema 4D S26
- Assigned material part of the compound does not transfer to a new scene

### V-Ray GPU

- Texture mapping doesn't work on extruded spline primitives

### VRayProxy

- An error message popped up when exported cosmos asset is rendering

## Build 5.20.05

*Official release, update 2.5*

**Date** – Jun 09, 2022

## New features

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### V-Ray, VRayTextures

- New nodes for context control
- Add VRayEdges texture for node and classic materials

## Modified features

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### V-Ray

- Expose the UVWChannel shader for use with Classic materials
- Implement the "Use object material" option for V-Ray Clipper

### V-Ray, VRayProxy

- Add support for Multi Sub Tex plugins from Cosmos Assets

### VRayTextures

- Wrap existing shader on TriPlanar creation

## Bug Fixes

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### Interactive

- Cinema S26 crash when loading multiple objects

### V-Ray

- Receive GI option is ignored when cast shadow is enabled
- Randomly generated motion blur with cloth simulation tear effect
- Classic material preview with large textures blocks UI
- Corrupted node materials when changing versions
- Crash when Phong tag is removed from geometry used for V-Ray fur
- The Object Properties tag doesn't affect child objects with multiple materials and polygon selections

## Build 5.20.04

*Official release, update 2.4*

**Date** - Apr 27, 2022

### New features

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#### V-Ray

- Support for Cinema 4D S26
- Implement V-Ray Override Material

### Bug fixes

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#### V-Ray

- Coat glossiness might produce NaN values in certain scene setups
- Filter shader with empty input exports invalid vrscene
- Fusion shader with empty channel exports invalid vrscene
- Crash when VFB is opened in Cinema 4D R20
- Corrupted node materials when changing versions

## Build 5.20.03

*Official release, update 2.3*

**Date** - Apr 06, 2022

### New features

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#### V-Ray

- [Adaptive Bucket Splitting](#)
- Implement V-Ray Renderable Spline tag
- Support for the Cinema 4D Projector shader

### Modified features

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#### V-Ray

- Improve export of native Cinema 4D shaders (Fusion, Fresnel and Colorizer)
- Improve export of native Cinema 4D material
- Support projection of single material with multiple selections

### Bug Fixes

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#### V-Ray

- Black renders when a camera is selected in Chaos Cloud app when rendering on the cloud
- Sky and Sun texture preview may crash
- GPU LC is slower to render with big resolutions
- Outdated help links for VRayMtl
- Show help on Fur, Clipper and Proxy opens wrong link

#### V-Ray GPU

- Crash upon CUDA CPU render on MacOS

## Build 5.20.02

*Official release, update 2.2*

**Date** - Feb 16, 2022

## Modified features

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### V-Ray

- Transfer the object hierarchy when exporting vrscene and importing it into Chaos Vantage

## Bug fixes

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### V-Ray

- Scenes with UVW randomizer may crash on open
- Render mask clear does not work in animation or when toggled during interactive
- V-Ray clipper (when mesh is used as a clipper) reduces the quality of the mesh when the objects are scaled down
- Cryptomatte doesn't work with Node Layer name ID type

## Build 5.20.01

*Official release, update 2.1*

**Date** - Feb 9, 2022

## New features

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### V-Ray

- Implement V-Ray Aerial Perspective
- Implement V-Ray Normal Map shader node
- Add support for the Cinema 4D infinite floor
- Show the ObjectID number as overlay in the Object Properties icon

## Modified features

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### V-Ray

- Update Open Image Denoiser with support for Arm M1
- Ability to create V-Ray Node materials from the menu
- The U and V Size parameter in the light should represent the width and height of the light
- Recalculate the intensity value for V-Ray Lights based on the currently selected light units

## Bug fixes

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### V-Ray

- Support for loading assets from the new asset browser system in Cinema 4D S24 and R25
- V-Ray doesn't respect the viewport aspect ratio and renders cropped image
- Camera Shift causes Viewport Rendering to be mismatched
- Turning ON or OFF the Round Edges doesn't refresh in interactive
- Sun shadow texture is not rendered

### V-Ray GPU

- Crash when rendering scenes of objects with translucent materials and a shadow catcher
- VRaySun disc is rendered with offset in V-Ray GPU lately
- Different GI results with enable/disable render elements and HairNextMtl

## Build 5.20.00

*Official release, update 2*

**Date** - Dec 08, 2021

### New Features

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#### V-Ray

- Native support for Apple Silicon (M1 arm64)
- Add "Live link" button for connection with Chaos Vantage
- Implement UVW Randomizer as shader and as a node
- Ability to export V-Ray scene files from the Export menu in Cinema 4D
- Ability to import V-Ray scene files as reference objects
- Support for Chaos Cosmos materials
- Support for instancing V-Ray Lights
- Implement V-Ray Light Lister
- Implement render mask modes: "Objects" and "Object ID"
- Options to control the Light Volumetric Contribution
- Cryptomatte with progressive sampling

#### VFB

- Add a Sharpen/Blur post effect layer
- Integrate rendering log in the new frame buffer
- Ability to set shortcut keys for all VFB items
- Batch image processing in VFB2 for vrmg files
- Ability to add color corrections to the VFB Background layer

### Modified Features

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#### V-Ray

- Improve V-Ray Dirt texture with additional features
- LightMix transfer from VFB back to the scene
- Improve V-Ray MultiSubTex to support new multiple random modes

#### V-Ray GPU

- Calculate Light Cache on the Graphics card when V-Ray GPU is used as renderer

#### VFB

- Allow masks for Render element layers

### Bug Fixes

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#### V-Ray

- Using "Random by Node name" mode in V-Ray MultiSubTex produces different results
- Viewport previews of materials with Dirt is very slow
- Disabling a child of a multi instance cloner doesn't remove the object during interactive rendering
- Affect Child does not work in Include/Exclude mode for Lights
- Cloner object displays additional light in the viewport
- Render mask mode set to "Texture" does not work
- Forester trees leaves are not rendered when motion blur is enabled

## Build 5.10.24

*Official release, update 1.4*

**Date** - Oct 27, 2021

## Bug fixes

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### V-Ray

- Incorrect texture rendering when the UVW tag is placed after the material tag
- V-Ray Bitmap "No Tiling" option does not work
- Fix broken hyper link inside the Update dialog

## Build 5.10.23

*Official release, update 1.3*

**Date** - Oct 14, 2021

## New features

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- Support for Cinema 4D R25

### VRayTextures

- Support TexRamp in material nodes

## Modified features

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### V-Ray

- Improve responsiveness when working with Node Materials
- Add an option to hide QT framework warnings from the log

### LegacySceneConverter

- Better conversion for the "Material Weight" and "Use Fresnel" parameters from the classic V-Ray Advanced Material

## Bug fixes

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### V-Ray

- Fix slow export of cloners in render instance mode
- Fix slow export of scenes with lots of material assignments
- GPU device selection is not used if preferences are not open
- Wrong viewport previews of node materials
- Viewport previews don't render if editor map size is not default
- Overridden editor map size in the preview settings of the material is considered even if "override preferences" is disabled
- The "Save" and "Open" dialogs are not shown when the VFB is used on displays with different DPI scaling
- Textures are black in the viewport when using Cinema4D layered shader
- LightMix in manual light select mode does not work

### V-Ray, Interactive

- VFB layers are not saved when applied while Interactive is running

### VRayProxy

- Some Cosmos assets change their material when the object is expanded to geometry

### VRayMaterials

- V-Ray GPU crashes when rendering CarPaint 2 material in animation

## Build 5.10.22

*Official release, update 1.2*

**Date** - Sept 02 2021

## New features

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### V-Ray

- Support for Chaos Cosmos

### VRayTextures

- Implemented V-Ray Normal Map texture
- TexMix as classic shader and node added in the V-Ray node space

## Modified features

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### VRayMaterials

- Material viewport previews are slow even for constant colors

### VRayTextures

- Scenes load slowly with enabled material previews

### V-Ray

- Considers disabled motion blur from Cinema 4D tag

### VRayProxy

- Flip proxy z-axis to improve compatibility with other host applications with right-handed coordinate system

### VRayLights

- Ozone and Turbidity parameters in VRay Sky should be inactive when Sky Model is set to Improved

## Bug fixes

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### V-Ray

- Fixed wrong shadows casted by V-Ray Sun to Volumetric objects
- Moving the VFB window causes the image inside to flicker
- The Vertical Shift parameter in the Physical Camera does not work in Production rendering

## Build 5.10.21

*Official release, update 1.1*

**Date** - Jul 27 2021

## Modified features

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### V-Ray

- Support for the VertexMap tag

## Bug fixes

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## V-Ray

- V-Ray doesn't render in the same color space as the Node materials
- Geometry disappears with V-Ray GPU Interactive rendering when using the CUDA engine
- Opacity mask doesn't work if the "Tile" option is disabled
- V-Ray doesn't render motion blur when using command line rendering with frame overrides
- Node preview updates may not be triggered for ports of Layered and Blend nodes
- Aborted update of texture node preview
- Different animated visibility in V-Ray for Cinema 4D and Standalone
- Animated visibility of objects does not work when exported and rendered with V-Ray Standalone
- Fix artifacts with animated boolean geometry
- Crash with animated boolean geometry when using default scene material

## VRayProxy

- Adding a scene containing proxy from the content browser doesn't keep the materials applied
- Rendering alembics is more than 3 times slower than rendering unpacked geometry on CPUs with many cores

# Build 5.10.20

*Official release, update 1*

**Date** - Jun 23, 2021

## New features

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### V-Ray

- Add V-Ray node space for node materials
- Add V-Ray Clipper as scene object
- Add V-Ray Fur as scene object
- Cryptomatte in progressive
- Progressive caustics mode

### VRayVolumeGrid

- Add Slice and Mesh preview options

### VRayEnvironmentFog

- Environment Fog colored transparency

### VRayMtl

- New translucency modes for VRayMtl (based on VRayScatterVolume)
- Thin-walled refraction option

### VFB

- Now possible to change or remove VFB2 shortcuts
- Layers masking based on Cryptomatte, integer and color render elements data
- Added stamp layer support
- Custom White Balance support for color picker and tint
- Support for animated sequences for Background layer using <frameNum> tag
- Added an option to bake the RGB primaries conversion
- Added horizontal/vertical offset for Background layer
- Image Info for the history images
- Added the frame number to the VFB History image info overlay
- Save color corrections to a LUT file
- Added an option to switch between world units and pixels as photon lookup radius for the caustics photon map

### VRayDomeLight

- Support for multiple Dome lights for Light Mixing

### V-Ray/vdenoise

- Integrated Intel Open Image Denoiser



### **V-RayRectLight, V-RayLightSphere**

- Added "Occlude other lights" option for V-Ray lights

### **V-RaySun/V-Ray GPU**

- Added support for blending the sun with the horizon with the Improved sky model
- Added support for tiled textures with large amount of tiles on V-Ray GPU
- Rounded corners, V-RayDirt, V-RayCurvature, V-RayFastSSS2, V-RayAISurfaceMtl, V-RayClipper support with Out-Of-Core geometry

### **V-Ray GPU**

- Added support for normal maps in world space

## **Modified features**

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### **V-Ray**

- Improve include/exclude object lists usage with hierarchies
- Consider MotionBlur tag for disabling motion blur on objects
- Faster initialization of meshes with static 3D displacement in Standalone
- Mixed filtering option for ZDepth
- Added preview modes to V-Ray Proxy object
- Automatically load the full geometry when it's made editable

### **V-RayTriplanar**

- Replaced the "scale" parameter of the V-RayTriplanar texture with "size" dependent on the scene units

### **V-Ray GPU**

- Optimized CUDA CPU performance
- Optimized interactive scene updates with OptiX
- Implemented displacement in world space

### **V-Ray/V-Ray GPU**

- Improved volume intersection & shading

### **V-Ray GPU/V-RayDirt**

- Add support for dirt and curvature attached to extra tex when OOC geometry is enabled

## **Bug fixes**

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### **V-Ray Proxy**

- Fixed export of animated proxy

### **V-Ray**

- Fixed VFB History loading very slowly when OCIO configuration is used for display
- Fixed Dark coat over refractive V-RayMtl
- Fixed slow CarPaint2 preview rendering
- Fixed difference between glossy and mirror caustic reflections from metallic surfaces
- Fixed V-RayCarPaintMtl2 coat IOR <1 not consistent in V-Ray and V-Ray GPU

### **V-Ray GPU/V-RayBlendMtl**

- Fixed fireflies in additive mode with multiple coat layers

### **V-Ray GPU**

- Fixed GPU Memory leaks after interactive updates when there is CarPaint2 material in the scene
- Fixed texture on objects with normal displacement appearing smudged in GPU production renders with on-demand mipmapping
- Fixed crash when using vrmesh file with more than 16 material and UV maps

## Build 5.00.45

*Official release, Hotfix 3*

**Date** - Apr 28, 2021

### Improvements

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- Instances and Multi-instances support
- Support blending of multiple material assignment tags
- Motion blur samples override for objects
- Support Cinema 4D S24

### Bug fixes

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- Hair is rendered without motion blur
- Crash when switching projects with Volume Grid preview in Cinema 4D
- The MultiMatte render element renders different result in V-Ray GPU compared to V-Ray
- V-Ray GPU production crashes if there is applied material with missing texture

## Build 5.00.44

*Official release, Hotfix 2*

**Date** - Mar 25, 2021

### Improvements

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- VolumeGrid Preview Rollout for Cinema 4D - Velocity Streamlines
- Integrate V-Ray TexRamp texture
- Support for Cloner object with V-Ray Volume Grid in Cinema 4D

### Bug fixes

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- Distributed rendering doesn't work correctly when rendering animations
- Wrong material assignment on objects with dynamic caches
- HairNextMtl doesn't work with bitmaps assigned to the diffuse color
- Materials get tiled when scaled even if "tile" setting is disabled in Attributes manager
- Image sequences are not rendered when used with the Cinema 4D bitmap
- Cinema 4D noise doesn't work when used in Blend Material
- Relative file paths do not work for non-texture assets
- Deformed geometry does not update in animation
- Motion blur only works for the first rendered frame
- The Distance texture is not affected by geometry with applied skin deformer
- Crashes on MacOS systems with more CPU cores
- Cloning Proxy objects doesn't copy the assigned materials
- Animated visibility of objects does not work

## Build 5.00.43

*Official release*

**Date** - Feb 11, 2021

## Improvements

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- LegacySceneConverter: Support of converting object layers
- LegacySceneConverter: Support for more converted types (Materials and Composite Tag)
- Render Elements: Prevent drag and drop of non-render element objects in the render elements list
- Exported lights should consider visibility and layers flags
- V-RayVolumeGrid: VolumeGrid Preview Rollout for Cinema 4D - Container and Voxel Preview
- Ability to convert scenes via script with python (c4dpy)
- Add an option to disable the automatic conversion pop-up window when opening V-Ray 3.7 scene

## Bug fixes

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- Animated visibility of objects does not work
- V-Ray doesn't respect the "Render" option in the Cinema 4D layers
- Wrong texture projection of child objects
- Native C4D noise shader doesn't render correctly when rendering with DR
- Missing Phong tags may cause different buckets from slaves with DR
- Distributed rendering doesn't work correctly when rendering animations
- Wrong UVW coordinates when generated with V-Ray Material
- V-RayProxy: Copying Proxy objects doesn't copy the assigned materials
- Displacement is wrongly applied when geometry is cloned
- The "Use mtl ID" parameter in the ObjectSelect RE doesn't work
- Objects saved in the content browser do not show the materials applied to them
- Interactive: Starting Interactive with unsupported camera makes the render buttons inactive
- Interactive: VFB settings and layers are reset when changing material preview scene or creating material
- Exported animation does not have second frame values in vrsene
- Applying material to a poly selection should happen only in "Polygon" mode
- V-RayVolumeGrid: When two or more VolumeGrids in Cinema 4D load the same cache, their previews are not updated correctly when scrolling the timeline
- Improve Interactive and UI responsiveness when tweaking materials and textures
- V-Ray GPU: Normal displacement has wrong normals
- V-Ray GPU: Incorrect GPU LPE REs with Light Cache

## Build 5.00.42

*Official release*

**Date** - Dec 10, 2020

## New Features

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- Implement Chaos Cloud Submit dialog and initial integration with Cloud client
- Add support for VRScans (V-Ray Scanned Material)
- Implement MultiSubTex shader

## Improvements

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- VolumeGrid voxel and bounding box preview for loaded caches
- Support for Cinema 4D noises with V-Ray GPU
- Add Object Select Render Element
- Add MultimatteID Render Element
- Support for the Cinema 4D "Background" object
- Implement V-Ray image output options
- Keep the FOV when Film Gate is changed and Specify FOV is checked
- V-Ray Light previews should hide when the Viewport filter for lights is off
- Make the Auto White Balance option a checkbox

- Set the default Mix Type for some float textures to "Normal"
- Change the size step for several real parameters to be more intuitive
- Improve user interface for V-Ray FastSSS2 and Light material
- Improve user interface for V-Ray Dirt and Distance shaders
- Improve user interface for V-Ray Sun
- Menu command for triggering V-Ray 3.7 scene conversion

## Bug Fixes

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- Drag and Dropping a material to a polygon selection doesn't create a selection tag
- Polygon selections are not working correctly with correction deformer attached to objects
- Polygon selections are not working when the name of the poly select tag is the same as the texture tag name
- Region rendering with production does not work on the first render
- Exporting a vrscene with single non-zero frame does not render the same frame
- Textures loaded with V-Ray bitmap are not saved correctly in the content browser
- VFB spin controls delimiter does not match the one in Cinema 4D
- Textures are not mapped in Environment fog and VolumeGrid

## Build 5.00.41

*Beta Release*

**Date** - Nov 04, 2020

## New Features

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- V-Ray VolumeGrid (WIP)
- About dialog with automatic version update checks
- Support for Cinema 4D noise shader without baking (CPU only)

## Improvements

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- Improvements on V-Ray Proxy export and import including animations and material assignments
- Support for Filter shader without baking
- Add multiplication mix mode for distance parameters and shaders
- Support the basic material override options - without channel overrides
- Rearrange the GPU engine selection and the rendering devices button
- Expand the glossiness texture and Mix by default for VRayMtl
- Add presets for Light Path Expressions
- Adding the Beauty render elements now automatically sets up composite layers
- User interface of Bump material
- User interface of VRayBitmap

## Bug Fixes

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- Materials in parent objects do not work with polygon selections in child objects
- Normal bump maps do not work on V-Ray GPU
- Velocity render element does not work without enabling motion blur
- V-Ray does not respect the final image size output units
- V-Ray has wrong verbose level for the Console log
- GPU Production rendering does not respect the Noise threshold from the Production settings
- Canceling the Cinema 4D quit dialog makes V-Ray unusable
- Broken help page anchors for V-Ray lights
- VFB layers are preserved on new scenes
- ZDepth render element has additional gamma applied in Picture Viewer and output

# Build 5.00.40

*Beta Release*

**Date** - Sep 28, 2020

## New features

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### Installation

- Integrate the new installer design in V-Ray for Cinema 4D
- Embed the License Server installation in the V-Ray for Cinema 4D installer

### User Interface

- Overhauled UI for V-Ray Render Settings
- Overhauled UI for the V-Ray Render Elements manager
- Overhauled UI for the V-Ray Material
- Implement V-Ray Lights as separate objects
- Redesigned icons and menu
- Integrate V-Ray VFB as a native Cinema 4D window
- New V-Ray Virtual Frame Buffer with light mix and compositing capabilities

### V-Ray

- V-Ray is now based on V-Ray 5 Core
- Implemented V-Ray Geometry tag for Displacing and Subdividing geometry
- Implemented V-Ray Environment Fog as separate object
- Implemented new V-Ray Proxy
- Hash map based light cache
- Adaptive Dome Light
- Implemented blue-noise optimization for the DMC sampler
- Implemented "Improved" sky model for V-Ray Sun
- Added new Coat and Sheen render elements
- Added new LightMix render element
- Automatic Exposure Control and White Balance

### V-Ray GPU

- Implement V-Ray GPU as a separate Production rendering engine
- Added support for RT cores of NVIDIA RTX cards (RTX Engine)
- Support for Bucket rendering
- Ability to select devices directly inside Cinema 4D
- Initial support for Out-of-Core rendering

### Materials

- Added additional Coat and Sheen layers to V-Ray Material
- Added Metalness parameter to V-Ray Material to support PBR workflows
- Added V-Ray Hair Next - new physically based hair material

### V-Ray Denoiser

- Added Nvidia AI Denoiser