

Digital Thread on the Cloud

Aras ACE 2024

Key Takeaways

Presentations on the digital thread by customers and partners highlighted the strength of Aras Innovator's architecture and applications, which have been enabling digital thread creation for over 20 years. Additionally, updates from past ACE presenters revealed the growth of Aras Innovator's digital thread deployments and the additional value they provide.

SAIC, a platinum Aras partner presented their ReadyOne SaaS platform that uses Aras Innovator as its backbone. ReadyOne enables rapid deployment and one stop shopping for complete end-to-end top-to-bottom PLM environments that adhere to the DoD's strategic Digital Engineering initiative.

For many, migrating on-premises solutions to SaaS requires de-customization. Aras customers, however, can lift and shift their implementations to SaaS without rework and are able to continue to deploy highly configured and upgradeable solutions while taking advantage of cloud capabilities including DevOps and telemetry.

Supplier management, is a critical process in most companies, and Aras has released several new supplier solutions to allow collaborative exchange and management of product data with suppliers simply and securely.

Aras held the ACE 2024 conference March 4-7, 2024, in Fort Worth, Texas. CIMdata attended the conference and as usual, it provided a plethora of information for attendees. Monday was their partner and training day, during which Aras held private meetings with partners and provided users and partners with training on new capabilities and XPLM connectivity. Additionally, a few other independent organizations, including CIMdata, provided focused education and training for conference attendees.¹

Day 2 of the conference opened with keynotes. Mr. Roque Martin, Chief Executive Officer and Board member, reviewed recent business achievements that included:

- 61% subscriber growth over the last 2 years
- 1.7 million users of Aras Innovator
- 77% YoY growth in SaaS

¹ Research for this paper was partially provided by Aras.

CIMdata sees these results as strong, especially considering the turbulent times we live in and the competitive market Aras targets. Mr. Martin reviewed recent customer successes, including Nissan’s use of Aras Innovator to support traceability during the development of their in-vehicle software variants and Red Bull’s use of Aras Innovator SaaS for recipe development and compliance from ideation to production. Aras is best known for its discrete manufacturing support, and while CIMdata is aware of several process manufacturers using Aras, it is impressive to see what Red Bull is deploying.

Mr. Martin also talked about the “Build with Aras” program that supports OEM partners including Ansys, Aveva, and SSI. This program provides support for companies that want to integrate their applications with PLM (e.g., Canvas GFX, Razorleaf, and Modular Management).

Mr. Rob McAveney, Chief Technical Officer, came on stage to talk about where Aras is going. Key points covered included Requirements as a Service, Digital Twin Syndication, and AI Infused Engineering. CIMdata was extremely interested to hear Mr. McAveney’s take on AI and its relationship to Industry 5.0. His view is that AI within the PLM context will begin with suggestions and responses provided by chatbots based on the engineer’s prompts, then progress to system suggestions based on AI monitoring of the user’s actions, and then finally grow to AI-led system interactions based on user prompts. Figure 1 shows a mockup of this progression.

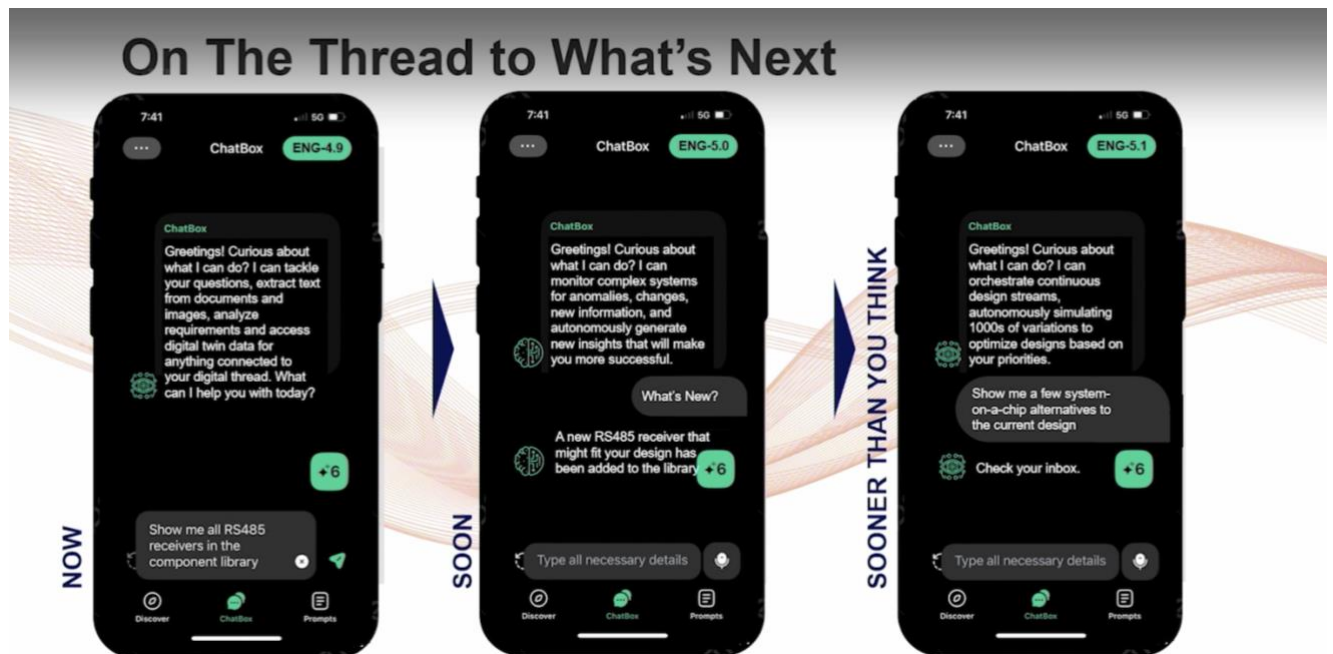


Figure 1—Mockup of AI in PLM Progression

Returning ACE customer presenters gave updates on their progress, including presentations from Ocado Technology and Microsoft. Ocado builds a robotic system to gather client grocery orders and prepare them for distribution. They explained how agile product development enabled by Aras Innovator has allowed them to expand their business model to sell their robotics solutions to now target non-grocery markets. Microsoft has presented regularly since adopting Aras in 2015. They discussed how they have evolved over the years and showed how they have upgraded Aras over the years (see Figure 2). One of the differentiators Aras often talks about is their ease of upgradeability, and data from Microsoft supports this claim. Microsoft is currently working to leverage Aras configurator application services and incorporate Co-Pilot, Microsoft’s AI service into Aras Innovator. Perhaps this is connected to Mr. McAveney’s comments on AI (see below). As a side note, during the conference, Aras held several partner quick demo sessions, and it was very interesting to see many AI-based application prototypes integrated with Aras Innovator, such as an AI-based tool to generate AML scripting.

Aras/Microsoft upgrades

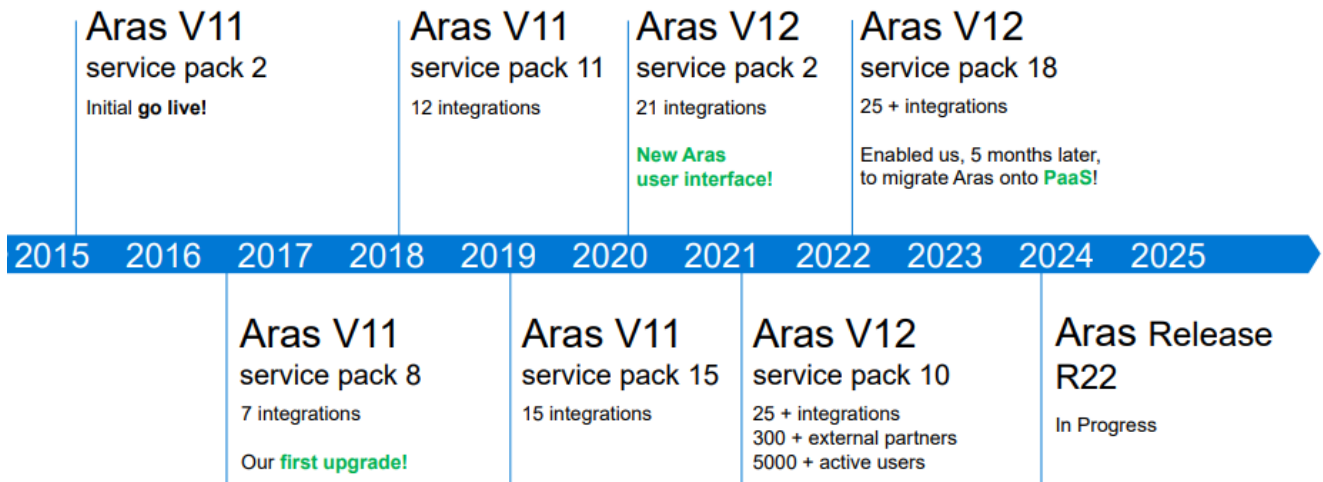


Figure 2—Microsoft Aras Innovator Upgrades Over the Years

Mr. David Ewing Jr, Director, Digital Engineering Innovation Factory, and Ms. Cresta Bateman, Sr Manager, Digital Engineering, both from the Engineering Innovation Factory at SAIC, an integrator supporting defense, space, civilian and intelligence markets, gave an overview of SAIC's ReadyOne™ solution. ReadyOne is a SaaS digital engineering ecosystems solution that enables rapid configuration of heterogeneous software landscapes and digital threads to support U.S. Department of Defense (DoD) contracts. By using Aras Innovator as the backbone for a wide and deep ecosystem of engineering applications (see Figure 3) ReadyOne provides a one-stop shopping and dynamically configured program-specific environment, built in a few hours, to support specific government contracts. Custom data models aligned to DoD standards are assembled and managed using a DevOps process enabling speed and ensuring quality, repeatability, and sustainability. Not only is SAIC delivering Aras as a product, they are using Aras to manage the DevOps process while operating in the AWS GovCloud. CIMdata is looking forward to hearing more about this approach as it appears well organized and designed to scale.

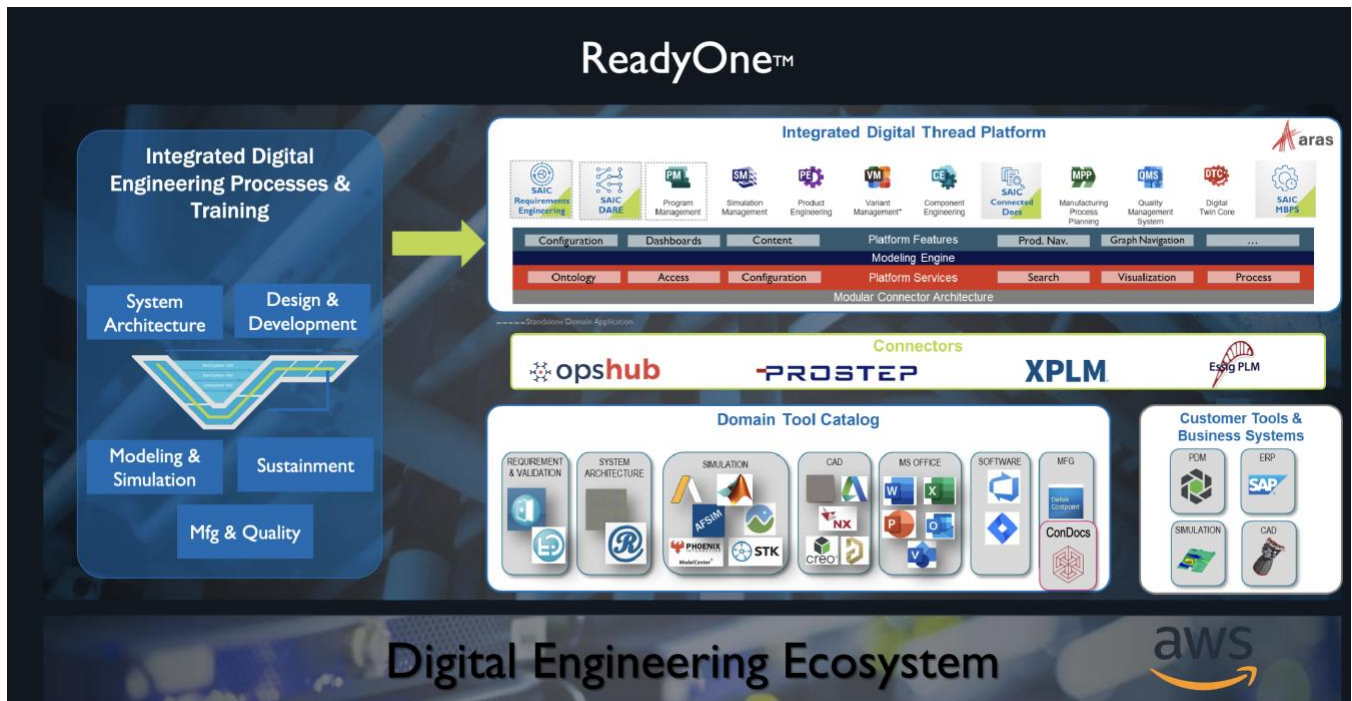


Figure 3—ReadyOne's Digital Engineering Ecosystem

Mr. John Sperling, Senior Vice President of Product Management, delivered his annual overview of Aras' development efforts for the past year. He reminded the attendees that Aras has included variability web services as part of the platform for several years enabling customers to build their own applications. Product Variation is an out-of-the-box application to support variability including data visualization. In the continuing quest to make data more usable, Aras added a User-Oriented Analytics capability. It enables users and analysts to configure custom dashboards and reports using standard widgets. Supplier Management consists of two solutions, the core Aras Innovator platform and the Aras Portal. The platform enables supplier collaboration, information sharing, monitoring, discussion forums, surveys, and scorecards. The portal enables secure supplier access with mobile and desktop solutions.

Additionally, Mr. Sperling introduced Configurable Web Services; a capability that enables low code/no code development and deployment of custom web services to extend digital threads. Aras DevOps is used to ensure that proper configuration and quality procedures are used to develop and deploy custom web services. CIMdata views anything that makes digital threads easier and faster to assemble and deliver as an advantage. Aras continues to expand and improve their capabilities in low code/no code development for both on premises and SaaS solutions. Unlike most of their competitors, their low code/no code capabilities are incorporated at the core of their Aras Innovator architecture, and their continued commitment to enhance and expand these capabilities further demonstrate their commitment to enable their customers to configure or customize their solutions to meet their needs today and tomorrow.

Mr. Rasool Norman, Enterprise Solution Lead and Product Owner, from Svante, a leading carbon capture and removal solution from Burnaby BC, Canada, delivered an overview of Svante's migration from on-premises to Aras Enterprise SaaS, and the deployment of Aras' manufacturing process planning (MPP) capability. CIMdata was most interested in hearing about the migration to Aras SaaS, to confirm claims Aras makes about migrating. Svante's implementation confirmed Aras' claims. While the project was complex, it was only complex in the areas that affect all IT projects; ensuring proper resources were available at the right time, proper testing was executed, and organizational change management. The move of the Aras solution was uneventful. While there are remaining minor issues, they are related to

ensuring the cloud infrastructure is properly configured and performing up to its promised specifications. These issues are generic to any major infrastructure upgrade or SaaS migration. CIMdata sees this as an important data point for companies that want to migrate to the cloud, but do not want to be first. Hat's off to Svante for being an early migrator.

Conclusion

As usual, ACE 2024 delivered great content from Aras, some of its partners, and select Aras customers. This commentary only covers a fraction of what was presented. Beyond the formal presentations, the break and evening event discussions were icing on the cake in that deep conversations provided great information and provoked new ideas.

Hearing about the successful migration to Aras Innovator SaaS was a big deal as it will be a major trend for the next few years as existing Aras customers see the value in moving to the Cloud, especially if the costs, effort, and benefits are clearly justifiable. Growth of Aras Enterprise SaaS is outpacing typical on-premises sales and we expect that this trend will accelerate. The Aras solution continues to expand with the new variant product solution, configurable dashboards, and supplier management. These are important capabilities for customers looking to expand their use of Aras Innovator. CIMdata is looking forward to next year's event to see how Aras performs and especially how they begin to roll out AI within their product line.

About CIMdata

CIMdata, a global strategic management consulting firm, provides services designed to maximize an enterprise's ability to design, deliver, and support innovative products and services. For more than forty years, CIMdata has provided industrial organizations, providers of digital technologies and services, and investment firms with world-class insight, expertise, and best-practice methods on a broad set of product lifecycle management (PLM) topics and the digital transformation they enable. CIMdata also offers research, subscription services, publications, and education through certificate programs and international conferences. To learn more, visit www.CIMdata.com or email info@CIMdata.com.