V-RAYforC4D 3.4.01/Official Release

Dear Users,

We are happy to release the first version based on the V-Ray 3.4 core.

For the v3.4.01 version you will need the newest Maxon updates, for v18 at least 18.028.,and on windows the included "c++ redistributable libs" from Microsoft (2015) and intel(2017) to run vray.

To make it easy for you we decided to let this version yet run on the old 1.9 V-Ray key that you have already. For the next version you will then get new serials dedicated for 3.4

We hope you like this version, it was tested over the last weeks by our beta testers, by us and also by Chaosgroup, who helped and partly programmed on the 3.4 version, especially for the RT GPU / IPR parts to support C4d specific needs.

If you install the DR V-Ray standalone please use the new included, make sure the needed OS-libs are installed there also on the 4 rendernodes. Important - please place the included UVWGenC4D file in the plugins folder of the standalone, so it can read the c4d mapping.

Notes on GPU rendering:

For RT rendering (GPU and IPR CPU) you need to use all vray native shaders.

Please note on osx we have cuda and cpu support, (make sure to install the osx cuda drivers from nvidia in case), but also cpu is very fluent.

Please note that on GPU rendering several things are not yet supported, Chaosgroup works yet on making them compatible with the C4Dstructure:

- 2 sided material alpha cutouts aren't supported yet (is an issue in vray sdk with the way c4d uses it, a fix to it will come very soon Chaosgroup says)
- Bump mapping is not yet supported on GPU, this is due c4d normal being different than in others, Chaosgroup works on this. As soon we get this we add it of course to 3.4
- Limitations from the Vray core on all V-Ray platforms (same on max, maya, ect): V-Ray not supports all Vray shaders on GPU yet. Chaosgroup works on adding more shaders to the GPU pipeline.

Some known limitations to the IPR preview window and workarounds:

The ipr in 3.4.01 is a lot more stable than in the wip builds. it however has some features that yet gets support in the next updates to 3.4. Known things are:

Mapping updates and bitmap changes need a stop and new loading/reload yet.

Instances/render instances and special objects like the clipper or certain rigging or 3rd party plugins might not work object are not yet supported. As temporary workaround for instances you can use proxy vrmeshes objects which are supported.

Beside that the IPR gpu has the same limitations as vray max or maya, so not all shaders are supported yet. For bitmaps use the new advbitmap best. The IPR also needs vray shader to work.

Overall also on IPR Chaosgroups works on a replacement for a Vray sdk feature (UVWswitch) we have to use atm to make c4d compatible with V-Ray, but is not suited to all interactive setups. We hope this replacement in the V-Ray sdk to come within relatively short time. It is then specific made for C4D and will make it possible to support more things as interactive changes. (bitmap&mapping updates, special objects,etc.)

For a detailed info list in supported and not supported features of GPU and/or IPR please see the FAQ page in support menu of the new webpage (http://www.vrayforc4d.net/faq)

OSL.

Please note on OSX there is no OSL support from Chaosgroup atm, we will hide the OSL material in the final installer release, also the final new V-ray icons will be in the public 3.4 release. OLS shader can not work on GPU.

## The 3.4 feature list:

- New great V-Ray 3.4 render speed. faster overall ray tracing and render performance;
- A lot faster path tracing GI, all parts of V-Ray had been greatly optimized using state of the art ray tracing technology.
- New progressive sampler rendering: see your render within seconds instead of waiting for buckets. Time or sampling level based for stills and animation.
- New variance based adaptive image sampler (VBAS), in bucket and progressive mode, improved sub-pixel filtering
- Dynamic Bucket splitting, unified sampler options (only bucket or progressive to choose)
- 3.4 denoiser via VFB & via V-Ray denoise stand-alone tool (for animation), non destructive, can cut render time by half and more, with GPU acceleration.

- Automatic sampling of lights and materials removing the need to set subdivisions manually
- New Global Defaults for fully automatic render settings, just turn on GI and render.
- V-Ray RT CPU, Cuda, OpenCL(only win) production rendering in picture viewer and editor
- RT Light Cache support & new pre-multiplied mode in Light Cache
- Faster Light Cache rendering,
- Light Cache is now rendered distributed via DR
- New feature for Light Cache for universal mode, including animation
- Fast IPR window (interactive preview render) based on V-Ray RT v3.4 core, GPU & CPU options.
- Multi faceted GTR BRDF (GGX pro with tail control)
- Min shading rate (one simple global shading quality slider)
- v3.4 clip max ray intensity setting (can speed up rendering a lot)
- Lot faster hair, grass & fur rendering & a lot faster instance and proxy rendering
- Probabilistic light sampling: a lot faster rendering with huge number of area lights
- Embree 2.3 (also dynamic geometry like displacement ,hair, mb, proxies)
- New 3.4 Render masks (textures, objects, object ids)
- V-Ray Clipper (make easy render time sections or booleans of objects or groups of objects)
- Reflection/refraction sets (include /exclude lists)
- New Object based and unbiased/raytraced (still fast) subsurface scattering option in SSS2 mat and channel, RT compatible
- New Multiple UV support per shader(!), support for unlimited UV channels chooser inside V-Ray shaders. this overcomes c4ds limitation of not being able to use mapping per shader. You can now map each shader different with any number of custom UV maps, and manage them easy via the new UVW manager tag
- New BRDF Material presets menu inside the Advanced (Adv) BRDF
- New single /rgb curve option for complex IOR, Custom Fresnel curves and shader color mapping
- New BRDF Materials: V-Ray Skin Material, V-Ray Volume Material, V-Ray Switch Material (for Scene variations based on full materials), V-Ray OSL Material (win), Stochastic Flakes Material (Brute force Physical flakes), AL\_Surface BSDF Material
- New static displacement options (faster), Open-Subdiv support via Displacement Mat option
- UDIM texture support\*
- New "Auto" mode in color mapping dealing with 8 bit,32 bit and mp situations
- Several New multipass channels, Separate light select layers for render elements (V-Ray light select)
- Sampler-Info-Tex shader as in V-Ray Maya, to read out scene data and use for shading
- OSL shader, with thin film and complex IOR shaders included (win only at the moment)

- V-Ray frame buffer, with ICC, OCIO, LUT, cube, interactive burn, exposure, highlight, color balance controls OSX and windows.
- V-Ray physical based Lens glare glow and diffraction effects via vfb, with GPU acceleration
- New vrmesh export, with all features, animated vr-meshes, hair and particles in vr-meshes
- Additional vray shaders (vray curvature, vray ray switch, vray user data color, vray user skalar, bercon noise, Phoenix Ocean shader)
- Optimised volume rendering
- New Sky and Areal Fog options: Hosek sky model to simulate more natural looking skies,
  Ground color option for VRaySun and VRaySky, Aerial perspective for efficient and realistic atmospheric depth (fog, humidity)
- Improved translucency in 2 sided mat
- New Dr features (exclude local machine from render, IPR or optional computer name support)
- V-Ray Quick setup (3 simple "speed vs. quality" sliders to tune any render setting)
- New Simplified user interface (optional like vray 3 max)
- New stand-alone layer\_max shader (faster)
- New Multi shader (with new options)
- New V-Ray Instancing shader
- New Random by ID, Random by shell command
- New ray traced round corners, with texture option, perfectly smooth edges at render time with no additional modeling
- Support for V-Ray VR stereo cameras: Support for 6×1 cubic and spherical 360 degree stereo VR cameras (for Hive, Samsung gear and Oculus Rift use p.e )
- Support for sub folders in c4d search paths and for textures stored in .lib files
- Bitmap aperture & optical vignetting in V-Ray physical camera
- New dome light ground mode mapping
- Shademap support for stereo images(speeds render up)
- C4d OGI editor resolution options for bitmaps in editor
- V-Ray presets, V-Ray tool bar
- New V-Ray Bridge menu
- Tool to transform similar objects automatic into render instances
- Support for native c4d mograph shader on DR stand-alone (via vray data shader)
- Support for c4d native vertex map on DR stand-alone (via vray data shader)
- Support for c4d native bitmap on DR stand-alone (via bitmap to file option, fast)
- faster vrscene export for DR (up to 10x) due new V-Ray sdk
- New MAXON Team Render still image support, in addition to animation frame frame distribution, as alternate option to V-Ray DR, good in case you want to use native c4d shaders.
- New asynchronous material preview (Very fast new material preview system)

New Material presets window in BRFD

## Features coming in next SP updates to 3.4:

- Updates to the IPR preview window (supporting more features and interactivity)
- Updates to gpu rendering (supporting more shaders and features by Chaosgroup)
- LUT collection chooser for vfb(like max script plugin)
- Update button for denoiser
- Glossy Fresnel
- Adaptive lighting (further improved light sampling, speeding up huge amounts of light)
- OGL update( improvements in OGL c4d editor preview)
- V-Ray Support for OpenVDB, Field 3d and Vray Volume grid (in SP)
- Stop & Resuming render
- Direct VR output to HIVE and OCULUS via RT
- Deep image saving (in SP)

Roadmap for planned additional features in Service packs & Releases (3.5 etc)

- V-Ray production Interactive mode
- Node based material editing option
- Nvidia MDL Materials (gpu & cpu)
- Hybrid CPU and GPU rendering
- VFB redesign
- DR Linux support\*
- Google cloud support (via Zync)\*
- Presenz support (V-Ray output plugin)\*
- Support for Chaosgroup new scanned material format