V-Ray 5 for Revit

Product sheet

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Product description

V-Ray for Revit is the most versatile visualization toolset for Revit. It can take models from real-time to photoreal rendering and meet the challenges at every stage of project development.

Now, with V-Ray Vision, users can design their BIM project with high-quality real-time visual feedback. V-Ray Vision greatly streamlines all tasks that call for speed and efficiency — whether it's for rapid experimentation during the concept phase or when users are collaborating on the model in design development.

With the new Chaos Cosmos asset library, architects and designers can build real-life context for their model's exterior and interior. By employing our carefully curated entourage, great-looking visualizations can be achieved effortlessly, helping users convey their ideas better while retaining accurate scale.

The signature ray-tracing engine achieves the highest level of photorealism anytime it's needed. Users can study the model's interaction with light in the early stages of design development and create renders to present the completed model with the highest physical accuracy. V-Ray's new compositing capabilities polish the final renders without switching to a separate application.

V-Ray 5 for Revit handles the toughest projects and ensures that users can always leverage previous work done in Revit or other 3D applications. It is the perfect tool to handle visualization tasks from concept to completion, right inside Revit.

What it's used for

🏢	**Architecture**	⚒	**Infrastructure**
🪑	**Interior design**	◇◯▢△	**Urban design**

Personas

1. **Revit designer / Revit technician** — This is the biggest category of users. They use Revit every day in the most laborious phases of project creation: design development and the construction documents.

   ▪ Develops the detailed BIM model. They work on facade studies, site plans and interior studies.

   ▪ Needs an uninterrupted, high-quality view of their 3D design as they work on it within Revit.

   ▪ Constantly requires internal and external coordination and approvals on their work, and needs a tool that supports rapid iterations — even at the expense of photorealism.

   ▪ Often works with fairly heavy projects and needs a solution that can handle the geometry reliably.

2. **Conceptual designer** — The second biggest category of users. Their work is part of the initial project design stage where rapid experimentation is key. They frequently switch between Revit and other modeling apps such as SketchUp and Rhino.

   ▪ Does numerous iterations and needs to quickly review and evaluate design options.

   ▪ Needs the ability to transfer designs from modeling apps into Revit and back without having to recreate them per app.

   ▪ Creates context for their concepts and needs entourage for scale and realism.

   ▪ Does not chase realism but still needs high-quality visualization for their work.

3. **Lighting designer** — They study the model's interaction with both natural and artificial light. Their work could be part of both the concept development and the design development stages, as required.

   ▪ Needs accurate representation of light.

   ▪ Explores and validates the lighting design in terms of sun illumination and fixtures.

   ▪ Loves to experiment with lighting intensity and color but struggles as it usually takes too much time.

4. **Arch-viz specialist** — They are not involved with the actual design of the building. They receive the ready BIM model and are responsible to create appealing images for presentation purposes.

   ▪ Would like to render the model directly in Revit as decoupling it for other apps takes time and effort.

   ▪ Wants to leverage all previous design work and not recreate from scratch.

   ▪ Has to make the model bustling and convey moods; therefore, needs a compatible photorealistic entourage.

   ▪ Cares about realistic lights and material reflections.

   ▪ Wants to minimize or even skip post-processing work in third-party apps.

Key benefits to users

Real-time visualization — Users can now explore their scene with high-quality uninterrupted visual feedback as they work in Revit. V-Ray Vision, is a lightweight real-time viewer that does not require new and expensive hardware or pipeline changes.

High-quality entourage — Our curated render-ready Chaos Cosmos library includes entourage for exteriors and interiors usable across the Chaos ecosystem.

Physical Accuracy — Users can analyze designs according to their actual lighting and the true reflections and refractions of their materials.

Seamless Revit integration — All decisions live in the Revit project without altering the BIM database, and all workflows are done within Revit without any import/export.

Continuity of design decisions

- Moving from real-time to photorealism does not require any rebuilding or starting over from scratch.
- The V-Ray work done for materials and geometric assets can be leveraged across other 3D tools, including 3ds Max, Rhino and SketchUp.

Interoperable — V-Ray work done for render-ready assets and reusable materials in other 3D tools such as 3ds Max, Rhino, or SketchUp can always be leveraged.

Scalable quality — Traditional, monochromatic studies with convenient material overrides can be made faster than ever.

Power — Users can speed up their creative workflow by assigning as many processors (CPU and/or GPU) as they'd like, harnessing additional networked machines with SWARM, or using the on-demand power of Chaos Cloud.

"V-Ray for Revit elevates our design process, helping us achieve professional-grade renders straight out of Revit. Thanks to its photorealistic lighting and proxy implementation, we can save time in post-production and focus on our design intent."

— Robert A.M. Stern Architects

Interoperability with other V-Ray tools

- Works seamlessly with V-Ray for Max, V-Ray for SketchUp, and V-Ray for Rhino.
- Supports Chaos Cosmos, enabling the usage of high-quality assets across the Chaos ecosystem without the need for conversion.
- Supports VRscans, which allows for the most physically-accurate materials to be used.
- Chaos Cloud gives one-click access to cloud rendering directly from V-Ray's UI.

Key features

Rendering - With V-Ray Vision users can visualize their work in real-time. The CPU and GPU render engines give users pipeline flexibility to handle the most demanding projects.

- V-Ray Vision
- Chaos Cosmos
- CPU rendering
- GPU rendering
- Denoising
- Interactive rendering
- Batch rendering

UI - V-Ray is part of Revit and complements the Revit UI without altering the BIM database.

- Asset Editor
- Appearance manager
- Frame buffer

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Lighting - V-Ray gives users access to an array of natural and artificial lights that can be utilized to create realistic renders of exteriors or interiors. Powerful tools enable users to speed up rendering time, analyze lighting fixtures, generate skies and more.

- Accurate lights
- Light Mixing
- Adaptive Lights
- Lighting analysis
- Global Illumination
- Sun & sky

Camera - V-Ray gives access to popular camera types and advanced controls, so users can work as virtual photographers.

- Real-world cameras
- Automatic exposure & white balance
- Lens effects
- VR

Materials & textures - V-Ray enables users to give their models realistic looks with both V-Ray and native Revit materials. Numerous precision tools and easy-to-use presets give users the possibility to achieve any desired look for surfaces — from cardboard-like to reflective coated metal.

- Physical materials
- Material library
- Native materials support
- Decals
- Texture maps
- Material overrides
- VRscans

Atmospheric & volumetric effects - V-Ray gives users the ability to add depth to exterior scenes with realistic atmospheric effects and material light scattering and translucency.

- Fog
- Aerial perspective
- Volumetric materials

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Geometry management - V-Ray allows users to work in a smart and memory-efficient way. Work created in Revit and other supported 3D applications can always be transferred seamlessly.

- Geometry replacements
- V-Ray proxies
- V-Ray Scene
- Displacement
- Section Box
- Infinite ground plane

Why choose V-Ray 5 for Revit?

V-Ray 5 for Revit streamlines the workflow of any architect and arch-viz specialist using Revit by giving them access to the following powerful functionalities:

- Real-time design visualization with V-Ray Vision.
- Context setup with Chaos Cosmos library, easy-to-use collection of high-quality, photorealistic assets.
- Photorealistic representation of models through our physically-based renderer.
- Essential post-processing without switching apps.
- Time-effective light source experimentation and configuration with Light Mix.
- User-friendly & time-efficient material realism.
- One-click conversion of materials to cardboard-like massing models with the Contour settings.
- Streamlined proxy material configuration setup with the V-Ray Asset Editor.
- Interoperability of design decisions across a variety of host apps (3ds Max, SketchUp, Rhino) through V-Ray proxies.
- One-click native cloud rendering.

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