3D Engine For The Digital Twin

Challenges
Silos Limit the Promises of Digital Transformation

As a result of the rapid growth of digital transformation, companies must manage a massive influx of data and demands on different departments. The digital twin promises to connect siloed departments and external operations. However, building a visually-aligned graphics-rich digital twin is proving to be a significant challenge in manufacturing. Existing 3D tools require expensive hardware with high-end GPUs as well as cumbersome on-premise software to visualize 3D. Ultimately, this is slowing down the promise of the digital twin's ROI in Industry 4.0.

Vertex Software
Visualization Platform for the Digital Twin

Vertex Software's cloud-based, digital twin platform fuels team collaboration by unlocking 3D data and providing aligned visuals across your internal and external teams. Our highly scalable, responsive, cloud-based patent-pending solution supports customers all along the digital thread. We offer a zero-transformation experience, helping companies reduce the data transformation process to 2% of the time at a fraction of the cost. Our platform customers are currently building 3D visual collaboration solutions on our platform which include design collaboration, 3D-enabled product and full-factory IoT visualization, assembly work instructions, sales configurators (CPQ), and field service automation.

Benefits

Unlock 3D data from PLM, CAD, and ERP tools for your enterprise.

Build & Extend Custom Solutions
Build any custom solution to visualize any size model with any number of users on any device.

Automate Data Transformation
Eliminate manual data transformation activities to get interactive, real-time 3D digital twins to your business users fast.

Connect Visuals to a System of Record
Connect enterprise data to a single 3D visualization source anywhere in your extended enterprise.

Deliver Low-Code Applications Quickly
The Vertex platform is easy to implement. Start visualizing 3D in just a few lines of code to get up and running fast.

Vertex Software on AWS

The combination of AWS's cloud expertise with Vertex's experience in 3D visualization is an unparalleled combination. Vertex brings the ability to visualize CAD geometry in the cloud from a variety of sources and scale to any size on model, to any user in the world, and to any device. AWS provides the infrastructure to scale up to handle the largest models in the world all across globe. Manufacturing data is very sensitive and AWS provides world-class security. Cloud gives customers the ability to build visualization apps very quickly and scale up and down based on demand.

Features

Align your business critical data to 3D models

We give companies PLM-aligned data in real-time. Our customers have nimble, ad-hoc, and connected collaboration capabilities through our system of engagement and cloud architecture. They develop true, task-specific digital twin solutions for operational effectiveness and efficiency. We horizontally integrate a manufacturer's process on top of our digital twin platform, connecting all teams with a shared visual context that mirrors the physical products they build, sell, and support.

Bring visualization to any application, user, and device

We provide increased efficiency all along the digital thread by delivering a shared visual context from engineering to manufacturing to sales and service. Our customers instantly visualize, from any device, 3D models larger than what they can even access on today's most powerful and expensive workstations. And any number of users can access massive models simultaneously.

Fortune 100 Heavy Equipment Customer

Poor methods for visualizing 3D data on the shop floor

Customer wanted to bring cloud-based, PLM-aligned 3D data across the entire digital thread, starting with the shop floor. This solution must provide near-term wins and long-term value.

Digital Twin aligned 3D engineering data and IoT

Vertex enabled the company to bring aligned 3D data directly to the shop floor to connected touchscreen and mobile devices, powering sequenced work instructions, and visual reporting tools. The smart factory digital twin connects the shop floor to ERP and IoT data streams.

Factory Production Pilot

Vertex is moving to a pilot with this customer at its first factory. Initial outcomes suggest process efficiencies improving quality, and providing real-time intelligence across the entire digital thread. Following the success of the POC, Vertex will pilot the solution in additional factories, architect a long-term roadmap, and expand globally.

Get started with Vertex Software's solutions on AWS

Visit vertexvis.com to learn more.