SUCCESS STORY | WOODS BAGOT

GLOBAL ARCHITECTURE STUDIO ACCELERATES AND ENHANCES COLLABORATION AND VISUALIZATIONS

Image courtesy of Woods Bagot

NVIDIA

Woods Bagot uses NVIDIA Omniverse and NVIDIA RTX technology to accelerate design workflows and pipelines, while simultaneously collaborating on an open platform.

Image courtesy of Woods Bagot

SUMMARY

- An early adopter of NVIDIA Omniverse, Woods Bagot is a global architecture firm that creates compelling, high-fidelity visualizations for clients around the world.
- With the Omniverse platform, design teams can easily publish content on a server, then access it to simultaneously collaborate with each other in real time.
- Omniverse also allows the Woods Bagot team to collaborate while concurrently using design and visualization software like Autodesk Revit and 3ds Max, McNeel Rhino/Grasshopper, and Unreal Engine 4.

CHALLENGE

As one of the oldest architecture firms in the world, Woods Bagot specializes in building design and planning across the globe and continuously looks for new technologies to help enhance their workflows. When creating architectural visualizations during the design stage, the team requires GPU-accelerated ray-traced rendering to produce high-quality rendered images.

A key challenge for Woods Bagot is that they use many different software and applications at different stages in the design process. With over a dozen studios that span across six regions, Woods Bagot was looking for an opportunity to collaborate more efficiently.

The firm wanted a solution that provided a better workflow for visualizing projects across multiple applications in a fast-paced design environment and one that was able to quickly adapt to rapid design changes and options.

SOLUTION

With help from the NVIDIA team, Woods Bagot saw an early demo of Omniverse and was immediately enthralled by it. Built on USD, an open source format, Omniverse was the first solution that allowed the team to achieve real-time, synced collaboration.

"Omniverse is the only platform currently out there that solves the challenges of multi-user, real-time collaboration and visualization," stated Shane Burger, Principal and Global Leader of Technical Innovation at Woods Bagot. "Additionally, the Omniverse roots in USD and open data standards make it a desirable platform to work with and build on top of."

CUSTOMER PROFILE

W–B WOODS BAGOT

Organization:	Industry:	Founded:	Location:	Website:
Woods Bagot	Architecture	1869	17 Global Offices	www.woodsbagot.com

Image courtesy of Woods Bagot

SOFTWARE

Autodesk Revit

Autodesk 3ds Max

McNeel Rhino / Grasshopper

Epic Games Unreal Engine 4

HARDWARE

NVIDIA RTX A5000

NVIDIA Quadro RTX 8000

REASONS FOR NVIDIA

- NVIDIA Omniverse allows the team at Woods Bagot to use various creative applications or software for their design projects through Omniverse Connectors and USD-based workflows.
- NVIDIA RTX GPUs enable the teams to create high-quality ray-traced images in real time.
- Woods Bagot achieved faster and higher quality rendering performance with the Omniverse RTX Renderer's real-time ray tracing and cinematic path tracing modes, accelerated by NVIDIA RTX.

The team seamlessly integrated their existing design workflows and pipelines with Omniverse using Omniverse Connectors, enabling the designers to collaborate while using multiple applications such as Autodesk Revit and 3ds Max, McNeel Rhino, and Unreal Engine 4.

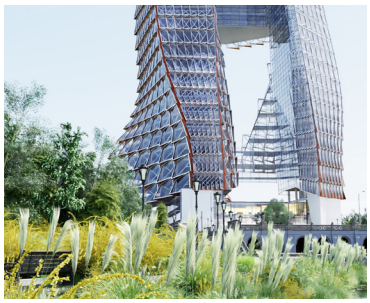
Woods Bagot also explored workflows using the Omniverse View app, a powerful visualization application for reviewing 3D design projects with physically accurate photorealism. Omniverse View, which has real-time ray traced and path traced modes, helps Woods Bagot visualize large, complex scenes in real time with multi-GPU support.

RESULTS

Omniverse was quickly integrated into Woods Bagot's design pipelines and supported multiple existing workflows while allowing the team to maintain a unified design model in Omniverse Create, a scene assembly application. The designers can use their preferred applications and publish their assets to Omniverse Nucleus, the universal asset exchange and collaboration engine, where they can access the content and visualize all the parts to gain a deeper understanding of the designs.

The Omniverse platform enabled Woods Bagot to accelerate the design process by removing many of the barriers between design software and design iteration. By combining NVIDIA RTX GPU power, advanced visualization, open standards, connections to leading software tools, and easy integration of advanced SDKs for AI, these breakthrough technologies are now even more accessible to the AEC industry.

Woods Bagot believes Omniverse will have a major impact in two important areas of AEC. The first is the growing adoption of USD. By building the platform on an open standard, designers at Woods Bagot are confident that their work will be easy to share, adapt, adjust, and access.



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Shane Burger,
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The second major impact of Omniverse is the availability of real-time collaboration. Woods Bagot designers can collaboratively design in an open environment in real time, across various software and applications, workflows, and devices.

The ability for NVIDIA Omniverse to fully leverage NVIDIA RTX GPU computing power, on top of the robust open standard of USD, makes a significant and positive impact on Woods Bagot's design workflows. According to Woods Bagot, the Omniverse platform is not siloed, and it encourages connectivity to the workflow that has the most value to the users.

Woods Bagot is looking into expanding their adoption of Omniverse across more of their studios, and will be using the open platform for upcoming design projects.

To learn more about NVIDIA RTX, visit: **www.nvidia.com/ov-aec**

For more information on Woods Bagot, visit: **www.woodsbagot.com**

www.nvidia.com

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