DENZA Collaborates With WPP to Build and Deploy Advanced Car Configurators on NVIDIA Omniverse Cloud

Luxury EV maker taps into NVIDIA for configurators, marketing and generative AI.

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DENZA, the luxury EV brand joint venture between BYD and Mercedes-Benz, has collaborated with marketing and communications giant WPP and NVIDIA Omniverse Cloud to build and deploy its next generation of car configurators, NVIDIA founder and CEO Jensen Huang announced at SIGGRAPH.

WPP is using Omniverse Cloud — a platform for developing, deploying and managing industrial digitalization applications — to help unify the automaker's highly complex design and marketing pipeline.

Omniverse Cloud enables WPP to build a single, physically accurate, real-time digital twin of the DENZA N7 model by integrating full-fidelity design data from the EV maker's preferred computer-aided design tools via Universal Scene Description , or OpenUSD.

OpenUSD is a 3D framework that enables interoperability between software tools and data types for the building of virtual worlds.

The implementation of a new unified asset pipeline breaks down proprietary data silos, fostering enhanced data accessibility and facilitating collaborative, iterative reviews for the organization's large design teams and stakeholders. It enables WPP to work on launch campaigns earlier in the design process, making iterations faster and less costly.

Using Omniverse Cloud, WPP's teams can connect their own pipeline of OpenUSD-enabled design and content creation tools such as Autodesk Maya and Adobe Substance 3D Painter to develop a new configurator for the DENZA N7. With a unified asset pipeline in Omniverse, WPP's teams of artists can iterate and edit in real time a path-traced view of the full engineering dataset of the DENZA N7 — ensuring the virtual car accurately represents the physical car.

Traditional car configurators require hundreds of thousands of images to be prerendered to represent all possible options and variants. OpenUSD makes it possible for WPP to create a digital twin of the car that includes all possible variants in one single asset. No prerendered images are required.

In parallel, WPP's environmental artists create fully interactive, live 3D virtual sets. These can start with a scan of a real-world environment, such as those WPP captures with their robot dog , or tap into generative AI tools from providers such as Shutterstock to instantly generate 360-degree HDRi backgrounds to maximize opportunity for personalization.

Shutterstock is using NVIDIA Picasso — a foundry for building generative AI visual models — to develop a variety of generative AI services to accelerate 3D workflows. At SIGGRAPH, Shutterstock announced the first offering of these new services – 360 HDRi – to create photorealistic HDR environment maps to relight a scene. With this feature, artists can rapidly create custom environments that fit their needs.

Once the 3D experience is complete, with just one click, WPP can publish it to Graphics Delivery Network (GDN) , part of NVIDIA Omniverse Cloud . GDN is a network of data centers built to serve real-time, high-fidelity 3D content to nearly any web device, enabling interactive experiences in the dealer showroom as well as on consumers' mobile devices.

This eliminates the tedious process of manually packaging, deploying, hosting and managing the experience themselves. If updates are needed, just like with the initial deployment, WPP can publish them with a single click.

CTA: Learn more about Omniverse Cloud and GDN .

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