

Automotive / Transportation

Katana Studio Streamlines Automotive Marketing With Real- Time App Built on NVIDIA Omniverse

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Objective

At [Katana Studio](#), artists and developers produce high-fidelity CGI imagery and digital experiences for brands by combining art and technology. Recently, the team has leveraged NVIDIA Omniverse™ SDKs and APIs to develop their own content creation tool called [COATcreate](#), a SaaS offering built to streamline high-end visual production. COATcreate allows non-technical users such as marketing teams or product specialists to stage and capture their own renders of 3D assets and scenes from full CAD data using Universal Scene Description (OpenUSD) and [NVIDIA RTX™](#) technologies.

One of the first adopters of COATcreate is Nissan North America's Virtual Garage (VG), which has embraced the platform to transform how CGI marketing assets are produced for its vehicle lineup. By shifting away from traditional production pipelines to a real-time, cloud-based approach, Nissan has achieved significant savings in both cost and time, while gaining new levels of scalability and flexibility for its content creation needs. These renders can be used for advertising, marketing, and even product validation workflows. The real-time rendering capabilities of COATcreate™, combined with its user-friendly interface, empower automotive clients to pose photoreal content efficiently and cost-effectively.

Customer

Nissan

Partner

Katana Studio

Use Case

Content Creation / Rendering

Products



The Omniverse Value

- > **Modular platform for application development:** Katana Studio chose components from Omniverse to gain the flexibility and interoperability they needed to create a software product.
- > **Streamlined client experience through custom app:** Katana built a web-based application to utilize prepared 3D data. Nissan Virtual Garage reports over \$1M in cost savings after implementing COATcreate across marketing campaigns.
- > **Accelerated content production for new markets:** Katana Studio's COATcreate application accesses CAD data represented as OpenUSD, allowing users to quickly visualize, edit, and capture 3D scene data in real time, resulting in 70% faster production timelines.

Repurposing 3D Data to Serve New Markets

Katana Studio has developed a content creation tool that's reshaping how CGI marketing assets are produced for the automotive industry and beyond. Traditionally, this process involved manual data preparation, art directors conceptualizing and pitching ideas, bidding out, and going through rounds of production and client reviews before delivering a final fixed asset for web or print, typically taking 3-5 weeks per project.

Katana set out to provide a more scalable, cost-effective solution for their clients, such as Nissan, to repurpose 3D product and scene data prepared by their artists, to continuously create high-fidelity, on-brand content across global markets without inflating the original production budget.

The company developed COATcreate, a browser-based SaaS platform built with NVIDIA Omniverse SDKs and APIs. It wraps Katana's automotive visualization pipeline and pre-processed CAD data into an intuitive web interface, allowing non-technical users to interact with huge, complex 3D scenes and render photoreal assets using real-time ray tracing powered by NVIDIA RTX. This innovation has delivered significant impact for Nissan North America's Virtual Garage (VG), which has used COATcreate to support approximately 10 campaigns and produce over 800 marketing images across regions including the U.S., Mexico, Australia, and global vehicle lines. In total, Nissan has saved over \$1.1 million in production costs, while slashing asset creation timelines by around 70% compared to traditional workflows.

The app lets you create local content for social media, print, and other marketing materials in a few hours. This makes it easier to adapt to the fast pace of automotive marketing today.



Modular Application Building with Omniverse and APIs

Katana needed the flexibility to build a solution that suited their needs, aligned with their skillset, and interoperates easily with their existing pipeline. Omniverse's modular components allowed them to integrate only what they needed from the platform. For example, the COATcreate high-fidelity viewport provides photoreal, ray-traced rendering, powered by the [Omniverse RTX Renderer](#). The overall experience and user-friendly interface is delivered over the WebGL API, and pixels are streamed from the cloud.

COATcreate accesses CAD data, represented as USD, allowing a user to visualize and change scene data in real time, and manage a set of preconfigured variant sets such as trim, colors, and wheel options. These modular features support Nissan's real-time, web-based production pipeline—empowering non-technical users across regions to generate high-quality marketing content. What once took weeks can now be done in hours, thanks to COATcreate's cloud-native design and seamless integration with OpenUSD. "COAT and USD unlock the ability to create high-quality, photorealistic content, enabling designers and art directors to create what they want in real time," said Cappy Childs, chief operating officer at Katana Studio. "Previously, you spend all this time preparing data for one shot, and then throw it away. Now we can repurpose it later for other shots. It's like a paradigm shift for artists and clients because they're creating something with longevity versus single use."

Katana Studio, Nissan

"XR is now being used across a wide range of applications—from design reviews and dealership experiences to special events, product feedback, and internal evaluations. Anytime you'd want a real car present but don't have the space, can't ship it, or simply don't have one available, XR is a perfect solution."

Damian Fulmer

Global Director of Workflow and Technology at Katana Studio



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during the data prep stage. This is similar to the way a [product configurator](#) functions.

“We also capture metadata in the USD file and incorporate it into rendered stills, allowing users to share a live link,” said Damian Fulman, global director of technology at Katana Studio. “This metadata-capturing capability not only improves version control but also supports AI-assisted workflows and [digital twin](#) continuity—helping Nissan and other customers future-proof their content libraries. COATcreate’s intelligent asset reuse model is now enabling global campaigns across North America, Mexico, and Australia, with hundreds of high-quality assets spun from a single pipeline.

With this foundation in OpenUSD and real-time collaboration, the Katana team sees even more opportunities ahead.

One area of rapid growth is extended reality (XR), which is transforming how teams interact with their data-rich 3D content. By repurposing production-grade assets for immersive environments, organizations can streamline everything from design validation to customer engagement—without duplicating effort or compromising visual fidelity. XR enables stakeholders to step into a scene, view vehicles at scale, and experience configurations or design options in context—all powered by the same asset pipeline used in marketing and engineering.

“XR is now being used across a wide range of applications—from design reviews and dealership experiences to special events and internal evaluations,” added Fulman.

“Anytime you’d want a real car present but can’t ship or fit it, XR is the perfect solution.”

Nissan North America’s Virtual Garage has revolutionized its CGI marketing asset production by adopting Katana Studio’s COATcreate platform, powered by NVIDIA Omniverse. This transition has led to over \$1 million in savings, a 70% reduction in production time, and a scalable, flexible content pipeline that empowers marketing teams to create high-

Katana Studio, Nissan



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photoreal CGI assets more efficiently and affordably. The team at Katana prepared and integrated Nissan's data into COAT, enabling Nissan's users to seamlessly interact and test configurations of the new Nissan Z.

Nissan North America's Virtual Garage has showcased how adopting Katana's COATcreate, a real-time, cloud-based CGI platform, can significantly cut costs and accelerate production timelines for marketing assets. This shift has led to the creation of a scalable, future-proof content pipeline that puts the power directly in the hands of marketing and product teams.

"COATcreate has enabled our teams to respond faster and more creatively than ever before," said Chad Taylor, Head of the Nissan Virtual Garage and Digital Nissan Assets.

"With OpenUSD, we've moved from a weeks-long production model to a matter of hours. It's a fundamental change to how we think about content creation—not just faster, but more flexible, more scalable, and ready for what's next."

'Looking ahead, both Katana and Nissan see OpenUSD as foundational to digital twin strategies, immersive experiences, and AI-assisted content creation. As Taylor summed it up:

"OpenUSD is no longer a future vision—it's our current workflow. It's helping us create smarter assets, faster cycles, and ultimately better products for our customers."

"We're seeing an inflection point," said Damian Fulman, Global Director of Workflow and Technology at Katana Studio. "As more companies embrace OpenUSD and platforms like Omniverse, they're moving toward pipelines that are faster, smarter, and more adaptable. What used to take teams of specialists now happens in a browser. We're not just building CGI assets—we're building living digital ecosystems."

Fulman also emphasized how COATcreate lets clients get more mileage out of their 3D data. "You're not throwing anything away. Whether it's for validation, configuration, or marketing, the same dataset can serve multiple purposes, and that unlocks serious efficiency."

Start developing interoperable 3D workflows and
OpenUSD applications.

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