

Product description

Corona is an intuitive render engine tailored to the archviz community. While also capable and well-liked in the fields of automotive and product visualization, the UI, feature set, and ease of use are primarily driven by what architectural visualizers require.

Corona also benefits from being part of the Chaos ecosystem, giving its users access to many of the industry-standard tools created by Chaos.

What it's used for:



Architectural visualization



Television ads and title sequences



Automotive and product design



Look-dev work (e.g. film and games)

Corona users

Corona customers are professionals, usually in the field of archviz, who are freelancers or smaller studios with a need to account for the cost and ease of use of their software without sacrificing the quality of their images and animations.

- They are usually more artistic than technical, and do not want to spend time adjusting parameters and settings; they want to be more like photographers than programmers.
- They require photorealistic results without compromises. "Just good enough" is not good enough!
- They are freelancers or smaller studios, so budget is a consideration for them. This also means they are less concerned with software fitting into a pipeline for moving from department to department.
- They value their time and are concerned with the ease and speed with which they can set up and render their scenes.
- Many customers use the host software more as a scene assembly tool - pre-made materials, assets, easy tools to create gardens, grass, etc. are more important to them than the modeling and creation of new assets.

Key benefits for users



Easy to use.

Targeted for specific markets, Corona offers the most streamlined and easy-to-use UI without clutter and unnecessary parameters. It lets users approach their work like a photographer in a virtual world, so they can be artists and not technicians.



Post-process their renders without the need for a separate tool.

The Corona VFB (Virtual Frame Buffer) offers light mixing, a range of tone mapping controls, and effects such as bloom and glare. This reduces or even removes the need for them to go back and forth between their 3D software and image-editing software.



Tight integration.

Corona is tightly integrated into both 3ds Max and Cinema 4D, meaning it can render most native lights, objects, materials, etc. from the host software and works seamlessly inside the UI of the host. Many Cinema 4D users describe it as the best integrated render engine they have used.



Helping users get faster.

Corona users are more concerned with speeding up their workflow than getting the fastest render times, as their time is more valuable than that of their machine. Corona delivers this through the combination of pre-made content (Chaos Cosmos, Chaos Scans) plus workflow tools for scene assembly, such as Chaos Scatter, Corona Pattern, etc. Yet, for those who want the fastest possible rendering, Corona 12 has introduced an integration with Vantage allowing a GPU/real-time rendering workflow.



Truly photorealistic results.

Corona users work for clients who demand renders that could be mistaken for photos. This is exactly what Corona is built to do, focusing on quality without any compromise.

Interoperability with other Chaos products

- Corona supports many tools and provides optimized support for numerous third-party plugins.
- Fluid, fire, and smoke simulations can be added by Corona for 3ds Max users with Chaos Phoenix.*
- Professional image sequencing can be carried out in Chaos Player.*
- Corona supports Chaos Scans which allows for the most physically accurate materials to be used.*
- Corona 12, update 1 brings Corona to Vantage Live Link. This integration empowers Corona users with active Vantage licenses to flexibly choose between CPU and GPU rendering workflows based on their hardware and project requirements, significantly accelerating scene exploration and rendering.

*included in the Premium license

Features list

Rendering – Corona’s powerful CPU rendering delivers maximum realism with minimal effort from the user. Corona adaptively uses processing power where it is needed most to optimize speed without compromising quality. Additionally, in Corona 12, update 1 users can open their Corona scenes in Vantage and navigate through them in real time using Live Link. They can render tests or final images in seconds using Vantage’s GPU rendering or use Vantage’s animation features to create short animations, rendering them incredibly fast.

- CPU rendering, Resumable rendering, Denoising, Caustics, Corona to Vantage Live Link & GPU rendering

Lighting & illumination – Corona pioneered the most modern procedural Sky in any render engine, creating everything from dawn/dusk to full noon. A variety of other light types and support for many native 3ds Max and Cinema 4D lights give users all the options they need, while LightMix lets them adjust the color and intensity of lights before, during, and after rendering.

- Accurate lights, Global Illumination, Procedural sun and sky, Adaptive light sampling, LightMix

Cameras & optical effects – The Corona camera acts like a modern real-world camera and can be controlled through simple Exposure stops, through to full shutter speed, f-stop, and other controls. These are completed with advanced controls for camera effects such as Motion Blur and Bloom & Glare.

- Lens effects, Photorealistic camera, VR, Fisheye, Panoramic

Materials – The Corona Physical Material is built from the ground up to be physically realistic, while there is the option to use specialized shaders for skin, hair, and others. Many V-Ray materials can be rendered without conversion. Presets within the Physical Material and complete materials in Chaos Cosmos, and Chaos Scans mean users never have to start from scratch.

- Physically based materials, Corona Hair material, Metalness, Displacement, Corona Converter, Chaos Cosmos, Chaos Scans

Textures – Corona is compatible with almost all native 3ds Max and Cinema 4D shaders and has its own memory-efficient Corona Bitmap shader for loading images. A collection of utility texture maps allows textures to be layered, mixed, color-corrected, and more.

- Memory-efficient textures, Triplanar mapping, Rounded corners, UVW Randomizer

Geometry – Corona works with any native geometry, and also includes proxies, volume grids, scattering, patterning, slicing, etc.

- Proxy geometry, Corona Slicer for render-time booleans, Hair and Fur, Chaos Scatter, Patterns

Atmospheric & volumetric effects – Users can choose between simple and fast-rendering volume effect in the Corona Sky to simulate atmospheric haze or the full control of a volumetric material for more complex results.

- Volume rendering, Aerial Perspective, Crepuscular rays, fog, mist

Render Elements – For adjusting images in video or image editing software, Corona offers many Render Elements (3ds Max) and Multipasses (Cinema 4D), including Virtual Beauty, matte passes, separation of scene illumination, depth information, and more.

- Render Elements, Cryptomatte, Normals, Depth, Direct, Indirect

What's new in Corona 12, update 1?

Team up, speed up.

Unleash new levels of speed and collaboration with Corona 12, update 1. Explore your scenes in real time with Corona to Vantage Live Link. Team up with your clients to work together more efficiently through Cloud Collaboration. Get render-ready faster than ever thanks to enhanced Caustics, automatic Exposure and White Balance, AI image upscaling, Scatter distribution presets, and much more.

Explore your scenes in real time. Render images in seconds.

- **GPU rendering with Corona and Vantage**

Combine the ease of use and unmatched photorealism of Corona with the high-end real-time ray tracing of Vantage to achieve the archviz dream – fast and easy photoreal rendering. Effortlessly export scenes to Vantage, explore them in real time and render images in seconds. Create short animations directly in Vantage and enjoy the lightning-fast speed of GPU rendering.

- **Corona to Vantage Live Link (initial implementation)**

Explore your scenes in real time with Vantage Live Link. Now, every change you make in 3ds Max or Cinema 4D is automatically updated in the Live Link viewport giving you a GPU-based alternative to Interactive Rendering. With Vantage Live Link you can easily look for new camera angles, adjust lighting, arrange your scene, set up some aspects of materials, and more.

Note: With the new version of Live Link coming in future releases, users will be able to render DCC animations in Vantage and send Scatter updates more efficiently.

Collaborate more efficiently. Present more effectively.

- **Chaos Cloud Collaboration**

Streamline client reviews and shorten the path to final approval with Chaos Cloud Collaboration. Upload images directly from the VFB, share with clients, and collect feedback easily through markup and comments. Set up unlimited projects and manage sharing permissions effortlessly. Cloud Collaboration takes care of image versioning throughout the project and simplifies delivering the final work to your clients.

- **Virtual Tours**

Create immersive panoramic virtual tours and deliver next-level presentations with Cloud Collaboration—no third-party tools needed. Setting up a virtual tour is quick and easy, allowing clients to explore the scene or even embed the tour on their websites.

Caustics got even better.

- **Faster Caustics**

Caustics now look around twice as good in the same rendering time. The more Caustics affect your scene, the greater the speed boost you'll notice.

- **Caustics Surface Multiplier**

With the new Caustics Surface Multiplier, you can easily adjust caustic intensity in the Beauty pass—no need for render elements or post-processing to achieve your desired results.

- **Volumetric Caustics**

Create breathtaking stills and animations with the new Caustics visible through volumetric materials functionality. With this new feature, you can enable the visibility of reflected or refracted rays created from Caustics as they pass through water, smoke, and more. Just like with surface Caustics, you can control the intensity of the volume Caustics in the Beauty pass.

Jump-start your scene with auto Exposure and White Balance.

- **Automatic Exposure**

Easily set up your scene with the new auto Exposure checkbox in the VFB. It works like a modern camera, and you can make additional adjustments using standard Exposure controls or by baking it into the tone mapping. Use this feature to find a good starting point for your exposure, or set it to update during an animation so the exposure continually adjusts based on the lighting in each frame.

- **Automatic & enhanced White Balance**

White Balance can now be automatically set in the VFB, and just like the Automatic Exposure this can be done to find a good single setting, or left to automatically adjust during an animation. The improved algorithm provides a more natural look to your scenes. For compatibility, only new scenes will use the auto White Balance by default, while existing scenes retain their original settings.

Create test animations faster.

- **AI Image Upscaling**

Quickly render test animations and achieve more responsive results in Interactive Rendering with the new AI Image Upscaling. Powered by NVIDIA's AI Upscaler, it can give you up to 4x faster rendering. Please note, this feature is designed for test animations only, as it lacks temporal consistency and may result in noticeable flickering.

Detail your scenes more easily.

- **Scatter Distribution Presets**

Easily experiment with different Scatter distributions using the new built-in Scatter distribution maps. Instantly adjust the look of your scatters and enhance your scenes with speed and precision.

- **750+ new Cosmos assets**

Explore over 750 new assets in the Chaos Cosmos library, including vegetation, people, materials, and furniture.

Other improvements.

- **Corona for Cinema 4D updates**

With the enhanced scene converter, converting your scenes to Corona is easier than ever. You can also export to CXR format directly from Cinema 4D, enabling animation exports, batch rendering, and more.

- **New Installer**

Corona has adopted the Chaos installer, making it easier for users to install any Chaos product using the same streamlined installation process.

Why should users choose Corona?

- Corona offers the most streamlined, simplified UI so that users can be artists rather than software technicians.
- The Corona VFB's user-editable tone mapping stack reduces or removes the need to use external image or video editing software.
- Artists can manipulate different lighting scenarios interactively, even after rendering, without having to render again. By using the Corona Image Editor, they don't even need to open their host DCC.
- From a single render, users can simulate many light environments and instantly tweak specific parts of their scene.
- Access to Chaos Cosmos, Corona Material presets, and compatibility with Chaos Scans means users can jump-start their scenes with assets and materials.
- Chaos Scatter is a powerful way to distribute random or organized content in scenes without the need to purchase additional software.
- Users can easily avoid seams in their textures with texture randomizations and Triplanar mapping.
- Corona 12, update 1 supports scene export to Vantage, a high-quality visualization environment enabling 3D artists to swiftly explore and showcase their work in a fully ray-traced setting. This integration empowers Corona users with active Vantage licenses to navigate their scenes in real time and flexibly choose between CPU and GPU rendering workflows based on their hardware and project requirements.
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