V-Ray Next, Update 2

Official Release

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Download – Build 4.30.03

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New features

VRScene

- Enabled VRScene export from Houdini Indie
- Added support for unpacking the VRScene into live polygon geometry under the "Import" tab of the VRScene SOP

VRProxy

- Added support for render-time baking of subdivision and displacement into a VRMesh from the V-Ray Object Properties "Bake Geometry" tab

Hair

- Added "ACEScg" color space support for the Hair material

UI

- dded a "Reset VFB Position" button under the Images tab of the Renderer ROP
- Updated the File Browser type for image paths

Houdini

- Changed the Console / Log window behavior - the V-Ray Log window is now always used instead of the native Houdini console
- Added support for Houdini 18.0.499
- Added a Pack Scene option under the V-Ray Main menu
- Added a V-Ray Renderer TOP node
- Added support for the "Representative Node" option on HDAs
- Added an "About" button to the V-Ray menu that shows detailed V-Ray for Houdini and V-Ray Core information
- Added support for Houdini 18.0.566
- Added initial support for Houdini 18.5
- Added support for textures embedded in HDAs (currently limited to PNG image file format)
- Updated the V-Ray main menu with buttons linking to the documentation, forum and tutorials section
- Added support for HDA embedded textures in JPG, PNG and TGA format

Textures

- Added a Random texture that accepts either a float or vector value as a seed to generate either a random float or a random vector value
- Added the Volume Grid Texture used for sampling voxel values from a volume
- Added a custom Pattern ID texture that can be used with the Multi ID Material/Texture for assignments based on string attributes placed over packed primitives or packed alembic primitives (Note: this will not work with string attributes placed on the individual faces of polygon mesh)
- Added the GLSL Texture VOP

Texture Baking

- Added Post-Translate Scripts support to the V-Ray Baker Tool
- Added the Denoiser render element to the V-Ray Baker Tool

Deadline ROP

- Added custom Environment Variables export parameter to the Deadline ROP

Rendering

- Added an initial integration of the Volume Grid Texture for sampling voxel data

Lights

- Added light linking support for the Volume Scatter material

Materials

- Added the GLSL Material VOP

Export

- Added support for multiple Post-Translate scripts
- Added support for the Transform VOP

Hydra/Solaris

- Added initial Solaris support accessible through the "V-Ray (Alpha)" option in /stage

Modified features

Alembic

- Added support for displacement over an Alembic file with a baked "shop_materialpath" attribute
- Added support for the "alembicfullvisiblity" intrinsic attribute
- Added support for the Hair Properties' "Tessellation Multiplier" and "Geom Splines" options for hairs contained in a Delayed-Load alembic

Rendering

- Material assignments are lost for instances using @instance or @instancepath when Rayserver Instancer is enabled
- Sped up Rayserver Instancer when rendering single-level hierarchies of instances
- Added “Estimated Time Remaining” support for the V-Ray Frame Buffer
- Added a "Save Deep Data to Separate Files" toggle under the Images -> Advanced tab of the Renderer ROP
- Added a "Save Color Corrections to Raw Files" toggle under the Images -> Advanced tab of the Renderer ROP

Installer

- Updated the json environment setup due to a QT libraries conflict causing the Houdini Help Browser to stop working
- V-Ray for Houdini builds are now always installed in the default HFS path for the selected V-Ray version

Textures

- Added a Color parameter to the OCIO Texture
- Added "Horizontal Rotation" and "Vertical Rotation" parameters to the UV Environment VOP
- Added missing "Extrapolate Type" parameter to the Bezier Curve texture
- Exposed the "Cache Size" option under the Renderer->Options->Textures tab used for limiting the amount of RAM consumed by textures
- Added a "Clamp" option to the Bezier Curve texture
- The Volume Grid texture now expects a disk file path instead of a node path
- Added support for the $F tag in the texture path for lights

VRScans

- Removed the Color Space parameter from the VRScans material - this is automatically handled by the Color Space parameter on the Renderer
- Sped up the preview when loading VRScenes containing V-Ray Proxies
- Updated preview for meshes with a large numbers of faces

AOVs

- Restored the "Zero Infinity Depth" toggle to force a black background color for the Z-Depth element
- Added support for the Cryptomatte "User Attribute" mode when rendering with the GPU

Volume Grid

- Removed the "*.vdb" file extension filter from the Volume Grid Cache SOP's File Browser dialog

Texture Baking

- Added the option to explicitly specify the UDIMs to bake in the V-Ray Baker Tool SOP
- Disabled the export of splines and particles when baking textures with the V-Ray Baker Tool SOP
- Automatically recalculate invalid normals on Mesh export to resolve empty AOV output for geometry with (0, 0, 0) normals
- The "Consider for AA" toggle for render elements is now exposed on the V-Ray Baker Tool

UI

- Removed the "Use Particle Color" parameter on BSDF Point Particle material because it's redundant with the User Color VOP available
- Restored UI visibility of the “Translate” parameter on the Dome Light due to a forum request

Deadline ROP

- Added support for per-frame VRScene export and Deadline Task per VRScene submission

Export

- The OpenSubdiv toggle on the V-Ray Object Properties will now work for Alembic Delayed Load primitives
- Added support for float attributes on vertices
- Added support for the V-Ray Sampler RenderID parameter for render-time randomization of VRScenes

- Added support for instanced lights with animated visibility
- Added support for the V-Ray Hair Properties when rendering Alembic files containing hair primitives

Volume

- int 'vray_objectID' point attribute can now be added to packed volumes for use with the ObjectID or Multimatte render elements

Lights

- Added support for automatic generation of multiple mesh lights from packed geometry coming through a single Geo node

Materials

- Added the Anisotropy UVWGen input to the V-Ray Material
- Updated the V-Ray Toon material to the latest version available in V-Ray Core

GPU

- Added support for more than 10 materials in MtlMulti when rendering with V-Ray GPU

VFB

- Added a "Remaining Time" progress bar to the V-Ray Frame Buffer

Hython

- Added a wrapper for the ropNode.render() method to resolve syncing issues when rendering in a loop through hython

Houdini

- Creating a V-Ray Renderer will now always create a V-Ray IPR ROP as well

Bug fixes

Alembic

- Empty render when the Geometry node holding the Alembic file is inside a Forced Matte Subnet node
- Fixed a hang on render start with particular Alembic file and Displacement enabled
- Crash when rendering a particular Alembic file containing degenerate faces
- Baked s@shop_materialpath assignments are lost when enabling Displacement from the Object Properties of the parent node

AOVs

- Forced material assignments from an Alembic baked shop_materialpath would not be registered for Cryptomatte in "Material Name" mode
- BRDFs hooked up to a Blend material had wrong output for the Material Select element
- Updated Cryptomatte VOP UI
- Fixed a crash when selecting a Bump BRDF VOP into the Material Select Render Element
- Fixed a bug with the Object Select AOV causing the Physical Camera's "Exposure" parameter to be ignored for the AOV output
- The "Don't Save RGB Channel" toggle did not work as expected
- Crash when selecting Bump VOP into Material Select render element

GPU

- Fixed a crash when opening a new scene after rendering with GPU
- Hang after rendering a volumetric on the GPU and trying to close Houdini or open new file
- Fixed a crash with a specific scene when rendering on the GPU

Deadline ROP

- Export a single Houdini job with sub-tasks when the Mode is set to "Render Job"
- Fixed a bug causing "Director" to be used in place of the ROP node name when "${OS}" is part of the export path
- Selecting slaves for the Machine List adds a "Qt: Untested Windows version 10.0 detected!" message to the list
- Default Deadline ROP Frame Range for "Frames per Job" export was one frame shorter than the entire timeline range
- Added support for UNC paths
- Fixed a bug causing wrong evaluation of the "${OS}" variable for the Image and VRScene output paths
- Environment texture parameters are not exported when no input node is provided to the slot causing V-Ray to use the "background" texture
- Fixed a bug causing wrong output on the farm when Deep Output is enabled on the Renderer ROP

IPR

- IPR is not updated for volumes when the Renderer's Sampler type is set to "Bucket"
- Hooking/unhooking nodes under a File SOP used to load VDBs (e.g. Transform SOP) did not update IPR
- Changing the visibility flag on a piece of geometry would occasionally cause the entire geometry to disappear

- Creating a node inside a V-Ray Material Builder VOP used to restart the IPR even if that node is not a part of the shading network attached to the rendered geometry
- Adding or removing an input connection to a VOP node would occasionally fail to update IPR
- Pressing the "X" button on the VFB to close the window would not stop the IPR
- When Motion Blur is enabled, objects with velocity blur used to have wrong motion blur after changing the Timeline frame
- V-Ray Clipper was not updated in IPR
- In some cases instanced geometry would not update in IPR
- Adding or removing an input connect to a VOP node does not update IPR
- Fixed multiple issues with IPR inside the Houdini Render View window
- Distance texture was not rendered in IPR
- Moving the camera during IPR causes "Camera Motion Blur" to disappear
- The position of an animated camera was not updated when changing the timeline frame during an IPR session
- Starting IPR with no Camera present in the scene does not bring up the VFB to the foreground
- When IPR is started in the VFB without a camera, the VFB window would disappear
- Volume Grid Shader ramps are not updated in IPR

Export

- Geometry with no animation keyframes disappears when using Rayserver Instancer with Motion Blur enabled
- Added required metadata for Material Select element to support sub-BRDFs selection when e.g. Blend material is assigned
- Wrong animation frame keys exported when using Time Shift to lock the time for an Alembic file containing multiple samples to the current frame
- The "Find Sun Automatically" toggle on the V-Ray Sky texture was not working
- Fixed a crash caused by forced Vertex attribute export
- Forced subnet with forced children produces multiple visible nodes
- Fixed wrong objectID parameter export for volumes causing wrong ObjectID and MultiMatte render elements output
- When Motion Blur is disabled and Duration is set to 0, the geometry disappears
- Alembic paths were not exported correctly for alembic files containing 2 frame samples in a single frame abc file
- Some V-Ray Frame Buffer settings were not stored in the scene or went missing when opening it in non-GUI mode
- Fixed wrong "Display" parameter evaluation when the parameter is animated
- Updated Wrapper material, Object Properties and Volume Grid Shader parameters to fix a wrong export issue with the Volume GI properties
- In some cases duplicate geometry was exported to the VRScene for every packed primitive
- Locked the "Min. Geometry Samples" option for Motion Blur to 2
- Object with animated "Renderable" parameter in the V-Ray Object Properties is not rendered
- In some cases the live geometry instancing will fail producing large VRScene files
- Objects with animated visibility are always visible
- Wrong evaluation for "${F}" when used in an expression for the "Environment" parameter on the V-Ray Renderer ROP
- Fixed a problem in a specific scene where the animated mesh vertices would not be exported
- Displacement through material is not exported when some of the faces have a shader with no displacement assigned to them
- Added support for a default material and default texture export under the Options tab of the V-Ray Renderer ROP
- Fixed an assignment mis-match when using shop_materialpath on packed primitives in a specific scene

Volume Grid

- Phoenix FD ".aur" cache files produced wrong emission results
- Preserve environment variables functionality on the ROP was working incorrectly for volumes

V-Ray

- Fixed a difference in Motion Blur when using the "v" attribute if Rayserver Instancer is enabled
- Crash when the Chaos License Server is not installed and trying to select GPU Devices

Aerial Perspective

- The V-Ray Sun was missing

Textures

- Object level transformations were not considered by the V-Ray Distance Texture for geometry in the "Objects" list
- Fixed a bug preventing the re-loading of an OSL file in the OSL texture
- Added some missing UV Bercon parameters
- UVWGenEnvironment has horizontal and vertical rotations swapped
- OSL string widgets do not generate a drop-down menu for TexOSL
- The Distance Texture was not picking up instanced objects in IPR
- Fixed a displacement texture export issue when no file path is provided
- Make Transform VOP data was not exported to the VRScene
- Wrong UVs export when displacement is enabled
- Removed the "Filtering Strength" parameter from the UV Bercon VOP
- Changed the Reference Shader VOP's Node parameter to 'oppath' instead of 'oplist'
- Added a name parameter for each layer of the Layered texture
- Fixed a bug causing UV stretching when using OpenSubdiv
- Added support for all common Image File VOP output sockets when OCIO is enabled
- Texture in a V-Ray Image node connected to the Displacement VOP doesn't override the texture in the displacement node
- Fixed a crash when the Volume Grid texture's Path parameter is empty or incorrect
- Fixed an issue with the Image File VOP causing OCIO texture colorspace parameter menus to not be populated automatically
- The OCIO configuration used to be parsed per-texture instead of globally which produced noticeable slowdowns when opening a scene that contains a large number of V-Ray OCIO VOPs
- Crash when no UV Mapping VOP is connected to the V-Ray Bercon Noise VOP

Displacement

- File sequence textures with an e.g. <frame4> token in the file path would not be loaded when specified directly under the Displacement VOP's Texture parameter

VRProxy

- Proxy created from Packed Geometry has wrong Viewport preview when imported back into the scene

UI

- The Physical Camera "Rolling Shutter" parameter had an unreasonable default value
- The V-Ray Bump material is present twice in the VOP menu with the copy causing a UI error
- 2D displacement settings stay hidden when displacement type is set to 2D
- Updated the GPU Device Select window borders
- Removed "Work in Progress" UI prefixes for new features
- Added missing "End Tangents" toggle to the Bercon textures
- The Physical Camera "ISO" parameter should not be disabled for CUDA/RTX render modes

Chaos Cloud

- Fixed a crash when submitting to the Chaos Cloud without a camera in the scene

Rendering

- Fixed a crash with particles and Rayserver Instancer when Motion Blur is enabled, velocity is used and Sampler Max Subdivs is greater than 11
- Fixed a bug causing wrong EXR Metadata export due to ticks (`) in the string field
- Fixed a bug causing no motion blur with non-default Motion Blur settings on CentOS 7 with Houdini 17.5
- Car Paint material was missing a "flake_uvwgen" input
- Environment texture parameters were not exported when no input node is provided to the input slot causing V-Ray to use the "background" texture
- Added a "Save Deep Data to Separate Files" toggle on the V-Ray Renderer ROP's Images -> Advanced tab
- Rendering splines with V-Ray GPU would produce dark artifacts on the hairs in some scenes that contain a V-Ray Rect or Sphere light
- Crash on render start under Mac OSX

Volume

- Fixed a bug causing wrong VRScene export for volume sequences loaded as Packed Disk Primitive types
- Fixed wrong objectID parameter export for volumes causing wrong ObjectID and MultiMatte elements output
- Duplicate "Disabling Light Cache for ..." message printed for volumes even when Volume Light Cache is disabled when rendering in IPR

Volumes

- Fixed a crash when rendering volumes instanced over points with a @pscale of 0

Houdini

- Fixed a bug causing the Houdini “hou” python module to fail loading when starting Houdini in batch
- Fixed an issue with the V-Ray TOP node caused by using a relative, rather than absolute path in the VRayTOP HDA
- Referenced parameters are sometimes not evaluated for the V-Ray Renderer ROP when placed inside a locked HDA
- Referenced python expressions would sometimes not be evaluated correctly for the V-Ray Renderer ROP
- The "Pack Scene" option from the V-Ray menu used to crash Houdini when used on an empty scene with no V-Ray Renderer ROP present

Lights

- Lights instanced over template points do not disappear if the template point is removed during animation
- Fixed a crash on render end with instanced Mesh lights
- Fixed HDA errors thrown by Mesh light when attempting to create a digital asset
- Sphere and IES lights were not exported to the VRScene
- Fixed a bug causing instanced lights to emit no light in the scene

Materials

- Light links are not considered by the Volume Scatter material
- Fixed an issue with Dispersion when using the acesCG color space
- Fixed a bug causing scrambled material assignments when assigning a Multi ID Material to a mesh with OpenSubdiv enabled from the Object Properties

VRScene

- Materials are not re-built correctly when importing them from a VRScene that uses the parameter::socket notation
- Crash when importing material from VRScene generated in Houdini using the "Plugin Name" option
- Empty material import with VRScenes generated from Houdini when using the "Scene Name" option