

3DEXPERIENCE Works 2024

Imagining a platform-centric future

CIMdata had the pleasure of attending **3DEXPERIENCE** World 2024 held in Dallas, TX on February 11-14, 2024. While **3DEXPERIENCE** World 2023¹ was a live, in-person event in Nashville, TN, the 2024 session brought more of the energy one expects from a larger crowd dominated by SOLIDWORKS enthusiasts.² According to Dassault Systèmes, the event included over 4,700 live participants from over 30 countries, with another 10K+ consuming the live stream. “Imagine” was the overall theme again this year.

The General Sessions each day were kicked off by an energetic host and moderated by a SOLIDWORKS executive. As is the fashion at such events, the host or executive introduces customers and partners who share vignettes or help announce new initiatives. A diverse and interesting set of organizations gave customer presentations, from exciting startups to large multinationals. Mr. Gian Paolo Bassi, long-time SOLIDWORKS CEO who is now Executive Vice President of **3DEXPERIENCE** Works, led the Day 1 session.³ He quickly ceded the spotlight to the Executive Chairman of Dassault Systèmes, Mr. Bernard Charlès. Mr. Charlès helped found the company and led its growth during his time as President and CEO. Last year, Dassault Systèmes announced on January 1, 2024 Mr. Pascal Daloz would take over as CEO. (Unfortunately, Mr. Daloz wasn’t able to attend due to a last-minute personal constraint.) During his opening remarks and later in a press conference, Mr. Charlès thanked the SOLIDWORKS community in attendance for their long-time passion and support for the company.

Mr. Charlès highlighted their efforts to expand the reach of their successful HomeByMe app, a website and mobile application that helps consumers design their interior spaces leveraging content from thousands of houseware product companies. To date, users have created over 50 million projects using the application. Previously, users could get ideas by reviewing designs created by others. Now, leveraging artificial intelligence (AI), users can provide a higher-level description of their interior design goals, and the application offers essentially “generative interior design,” coming up with alternatives that meet the stated design goals. This new capability drew on a subset of those 50 million projects to create alternatives, but they plan to leverage the full data set in future application versions.

From the main stage, Mr. Bassi, highlighted their Cloud Services offering announced at World last year, became generally available on July 1, 2023. Every new seat of SOLIDWORKS includes Cloud Services, designed as an on-ramp to the cloud and the **3DEXPERIENCE** platform. With “Share and Markup,” users can share and markup SOLIDWORKS designs with anyone from within the SOLIDWORKS user interface. The company was quite successful with their eDrawings offering and this new capability brings that collaboration under the management of their cloud platform. “Store and Revise” provides users with online storage that’s purpose-built with CAD relationships and collaboration in mind. Fully adopting these

¹ <https://www.cimdata.com/zh/news/item/20925-imagine-bringing-solidworks-users-to-the-cloud-3dexperience-world-2023>

² Research for this commentary was partially supported by Dassault Systèmes.

³ <https://www.3ds.com/newsroom/press-releases/dassault-systemes-taps-gian-paolo-bassi-lead-3dexperience-works-promotes-manish-kumar-ceo-solidworks>

storage services does require some data cleansing and preparation. These services offer a lot of capabilities increasingly needed by manufacturers to support their value chain data sharing and collaboration requirements. Finally, “Manage and Control” gives users full access to a suite of tools to help manage data, work through formal change actions and approvals, and keep project tasks in check. Cloud Services scales with an organization’s need, as and when required. Historically, many SOLIDWORKS users have not adopted their on-premises product data management (PDM) offerings so one might wonder how this new cloud-native offering is faring with customers added since July 1. CIMdata wondered too, and asked Mr. Bassi in a one-to-one meeting at the event. The answer was “quite high,” a pleasant surprise and one that bodes well for the company.

Some of the customer vignettes were quite interesting. For example, Naganu Automation, a Japanese product line solution provider established in 1982 first adopted 2D computer-aided design (CAD) in 1992 and moved to 3D in 2014. Today, they have 80 designers using SOLIDWORKS and they recently adopted the **3DEXPERIENCE** Works portfolio. Mr. Kenya Yamaura, Naganu’s President, said the platform was user friendly and that data management in the cloud gives them peace of mind due to higher security. It also allows them to work seamlessly with their suppliers, which is critical to speed time to market and produce higher quality.

Mr. Philip Glonner, the Co-Founder and CEO of Arthur Bus, a German transportation start-up, offered another enthusiastic customer testimonial. Arthur Bus started on their mission 2 1/2 years ago: revolutionizing the fossil fuel-dependent public transportation sector. They are focusing on making buses emission-free with the same conveniences as provided by fossil fuels. Mr. Glonner claimed that they offered the “most advanced bus” available. They offer a range of over 200 miles, with 250 KW available at the wheels, powered by hydrogen fuel cells. Their bus is a moderately complex product, with over 80,000 parts. Why did they choose the **3DEXPERIENCE** Works platform? He cited three reasons: performance, safety, and flexibility. They felt that the Dassault Systèmes platform offered superior capabilities to create and manage designs working with over 200 suppliers, while also protecting their intellectual property.

Mr. Minish Kumar, SOLIDWORKS CEO, was joined on stage by Mr. Michael Jackson, Corporate VP of R&D, Cadence Design Systems, to announce an exciting new partnership to jointly deliver AI powered tools for PCB and chip design spanning their collective OrCAD-X, ALLEGRO-X, and SOLIDWORKS offerings. Mr. Kumar claimed this new offering is the first of its kind on the cloud and will formally launch in July 2024. Given the scope of their vision, this statement is potentially valid. It is important to note that Altium has had a lot of success with Altium 365, a cloud-based platform for collaboration between mechanical computer-aided design (MCAD) and electronic CAD (ECAD). Altium is trying to build out this platform and will likely continue its evolution under their new owners Renesas, but the **3DEXPERIENCE** platform offers much more upside to support product and systems design, model-based systems engineering, and extended value chain collaboration.

The Day 2 General Session also highlighted customer success. Flowserve is a global provider of flow control systems, with about 2,000 engineers around the world. Mr. Rob Philips, Vice President of Global Engineering at Flowserve, described their CAD standardization effort that started in 2018. While the company dates back to 1790, they have grown a lot through acquisitions, especially in the last 25 years. Each new acquisition brought its own tools and processes and the company wanted to have an enterprise solution. CIMdata knows this problem quite well as much of our industrial consulting is to companies who do not lack technology but have an excess of it and want to make these same kinds of decisions. Their evaluation process brought together 99 reviewers from across functions in the company, focused on 24 selection criteria and 37 illustrative case studies describing their to-be state. An added complexity: they were also moving from 2D to 3D CAD and needed a partner they could grow with. Today, the

company is working with Dassault Systèmes to digitalize their processes to improve their ability to support their engineer to order requirements. They have a huge installed base of equipment they want to make smart and connected to help monitor field performance. As they moved into 3D, they better understood the importance of digital twins and the digital thread, and have learned how SOLIDWORKS and the **3DEXPERIENCE** platform can support these important capabilities. In some ways, Flowserve stands as an example of what Dassault Systèmes is trying to achieve with their **3DEXPERIENCE** Works offerings: bringing their historically design-centric customers to the cloud and providing more capabilities they require as their business needs expand.

Our last customer example is QARGOS, an Indian startup focused on what they call a compact logistics vehicle (CLV), essentially a motor bike with storage capabilities up to 120 Kgs. Anyone traveling in Asia can testify to the ubiquity of motor bikes transporting just about anything you can imagine (like a family of five, for instance). Five years ago the company founders made their first sketch on SOLIDWORKS. Safety and efficiency were paramount, and the company emphasized an “analysis first” approach to product development. They wanted to simulate in the design platform first to ensure predictable execution. Figure 1 illustrates the breadth of their approach and shows the CLV.



Figure 1—Modeling and Simulation at QARGOS
(Courtesy of QARGOS)

The company is about to launch their first products and CIMdata was impressed by their progress to date. Their approach is well suited to the clogged roads of Asian cities and will play well in other markets as well. It provides a key piece of that last mile of logistics that is a pain point for many companies.

This is but a sampling of the content shared at the event. The SOLIDWORKS community is one of the most energetic that CIMdata has witnessed, and this **3DEXPERIENCE** World 2024 was no exception. A well-attended session on the SOLIDWORKS roadmap showed the on-going commitment to supporting their customers evolving design needs. AI is a hot topic and Dassault Systèmes stressed that AI has enabled their various solutions for years and its use will continue to expand across their offerings. HomeByMe’s new generative interior design capability is one example. The event also demonstrated the stability of **3DEXPERIENCE** Works’ leadership and their commitment to delivering the Dassault Systèmes comprehensive vision to this critical global market. Based on the presentations at the event, customers are responding and adopting these offerings in increasing numbers. CIMdata looks forward to what will be imagined for the 2025 event.

About CIMdata

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