Press release

Industrial Metaverse:

Ascon Systems and Threedy collaborate in 3D visualization of industrial processes

Stuttgart / Berlin, September 5, 2023 – Ascon Systems, a company enabling the transformation towards industrial metaverse with digital twins and low-code software solutions, and Threedy, a spin-off of the Fraunhofer Institute for Computer Graphics Research and a technology specialist in industrial 3D applications, now collaborate in the field of 3D visualization and networking.

This joint endeavor offers manufacturing companies an opportunity to access 3D data of objects and processes on a cloud-based platform, and use it for modeling, simulations, and maintenance, or even direct transferring into mixed-reality applications. This will boost efficiency and lower costs, automate processes and increase process flexibility, and make operations hardware and software independent. The results are lower data volumes, a decrease in server loads, and smaller carbon footprints.

Having a flexible IT architecture based on low-code software which offers access to 3D data will be pivotal for the factory of the future. To make this possible, Ascon Systems offers a platform on which digital twins virtually represent machines and their interactions either for simulation and testing, or – in the case of actual real-world machines – for modelling, controlling, and automation in general. To these applications, Threedy contributes its technology for 3D visualization. Maneuvering, turning and rotating offers a way to experience the machines intuitively. Through a shared platform, Ascon System's and Threedy's collaboration lets businesses benefit from the entire spectrum of these forward-looking technologies and enables them to link digital twins, real-world shop floors, and other corporate data with 3D visualizations.

To guarantee interoperability, bulk data are provided in the cloud, which compared to storage on servers also increases the speed at which visualizations can be handled. Use scenarios include monitoring machines and processes, maintenance and servicing support, (spatially) distributed collaboration and real-time display of status data.

Hello machine, what's your problem: a sample application

On a factory's work floor, an engineer wants to look at the current status of a machine or check an error message. After calling up the machine's live data via a tablet's browser, she or he has the location displayed, walks over and looks at the process data on the tablet as well as the fault's localization. Additional information is displayed in a window: the current status, maintenance history, and any notes or recommendations made by technicians. The engineer is able to live share with others all data and information and may work on or operate the machine together. This scenario applies to all

workshop machines and processes. They are recorded and displayed via the automation platform and Ascon System's digital twins and, using Threedy's 3D visualizations, can be tablet-operated without any need in-depth knowledge about the machines. Monitoring is carried out via sensors which transmit their data to the common platform, making it possible to check large numbers of individual components and processes simultaneously. Troubleshooting and maintenance are carried out precisely, rapidly, and easily without extended workflow interruptions.

Jens Mueller, CEO of Ascon Systems, comments: "We are delighted about our collaboration with Threedy. The synergy between our two technologies allows us to address problems that many industrial companies still face today. On the one hand, they need various hardware and software solutions to monitor their shop floor. And on the other, that they often have to outsource cost-intensive maintenance processes and run them separately to business operations. Now, the people working the machinery and processes are supported by the intelligence of our platform's digital twins and the real-time visualization in 3D provided by Threedy, enabling them to significantly increase efficiency across the board and massively drive down costs. This is industrial metaverse in action: it thrives on high-tech collaboration and brings the future right into the workshop."

Christian Stein, CEO of Threedy, adds: "We're highly impressed by our joint partnership with Ascon Systems. Our technology lives on strong partnerships, because the added value for our customers grows the more networked the 3D data are. We are very happy to be able to offer together with Ascon Systems a one-stop solution for the manufacturing industry."

Jens Mueller, CEO Ascon Systems Holding GmbH

Christian Stein, CEO Threedy GmbH

About Ascon Systems Holding GmbH:
Ascon Systems Holding connects the digital world with the real world. The company develops model-based low-code software and digital twin solutions that enable companies to achieve the digital transformation towards Industry 4.0 and industrial metaverse. The goal is to automate industrial manufacturing, make it more flexible and achieve this independently of IT programming. Customers include Mercedes, Drees & Sommer and Läpple. Other customers are market-leading companies from the automotive, mechanical engineering, aviation, and logistics sectors.
Ascon Systems Holding GmbH is the parent company of Ascon Systems GmbH, which was founded in 2017. The CEO is Jens Mueller. There are 110 employees working in the team. Ascon Systems is headquartered in Stuttgart, with additional locations in Berlin, Mainz, Munich, Heilbronn and Stade.
https://ascon-systems.de

About Threedy GmbH:
With its instant3Dhub, Threedy offers a unique infrastructure component that allows companies to meet the ever-growing demand for highly available 3D data in responsive and interactive 3D applications. Industrial 3D data is referenced directly, e.g., from an existing PLM system, without prior preparation and can be automatically linked with further business information. This results in new, scalable applications over the entire lifecycle, from engineering to after sales - web-based and with zero footprint on the client. Threedy GmbH was founded in 2020 as a spin-off of the Fraunhofer Institute for Computer Graphics Research. Threedy GmbH, headquartered in Darmstadt, with a current staff of 55 employees. https://www.threedy.io/

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