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CIMdata News

CIMdata Publishes Simulation and Analysis Market Report

11 July 2023

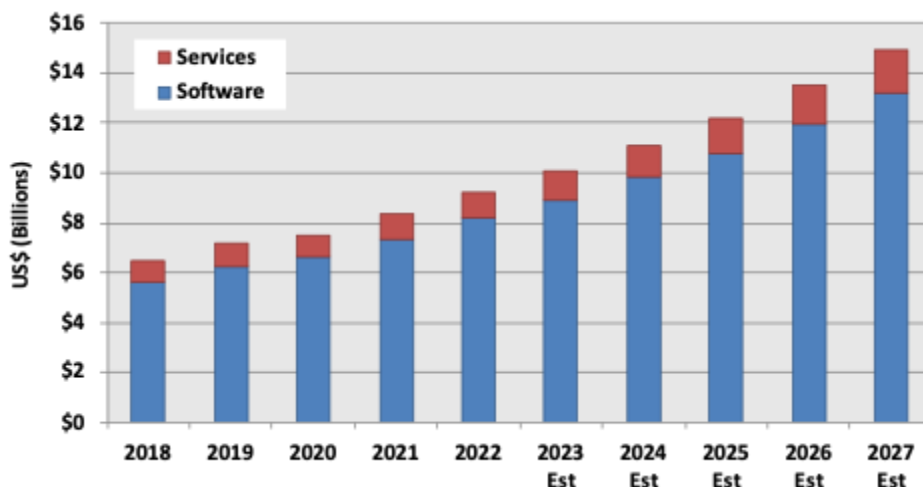
CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces the release of the CIMdata Simulation and Analysis (S&A) Market Analysis Report. This report expands on the S&A market analysis conducted as part of the CIMdata 2023 PLM Market Analysis Report Series. The well-known PLM MAR Series provides detailed information and in-depth analysis of the worldwide PLM market during the calendar year 2022. It contains analyses of major trends and issues; revenues of leading PLM providers; and revenue analyses for geographical regions, industry sectors, and historical and projected data on market growth. The 2023 S&A MAR is a 130-page report containing over 50 tables and charts of data detailing the worldwide S&A market along a number of dimensions. It also includes an update on CIMdata's S&A segmentation, a discussion of trends in the S&A industry, and updates on the top S&A solution providers.

According to Mr. Don Tolle, CIMdata's Practice Manager for Simulation-Driven Systems Development, "Detailed 3D geometric modeling, simulation, and analysis for virtual prototyping and verification/validation (i.e., working along the right side of the systems engineering Vee) still accounts for the majority of the S&A market segment revenues. But to support the development and lifecycle support for smart, connected products, systems-level behavior modeling, simulation, and analysis are increasingly recognized as must-have core competencies to enable digital transformation based on model-based systems engineering throughout the lifecycle and across engineering domains. Physics-based digital twins and real-time data analytics using IoT-enabled smart systems are being enhanced by new artificial intelligence/machine learning capabilities. These enhanced solutions offer unprecedented product performance knowledge about today's complex products when deployed and as used. Both end users and design engineers can benefit from this augmented product performance knowledge. Users, in how best to optimize their product use and effectiveness in service. And design engineers who can now leverage this knowledge to create innovative new products to meet ever more demanding customer and regulatory requirements, including environmental sustainability.

"To meet these industry challenges, there is a strong industry focus on creating standards-based, collaborative product innovation platforms that enable cross-domain digital process threads (including mechanical, electronics, software, controls, chemistry, materials, and other physics) that can be shared, continuously improved, and managed throughout the product development lifecycle. The major software and services solution providers spanning the mechanical and electronics domains are investing heavily in R&D to create new model-driven, integrated MBSE, PLM, and S&A capabilities and adding new leading-edge technologies by acquiring or partnering with smaller, innovative S&A solution providers. The convergence of physics-based S&A capabilities across the mechanical and electronics domains is a topic highlighted again in this year's report as EDA companies invest in physics-based S&A

capabilities and the traditional cPDM/MCAD/S&A companies invest in electronic systems design capabilities.”

As shown in the following chart, in 2022, S&A revenues grew to just over \$9.2 billion, an increase of 10.9% over the \$8.3 billion in 2021. According to Mr. Stan Przybylinski, CIMdata’s Vice President, “S&A continues to move ‘up front’ in the product development process, helping companies evaluate multiple design concepts and optimize performance before committing to the final hardware and software design. CIMdata sees more interest in model-based approaches in a wide range of industries, helping them meet the challenges of developing, testing, and deploying smart, connected products. In addition, mergers and acquisitions (M&A) to expand their solution set continue, providing significant cross-selling opportunities. This should help drive increased S&A investment.”



S&A Market History and CIMdata Growth Estimates

CIMdata expects the PLM market overall to continue its strong growth but at different rates for the different segments. For 2023, CIMdata forecasts that the S&A sub-sector will grow 9.2% overall and have revenues of just under \$10.1 billion. CIMdata expects that S&A will be one of the fastest growing segments within the tools sector of PLM over the next five years, reaching nearly \$14.9 billion in 2027, with a 10% CAGR.”

The 2023 CIMdata S&A Market Analysis Report is available for purchase at: <https://www.cimdata.com/en/research/plm-market-analysis-report-series>.

CIMdata to bring its Leadership Program to the Boston Area in the Fall

13 July 2023

CIMdata, Inc., the leading global PLM strategic consulting and research firm, will hold its next Product Lifecycle Management (PLM) Certificate program in the Boston, Massachusetts area, on 2-6 October.

This unique CIMdata program prepares PLM professionals to address the challenges commonly faced in PLM strategy development and implementation. The assessment-based program includes a personalized classroom experience, individual and team-based exercises, and

evaluations of achievement. CIMdata experts with years of hands-on experience facilitate the program. Successful completion of the program and assessments leads to a Certificate of PLM Leadership.

Drawing on CIMdata's 40 years of experience guiding industrial companies in successfully defining and implementing best-in-class PLM strategies and tactics, the program is appropriate for those embarking on a PLM journey and those already implementing PLM.

According to CIMdata's marketing director, Cheryl Peck, "During the COVID-19 pandemic, CIMdata was able to pivot this in-person education program to a virtual experience, which the PLM Community received well. We are excited to hold our programs in person, ensuring that the fundamental need for networking between our faculty and attendees is actualized."

Programs take place throughout the year. The final offering for 2023 will take place in Santa Clara, California, from December 4-8.

The program is available in 3- or 5-day configurations. CIMdata's one-day Executive Short Course and two-day PLM Fundamentals for Solution Providers Short Course are also offered.

For more information on CIMdata's Leadership Programs, including the PLM Certificate Program and short courses, visit our website at <https://www.cimdata.com/en/education/plm-certificate-program>.

Digitization Vs Digitalization

11 July 2023

Written by [Janie Gurley](#)

As a result of my recent blog, data governance vs. data management, I was asked what the difference was between digitization and digitalization. I think many times, conversations are often messy when they lack clear definitions of key terms. In this blog, I will highlight the distinction between digitization and digitalization. So, let's dive in and unravel the nuances between digitization and digitalization



The terms "digitization" and "digitalization" have distinct meanings but are often used interchangeably.

Digitization: Refers to the process of converting analog information or physical assets into digital formats. It involves transforming data, documents, images, or other forms of analog content into digital representations. For example, scanning paper documents to create electronic files or converting analog audio recordings into digital formats.

Digitalization: Goes beyond the mere conversion of analog to digital. It encompasses the broader transformation of business processes, models, and activities using digital technologies. Digitalization involves leveraging digital technologies to enhance efficiency, productivity, innovation, and customer experiences. It involves the integration of digital technologies into various aspects of an organization's operations and strategies. Unfortunately, some use the terms digitalization and digital transformation interchangeably, and as evidenced by their definitions, they are different.

In summary, digitization focuses on converting analog content into digital formats, while digitalization involves the broader use and integration of digital technologies to drive business transformation and optimize processes. Digitization can be a foundational step towards digitalization, providing the digital assets necessary for organizations to leverage digital technologies effectively. Still, it isn't enough to create true digital transformation.

I trust this information gave you a clearer understanding of the difference between digitization and digitalization. Please feel free to reach out to me if you require any additional information or have specific inquiries.

Janie

Free Webinar on the Importance of Data Governance in the Development of Complex Products

12 July 2023

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces an upcoming free educational webinar, "Complex Product Development Demands Data Governance." The webinar will take place on Thursday, 10 August 2023, at 11:00 a.m. (EDT) and will last for one hour.

Companies developing complex products containing embedded software face increasing pressures for innovation, maturity, coordination, and time-to-market. Historically in mass production companies, the important data items are managed in Product Lifecycle Management (PLM), which caters to mechanical and electrical engineering for products and their factories. Application Lifecycle Development (ALM) tools cater to software and systems engineering, mapping features to customer requirements. Development pressure fosters thinking and acting in discipline and domain silos, worsening data sharing and knowledge exchanges. More than ever, it is important that ALM and PLM cooperate. Consistency is needed in the terms and language they use for products; that is where data governance comes in.

This webinar will consider what drives data governance needs within a complex product development environment.

Attendees at this webinar will:

- Learn why Data Governance is needed now.
- Understand what drives Data Governance needs within a complex product development organization.
- Understand what it takes to secure executive “buy-in” for Data Governance.
- Understand Data Governance’s value proposition.

According to Janie Gurley, CIMdata’s Data Governance Practice Director and a host for this webinar, “Companies developing complex products with embedded software face increasing pressures to innovate, ensure product maturity, coordinate effectively, and expedite time-to-market. Data governance plays a vital role in facilitating harmonious integration, establishing consistency in terms and language used for products.”

Anyone responsible for data governance and/or product development will find this webinar interesting.

To learn more, visit: <https://www.cimdata.com/en/education/educational-webinars/complex-product-development-demands-data-governance>. To register for the webinar, please visit <https://register.gotowebinar.com/register/2491998450641800206>.

Siemens Realize Live 2023 – a CIMdata Commentary

12 July 2023

Enabling digital transformation to drive user, organizational, and business value.

Key Takeaways

- Siemens strategic partnerships with IBM, Microsoft, and SAP are delivering significant new value-added capabilities to both Siemens and their partners’ customers:
 - IBM Rhapsody integration with Siemens Teamcenter and Capital to enhance Model Based Systems Engineering (MBSE) and early product designs and optimization.
 - Integration of Microsoft Teams, Azure Open AI, and Siemens Teamcenter for enhanced distributed collaboration.
 - Delivering 100% fidelity between the Teamcenter and SAP Product Configurators—including the concept of usage.
- Siemens is continuing its rapid move to SaaS and cloud delivery of its Xcelerator portfolio and platform.

CIMdata attended Siemens Digital Industries Software (Siemens) Realize Live Americas 2023, held in Las Vegas, NV, on June 12 through 15, 2023. As part of Realize Live, Siemens also conducted its annual Media and Analyst Conference (MAC). Hearing and discussing Siemens announcements, technologies, and solutions with customer attendees, event sponsors, and Siemens’ leadership was exciting and highly informative.

Mr. Tony Hemmelgarn, President and CEO of Siemens Digital Industries Software, kicked off both Realize Live and the MAC. During the MAC session, he provided a financial update stating that the Digital Industries division FY 2023 Q2 profits were up 23% year over year. He noted that in Q2 FY23 the cloud ARR share is approaching 25% driven by a growth rate of 14% during Q2 FY2023. He also stated that 74% of cloud orders are from the Small to Medium Business (SMB) sector. Mr. Hemmelgarn said that the year-over-year contract value for Teamcenter X increased 300%, with significant numbers of customers moving to the SaaS version. For manufacturing, he described how Mendix is enabling companies to create personalized mobile applications and is driving strong growth of Opcenter (13%) with over 105 new customers during the past year.

Mr. Hemmelgarn previewed a new solution (scheduled for release in late 2023) resulting from their strategic partnership with Microsoft, which integrates Microsoft Teams, Azure Open AI, and Siemens Teamcenter (see Figure 1). He noted, for example, that over 70% of in-service product quality issues go unreported because the person who finds the issue has no practical way to communicate it to those responsible for addressing the problem. With the Siemens Teamcenter app on Microsoft Teams, a person will be able to speak in their native language to their mobile device (e.g., phone, tablet, or laptop) and describe the problem. The application will automatically translate the problem description (e.g., from Thai to German) and then use artificial intelligence to investigate possible solutions and automatically create a problem report which is sent to those responsible for resolving the type of problem being reported. The resulting corrective solution is then sent back to the person who reported the problem to implement the corrective solution. Major features include:

- Single Sign On (SSO)—authenticating through Microsoft Teams
- Microsoft Teams as an enterprise portal to Teamcenter
- Azure Open AI to translate the recorded problems
- Azure Open AI automatically extracts key information, creates a problem report in each user's native language, searches Teamcenter for relevant information to the problem, and identifies and suggests potential solutions
- Teams Apps Services
- To ensure security, all data is stored in Teamcenter, not in the Microsoft Teams backend, and all transmissions are encrypted

Figure 1—Teams as an Enterprise Portal to Teamcenter (Courtesy of Siemens)

CIMdata believes this exciting combination of Microsoft Teams, Teamcenter, and Azure Open AI will have significant use and benefit for companies in many areas. Siemens and Microsoft stated that this solution will be applied across the Siemens Xcelerator portfolio.

Other interesting items discussed by Mr. Hemmelgarn included:

- Amazon Web Services (AWS) is now selling Mendix

- Siemens is working with AWS to simplify customer access to high-performance computing to provide the computational capacity to execute larger and larger simulations, e.g., computational fluid dynamics (CFD)
- IBM Rhapsody is integrated with Teamcenter and Capital, and IBM Maximo is integrated with Teamcenter
- Both IBM Rhapsody and IBM Maximo are now in the Siemens price book
- Working with NVIDIA, they have created an industrial metaverse capability that is much more than animation. It is built on simulation backed by digital twins and provides dynamic, visual interaction with the product (e.g., cars, boats, planes, facilities) and its environment
- Teamcenter Semiconductor Lifecycle Management is a process-oriented, purpose-built solution for the semiconductor industry
- In the Executive Q&A on day 2, Mr. Hemmelgarn stated that 25% of their ARR last year came from A&D customers, defying conventional wisdom that the A&D industry would be among the last to migrate to PLM on the Cloud

During Mr. Hemmelgarn's Realize Live keynote, he described the importance of sustainability and how it must be designed into the product up-front. He emphasized Siemens' commitment to helping companies improve sustainability in their products and operations. This commitment and how Siemens is addressing it was described in more detail in several other Realize Live sessions.

Following Mr. Hemmelgarn, Mr. Puneet Sinha, Sr. Director Battery Industry, and Mr. Nand Kochhar, VP Automotive and Transport Industry, led a session titled "Electrification and Battery Revolution." In their remarks, they described how Siemens was integrating electronics, electrical, software, and mechanical solutions to address the design and scalable manufacture of batteries to support the future of mobility. They commented that the key trends for automotive and transportation include electrification, autonomous, connected, shared mobility, and sustainability.

Mr. Sinha and Mr. Kochhar noted that Siemens was creating solutions that enabled continuous integration of hardware and software lifecycles for automotive design and electrification, and that the battery was key to electrification. They stated that the Siemens battery solution connects chemistry, electrical, mechanical, and software domains.

Furthermore, they noted that one customer, using their battery solution, has been able to reduce their pack development time by 50%. They followed with the point that simply improving battery development time alone is not sufficient. Companies need to be able to scale up battery production and that requires an integrated concept from plant design through commissioning. Siemens is applying Information Technology and Operational Technology (IT/OT) convergence from factory automation to cloud, enabling an integrated workflow of machine digital twins to PLC code development, validation, and virtual commissioning of the production lines and facilities.

On day 2 of the conference, Mr. Joe Bohman, SVP Teamcenter and Polarion, and Mr. Bill Lewis, Director of Marketing, Lifecycle Collaboration Software, led a session titled “PLM of the Future.” This session was primarily a Teamcenter update, including several demonstrations of new capabilities. Additionally, Mr. Bohman discussed the rapid adoption and growth of Teamcenter X—the SaaS cloud version of Teamcenter. He described Siemens’ three step approach, shown in Figure 2, to helping customers transform to the cloud:

- Assess—tools to identify areas to simplify
- Optimize—leverage latest functionality; do decustomization
- Migrate—utilize a high-speed transformation tool, take data from any Teamcenter version and put it in the cloud

Figure 2—Siemens Approach to Helping Customers Transform to the Cloud (Courtesy of Siemens)

Mr. Bohman stated that moving to Teamcenter’s Active Workspace user interface is an important first step and noted that they are “all in on Active Workspace.” Working with input from their user community, the latest release includes:

- Session controls
- Page-level tool bar—specific to what you are doing now
- Layout manager to organize the UX to each user’s preferences
- Card styling
- Direct field editing in tree view tables

He stated that the above improvements resulted in a 33% reduction in clicks over previous versions.

Mr. Bohman also described several Teamcenter X solutions (new in **BOLD**) including:

- **Semiconductor Lifecycle Management**
- **Consumer Packaged Goods Solution**
- **PLM for Component Manufacturers**
- **Capital Asset Lifecycle Management**
- PLM for Medical Devices, now with an out of the box Design History File (DHF)
- PLM for Machine Builders
- Test and Verification Management
- Integrated Program and Lifecycle Management

Siemens has continued to evolve and improve their Unified BOM and configurator solutions and Mr. Bohman stated that the Unified EBOM is a single system. It now includes the concept of “usage,” which is important when considering different production facilities and integration

with ERP. CIMdata believes incorporating usage into the EBOM is a major step forward in overall BOM lifecycle management. The multi-domain unified EBOM forms an integral part of the full digital thread backbone supported by Siemens Xcelerator.

Mr. Bohman said that the Teamcenter Product Configurator does not just incorporate mechanical, electronics, and software. It now also supports simulation and service BOMs (SBOMs). Their multi-domain EBOM solution can now model all domain information together, keeping it aligned with design and enabling it to scale. Mr. Bohman announced that as part of their SAP partnership the two companies have now achieved perfect fidelity between the Teamcenter Product Configurator and the SAP Product Configurator—a capability that CIMdata believes will deliver significant value to their joint customers.

Mr. Bohman and Mr. Lewis also explained the importance and the goals of the Siemens-IBM partnership including integration of IBM's Rhapsody fully supporting ideation through design lifecycle development phases via the Teamcenter-managed PLM data backbone. Mr. Sky Matthews, CTO IBM ELM division, confirmed this during a joint presentation with Mr. Hans-Juergen Mantsch, Siemens Director E/E Architecture and MBSE. These gentlemen reinforced that the two organizations are working on a detailed set of combined solution plans, e.g., Siemens is expanding the integration of Rhapsody within the Xcelerator portfolio and IBM has updated and released a new, improved version of Rhapsody. CIMdata, as well as both Siemens and IBM customers look forward to seeing the results of those plans in the coming years.

Concluding Remarks

Siemens Realize Live and the Media and Analyst Conference showcased Siemens' solutions and vision. Siemens continues to push the boundaries of PLM and IT/OT integration. Their new and expanded strategic relationships are delivering new capabilities that neither partner could deliver alone, and these new capabilities can provide significant value to each partners' customers. Siemens Xcelerator has evolved into both a broad, integrated suite of solutions and a platform upon which customers can incorporate non-Siemens technology and applications.

CIMdata believes that Siemens' strategic partnerships, new solutions, and significant updates of current solutions will enable it to maintain its position as a leading provider of business transformation and product lifecycle capabilities for customers across all industries.

Virtual Twin Experiences - Dassault Systèmes 2023 Analyst Days – a CIMdata Commentary

13 July 2023

Key Takeaways

- Deputy CEO Pascal Daloz will take over as CEO on January 1, 2024, with Bernard Charlès remaining as Chairman of Dassault Systèmes.
- The company is building out Virtual Twin Experiences and plans to offer them as a service in the future.
- Acquisitions like Centric Software and Medidata are fueling growth.

- Their long-time focus on model-based systems engineering (MBSE) is paying dividends beyond just its roots in aerospace & defense (A&D).
- Dassault Systèmes is well-positioned for the emerging Industrial Metaverse.

CIMdata had the pleasure of attending the Dassault Systèmes Analyst Days in Paris, France, on May 30 and June 1, 2023. According to our hosts, the number of analysts in attendance doubled over 2022. The sessions included over 30 presentations and demonstrations.

The opening session began with a video of Mr. Bernard Charlès, CEO and Chairman of Dassault Systèmes. Mr. Charlès has made it clear that Mr. Pascal Daloz, Deputy CEO and COO, is “ready to take over the job.” In fact, after the Analyst Days the company announced that Mr. Daloz will officially become CEO on January 1, 2024. Mr. Charlès will continue as Chairman and will spend much of his time with their current customers and prospects.

Mr. Daloz’ presentation, entitled “Virtual Twin Experiences for Sustainable Industries,” provided a clear update on the state of Dassault Systèmes. The company has about 320,000 customers, with 25 million users of its various solutions, including approximately 25,000 “makers,” supported by about 15,000 partners. Mr. Daloz reiterated their long-time statement that Dassault Systèmes is a science-based company, and will increasingly leverage data science as part of their many offerings. Like many of their competitors, Dassault Systèmes is getting an increasing percentage of their revenues from subscriptions (vs. paid-up, perpetual licenses). Mr. Daloz claimed that their subscription base grew by 15% from the previous year. He admitted the move to subscriptions is complex and that some markets will likely continue to demand perpetual licensing, such as China and aerospace and defense (A&D). The company added 20,000 customers in 2022 claimed Mr. Daloz. While he termed 2021 “the year of A&D” in their results, 2022 was the “year of the auto sector,” with electrification creating new demand for Dassault Systèmes offerings. He claimed that 85% of electric vehicle (EV) programs rely on Dassault Systèmes solutions.

Mr. Daloz also provided an update on Centric Software, a 2018 investment that turned into a very successful acquisition for the company. When acquired, Centric focused on the retail, footwear, and apparel (RFA) markets and counted some of the world’s most famous brands in their growing customer base. Mr. Daloz stated that almost 12,500 well-known brands are using Centric today. Over the last several years, Dassault Systèmes expanded the Centric portfolio with the 2021 acquisition of Armonica Retail, a cloud-native retail planning solution, and the 2022 acquisition of StyleSage, a developer of AI-powered tools for competitive assortment benchmarking and price and product trend insights. At the same time in analyst briefings, Centric stated their intent to enter other segments like consumer goods and consumer electronics and have reported success in those new segments.

Mr. Daloz then pivoted to life sciences, the industry with the highest revenues, greater than A&D he claimed. This is largely due to their Medidata acquisition in 2019. Mr. Daloz stated that the development of 75% of new drugs approved by the US Food and Drug Administration (FDA) were supported by Medidata solutions. This has been a very successful acquisition for Dassault Systèmes, contributing to the top and bottom lines and key metrics, such as revenue from the

cloud (Medidata's solutions are cloud-native) and subscriptions (before the acquisition, 85% of Medidata's revenue came from cloud subscriptions).

At last year's Analyst Days, the company spoke about Virtual Twin Experiences as a Service. Mr. Daloz suggested that Dassault Systèmes is becoming a virtual twin experience company. This is consistent with their early promotion and leveraging of 3D technology over the life of the company. But the future could see a different Dassault Systèmes. Mr. Daloz posited a vision of becoming a content company, providing virtual twin (VT) experiences as a service for industries. But how Dassault Systèmes might monetize their "VT-as-a-service" offerings is still an open question, based on their response to CIMdata's question at the Executive Q&A that closed the program.

The HomeByMe app developed by Dassault Systèmes came up several times, first by Mr. Daloz and in later sessions. The app offers virtual reality capabilities to put home goods options into real or virtual scenes to assess potential changes. Mr. Daloz claimed the app has helped users create 20 million projects. In a later session, Mr. Philippe Laufer, Executive Vice President, 3DS Global Brands, claimed HomeByMe had 30 million users in the last quarter, all with no training. Several million kitchens are viewed each day, according to Mr. Laufer. Many home owners use the app, but it is also increasingly relied upon by interior designers and influencers. While the business press extols the potential of the Metaverse, it is applications like HomeByMe that help condition the masses to interact with content in new virtual ways. Not everyone is a gamer used to headsets and tactile game controller interfaces. These small steps will help get people get there.

CIMdata attends many "analyst days" events during the year. When the company has a broad portfolio, like Dassault Systèmes, building the event agenda can be a challenge. The company has many brands with strong or leading positions in their respective segments, but for 15 years has focused on delivering industry-focused solutions that leverage those brands. Analysts need to hear about progress for the brands, industry solution development, and in customer deployments with demonstrable successes. During our time in France for the event, the company did a good job of balancing the needed updates with a focus on customer experiences in their target industries. They also provided updates on their sustainability efforts, another facet of their mission expansion that started in 2012.

One acquisition underpinning their strategy is Outscale, a fast-growing player in enterprise-class cloud services. Most of the Dassault Systèmes portfolio is available on Outscale. According to the company, the Outscale acquisition allows them "to adjust and control its cloud resources and services to manage peaks in activity, further diversify its industry segments, deploy new features, and provide advanced on premise, private and hybrid cloud solutions for its customers." This is a major difference between Dassault Systèmes and their main competitors who primarily use Amazon Web Services (AWS) or Microsoft Azure as their Infrastructure-as-a-Service provider. Data sovereignty is an important issue in the cloud market and having data centers that span a company's value chain is critical. Outscale is working hard to expand their global coverage to meet this requirement. Mr. Arnaud Bertrand, the new CTO of Outscale,

described how their 15 data centers are becoming the sovereign operator of Dassault Systèmes' Trusted Business Experience as a Service.

A team of Dassault Systèmes executives led the session entitled "The Virtual Twin of Assets, Products, and Services." Mr. Olivier Sappin, CEO of CATIA, described the importance of model-based systems engineering (MBSE) for manufacturing industries. Mr. David Ziegler, Vice President of A&D, described how the Modular Open System Approach (MOSA) is increasingly being required in US Department of Defense procurements. Mr. Ziegler claimed that 100% of US A&D contractors use CATIA Magic, the rebranded solution from No Magic, a 2018 Dassault Systèmes acquisition. CIMdata has watched MBSE move from its roots in A&D and then in automotive to applications in a range of industries. The advent of smart, connected products makes systems thinking essential to conceptualizing and realizing new complex systems. Mr. Ziegler also discussed mission engineering, a concept from space and A&D about using multiple types of simulations to model and understand the interaction of physical entities (e.g., buildings or mountains combined with planes or missiles) to form systems of systems. Ansys acquired Analytical Graphics Inc. (AGI), a leader in mission engineering in 2020, but many companies with MBSE methods and tools, such as No Magic, have long experience supporting the topic.

As part of the event, the analysts in attendance took a field trip to the Museum of Architecture & Patrimony, a partner of Dassault Systèmes. Teams of analysts were fitted with virtual reality goggles and immediately entered the Lascaux caves where participants experienced paintings made 17,000 years before. This is a great way for people to experience such wonders, as their physical presence can harm such fragile artifacts. Participants then turned to a more practical issue: solving some manufacturing process issues in a small manufacturer. As the team moved from "room" to "room" the team members experienced the real shop as illustrated by point cloud data that was combined with other data sources to create the experience. Point cloud data representing a factory interior can be acquired in a day, making the experience practical even for small companies. While the goggles took some getting used to, the demo showed how real world and virtual data can be combined to support real world use cases. Dassault Systèmes has been working on this topic for over a decade and has many successful demonstration projects. These technologies and skills will be essential to realizing the vision for the industrial metaverse and Dassault Systèmes is well-positioned to benefit from this trend.

Conclusion

This CIMdata Commentary covers but a sample of the topics, industries, and solutions presented in 30+ sessions over the two-day event. Dassault Systèmes is a PLM market leader but sees its historical PLM business as just one part of their enterprise going forward. Life sciences and infrastructure/smart cities will provide engines of future growth, some of which are really greenfield opportunities, particularly in comparison to discrete PLM. The company has to balance investments in their historical PLM segment (about 70% of their business) while also investing to grow mindshare and market share in new industrial sectors. Based on the sessions at their Analyst Days they seem to be doing well on both fronts.

Dassault Systèmes is a public company so one can see their results. They have continued to build out their Industry Solution Experiences (ISEs) in their 12 industry segments and, as stated

at the meeting, have brought data science to bear across their portfolio. Since 2012 their strategy has diverged from their two main competitors, Siemens Digital Industries Software and PTC. Over the last decade each has made investments that made this divergence more pronounced. Dassault Systèmes has made some wise large investments, like those in Centric Software and Medidata, that have given them leadership positions in their target markets. The move to Experiences-as-a-Service is another major change, one without precedent in the PLM market space. The company has work to do to build out these experiences and learn how to best monetize them for the benefit of their customers and Dassault Systèmes itself. CIMdata looks forward to the next Analyst Days for an update.

[1] Research for this commentary was partially supported by Dassault Systèmes.

[2] <https://www.wsj.com/articles/dassault-systemes-targets-significant-mid-term-growth-names-pascal-daloz-ceo-3cd2e08a>

[3] Interestingly, at their analyst event a few weeks later, Siemens claimed that they saw increasing interest and revenues from A&D companies on the cloud.

[4] <https://www.3ds.com/newsroom/press-releases/dassault-systemes-opens-new-horizons-3d-experience>

[5] <https://investor.3ds.com/news-releases/news-release-details/dassault-systemes-acquires-majority-stake-outscale>

[6] <https://www.3ds.com/newsroom/press-releases/dassault-systemes-announces-its-new-outscale-brand-leading-sovereign-and-sustainable-operator-trusted-business-experience-service>

Acquisitions

Chaos Acquires XYZ design and Its 4D Animated Human Technology for Archviz

11 July 2023

Chaos announces its acquisition of XYZ design, a leading developer of 3D/4D animation software designed to add realistic people and crowds to architectural visualizations. This acquisition expands a growing ecosystem of real-time visualization tools, photorealistic renderers and 3D asset libraries that help teams realize built experiences around the world.

Used by powerhouses like HOK and Gensler, XYZ's anima 5 software is one of the fastest ways to bring dynamic 3D/4D people into a visualization. Featuring over 2,500 scanned characters, anima helps designers add high-fidelity digital humans that walk, run, laugh and move to their scenes, giving projects a realistic quality that immerses viewers in a design. With onboard tools for tailoring loops and AI crowds, there's no better way to bring believable movement into a visual project.

Increasing the breadth of digital people has been a top request from customers, particularly in architecture. With the acquisition of anima, Chaos can meet the needs of its customers while setting up new ways to make high-fidelity 3D/4D human character assets more accessible than they've ever been. Chaos is currently planning how to best integrate the software with existing products like Chaos V-Ray and Chaos Corona, whose users already use anima on a daily basis.

As architects introduce new ways to explore sustainability, biophilic urbanism and more in their designs, giving stakeholders a sense of how different people might use these spaces will only become more important. In the last few years, XYZ has also paid special attention to increasing character diversity, so architects can match designs to the demographics of a city.

"XYZ's state-of-the-art assets give life to projects, so they actually connect with people," said Christian Lang, Chaos CEO. "Anyone that's been in architecture for a while knows how impactful digital humans are to the design and marketing process. 4D people is the next step in our journey."

Access to anima will remain unchanged for all new and existing customers. Chaos will continue collaborating with XYZ, as it continues to build on its recent support of anima characters in Chaos Vantage 2.

"When it comes to visualization, the Chaos products are unmatched," says Diego Gadler, CEO and founder of XYZ design. "By combining forces, we can move fast and create the type of products that make designers excited to go to work. The best is yet to come!"

Computer Guidance Welcomes Mobile-Punch to JDM Technology Group

11 July 2023

JDM Technology Group, the parent company of Computer Guidance Corporation, a leading global software business of best-in-class software providers, has acquired Lévis, QC based Mobile-Punch. Mobile-Punch is a mobile application that helps businesses across multiple sectors manage timesheets, work schedules, and projects in real time. The transaction closed on June 30 after approval from owners, Jérôme Guay and Bryan Porter.

With over 35,000 daily users, the easy to use Mobile-Punch application allows teams in sectors including construction, security, cleaning, and repair to generate timesheets, pinpoint geolocations, create employee schedules, and more on any mobile device.

"I was a construction business owner for many years and couldn't find a simple yet effective time management solution that my team could use, so I built Mobile-Punch. Our team is always looking to optimize, innovate, and evolve. Joining JDM is the next step in this evolution. I believe this is the right choice for our business because on our own we could have gone fast, but together we will go far," said Jérôme Guay in a statement on the transaction.

JDM Technology Group is a private, family owned business focused on long term growth. It is known for creating exceptional software solutions for the architecture, engineering, construction, and operations sectors. JDM has a proven strategy for integrating acquired companies into its existing infrastructure. Mobile-Punch will continue to operate as its own

brand. Guay and Porter will stay on to lead the business in their roles as President and Vice President, respectively.

“We’re thrilled to welcome Mobile-Punch to the JDM family,” said JDM CEO Jim McFarlane. “We have always invested in robust, easy to use technology that helps our customers succeed. Mobile-Punch is a great addition, and we look forward to working with Jérôme, Bryan, and the entire team to build upon their foundation of innovation, growth, and integrity.”

HCLTech To Acquire German Automotive Engineering Services Company ASAP Group

12 July 2023

HCLTech, a leading global technology company, announced it has signed a definitive agreement to acquire 100% equity stake in ASAP Group, an automotive engineering services provider. The transaction is subject to relevant regulatory approvals and is expected to close in September 2023.

Headquartered in Ingolstadt, Germany, ASAP is focused on future-oriented automotive technologies in areas such as autonomous driving, e-mobility and connectivity. ASAP serves top automotive original equipment manufacturers (OEM) and tier 1 suppliers in Germany. ASAP’s services portfolio comprises electrics/electronics, software, consulting, service testing and validation and vehicle development. ASAP has over 1,600 employees across nine locations in Germany.

HCLTech is a global leader in engineering and R&D services and works with 63 of the top 100 global engineering R&D spenders. The acquisition will boost HCLTech’s global leadership in engineering services by strengthening its advanced technology capabilities in the fast-growing automotive engineering services segment in Europe and other key global markets.

“Core engineering is at the heart of HCLTech’s DNA and truly differentiates our services portfolio. ASAP has developed some exciting capabilities in automotive engineering, and we share their vision for future of mobility. This agreement will enable us to scale these capabilities and innovations across our global network,” said Hari Sadarahalli, Corporate Vice President, Engineering and R&D Services, HCLTech. “This investment also reinforces our commitment to Germany, which is a focus market for us. We will continue to nurture local talent and innovation ecosystem to unlock their potential.”

“We are delighted to align our growth journey with HCLTech’s purpose of bringing together the best of technology and people to supercharge progress for all stakeholders,” said Michael Neisen, CEO at the ASAP Group. “We are confident that the combination of HCLTech and ASAP’s engineering and technology performance will bring best-in-class advantages to the automotive industry worldwide.”

Hexagon acquires HARD-LINE, strengthening mine safety, automation and underground offering with tele-remote technology

12 July 2023

Hexagon's Mining division announced the acquisition of Canadian company HARD-LINE, a global leader in mine automation, remote-control technology and mine production optimization. HARD-LINE specializes in remote control solutions and network infrastructure, allowing for the tele-remote operation of heavy machinery from a control station in a safe area on the surface or underground, regardless of distance.

The acquisition will enhance Hexagon's life-of-mine technology stack, and will particularly complement its newest portfolios, HxGN Underground Mining and HxGN Autonomous Mining, as well as its award-winning HxGN MineProtect offerings. The portfolios realize a life-of-mine vision, autonomously managing vehicle traffic, improving fleet situation awareness and introducing drill automation while protecting drivers, pedestrians and equipment in the most demanding environments.

HARD-LINE's solutions will help strengthen the solution offering with remote control via electronic and hydraulic by-wire technologies, innovation necessary for achieving full autonomy in the mine. Like Hexagon, HARD-LINE believes in an interoperable, OEM-independent system for mining automation, improving safety and productivity, critical to bringing autonomous technology to the wider mining industry.

"The pressure to remove humans from dangerous situations where it's unsafe to operate a manned vehicle is increasing, particularly as mines push deeper underground for minerals and metals. We recognize that remote control is a key enabler of the autonomy required to answer this need, which is one of many reasons we're so delighted to welcome HARD-LINE to the Hexagon family," expressed Nick Hare, President of Hexagon's Mining division.

President of HARD-LINE, Walter Siggelkow, said: "With Hexagon's expertise and our internationally recognized technology – this acquisition really benefits both companies and customers in many ways. While HARD-LINE solutions have positively changed how critical mining tasks are accomplished underground by our customers over decades, the geographical footprint achievable with Hexagon will only increase our impact towards safer mines through autonomous processes."

HILTI PLANS ACQUISITION OF 4PS GROUP TO EXPAND ITS SOFTWARE PORTFOLIO

7 July 2023

The Hilti Group is taking the next strategic step to further expand its software business and plans to acquire 4PS Group, which specializes in providing business management (ERP) solutions for the construction industry. Together, Hilti and the 4PS Group can strengthen their position to drive the digital transformation of the construction industry.

Founded in 2000 in the Netherlands, 4PS is a leading player in its domestic market and has expanded its presence to include the UK, Belgium and Germany. With over 70,000 daily users in

the building construction, civil engineering and installation sectors 4PS has gained a strong reputation for the breadth of its industry expertise.

Shared focus on digital transformation

"As a company closely working with customers, and with a focus on supporting the digital transformation of the construction industry, 4PS Group is a perfect fit for Hilti. We also share the conviction that there is enormous productivity potential for construction companies in optimized business processes," explains Thomas Hillbrand, member of the Hilti Executive Board. "Construction projects are complex, and administrative tasks take up a large amount of time. All the more reason for us to digitalize processes and make information easily and quickly available." The 4PS solution allows Hilti to expand its software offering beyond asset management (ON!Track) and jobsite management (Fieldwire) and to provide integrated solutions that cover the entire value chain of its customers.

"We are looking forward to joining forces with Hilti," says Johan Bakker, Director Sales & Marketing at 4PS Group. "Like Hilti, we understand our customers' challenges and offer direct advice and support in implementing our innovative software solutions. It is an important next step to be able to take a leading role in the European market."

Paula Middelkoop, Director Product & Development at 4PS Group, adds: "Our customers, partners and employees will benefit from this acquisition. By integrating our services and cloud solutions into Hilti's portfolio, we can together fully focus on becoming the trusted digitalization partner for the construction industry."

Continuity and integration

Both parties have signed the acquisition agreements, subject to approval by oversight authorities. Hilti is committed to retaining the more than 350 team members, including management, in their current roles, where they will continue to develop new solutions. The shareholders of the company, Wim Jansen, André Overeem and Martin Westerink, will remain on the Board of Directors to support the integration in the coming years.

4PS Construct software, based on Microsoft Dynamics 365 Business Central, offers construction-specific functionalities that enable companies to manage the entire construction project life cycle. This allows construction companies to take control of their profitability by monitoring margins, forecasting results, controlling resources and planning effectively.

Hilti and 4PS Group customers will benefit from a wide range of software solutions from a single provider with a long-term orientation and a strong commitment to innovation. The partnership with Microsoft remains a cornerstone for future business process management solutions.

Honeywell To Acquire SCADAfence, Strengthening Its Cybersecurity Software Portfolio

10 July 2023

Honeywell announced it has agreed to acquire SCADAfence, a leading provider of operational technology (OT) and Internet of Things (IoT) cybersecurity solutions for monitoring large-scale networks. SCADAfence brings proven capabilities in asset discovery, threat detection and security governance which are key to industrial and buildings management cybersecurity programs.

The OT cybersecurity industry is expected to grow to greater than **\$10 billion** in the next several years. Particularly in the industrial sector, cyberattacks focused on OT systems can be a significant source of unplanned downtime, with estimates that unplanned downtime represents over a trillion dollars in lost revenue for the industrial and critical infrastructure sectors.^[1]

"It is essential to protect and maintain the integrity of operational systems like process control equipment in manufacturing facilities. A simple breach in the OT environment has the potential to create safety and business continuity risk for organizations of all sizes. OT assets are inherently different than those in the IT environment as they are domain specific. Honeywell has been delivering and installing these systems for decades, which is why we launched our cybersecurity business more than twenty years ago. Adding SCADAfence's product portfolio will strengthen our capabilities and help our customers defend themselves against cyber security risks which are progressively increasing," said Kevin Dehoff, president and chief executive officer, Honeywell Connected Enterprise.

The SCADAfence product portfolio will integrate into the Honeywell Forge Cybersecurity+ suite within Honeywell Connected Enterprise, Honeywell's fast-growing software arm with strategic focus on digitalization, sustainability and OT cybersecurity SaaS offerings and solutions. This integration will enable Honeywell to provide an end-to-end enterprise OT cybersecurity solution to site managers, operations management and CISOs seeking enterprise security management and situational awareness. The acquisition strengthens existing capabilities in cybersecurity and bolsters Honeywell's high-growth OT cybersecurity portfolio, helping customers operate more securely, reliably and efficiently.

"SCADAfence is an ideal complement to Honeywell's OT cybersecurity portfolio and, when combined with the Honeywell Forge Cybersecurity+ suite, it enables us to provide an end-to-end solution with applicability to asset, site and enterprise across key Honeywell sectors," said Dehoff. "By enhancing our cybersecurity portfolio, we are accessing a growth engine and enabling our customers to operate their OT environments more securely and help to avoid disruption and possible catastrophic events."

"We are thrilled to join Honeywell as we work towards fulfilling our mission of empowering industrial organizations to operate securely, reliably and efficiently. This combination creates significant opportunity for growth, allowing us to combine our top-tier OT cybersecurity products with one of the world's leading companies in industrial software," said Elad Ben Meir,

chief executive officer, SCADAfence. "With this acquisition, we are poised to deliver some of the most advanced OT security technology to Honeywell's broad customer base, bolstering the comprehensive Honeywell Forge Cybersecurity+ offering. We remain committed to proactively serving and supporting our customers across all verticals and geographies where we currently operate."

SCADAfence is headquartered in Tel Aviv, Israel and will expand Honeywell's Cybersecurity Center of Excellence in Tel Aviv. Honeywell has been implementing OT cybersecurity solutions for more than twenty years, delivering thousands of projects in over 130 countries with more than 500 employees worldwide focused specifically on OT cybersecurity.

The transaction is expected to close in the second half of 2023, subject to customary closing conditions, including receipt of certain regulatory approvals.

Sopheon expands into Asia and South Pacific with acquisition of Prodex Systems

13 July 2023

Sopheon, the InnovationOps software company, announced the acquisition of the business and assets of Prodex Systems Australasia ("Prodex"), a specialist provider of innovation software and consulting based in Brisbane, Australia.

Prodex, a longtime reseller of Sopheon products, assists innovative and successful companies to make better, quicker decisions and increase speed to market. This acquisition gives Sopheon a truly global footprint and a strong platform to advance customer acquisition and growth in the world's most dynamic region.

"This is Sopheon's third acquisition in 19 months and the latest evidence of the strong momentum that our company is experiencing," said **Greg Coticchia, CEO of Sopheon**. "With companies throughout Southeast Asia increasing their innovation investments, it's fitting that Sopheon's first acquisition to expand our geographic presence be in this expanding market. Prodex, a longtime reseller of Accolade, assists innovative and successful companies to make better, quicker decisions and increase speed to market. Sopheon's innovation leadership continues to expand as a result of our consistent growth in product offerings, customer implementations and global reach."

Sopheon's previous acquisitions included ROI Blueprints and Solverboard. Those important technology assets were further developed and launched as Acclaim Projects and Acclaim Ideas, respectively. Alongside internally developed Acclaim Products, the launch of these new SaaS solutions have expanded Sopheon's addressable market by an estimated \$2 billion and boosted the company's position as the leading software vendor focused on operationalizing the business of innovation.

"The transition for Prodex to become a Sopheon entity is an exciting extension of the reseller agreement we have had in place for many years," said **Gerard Ryan, CEO and founder of Prodex**. "We are already working with Sopheon in Australia, New Zealand and Thailand, with market development plans in place for the wider Southeast Asian region. We're excited by the

synergy of immediate geographic expansion for Sopheon in this highly innovative and high-growth region, while also enabling true 24/7 coverage for Sopheon's global customer base."

Sopheon's software offerings support InnovationOps thinking and principles that help organizations with managing discovery, product management, project management, portfolio management and governance.

VERTEX ACQUIRES BREAKWATER FORENSICS, LLC

12 July 2023

We are pleased to announce the acquisition of Breakwater Forensics, LLC ("Breakwater"), a highly respected expert witness and business consulting firm. This partnership expands our bench of technical experts and extends its forensic consulting and expert testimony capabilities.

"Today, we celebrate a significant milestone as we welcome Breakwater to the VERTEX team, and we congratulate the owners on the exceptional business they have built," stated VERTEX CEO, Bill McConnell. "This partnership marks the beginning of an exciting journey together as we combine our expert services, office platform and mutual dedication to bettering outcomes for our clients, colleagues and communities."

Breakwater Forensics is a full-service expert witness and business consulting firm that is well-regarded for experts in damages, scheduling and government contracts. Breakwater's team brings decades of consulting and testifying experience and its staff includes Professional Engineers, Certified Public Accountants, Certified Fraud Examiners and professionals experienced in analyzing complex issues and providing meaningful analysis and opinions on challenging assignments.

"Breakwater augments VERTEX's team perfectly," said Nathan Brown, Managing Director at Wind Point. "Strengthening our forensics presence and expert bench are key steps within the VERTEX value creation plan. The Breakwater team has created an outstanding business, and this combination comes with great upside for VERTEX, Breakwater and our collective customers and employees."

In a joint statement, Diana Minchella, Managing Director of Vertex's Claims, Disputes and Forensics Department and Jeff Katz, Executive Vice President of the Contract Claims group noted, "We are excited to welcome the Breakwater team to VERTEX. Our teams have already worked together, and we know the excellent caliber of people and work product that Breakwater offers. This partnership furthers our commitment to working seamlessly on client matters and to providing our clients with the best possible services."

VERTEX's multi-disciplined professional services, North American office footprint, and commitment to quality, value, and continuous growth opportunities make us an excellent fit for Breakwater. Breakwater and its clients will have direct access to our resources and suite of specialized services. In a joint statement, Co-Founders, Joseph Egan and Neil Miltonberger explained, "With VERTEX, our team will continue to bring the technical excellence our clients have come to rely on while expanding the breadth of our services." Co-

Founders, Sashi Mahtani and Dayna Anderson elaborated by saying, “We are extremely excited to join the VERTEX family; the move adds significant value to both our clients and employees.”

VERTEX will continue seeking acquisitions that add exceptional talent, complementary employee-focused cultures and a deep commitment to clients. Jeff Picard, Chief Strategy Officer of Vertex said, “The addition of the amazing team at Breakwater represents our continued commitment to add value for our clients and create opportunities for our employees. We have been fortunate to have a partner in Wind Point that shares our vision and growth strategy, as we continue to expand as an industry leader.”

Company News

Ansys and Altium Boost Electronics Design with Digital Continuity

11 July 2023

Altium and Ansys are partnering to improve the electronic design and development process by digitally connecting Altium's electronic computer-aided design (ECAD) tools and Ansys Electronics Desktop. This bidirectional integration, set to be available in the second half of 2023, creates a new level of digital continuity while helping to reduce development time and the risk of design errors.

The connection will facilitate seamless collaboration, streamlining the exchange of design data and enabling engineers to work together more effectively within a fully integrated workflow. By eliminating the need for import/export translations and replacing manual, ad-hoc communication methods, the integration supports predictive accuracy, synchronization, and productivity, while reducing the risk of errors. As a result, the digital bridge also minimizes the potential for respins and delays.

Ansys and Altium will demonstrate the integration during the 2023 Design Automation Conference (DAC) in San Francisco. A preview is also now available via the Altium-Ansys Digital Showroom.

“As companies innovate to meet the demand of today’s competitive landscape, they face new product complexities and engineering challenges that require extensive cross-domain collaboration and advanced simulations. And the outdated, manual integration methods being utilized are holding them back,” said Tomek Brzuchacz, head of CAD software at Altium. “This digital connection between ECAD and simulation enables electrical engineers and simulation engineers to work together with ease and accuracy, helping companies to accelerate design time and minimize additional costs.”

Printed circuit boards (PCBs) are an integral part of electronic devices spanning various industries and applications, such as automotive, consumer electronics, Internet of Things (IoT), and more. Further, as connectivity advances from wearable technology to autonomous vehicles, electronics designs increasingly involve fragile components like sensors and integrated circuits (ICs). Consequently, the need for predictively accurate modeling and simulation becomes even more crucial for design success.

Comprehensive electronic design requires an evaluation of signal and power integrity, electromagnetic compatibility, thermal mechanical stresses, and electronics reliability. Ansys offers end-to-end simulation solutions for PCBs, ICs, and IC packages to evaluate an entire system.

“Electronics designers and engineers work tirelessly to produce the countless connected devices and applications demanded by today’s market, and it is critical to equip these innovators with the same level of connectivity during design and development,” said John Lee, vice president of the electronics, semiconductor, at optics business unit at Ansys. “With a bidirectional link between Ansys and Altium solutions, electrical engineers will no longer be slowed down or interrupted by data communication and can focus on design, innovation, and collaboration.”

Configit Appoints Experienced Strategic Product Marketing Leader to Drive Continued Growth and Build Traction

5 July 2023

Configit, the global leader in Configuration Lifecycle Management (CLM), announced **the company has appointed Daniel Joseph Barry as vice president of product marketing**. Barry joins the company amid a period of rapid growth and continued traction for CLM.

In his full-time role, Barry will work closely with sales, marketing and product management to further the company’s leadership in the CLM space and drive more visibility of how Configit helps leading organizations solve their biggest configuration complexity challenges.

Barry has spent over 30 years working in the technical space, in roles spanning hardware and software development, sales, product management, product marketing and strategy. This breadth of experience has helped him develop a holistic understanding of the entire product delivery value chain. It has also shaped his ability to work across different functions within an organization and given him unique insight into the different cultures and motivations within engineering, sales and marketing departments. He’s previously held senior strategy, product management and marketing roles at Napatech, TPACK (now Intel), and Ericsson, among many others.

Configit has led the charge in CLM solutions for nearly 20+ years, playing a key role in first introducing the concept to the market. As product complexity increases, configuration solutions are in higher demand. **Gartner® analysts predict** that “by 2026, configuration **life cycle management will transform 40% of manufacturers**, reducing the amount of customer-specific engineering required to deliver products.”

Johan Salenstedt, CEO, Configit, said: “We’re at a turning point for configuration lifecycle management – there is a growing need in the industry for solutions of this kind. At Configit, we’ve pioneered this space. We have the know-how, expertise and technology needed to ease the challenges manufacturers today face. Dan Joe’s combination of strategic product marketing and technical acumen is just what our team needs to bring Configit to the next level, raise visibility with new audiences and continue to evolve our solutions portfolio.”

Daniel Joseph Barry, vice president of product marketing, Configit, said: “Manufacturers today are grappling with increased complexity and more demand for highly configurable products. The configuration solutions that Configit enables are exactly what the market is searching for right now. Configit is ideally placed to grow with that opportunity, and I look forward to seizing upon this moment to drive further awareness and traction.”

Cyncly announces appointment of Nick Honeyman-Brown as Chief Financial Officer

10 July 2023

Cyncly, the leading global provider of software and content solutions that help make spaces amazing, announced the appointment of Nick Honeyman-Brown as its new Chief Financial Officer. In his capacity as CFO, Nick will play a strategic role in aligning Cyncly’s business and finance strategies to support the company's next phase of growth.

“We are thrilled to have Nick joining the Cyncly team. Nick shares our vision for a customer-first strategy to drive growth. His experience as a trusted finance advisor and operational leader will be incredibly valuable as we continue to scale,” said James Hamilton, COO.

Nick brings over 15 years of experience from various finance and commercial roles, at KPMG, Virgin Media and, most recently, Afiniti, where he was CFO.

At Cyncly, Nick will be responsible for financial strategy and performance. He will helm Cyncly’s Company Success team, comprising the Finance, FP&I, and Legal teams.

“I am impressed with the progress that Cyncly has made in the last few years to extend its leadership in the home improvement industry,” said Nick Honeyman-Brown. “It’s an exciting time to be building and executing the strategy for growth. I look forward to joining the leadership team to build on solutions that keep the success of our customers front and center.”

Digital Twin Consortium Publishes Platform Stack Architectural Framework

11 July 2023

The Digital Twin Consortium® (DTC®) announced the *Platform Stack Architectural Framework: An Introductory Guide*. The guide, designed for C-Suite and business leaders, provides foundational building blocks and central concepts of a digital twin system. System architects can use it to enable technology selection through development.

“Digital twins and enabling technologies are revolutionizing how we approach even the simplest of tasks, from managing the flow of stock in a warehouse to designing, deploying and maintaining a fleet of aircraft,” said Dan Isaacs, GM & CTO, DTC. “Digital twin systems accelerate digitization as they provide organizations the means to operate more efficiently, effectively and adhere to best practices and guidelines.”

The guide discusses the IT/OT infrastructure, virtual representation, service interfaces, applications, and mechanisms for synchronizing real-world data. The guide reviews commonly adopted technological approaches and standards and emphasizes the importance of security, trustworthiness, and governance.

“The *Platform Stack Architectural Framework: An Introductory Guide* answers fundamental questions such as “What are the critical constituent parts of a digital twin system?” and “What elements take a solution from being a great model or simulation to qualifying as a digital twin?” said Dr. David McKee, Entrepreneur and Portfolio CTO at Counterpoint Technologies, and Co-Chair of the Capabilities and Technology Working Group, DTC. “The guide also helps business leaders and developers understand how to design and architect digital twin systems with best practices for scalability, interoperability, and composability to realize their transformative value.”

The guide discusses five use cases of varying maturity levels with examples of how designers can use the architecture in practice. The use cases include buildings as batteries, emergency communication services, manufacturing quality control via remote operator, scope 3 carbon reporting emissions, and infectious disease management. Technology Readiness Levels (outlined in the guide) help designers understand the technical maturity of a system as it moves through the following stages:

- Technical modeling and simulation, starting with theoretical models and improving to being based on real-world data
- Digital twins as individual components based on actual data and validated in the real world through synchronization.
- Digital twin systems in production and operational environments, with system integration and clearly defined synchronization at a specified frequency

The guide is the first in a series of digital twin publications OMG consortia will publish in the coming months. For more information, please download the *Platform Stack Architectural Framework: An Introductory Guide* from the DTC website.

ELECTRONIC SYSTEM DESIGN INDUSTRY LOGS \$4 BILLION IN REVENUE IN Q1 2023, ESD ALLIANCE REPORTS

10 July 2023

Electronic System Design (ESD) industry revenue increased 12% from \$3,527.7 million in the first quarter of 2022 to \$3,951.1 million in the first quarter of 2023, the ESD Alliance, a SEMI Technology Community, announced today in its latest *Electronic Design Market Data (EDMD)* report. The four-quarter moving average, which compares the most recent four quarters to the prior four, rose 12.7%.

“The electronic design automation (EDA) industry continued to post double-digit gains in Q1 2023, with increases in all product categories and geographic regions,” said Walden C. Rhines, Executive Sponsor of the SEMI Electronic Design Market Data report. “Product categories Computer Aided Engineering, IC Physical Design and Verification, Printed Circuit Board and Multi-Chip Module, and Services all reported double digit increases.”

The companies tracked in the *EDMD* report employed 57,696 people globally in Q1 2023, a 12.9% jump over the Q1 2022 headcount of 51,093 and up 4.5% compared to Q4 2022.

The quarterly *EDMD* report contains detailed revenue information with the following category and geographic breakdowns.

Revenue by Product and Application Category – Year-Over-Year Change

- **Computer-Aided Engineering (CAE)** revenue rose 15.1% to \$1,434.1 million. The four-quarter CAE moving average increased 18.6%.
- **IC Physical Design and Verification** revenue jumped 24.6% to \$675.8 million. The four-quarter moving average for the category increased 14.6%.
- **Printed Circuit Board and Multi-Chip Module (PCB and MCM)** revenue increased 25.6% to \$368.4 million. The four-quarter moving average for PCB and MCM rose 15.7%.
- **Semiconductor Intellectual Property (SIP)** revenue increased 0.4% to \$1,330.6 million. The four-quarter SIP moving average grew 5.7%.
- **Services** revenue increased 17.2% to \$142.2 million. The four-quarter Services moving average rose 16.8%.

Revenue by Region – Year-Over-Year Change

- The **Americas**, the largest reporting region by revenue, procured \$1,698.2 million of electronic system design products and services in Q1 2023, a 12.7% increase. The four-quarter moving average for the Americas rose 12.5%.
- **Europe, Middle East, and Africa (EMEA)** procured \$530.1 million of electronic system design products and services in Q1 2023, a 21.6% increase. The four-quarter moving average for EMEA grew 9.6%.
- **Japan's** procurement of electronic system design products and services increased 4.3% to \$272.7 million. The four-quarter moving average for Japan rose 2.3%.
- **Asia Pacific (APAC)** procured \$1,449.9 million of electronic system design products and services in Q1 2023, a 9.6% increase. The four-quarter moving average for APAC grew 16%.

About the EDMD Report

The ESD Alliance *Electronic Design Market Data* (formerly the Market Statistics Service) report presents Electronic Design Automation (EDA), SIP and services industry revenue data quarterly. Both public and private companies contribute data to the report available from SEMI. Each quarterly report is published approximately three months after quarter close. *EDMD* report data is segmented as follows:

- Revenue by product category (CAE, IC Physical Design and Verification, Semiconductor IP, PCB/MCM Layout, and Services) including numerous detailed sub-categories
- Revenue by geographic region (Americas, EMEA, Japan and APAC)
- Total employment at participating companies

EPLAN enters into technology partnership with Dassault Systèmes

7 July 2023

It was made official on the first day of the Hannover Messe: EPLAN and Dassault Systèmes have entered into a technology partnership as part of the EPLAN Partner Network, whereby both parties will be working on expanding the interface between EPLAN and the Dassault Systèmes 3DEXPERIENCE Platform. The goal is seamless integration of electrical engineering and fluid-power technology in the context of product development. Dassault Systèmes Managing Director Eurocentral Dominic Kurtaz and EPLAN & Cideon CEO Sebastian Seitz signed the agreement in Hanover. The partners will beneficially be contributing their expertise in the interests of their shared clients, thereby enabling companies to set up end-to-end digital development processes.

Aiming for higher process efficiencies

Sebastian Seitz explains: “With the bidirectional interface between the EPLAN Platform and the Dassault Systèmes 3DEXPERIENCE Platform, we’re increasing the process efficiencies of our common clients. When all systems are bidirectionally connected – ECAD, ERP and PDM, for instance – users are working in a truly interdisciplinary manner and thus much more efficiently.”

“With this partnership, we’re supporting our common clients to achieve new dimensions of efficiency and productivity in end-to-end product development,” says Dassault Systèmes Managing Director Eurocentral Dominic Kurtaz. “All of this is made possible through the development and use of virtual twins. The bidirectional interface simplifies numerous processes and creates new opportunities for collaboration for our clients. We are therefore very pleased to be taking this groundbreaking step together with EPLAN.”

The partnership will be expanded in the coming months. Both companies are working in tandem to further optimise the interface – the PLM 3DEXPERIENCE Connector – and provide new solutions for digital product development in the cloud environment. A joint demonstration environment is also planned as part of the Engineering Collaboration Network with videos and sample data in the PLM Cloud environment, as well as joint interaction on customer projects.

Bidirectional coupling of engineering and PLM

The interaction of EPLAN and the 3DEXPERIENCE Platform allows that the data management processes for electrical engineering and fluid-power engineering can be automatically controlled. What’s special about it is that access to the Dassault Systèmes cloud-based platform is available directly in EPLAN Electric P8 and EPLAN Fluid. For instance, components lists and bills of materials can be synchronised with just one click. For users of both platforms, automating routine processes makes everyday work even easier – common operations such as searching for, finding and creating projects, checking in or out of them, or exporting EPLAN project pages into neutral formats are all carried out much more efficiently with the interface. Fast and easy document generation in particular will save users both time and effort, since all that is needed to output in neutral formats is a checkmark when checking in. The neutral formats are then automatically linked to the associated EPLAN project.

EPLAN and the 3DEXPERIENCE Platform have bidirectional communication. Checking into projects from EPLAN on the platform is automated, as is opening projects from the PLM system. Important descriptive PDM attributes, including information for the drawing header (as an example), can be added companywide in the 3DEXPERIENCE Platform and are automatically available during the next checkout of the EPLAN project. Furthermore, the software supports traditional PDM functionality such as the approval or transfer of documentation to manufacturing.

FMI 3.0.1 released

10 July 2023

The FMI Project and the Modelica Association are happy to announce the release of FMI 3.0.1. FMI 3.0.1 is a maintenance release with clarifications and bugfixes and no new features compared to FMI 3.0. FMUs created according to FMI 3.0.1 are valid FMUs according to FMI 3.0 and vice versa. The FMI 3.0.1 specification can be found at <https://fmi-standard.org/docs/3.0.1/>.

What's Changed

- Clarification for matching by @chrbertsch in <https://github.com/modelica/fmi-standard/pull/1808>
- Replace fmi3AbstractVariable figure w/ fmi3ArrayableVariable by @t-sommer in <https://github.com/modelica/fmi-standard/pull/1829>
- Added description of the fmiBuildDescription element by @antvl in <https://github.com/modelica/fmi-standard/pull/1818>
- Bugfix: disallow output derivatives in SE by @chrbertsch in <https://github.com/modelica/fmi-standard/pull/1831>
- Fix missing content in XML schema for enums by @pmai in <https://github.com/modelica/fmi-standard/pull/1838>
- Define default variability by @chrbertsch in <https://github.com/modelica/fmi-standard/pull/1836>
- Clarification of 'nominal' for array variables by @Maplesoft-fmigroup in <https://github.com/modelica/fmi-standard/pull/1841>
- Clarify earlyReturn from fmi3DoStep by @Maplesoft-fmigroup in <https://github.com/modelica/fmi-standard/pull/1845>
- Clarify use of binaries and resources folder by @chrbertsch in <https://github.com/modelica/fmi-standard/pull/1849>
- Clarify usage of structural parameters in glossary by @chrbertsch in <https://github.com/modelica/fmi-standard/pull/1850>
- Clarify stub functions and implementation guidance by @pmai in <https://github.com/modelica/fmi-standard/pull/1873>

- Require implementation of all API functions by @t-sommer in <https://github.com/modelica/fmi-standard/pull/1868>
- Add pointer to IG for language and compiler names by @pmai in <https://github.com/modelica/fmi-standard/pull/1875>
- Clarify array concat by @chrbertsch in <https://github.com/modelica/fmi-standard/pull/1882>
- Clarify intermediate update by @chrbertsch in <https://github.com/modelica/fmi-standard/pull/1886>

HCLTech Celebrates 43 Years In Singapore

6 July 2023

HCLTech, a leading global technology company, recently marked 43 years of operations in Singapore, supercharging progress for clients and communities in the region. Reinforcing its commitment to the ASEAN region, the company has partnered with the Singapore University of Technology and Design (SUTD) on a freshman program to nurture young talent and encourage social innovation.

HCLTech will also present the Asia Top 50 Women Tech Leaders 2023 Awards, organized by The Rainmakers, to recognize accomplished women in technology and encourage a more gender-balanced and equitable workforce. The objective of these awards is foster a supportive community, promote professional growth and inspire more women to join the tech industry.

In the last four decades, HCLTech has built a vital and thriving technology ecosystem in Singapore and works with numerous renowned clients and partners. HCLTech in Singapore has been pioneering technology across the region, leading development in innovations, including the first Wi-Fi based patient tracking system in Asia, and contributing to citizen-centric strategic projects for the Singapore government.

“Reinforcing our commitment to innovation and growth, HCLTech has built an ecosystem of trusted clients and partners, leading to the creation of job and growth opportunities for the local community in Singapore and the ASEAN region,” said Sandeep Sarkar, Senior Vice President and Region Head, ASEAN and North Asia, HCLTech. “We look forward to celebrating this growth with renewed commitment to our clients, partners, staff and the wider community and facilitating further collaboration with government and industry to develop a more sustainable and strengthened technology community in Singapore.”

HCLTech is one of the sponsors of the ‘See Me, See You’ video art installation at the National Gallery Singapore, the first exhibition to focus on pioneering video installations artworks from Southeast Asia, experimenting with moving images, performances and audience participation.

Infosys Public Services Expands in Canada

6 July 2023

Infosys Public Services (IPS), a North America-based company of Infosys, announced the opening of its new subsidiary, Infosys Public Services Canada, Inc. (IPS Canada) headquartered in Ottawa, Ontario with local offices in Mississauga ON, Calgary AB, and Burnaby BC. IPS Canada accelerates digital transformation for public sector organizations across the country, including federal departments, provincial ministries, municipalities, and crown corporations, and provides access to top tier IT talent and innovative solutions to improve the delivery of government services to Canadians.

Infosys Public Services' Canadian expansion marks the next phase of its decade-plus presence in the country and is the logical next step for the company given its growth in Canada and the evolving government security standards and regulation. This IPS Canada announcement is the latest development in a series of investments made by Infosys which has expanded the employee count to over 7,000 with a commitment to increase to 8,000 employees by 2024. IPS Canada will also work with local universities and technical colleges to recruit talent.

Bhanu Prasad Narayan, Interim CEO, Infosys Public Services, said, "The Canadian incorporation of Infosys Public Services Canada, Inc. underscores our continued commitment to our public sector clients, as we help them modernize service delivery for Canadian citizens and businesses. Our offices will enable us to tap into strong local talent across the country to support continued business growth in the region."

Franco Chirichella, President and CEO, Innovapost, said, "As one of Innovapost's key strategic partners, Infosys Public Services Canada has helped us successfully deliver IT initiatives to meet the demands of the evolving mail, courier and logistics industry. IPS Canada does a great job of bringing the breadth and depth of their global and Canadian capabilities to Innovapost to support us in meeting our business and technical needs."

IPS Canada will help modernize public sector service delivery for new and existing Federal, Ontario, and Manitoba government and crown corporation clients, creating resiliency for their core business systems and processes with digital and cloud solutions. The IPS Canada headquarter in Ottawa is a 10,000 square foot digital center. The facility is designed to allow the delivery of managed services that can comply with the security requirements associated with delivering services to each level of government. It is located at 275 Slater Street, Suite 501 in downtown Ottawa.

PROLIM's Bold Expansion: Unveiling New Office in Pune Region

7 July 2023

PROLIM, a leading global provider of CAD, PLM, IoT, and Digital Transformation Solutions, proudly announces its expansion with the opening of a new office in Pune. This strategic move signifies a significant milestone in our growth strategy and reinforces our commitment to delivering exceptional services and fostering stronger client relationships.

“We are thrilled to announce the expansion of our footprint with the opening of our new office in Pune,” said Vivek Mahajan, Director – PLM Solutions, PROLIM India. “This strategic move allows us to better serve our clients, enhance our service capabilities, and drive innovation by establishing closer proximity to our valued partners and customers in these thriving markets.”

The new office will house dedicated teams of industry experts, consultants, and technical professionals, ensuring prompt and personalized support for our clients. Additionally, these state-of-the-art facilities have been thoughtfully designed to foster a collaborative work environment, promoting creativity, innovation, and employee well-being.

“Our decision to establish a new office in the Pune region reflects our dedication to attracting top talent and meeting the evolving needs of our customers said Ashwini Kumar, Head of Human Resources, PROLIM India. “These strategic locations not only provide access to a rich pool of skilled professionals but also enable us to deliver localized support and customized solutions. We are excited about the opportunities that lie ahead and are committed to fostering innovation, nurturing talent, and exceeding customer expectations in these key regions.”

With the establishment of this new office, PROLIM reinforces its commitment to maintaining its core values of excellence, integrity, and customer-centricity. This expansion not only strengthens our ability to deliver exceptional value to our clients but also provides us with a solid platform to attract top talent, fostering a culture of continuous learning and growth.

Rand Simulation Receives Expanded Authorizations from Ansys

11 July 2023

Rand Simulation (Rand SIM), an Ansys Elite Channel Partner and a division of Rand Worldwide, has received expanded authorization to sell, support and train companies on Ansys technologies in new territories. Rand SIM can now work with companies in every US state as well as the Canadian provinces of Ontario, British Columbia and Alberta. This geographic expansion follows other investments that Rand SIM is making to expand its resources and technical capabilities, including the recent LS-Dyna partnership with Predictive Engineering.

“Our goal since the beginning has been to be the leader in helping organizations across North America leverage simulation-driven design to solve complex product design and development challenges,” says Jason Pfeiffer, vice president, Rand Simulation. “Our latest expansion demonstrates Ansys’ continued confidence in our ability to recommend, implement and train organizations on their simulation solutions and provides greater opportunities for us and the companies we serve.”

Rand Simulation offers Ansys’ comprehensive suite of software products and has earned respected designations including Ansys Elite Channel Partner and Ansys Americas Partner of the Year for both 2022 and 2019. To support the needs for companies who benefit from its expertise, Rand SIM continues to grow its technical capabilities and invest in its internal processes and infrastructure to ensure that its customer experiences consistently exceed expectations.

Siemens expand collaboration with AWS to help IC and electronics design customers accelerate innovation

10 July 2023

Siemens Digital Industries Software announced that it will expand its Strategic Collaboration Agreement (SCA) with Amazon Web Services (AWS) to focus on helping mutual integrated circuit (IC) and electronics design customers leverage AWS's advanced cloud services to shorten design cycles, optimize engineering resources and boost verification coverage using current and forthcoming Siemens EDA products. This extended SCA builds upon the companies' strong track record of providing customers with the agility, flexibility and adaptability needed to help turn ideas into innovation with greater efficiency and speed.

High performance cloud computing provides IC and systems developers with effective ways to address the ever-expanding design complexity, demand for massive computing capacity, and the challenge of distributed, cross-organization collaboration. When leveraging the right partners, architectures, and security practices, the cloud can help accelerate design and verification cycles, while enabling productivity improvement and assist customers in focusing resources on the highest-value activities.

"For many years, Arm has successfully run a broad array of EDA solutions from Siemens on Arm Neoverse-based AWS Graviton instances to rapidly simulate and verify our IP. Using Siemens' Questa software, we've simulated processor designs with the latest Graviton3, reducing our time to result by 20-30 percent," said Mark Galbraith, Vice President of Productivity Engineering, Arm. "Leveraging world-class technologies from industry leaders like AWS and Siemens EDA ensures Arm IP will continue to enable the world's leading IC design and systems companies to differentiate and win in competitive markets."

Siemens and AWS are collaborating to develop Cloud Flight Plans, which are best-known methods (BKMs) and technologies for running Siemens' EDA tools in customers' AWS environments. Cloud Flight Plans are ideal for customers looking to self-manage their AWS environments.

"IC development is a compute-intensive process, so having ready access to additional capacity and alternative system configurations is extremely valuable to our customers," said Craig Johnson, Vice President, EDA Cloud Solutions for Siemens Digital Industries Software.

"Deployment complexity has historically been a major challenge. Our expanded collaboration with AWS focuses on combining our mastery of electronics design with AWS's infrastructure, consulting and cloud deployment assistance to accelerate our mutual customers' outcomes."

"AWS is accelerating the performance of IC and electronics design workloads by delivering elastic, high-performance computing (HPC) for the most sophisticated EDA solutions," said, Bill Vass, Vice President of Engineering, AWS. "Our strategic collaboration with Siemens allows mutual customers to create innovate new products in the cloud today, and now includes significant semiconductor innovation with Siemens EDA."

Financial News

Addnode Group -INTERIM REPORT 1 JANUARY – 30 JUNE 2023

14 July 2023

WEAKER EARNINGS THAN THE PREVIOUS YEAR. ACQUISITION STRENGTHENING THE POSITION IN THE USA.

“In the second quarter, 2023, EBITA amounted to SEK 110 m (154). The weaker earnings were primarily due to lower net sales in Design Management division and restructuring measures to increase the profitability of Product Lifecycle Management division. The Process Management division reported somewhat better earnings than the previous year.”

Johan Andersson
President and CEO

SECOND QUARTER SUMMARY, APRIL–JUNE 2023

- Net sales increased by 4 per cent to SEK 1,554 m (1,489), of which 1 per cent was organic. Currency-adjusted organic growth was -3 per cent.
- EBITA decreased to SEK 110 m (154), and the EBITA margin was 7.1 per cent (10.3). EBITA has been charged with restructuring costs of SEK 10 m (-). EBITA adjusted for restructuring costs amounted to SEK 120 m (154), and the adjusted EBITA margin was 7.7 per cent (10.3).
- Operating profit decreased to SEK 56 m (101), and the operating margin was 3.6 per cent (6.8).
- Profit for the period amounted to SEK 34 m (70).
- Earnings per share amounted to SEK 0.25 (0.52).
- Cash flow from operating activities amounted to SEK 127 m (122).
- In June 2023, Addnode Group signed an agreement to acquire Team D3 of the USA, with net sales of approx. SEK 1,300 m. The acquisition was completed in early July 2023.
- Credit line increased by SEK 1,000 m to a total of SEK 2,600 m. SEK 1,600 m revolving credit facility extended by one year to June 2026.
- Supported by AGM authorisation, the Board of Directors decided to repurchase a maximum of 180,000 class B shares.
- Petra Ålund was elected as a new Director by the AGM on 4 May 2023.

SUMMARY OF SIGNIFICANT EVENTS AFTER THE END OF THE REPORTING PERIOD

- No significant events have occurred since the end of the period.

American Software Reports Fourth Quarter and Fiscal Year 2023 Results

13 July 2023

American Software, Inc. reported preliminary financial results for the fourth quarter and fiscal year 2023.

Key Fourth Quarter Financial Highlights:

- Subscription fees were \$13.0 million for the quarter ended April 30, 2023, an 18% increase compared to \$11.1 million for the same period last year.
- Total revenues for the quarter ended April 30, 2023 decreased 14% to \$29.9 million, compared to \$34.6 million for the same period of the prior year, principally due to a decline in services and license fee revenue.
- Recurring revenue streams for Maintenance and Cloud Subscriptions were \$21.2 million or 71% of total revenues in the quarter ended April 30, 2023 compared to \$19.8 million or 57% of total revenues in the same period of the prior year.
- Maintenance revenues for the quarter ended April 30, 2023 decreased 7% to \$8.2 million compared to \$8.8 million for the same period last year reflecting the shift to cloud revenue as a client preference.
- Professional services and other revenues for the quarter ended April 30, 2023 decreased 32% to \$8.0 million compared to \$11.7 million for the same period last year. The decline was primarily driven by a 43% decrease in non-core project revenue in our IT Consulting business unit. For the Supply Chain business, professional services revenues for the quarter ended April 30, 2023 decreased by 23% to \$4.6 million when compared to \$6.0 million in the same period last year due to lower project work and outsourcing of some services to partners.
- Software license revenues were \$0.7 million for the quarter ended April 30, 2023 compared to \$3.1 million in the same period last year.
- Operating earnings for the quarter ended April 30, 2023 were \$2.3 million compared to \$5.5 million for the same period last year.
- GAAP net earnings for the quarter ended April 30, 2023 were \$2.9 million or \$0.08 per fully diluted share compared to \$3.6 million or \$0.10 per fully diluted share for the same period last year.
- Adjusted net earnings for the quarter ended April 30, 2023, which excludes non-cash stock-based compensation expense and amortization of acquisition-related intangibles, were \$4.1 million or \$0.12 per fully diluted share compared to \$4.4 million or \$0.13 per fully diluted share for the same period last year.
- EBITDA was \$3.0 million for the quarter ended April 30, 2023 compared to \$6.4 million for the same period last year.

- Adjusted EBITDA was \$4.3 million for the quarter ended April 30, 2023 compared to \$7.5 million for the same period last year. Adjusted EBITDA represents GAAP net earnings adjusted for amortization of intangibles, depreciation, interest income & other, net, income tax expense and non-cash stock-based compensation expense.

Key Fourth Quarter of Fiscal Year 2023 highlights:

Clients & Channels

- Notable new and existing customers placing orders with the Company in the fourth quarter include: Annex Products Pty Ltd., CertainTeed LLC., DecoPac, Inc, Farmlands Cooperative Society Ltd., Heidelberg Materials US Inc., ICL, Inc., Libbey Glass LLC, Tilly's Inc. and Yazaki, Inc.
- During the quarter, SaaS subscription and software license agreements were signed with customers located in the following eight countries: Australia, Belgium, Mexico, New Zealand, Norway, Sweden, the United Kingdom and the United States.

Company & Technology

- Announced in February, Allan Dow, president of Logility, Inc., and Elaine Videau, director of planning for Tillamook County Creamery Association, a farmer-owned co-op, were two winners of this year's Food Logistics' Rock Stars of the Supply Chain award. This annual award program recognizes influential individuals in the industry whose achievements, hard work and vision have shaped the global cold food supply chain.
- In March, Allan Dow, president of Logility, Inc. and Marti Kirsch, EVP marketing for Logility, Inc. were announced as winners of the 2023 Pros to Know award by Supply and Demand Chain Executive. This annual award recognizes outstanding executives whose accomplishments offer a roadmap for other leaders looking to leverage their supply chain for competitive advantage.
- In August, Logility was recognized with the Gartner Peer Insights "Voice of the Customer" award for Supply Chain Planning Solutions. This Gartner research document synthesizes Gartner Peer Insights' customer feedback on supply chain planning solutions for a specific 18-month period to offer peer perspective.

Key Fiscal 2023 Year to Date Financial Highlights:

- Subscription fees were \$50.4 million for the twelve months ended April 30, 2023, a 20% increase compared to \$42.1 million for the same period last year.
- Total revenues for the twelve months ended April 30, 2023 were \$123.7 million compared to \$127.6 million for the same period last year. Excluding our non-core IT Consulting business unit, total revenues from our Supply Chain Management segment increased 2% compared to the same period last year.
- Recurring revenue streams for Maintenance and Cloud Services were \$85.0 million and \$78.7 million or 69% and 62% of total revenues for the twelve-month periods ended April 30, 2023 and 2022, respectively.

- Maintenance revenues for the twelve months ended April 30, 2023 were \$34.6 million, a 6% decrease compared to \$36.6 million for the same period last year.
- Professional services and other revenues for the twelve months ended April 30, 2023 decreased 17% to \$35.9 million compared to \$43.5 million for the same period last year.
- Software license revenues were \$2.8 million compared to \$5.4 million for the same period last year.
- For the twelve months ended April 30, 2023, the Company reported operating earnings of approximately \$10.5 million compared to \$13.2 million for the same period last year.
- GAAP net earnings were approximately \$10.4 million or \$0.31 per fully diluted share for the twelve months ended April 30, 2023 compared to \$12.8 million or \$0.37 per fully diluted share for the same period last year.
- Adjusted net earnings for the twelve months ended April 30, 2023, which exclude stock-based compensation expense and amortization of acquisition-related intangibles were \$15.2 million or \$0.45 per fully diluted share, compared to \$16.0 million or \$0.47 per fully diluted share for the same period last year.
- EBITDA was \$13.7 million for the twelve months ended April 30, 2023 compared to \$17.3 million for the same period last year.
- Adjusted EBITDA was \$18.9 million for the twelve months ended April 30, 2023 compared to \$21.3 million for the twelve months ended April 30, 2022. Adjusted EBITDA represents GAAP net earnings adjusted for amortization of intangibles, depreciation, interest income & other, net, income tax expense and non-cash stock-based compensation.

The overall financial condition of the Company remains strong, with cash and investments of approximately \$115.5 million. During the fourth quarter of fiscal year 2023, the Company paid shareholder dividends of approximately \$3.7 million.

“We endured a number of macroeconomic headwinds throughout the past year and were pleased to deliver adjusted EBITDA above our original guidance entering FY ‘23,” said Allan Dow, CEO and President of American Software. “While we have seen signs that the economic challenges facing our customers are beginning to abate, our initial outlook for FY ‘24 reflects some conservatism as we manage through the current uncertainty. However, we remain confident in the long-term growth prospects of our business given the secular tailwinds from digital supply chain transformation and our platform expansion.”

Fiscal Year 2024 Financial Outlook

- Total revenues of \$120.0 million to \$126.0 million, including total recurring revenues of \$88.0 million to \$92.0 million.
- Adjusted EBITDA of \$19.0 million to \$21.0 million.

Bentley Systems to Announce Second Quarter 2023 Operating Results

12 July 2023

Bentley Systems, Incorporated, the *infrastructure engineering software* company, announced the date for the release of its second quarter 2023 operating results.

Second Quarter 2023 Operating Results

Bentley Systems will release second quarter 2023 operating results, before the market opens, on Tuesday, August 8, 2023. A live Zoom video webinar of the event can be accessed at 8:15 a.m. EDT that same day through a direct [registration link](#).

IBM to Announce Second-Quarter 2023 Financial Results

6 July 2023

IBM will hold its quarterly conference call to discuss its second-quarter 2023 financial results on Wednesday, July 19, 2023 at 5:00 p.m. ET.

The live webcast of the earnings call can be accessed at www.ibm.com/investor. Please also visit the investor website for the earnings press release prior to the webcast. A replay, associated charts and prepared remarks will be available after the event.

Informatica To Report Second Quarter Fiscal 2023 Financial Results on August 2, 2023

11 July 2023

Informatica, an enterprise cloud data management leader, announced it will report financial results for the second quarter of fiscal year 2023, which ended June 30, 2023, following the close of the U.S. markets on Wednesday, August 2, 2023. Informatica will hold a conference call on the same day at 2:00 p.m. Pacific Time (5:00 p.m. Eastern Time) to discuss its quarterly financial results.

The conference call can be accessed by dialing (833) 470-1428 from the United States or (404) 975-4839 internationally with access code 237691.

A live webcast and replay of the conference call and earnings presentation materials will be available on the investor relations page of Informatica's company website at <https://investors.informatica.com>.

Invitation to presentation of Hexagon's Interim Report on 26 July

13 July 2023

Hexagon will release its Interim Report for the second quarter 2023 on Wednesday, 26 July, at approximately 08:00 CET. President and CEO Paolo Guglielmini will host a live webcast and telephone conference at 10:00 CET.

Webcast:

The webcast will be streamed [here](#).

Telephone conference:

Anyone interested in participating in the Q&A session following the first quarter Interim Report presentation must register [here](#).

1. Upon registering, each participant will be provided with a personal PIN and dial in information via email.
2. Access to the telephone conference will be available 10 minutes prior to call start time.

All presentation material will also be available for on-demand viewing on the Company's website.

Procore Announces Timing of Second Quarter Fiscal Year 2023 Earnings Call

12 July 2023

Procore Technologies, Inc., a leading global provider of construction management software, announced that it will report its second quarter fiscal year 2023 financial results after the U.S. financial markets close on Wednesday, August 2, 2023.

In conjunction with this announcement, Procore will host a conference call on Wednesday, August 2, 2023 at 2:00 p.m. Pacific Time to discuss Procore's financial results and financial guidance. To access this call, dial (833) 470-1428 (domestic) or (404) 975-4839 (international). The conference ID number is 743884. A live webcast of this conference call will be available on the Investor Relations page of Procore's website, <http://investors.procore.com>, and a replay will be archived on the website as well.

PTC to Announce Fiscal Q3'23 Results on Wednesday, July 26th, 2023

12 July 2023

PTC will release its fiscal 2023 third quarter results on Wednesday, July 26th after the stock market closes. Senior management will host a live webcast and conference call to review the results on Wednesday, July 26th at 5pm Eastern Time. The earnings press release, accompanying earnings presentation, and financial data tables will be accessible prior to the conference call and webcast on the Investor Relations section of the Company's website at PTC Investor Relations.

What: PTC Fiscal Q3'23 Conference Call and Webcast

When: Wednesday, July 26th, 5:00pm (ET)

Webcast: Register [Here](#)

Replay: To access the replay via webcast, please visit [this page](#).

Robust Order Book and Transformational Deals Mark TCS' Q1

12 July 2023

Tata Consultancy Services reported its consolidated financial results according to Ind AS and IFRS, for the quarter ending June 30, 2023.

Highlights of the Quarter Ended June 30, 2023

- Revenue at **\$7.226 billion**, +6.6% YoY
- Constant Currency revenue growth: **+7%** YoY
- Operating Margin at **23.2%**; an expansion of **0.1%** YoY
- Net Income at **\$1.347 billion**, +10.6% YoY | Net Margin at **18.6%**
- Net Cash from Operations at **\$1.383 billion** ie **102.5%** of Net Income
- Net headcount addition of **523** | Workforce strength: **615,318**
- Diverse and inclusive workplace: Women in the workforce: **35.8%** | **154** Nationalities
- Building a G&T workforce: **12.7 million** learning hours clocked | **1.3 million** competencies acquired
- LTM IT Services attrition rate at **17.8%**
- Dividend per share: **₹ 9.00** | Record date 20/07/2023 | Payment date 07/08/2023

K Krithivasan, Chief Executive Officer and Managing Director, said: *"It is very satisfying to start the new fiscal year with a string of marquee deal wins. We remain confident in the longer-term demand for our services, driven by the emergence of newer technologies. We are investing early in building capabilities at scale on these new technologies, and in research and innovation, so we can maximize our participation in these opportunities."*

N Ganapathy Subramaniam, Chief Operating Officer and Executive Director, said: *"Our products and platforms achieved major milestones during the quarter with several transformational engagements going live. In the UK Life and Pensions administration space, we signed three new deals on our digital insurance platform, making TCS the undisputed leader in this market on any metric. We are proactively building differentiating capabilities in generative AI and actively working on such projects with our clients, delivering impact on technology, operations and client experience dimensions."*

Samir Seksaria, Chief Financial Officer, said: *"We have gone ahead and rolled out our annual salary increase with effect from April 1st. Our operating margin of 23.2% reflects the 200 bps impact of this hike, offset through improved efficiencies. At the same time, we continue to make the investments needed to power our future growth, including expansion of our delivery and research infrastructure."*

Milind Lakkad, Chief HR Officer, said: *"We remain focused on developing, retaining and rewarding the best talent in the industry, and enhancing their effectiveness by bringing them back to office to foster our culture. Our Return to Office initiative is picking pace, with 53% of*

the workforce already in office thrice a week. We have given a 12-15% raise for exceptional performers in our latest annual compensation review, and also commenced the promotions cycle. TCSers logged 12.7 million learning hours in upskilling themselves during the quarter in market relevant skills like generative AI, cloud, data and analytics. Our attrition continues to trend down and we expect it to be back in our industry-leading, long term range in the second half of the year. While we are committed to honor all the offers we have made, our focus will be on leveraging the capacity we built last year.”

Q1 Segment Highlights**

Industries: Growth was led by Life Sciences and Healthcare which grew **10.1%** and the Manufacturing vertical which grew **9.4%**. BFSI grew **3%**, Retail and CPG grew **5.3%**, Technology & Services grew **4.4%** while Communications & Media grew **0.5%**.

Markets: Among major markets, the United Kingdom led with **16.1%** growth; North America grew **4.6%** and Continental Europe grew **3.4%**. In emerging markets, Middle East & Africa grew **15.2%**, India grew **14%**, Latin America grew **13.5%**, and Asia Pacific grew **4.7%**.

Services: Clients continue to reprioritize, preferring business critical projects and those with a faster ROI. Cost optimization, vendor consolidation and integrated operations are high on priorities. Enhanced flexibility, resilience, and establishment of a solid foundation continue to drive transformation initiatives. Growth was led by cloud modernization, cyber security, IoT and digital engineering.

There is strong interest across industry verticals to engage with TCS to explore generative AI use cases around productivity improvement, content creation and enriching customer interactions with personalized experiences. TCS is supporting these early initiatives through its co-innovation frameworks.

TCS' point of view is that the full potential of generative AI is best realized through a holistic enterprise-wide initiative encompassing business, legal, risk & compliance, research and innovation, rather than by implementing multiple point solutions. It has launched an advisory offering to help customers create a holistic vision, strategy, business case and plan for enterprise-wide adoption of Generative AI.

- **Consulting & Services Integration, Digital Transformation Services:** Clients continued to invest in ERP cloud platforms focusing on ecommerce, customer experience, digital workplace and analytics, security operations transformation to improve effectiveness, observability and coverage, and drive design-led innovation, CX transformation and manufacturing transformation. TCS Crystallus™ has helped accelerate some of these transformation journeys and drive speed to value. Cyber Security services saw acceleration, aided by clients adopting the TCS Cyber Defense platform for their NextGen SecOps. TCS Interactive saw traction around digital marketing with real time insights, as well as digital commerce initiatives to drive digital sales and enhance customer experience. TCS Clever Energy™ continues to see good interest as clients pursue their net zero plans. In the digital engineering area, TCS continues to participate in client spending around new product development and EV charging infrastructure.

- **Cloud Platform Services:** Clients continue to invest in building a strong cloud foundation for business innovation. Cloud migration, data modernization and application modernization coupled with new digital technologies such as AI continue to drive growth. TCS' investments in deepening competencies and building new capabilities have yielded good results. It is a launch partner for the hyperscalers in multiple new technology launches, including generative AI. TCS has around 148,000 employees with hyperscaler cloud certifications, one of the highest in the industry. In Q1, it won Microsoft's 2023 Partner of the Year awards in five categories.
- **Cognitive Business Operations:** Clients focused on improving employee experience, transforming infrastructure operations leveraging MFD™ and vendor consolidation. Client interest in operating model transformations led by Cognix™ continues to be very strong. Another area of strong demand was for implementing TCS' Integrated Operations model, with AI-powered business command centers, offering business owners greater visibility and resilience across their entire operations stack.

*** Year on Year Growth in Constant Currency terms*

Key Highlights

- Selected by **Nest**, UK's largest workplace pension scheme, to digitally transform its scheme administration services with a future-ready, digitally enabled, omnichannel platform powered by TCS BaNCS™. TCS will leverage the latest technologies and data analytics to deliver enhanced, personalized, and self-directed experiences to members. This will enable Nest's 12 million members and 1 million employers to access the right information at the right time, in the way that suits them best.
- Awarded a 10-year contract by the UK's Department for Education (DfE) to manage the scheme administration services and further enhance customer experiences for the **Teachers' Pension Scheme** in England and Wales. TCS' future-ready, digitally enabled, omnichannel platform, powered by TCS BaNCS™, will enable accurate administration of pension records, payment of benefits, effective scheme finance management, proactive member engagement and easy access to information.
- Engaged by **Standard Life International DAC**, a wholly owned subsidiary of the Phoenix Group, to transform its operating model and enhance the customer experience for its policyholders in Europe, using the TCS Digital Platform for Life and Pensions, powered by TCS BaNCS. TCS will set up a customer operations center in Germany, and a future-ready Life and Pensions Digital Platform for Germany and Austria. As part of the transformation, TCS will create comprehensive, omnichannel, journey-based digital experiences for policyholders and advisors.
- Selected by a US-based healthcare company as the strategic partner to provide end-to-end application management and end-user services across their entire value chain. TCS will leverage its deep expertise in med-tech and regulated life sciences, and MFD™, to implement a transformative solution that will improve the user experience, efficiency, resilience and compliance.

- Chosen by a US-based large utility services provider to re-architect their Geographic Information Systems. TCS will integrate IoT devices and enable real-time data feeds to multiple systems including transmission and distribution, asset management, wildfire protection and earthquake monitoring. This will help the client effectively plan preventive maintenance, improve agility, and enhance end-customer experience.
- Selected by a leading American multinational diesel and natural gas engine manufacturer, as the strategic partner in their sustainable products development initiative. TCS will develop electrified powertrain and green hydrogen products, and implement next gen product lifecycle management (PLM) processes & tools. This will accelerate product launch through global product design collaboration.
- Chosen by a US-based automotive supplier as the partner to support their next-gen program for EVs. TCS will develop the software for critical electrical components which will enable aggressive launch timelines while also ensuring required safety compliance.
- Chosen by a US-based leading producer and distributor of dairy products as the strategic partner to manage security services. TCS will support the security operations center (SOC), security incident response and privilege access management by leveraging TCS Cyber Defense Suite.
- Selected by a leading North American healthcare service provider to transform three of their core areas - pharmacy care services, pharmacy benefit manager and pharmacy experience, to increase speed, create efficiencies, drive revenues, and make it the preferred pharmacy choice for clients, consumers, and providers.
- Selected by a European semiconductor manufacturer to build modern digital experience capabilities for its ecommerce business. TCS will design and develop a globally consistent purchase journey that empowers prospects and customers with various self-service capabilities and enable competitive differentiation.
- Chosen by a US-based global technology company to transform their B2C ecommerce platform. TCS will modernize their core online business portfolios worldwide in a phased manner. This will lead to improved sales, enhanced customer experience and faster go to market.
- Chosen by a US-based pharmacy benefit management and specialty managed care company as their trusted partner in a multi-year transformative journey to reimagine their patient care models. TCS will build a cloud-based and data-driven platform that will connect patients to the highest quality care. This will lead to improved clinical outcomes and better patient and care-giver experiences.
- Selected by a large European airline group to migrate all workloads to the cloud and manage the IT infrastructure operations across its operating companies. TCS will provide end-to-end managed hybrid cloud services including multi-modal cloud operations, AIOps, FinOps and SRE. This will enable greater business agility, faster time to market and enhanced customer experience.

- **DAMEN** Shipyards, a leading shipbuilding, and engineering conglomerate, based out of Netherlands has extended its strategic partnership in application management services with TCS to focus across the key themes of digitalization, customer experience, operational excellence, and sustainability. As part of the engagement, TCS will drive technology transformations through intelligent automation, rapid prototyping, standardization and quality management and will enable DevOps adoption and IT modernization of its application landscape in a seamless, scalable and secure manner.
- TCS has won a comprehensive strategic managed services program from a leading technology product and platform firm. TCS will facilitate the expansion of their cloud services by effectively overseeing their partner and customer ecosystem, helping proficiently manage customer investment funds and strategically utilizing them to drive transformative initiatives across various areas, including cloud, modern workplace, security, and business applications platforms.
- TCS is selected by a large global payment processing and technology company to migrate their existing infrastructure to TCS Enterprise Cloud. TCS is responsible for data center migration, cloud infrastructure hosting and management, driven by transformation and modernization initiatives. This will bring resiliency and scalability to support their growth strategy and reduce total cost of ownership to manage their infrastructure landscape.

Research and Innovation

As on **June 30, 2023**, the company has applied for **7,447** patents, including **142** applied during the quarter, and has been granted **3,004** patents including **126** granted in Q1.

Human Resources

TCS' workforce stood at **615,318** as on June 30th, a net addition of **523** during the quarter. The workforce continues to be very diverse, comprising **154** nationalities and with women making up **35.8%** of the base.

The company rolled out its annual salary increase across its workforce, with effect from April 1, 2023. Its investment in upskilling its workforce continues apace. Year till date, **103,000** employees were trained in high demand competencies and collectively, TCSers clocked **12.7 million** learning hours, and acquired **1.3 million** competencies.

IT services attrition dipped further in Q1 and was at **17.8%** for the last twelve months.

SAP to Release Second Quarter 2023 Results

11 July 2023

[SAP SE](#) will release its full results for the second quarter of 2023 on Thursday, July 20.

SAP CEO Christian Klein and CFO Dominik Asam will host a virtual analyst conference to present second quarter financial figures, as well as an outlook on the current financial year.

Media representatives may listen in on the virtual analyst conference via Webcast at 7:00 p.m. CEST/1:00 p.m. EDT, accessible at broadcast.sap.com/go/QReport.

Tacton Announces Strategic Investment from Rubicon Technology Partners

13 July 2023

Tacton, the leading Configure, Price, Quote (CPQ) SaaS partner to manufacturers for simplifying sales in complex configuration, announced it has secured a strategic investment from Rubicon Technology Partners (“Rubicon”), a leading private equity firm based in Boulder, Colorado, that is focused exclusively on investing in and growing enterprise software companies. Additionally, Tacton’s investment partner since 2017, GRO Capital (“GRO”), will be a co-investor and join Rubicon in supporting the next phase of Tacton’s scaling journey.

This investment will accelerate Tacton’s global growth strategy, particularly in North America, as the company continues to scale through product innovation and go-to-market expansion building on the company’s momentum as a category leader, as recognized by Gartner® in the 2022 Magic Quadrant™ for CPQ Software.

As a leader of the manufacturing software industry, Tacton has brought innovations in sustainability, advanced product configuration, and smart, subscription-based services to change the way manufacturers across the globe do business. Drawing on years of extensive research and a distinct dynamic and constraint-based solving technology, the company has unlocked a groundbreaking approach that enables B2B manufacturers to tackle complex demands and sales processes in the B2B manufacturing ecosystem.

Tacton’s CPQ solutions enable smooth and resilient end-to-end operations, while delivering a flawless digital customer experience when selling complex equipment and related services. With 75,000 active users of Tacton today, Tacton customers, on average, see a 34% increase in efficiency related to time spent by sales creating a quote, a 30% increase in sales volume and boost their profit margins by 20% by decreasing order errors and offering fewer discounts.

“Since its founding 25 years ago, Tacton has transformed from a Swedish configuration management startup to a global CPQ SaaS vendor, delivering a best-in-class product to accelerate manufacturer’s revenue goals while revolutionizing their sales experience,” said Bo Gyldevang, CEO of Tacton. “Tacton is uniquely positioned to solve the most pressing configuration challenges facing manufacturers around the world. Now, with the investment from and partnership with Rubicon, we have the opportunity to bring our innovative products to a broader base of global customers than ever before. We look forward to the journey ahead with a partner that shares our vision for the future of manufacturing and has the resources to supercharge our growth.”

“Industrial manufacturers are being forced to reimagine how they offer their products and services to customers alongside the operational challenges of increasing product complexity, rapidly changing customer demands, shifts toward digitized buying experiences, and intensifying focus on environmental footprint at a product-level,” said Dan Levy, Partner at Rubicon Technology Partners. “Tacton’s CPQ platform stands out as uniquely differentiated in solving these critical configuration problems for some of the largest and most complex

manufacturers in the world. We are thrilled to have the opportunity to partner with the Tacton team and GRO Capital to help accelerate the company's growth and shape the future of manufacturing software through continued product innovation and go-to-market expansion."

"We have been on an amazing transformational journey with Tacton in the last six years. Based on its unique product approach, Tacton has established itself as the recognized market leader in CPQ for complex manufacturers," said Lars Lunde, Partner at GRO. "It has been a true pleasure working with the talented Tacton team and we are convinced that the company has a bright future ahead of it as it seeks to scale even further globally. We are therefore grateful that GRO Fund III will continue the journey with Tacton together with Rubicon Technology Partners, who shares our vision for the company and undoubtedly will be able to accelerate Tacton's path towards this vision."

Wipro Announces Results for the Quarter ended June 30, 2023, Delivers Net Income growth of 12% YoY

13 July 2023

Wipro Limited, a leading technology services and consulting company, announced financial results under International Financial Reporting Standards (IFRS) for the quarter ended June 30, 2023.

Highlights of the Results

Results for the Quarter ended June 30, 2023:

1. Gross Revenue reached ₹228.3 billion (\$2.8 billion¹), an increase of 6.0% YoY
2. IT Services Segment Revenue increased to \$2,778.5 million, an increase of 0.8% YoY and an increase of 6.1% YoY in INR terms
3. Non-GAAP² constant currency IT Services segment revenue decreased 2.8% QoQ, increased 1.1% YoY
4. Total Bookings³ was at \$3.7 billion and large deal bookings⁴ was at \$1.2 billion, up by 9% YoY
5. IT Services Operating Margin⁵ for the quarter was at 16.0%, up 112 bps YoY
6. Net Income for the quarter was at ₹28.7 billion (\$349.8 million¹), an increase of 12.0% YoY
7. Earnings Per Share for the quarter was at ₹5.23 (\$0.06¹), an increase of 11.5% YoY
8. Operating Cash Flows at 130% of Net Income for the quarter was at ₹37.5 billion (\$457.1 million¹)
9. Voluntary attrition⁶ has continued to moderate QoQ, coming in at an 8-quarter low of 14% in Q1'24

Outlook for the Quarter ending September 30, 2023

We expect Revenue from our IT Services business segment to be in the range of \$2,722 million to \$2,805 million*. This translates to sequential guidance of -2.0% to +1.0% in constant currency terms.

* Outlook for the Quarter ending September 30, 2023, is based on the following exchange rates: GBP/USD at 1.26, Euro/USD at 1.10, AUD/USD at 0.67, USD/INR at 82.34 and CAD/USD at 0.76

Performance for the Quarter ended June 30, 2023

“Wipro’s first quarter results come with a strong backbone of large deal bookings, robust client additions, and resilient margins,” said **Thierry Delaporte, CEO and Managing Director**. “Despite a gradual reduction in clients’ discretionary spending, we maintained new business momentum. We earned our clients’ trust with strong delivery, innovation, and expanded services that strengthen our long-term businesses, and help capture market share. The launch of Wipro ai360 and the USD 1 billion investment solidifies Wipro’s position as a leading transformation partner that delivers the results and innovation our clients need to future-proof their businesses.”

Jatin Dalal, Chief Financial Officer, said, “Our ongoing focus on operational improvement has ensured that margin remains steady even in a softening revenue environment. Our operating Margin for the first quarter was 16% an expansion of 112 basis point YoY. We generated strong operating cash flows at 130% of our net income for the Quarter. EPS for the quarter grew by 11.5% YoY.”

IT Products

- IT Products segment revenue for the quarter was ₹0.69 billion (\$8.5 million¹)
- IT Products segment results for the quarter was a loss of ₹0.16 billion (\$2.0 million¹)

Please refer to the table on page 11 for reconciliation between IFRS IT Services Revenue and IT Services Revenue on a non-GAAP constant currency basis.

Highlights of Strategic Deal Wins

In the first quarter, Wipro continued to win large and strategic deals across industries. Key highlights include:

- A Fortune 100 global healthcare payer has extended its partnership with Wipro for a multi-year deal, consolidating and transforming their contact center operations. The Wipro team will collaborate with the client to develop solutions to reduce and deflect call volumes, improve productivity, as well as develop AI to simplify processes and improve their Net Promoter Score (NPS).
- Wipro has been awarded a contract by a leading global cycle manufacturer to run an end-to-end transformation program covering business operations in sales, manufacturing, and finance & supply chain across 15 countries. Through this program Wipro will consolidate multiple Enterprise Resource Planning (ERP) systems into a single harmonised Dynamics 365 Finance and Operations (F&O) platform. This will improve

inventory and supply chain visibility, leading to better order fulfilment including contract negotiation and value realisation for the procurement function; minimize downtime through better production planning for manufacturing and create better cashflow visibility for finance; while setting up a data foundation to become an AI-driven insights-led organisation.

- A major US airport selected Wipro to help them reduce their carbon footprint, aligned to Airports Carbon Accreditation (ACA) requirements. Wipro will assist by delivering a greenhouse gas inventory analysis, carbon reduction roadmap, sustainability transparency reporting, and the design for their annual report. Wipro will leverage its unique Wipro Impact Framework to align the client to ACA accreditation requirements, while also enabling them to ready for future.
- An energy services and delivery company has selected Wipro to standardize their software development process. The project will enable the client to more efficiently develop software using automation, agile principles, continuous integration, as well as a redesigned team structure. This transformation project will allow for a better flow of business value for the client, reduce technical debt, enable cloud adoption and create an enhanced experience for their customers.
- A global transportation, e-commerce, and business services company has selected Wipro to help address challenges around business transformation, cost optimization and capacity management. The Wipro team will have the ownership and accountability of Specialized Managed Services focused on continuous improvement and outcome-based services. The Wipro team will ensure the retention of institutional knowledge of more than 50 portfolio applications delivering predictable outcomes, driving strategic initiatives, and complementing client's optimization charter to drive better efficiencies and enhanced user experiences.
- One of The largest home improvement retailers has selected Wipro to help them operate and transform their retail and core finance functions. Wipro and the client will co-create a solution to improve operational efficiencies, optimize costs, and ensure zero disruption during peak periods. The project will also help them gain and retain key talent by supporting flexible work from home model.
- A leading India-based private sector bank has selected Wipro to transform their traditional Managed Services support model to a Modern Workplace model to enhance their overall user experience and create a hyper-personalized and frictionless workplace. Wipro will deliver rapid transformation through a machine-first approach with cognition, hyper-automation, and analytics. Automation will drive the resolution of up to 25% of the tickets raised. Through an employee-centric design for streamlined banking services, Wipro will enable standardized operations globally, eliminate redundancies and improve service quality with a focus on compliance. Wipro will also provide an efficient, scalable, secure, and centralized estate to improve asset and vendor management.

- A global tech giant chose Wipro to help them reduce their products' total cost of ownership. Over the course of this multi-year deal, Wipro will set up a dedicated facility to reduce their operational cost burden. The project will involve Quality Assurance automation to improve productivity, reduce costs, and generate additional revenue.
 - A general insurance company has selected Wipro to fulfil a multi-year transformation program to migrate their claims legacy landscape to the cloud. One the key aspect of this project is the migration of the client's inbound and outbound communication as well as documentation to a cloud-based platform. To achieve this, the Wipro team built a bespoke version of our DocHawk tool to seamlessly integrate it into the client's infrastructure. The client has seen an immediate cost saving of over 30% with the option to expand this efficiency across all other critical programs.
 - A global pharmaceutical and medical device company selected Wipro to enable them to track, manage and report complaints. In this highly regulated industry, they needed a partner who had extensive experience in the medical sector, could provide multilingual support, and ensure they remained compliant with relevant regulatory bodies. Wipro devised a unique solution including a multi-lingual contact center, with the ability to support calls, emails, and surface mails. As well as a robust Quality Assurance process, in compliance with FDA guidelines, supported by an automated auditing process to ensure accuracy of data submission to government regulatory bodies, helping the client meet regulatory submission requirements.
1. For the convenience of the readers, the amounts in Indian Rupees in this release have been translated into United States Dollars at the certified foreign exchange rate of US\$1 = ₹82.06, as published by the Federal Reserve Board of Governors on June 30, 2023. However, the realized exchange rate in our IT Services business segment for the quarter ended June 30, 2023 was US\$1= ₹81.90
 2. Constant currency for a period is the product of volumes in that period times the average actual exchange rate of the corresponding comparative period
 3. Total Bookings refers to the total contract value of all orders that were booked during the period including new orders, renewals, and increases to existing contracts. Bookings do not reflect subsequent terminations or reductions related to bookings originally recorded in prior fiscal periods. Bookings are recorded using then-existing foreign currency exchange rates and are not subsequently adjusted for foreign currency exchange rate fluctuations. The revenues from these contracts accrue over the tenure of the contract. For constant currency growth rates, refer note 2
 4. Large deal bookings consist of deals greater than or equal to \$30 million in total contract value
 5. IT Services Operating Margin refers to Segment Results Total as reflected in IFRS financials.
 6. Voluntary attrition is in IT Services computed on a quarterly annualised basis and excludes DOP

7. Effective April 1, 2023, we merged our ISRE segment with our IT Services segment. The QoQ and YoY growth rates for the quarter ended June 30, 2023 were computed by rebaselining ISRE numbers in Q4'23 and Q1'23

Quarterly Conference Call

We will hold an earnings conference call today at 07:30 p.m. Indian Standard Time (10:00 a.m. U.S. Eastern Time) to discuss our performance for the quarter. The audio from the conference call will be available online through a web-cast and can be accessed at the following link- <https://links.ccwebcast.com/?EventId=WIP130723>

An audio recording of the management discussions and the question-and-answer session will be available online and will be accessible in the Investor Relations section of our website at www.wipro.com

Xometry to Announce Second Quarter 2023 Financial Results on August 9, 2023

12 July 2023

Xometry, Inc., the global AI-driven marketplace connecting enterprise buyers with suppliers of manufacturing services, today announced it will report its second quarter 2023 financial results before the market open on Aug. 9, 2023.

Xometry will host its conference call and webcast to discuss the results at 8:30 a.m. Eastern Time (5:30 a.m. Pacific Time) on the same day. In addition to its press release announcing its second quarter 2023 financial results, Xometry will also release an earnings presentation, which will be available on its investor website at investors.xometry.com.

Xometry, Inc. Second Quarter 2023 Earnings Presentation and Conference Call

- Wednesday, August 9th, 2023
- 8:30 a.m. Eastern / 5:30 a.m. Pacific
- To register please use the following link: <https://register.vevent.com/register/B1c35c53c604594be08549f74738e84b27>
- You may also visit the Xometry Investor Relations Homepage at investors.xometry.com to listen to a live webcast of the call

The earnings webcast presentation will be archived within the [Investor Relations section](#) of Xometry's website.

Implementation Investments

Cotopaxi Cuts Through Data Chaos to Do More Good with Centric PLM

11 July 2023

Centric Software®, the Product Lifecycle Management (PLM) market leader is pleased to announce that Certified B Corporation™ and impact-driven adventure brand, Cotopaxi, has selected Centric PLM™ to drive efficiency and growth. Centric Software provides the most

innovative enterprise solutions to plan, design, develop, source, price and sell products such as apparel, fashion, home, footwear, sporting goods, consumer electronics, cosmetics, food & beverage and luxury to achieve strategic and operational digital transformation goals.

Founded in 2014 and headquartered in Salt Lake City, Utah, Cotopaxi creates outdoor gear designed to help alleviate extreme poverty, move people to do good and inspire adventure. The brand's social impact strategy also employs responsible sourcing and manufacturing practices throughout the supply chain.

Becca Taylor, Director of Project Management at Cotopaxi, describes the situation that led to pursuing PLM. "We are a fast-growing company, and working in spreadsheets, emails, and Slack has become cumbersome and inefficient. With no centralized platform for information sharing, there is a constant risk of data integrity and version control. This not only affects the product team but causes confusion throughout the company as to what information is accurate and most up to date. It's important our resources grow along with the brand, so we needed something more efficient to organize the information and communication, both internally and with our vendors."

Regarding the PLM selection process, Taylor explains, "Ultimately, it came down to Centric's proven track record, the 99% customer retention rate and the clear and comprehensive integration rollout plan. Our amazing Centric sales rep was very helpful when I asked him about some best practices—he willingly shared Centric's expertise even before we had made our final decision. The customer service that we have already received and the professionalism are leaps and bounds above anyone else that was considered."

Centric PLM will allow Cotopaxi to track the different materials and factory certifications. The platform will allow the brand to showcase the responsible, recycled or repurposed materials in each product, and because the company is a certified B Corporation, leadership will be able to pull relevant data for reporting purposes.

All the information that originates in Centric PLM is pushed out to 20 other company systems including Google Analytics, Shopify, ERP, a sales tool, brand tool, marketing tool, allocation tool and different reporting tools. "There are numerous possibilities for utilizing the data—from assessing the overall sales performance of a category to identifying the top and bottom performers," says Taylor. "Since this information will be integrated into various platforms and systems, we'll have the flexibility to extract any desired information all in one place."

CEO of Centric Software, Chris Groves says, "We are excited that Cotopaxi has chosen Centric PLM to drive efficiency into their workflows and ensure data integrity that feeds multiple other systems. We are proud to partner with a company that has made their social and environmental mission the core of their business."

DXC Technology Delivers AI-Powered Automation to Transform Procurement for Spanish Autonomous Community of Castilla & León

5 July 2023

DXC Technology, a leading Fortune 500 technology services company, has announced that it is working to digitally transform the Spanish public sector organization Junta de Castilla y León (JCyL) by implementing AI-powered automation for the autonomous community's procurement processes. The collaboration makes JCyL the first Spanish local government region to implement robotic process automation, reducing time spent on administrative activities for public contracting.

As a result of the implementation, government procurement contracts and procedures between JCyL, bidders and contractors can now be processed digitally. As JCyL receives more than 22,000 files, messages and communications for contracts each year, the transformation will significantly reduce time and resources spent on managing public sector contracts in the region.

With DXC's AI solutions, JCyL is able to automate a large proportion of its contractual process instantly and accurately around the clock. As part of the contract, DXC has integrated platforms, administration tools and public administration databases to build a centralized hub for procurement management.

In the next phase of the project, scheduled for September 2023, DXC will implement robotics to fully automate the processing of more than 300 contracts with an estimated value of more than two hundred million euros spanning electricity suppliers and postal services.

"By automating processes, public sector employees will be able to focus their efforts on the true purpose of public administration. The transformation means our colleagues will have more time to serve their citizens while reducing environmental impact by optimizing energy usage in data management," said Jorge Martínez Fernández, Head of the Procurement Rationalization Service at Junta de Castilla y León.

"DXC is a longstanding partner to the Spanish government, supporting public sector organizations with their digital transformation journeys," said Juan Parra, General Manager at DXC Technology Iberia. "Using our experience and knowledge of business automation processes, we are proud to have implemented AI-powered automation in the public procurement processes of Junta de Castilla y León."

OPEN MIND Achieves Success with Suppliers to the Semiconductor Industry

11 July 2023

OPEN MIND is experiencing strong demand for its *hyperMILL*® CAD/CAM suite from suppliers to the semiconductor industry. The industry is known for its very high quality requirements with high-mix, low volume production. Users therefore rely on innovative high-end solutions for reliable generation and simulation of NC programs. Plant designers, special machinery builders, and their specialized manufacturers stress to OPEN MIND that high-precision surfaces,

programming automations, and reliable postprocessor technology are the key decisive factors for choosing *hyperMILL*®.

Internationally active companies in the semiconductor industry have been relying on the CAD/CAM technologies of *hyperMILL*® for some time now. Examples of this positive and trusting cooperation can be found on the OPEN MIND website: BKB Precision, AAE, NDK Paragon, and RE Thompson are just a small selection of the software developer's customers that are suppliers to the semiconductor industry.

The machines and devices used in modern chip manufacturing can be divided into three main categories: wafer production, assembly equipment, and testing equipment. The variety of parts is enormous and ranges from prototype construction to small series and series production. Components such as vacuum chambers, wafer handling components, or distributors made of special plastic place the most varied demands on the CAM system in terms of material and geometry diversity. Being able to act with maximum flexibility, but at the same time reliably in production, is enormously important for many manufacturers in the industry.

Perfect Surfaces

Similar to the medical technology and aerospace industry, cleanliness, accuracy, and perfect surfaces in high gloss quality are the most obvious requirements in the semiconductor industry. The components are often complex, for example, prismatic and with many holes and pockets. Here, feature and macro technology make programming easier, and OPEN MIND's leading role in 5-axis machining also plays a part. "*hyperMILL*® allows us to generate 5-axis NC programs quickly and easily. We like the fact that the software offers different tilt strategies for 3+2 and 5-axis simultaneous machining – and also a range of options with the 5-axis rework machining strategy. In addition, *hyperMILL*® enables set-ups for milling and turning on multitasking machines," says Hein Raaijmakers, CAM programmer at AAE B.V.

Berrie van de Burgt, Sales Director at BKB Precision and a specialist in machining high-performance plastics, explains: "Offline programming and simulation are critical for our "right-first-time" principle, especially when we're machining expensive materials such as PEEK. The milling strategies are also very easy to adapt to the different materials. This helps us reduce errors and scrap."

Simulation with Virtual Machine

The capabilities of *hyperMILL*® and the virtual machine in the area of simulation with digital twins and the related postprocessor technology are particularly appreciated in the industry. NC codes must be generated quickly and reliably, especially in the high-mix, low-volume production environment. This reliability of the NC code is a decisive criterion when choosing the right CAM system. Berrie van de Burgt explains: "*hyperMILL*® is so well integrated into our production process that we don't even think about the benefits anymore. The fact that we produce 24/7 with only one day shift always impresses our customers. We have so much confidence in *hyperMILL*® that we integrate new production series directly into our 24/7 production cycle, whereas other manufacturers tend to limit initial production to manned shifts."

SPC Empowers R&D and Streamlines Go-to-Market with Centric PLM

13 July 2023

Centric Software®, the Product Lifecycle Management (PLM) market leader is pleased to announce that SPC Global Limited (SPC), an Australian food and beverage manufacturer, has selected Centric PLM™ to drive efficiency and growth. Centric Software provides the most innovative enterprise solutions to plan, design, develop, source, price and sell products such as apparel, fashion, home, footwear, sporting goods, consumer electronics, cosmetics, food & beverage and luxury to achieve strategic and operational digital transformation goals.

Founded in 1917 and headquartered in Victoria, Australia, SPC is a beloved brand cherished by generations of Aussies. With deep pride in its Australian heritage and origins, SPC offers convenient food options to families across Australia and beyond.

Trang Tran, IT Project Manager at SPC, explains that the decision to choose Centric was based on several factors: its user-friendly interface, seamless data integration, and cost-effectiveness. “From an IT perspective, we found Centric PLM to be preferable not only for its software and user interface but also for the underlying technology, such as REST API, which enables full integration of PLM with our ERP system.”

“We are confident that the platform will elevate our technical requirements and project management to the next level, while also providing the scalability needed to support our continued growth,” says Christy Sink, Head of R&D at SPC.

President of Centric Software, Fabrice Canonge says, “We are honored that SPC, a trusted and iconic Australian food company, has selected Centric Software as their PLM partner. They join our rapidly growing slate of food & beverage customers that have discovered the value of Centric PLM for product development, quality and overall efficiency.”

The Mayo Hotel Continues to Invest in the Guest Experience with Infor Hospitality

10 July 2023

Infor®, the industry cloud company, announced its successful partnership with The Mayo Hotel in Tulsa, Oklahoma. Specifically, cloud-based Infor HMS and Infor SCS Sales and Event Management solutions were selected to help the property adapt to meet today’s and tomorrow’s hospitality challenges and support the brand as it grows. By partnering with Infor, The Mayo Hotel, an iconic historic hotel located in the heart of Downtown Tulsa featuring 102 rooms, will have access to modern technology tools to help deliver a great guest experience every time.

“We’re approaching our 100-year anniversary, and while we’ve made it a point to always keep the charm from when we first opened, we take a different approach with our business processes by adopting modern, forward-looking technology. As our guests’ tastes and needs evolve, so do we. Technology is at the forefront of the way we live today, so we’ve invested in new solutions and systems that will directly impact day-to-day tasks for employees and the overall guest experience,” said Macy Snyder-Amatucci, owner of The Mayo Hotel. “Partnering with Infor has been seamless. It was clear from our initial training that we would be able to

reduce onboarding burden and costs, increase revenue across the property and, ultimately, improve guest satisfaction by reducing administrative burdens from our teams and allowing them to focus on more value-add tasks.”

Infor HMS hospitality management system will allow teams at The Mayo Hotel to manage everything from the front office and reservations to accounting and sales within a single application. This will create a unified view of business performance, so managers have greater visibility into how their decisions impact other departments, and vice versa. With a centralized, unified look at guest and business performance, The Mayo Hotel can track guest preferences, simplify reservations, book itineraries and provide guests with consistent quality and services. In addition, modules for event management provide complete financial reporting, revenue forecasting and performance analysis, food and beverage costing, labor scheduling, and full customer relationship management (CRM) and custom correspondence capability.

“Infor understands the complexity of the hospitality industry and the importance not only of managing guest expectations and satisfaction but also the importance of events and catering to the overall business,” said Joe Vargas, Infor Hospitality senior vice president and general manager. “Infor is deep in hospitality and our solutions have the capability to cover all aspects of the business — from sales to operations. Thousands of hospitality customers across the globe leverage Infor’s powerful cloud solutions to strengthen communication throughout different teams and departments to optimize guest and patron experiences for the future. We are excited to partner with an innovation brand like The Mayo Hotel on its digital journey.”

Product News

Agacad Dock and software released for Revit 2024

10 July 2023

We’re pleased to announce that our BIM software is ready to use with Autodesk® Revit® 2024.

Our BIM Application Engineers have tested the Agacad Dock and all Agacad plug-ins against the latest Revit version to ensure complete compatibility.

So, whether you are a current user or would like to try out our software, we invite you to reap the benefits of our process improvement solutions combined with the best of Autodesk Revit.

Ansys Enables Flexium’s 5G mmWave Antenna Module Designs to Advance ADAS/AV Technology

13 July 2023

Flexium uses Ansys simulation solutions to explore design ideas, and develop and test antenna modules for high-frequency signal transceiver designs used in advanced driver assistance systems (ADAS) and autonomous vehicle (AV) applications. With support from Ansys tools, the printed circuit board (PCB) manufacturer’s R&D team can also test the durability and reliability of its PCB boards, as well as explore new design ideas through layout and material experimentation at a relatively low cost.

Within Flexium's PCB layouts are numerous flexible print circuits (FPCs) responsible for critical connections that enable 5G communication in ADAS and AV applications. Any design deficiencies within these layouts can negatively impact FPC transmission characteristics responsible for vehicle perception.

To address these challenges, Flexium uses Ansys simulation software for the electromagnetic, thermal, and mechanical optimization of its FPC designs through efficient layout and material changes. Ansys tools also helped Flexium set specific parameters for board layout and materials, then create a reference library for future mmWave design verification.

"Ansys delivers the greatest predictive accuracy and yields the strongest results for us during PCB layout analysis critical to today's ADAS and AV applications," said Ming-Chi Cheng, president of Flexium. "Looking beyond 5G, we will continue to reference Ansys simulation to discover new methods for optical integration and communication that will help shape the future of our mmWave antenna module designs."

"With Ansys, global PCB industry leaders like Flexium realize the freedom to explore possibilities in board application design, and successfully develop forward-thinking antenna solutions for high-frequency signal transceiver applications," said John Lee, vice president and general manager of the electronics, semiconductor, and optics business unit at Ansys. "As the momentum behind miniaturization continues to build, our simulation solvers will accelerate the satellite, driverless, and related wireless signal modules powering this trend."

Ansys Multiphysics Solutions Enable Signoff Verification for Intel 16 Process Node

11 July 2023

Intel Foundry Services (IFS) certified Ansys multiphysics solutions for signoff verification of advanced integrated circuits (ICs) designed with the Intel 16 silicon manufacturing process. The predictive accuracy of Ansys' power integrity and signal integrity platforms helps designers increase the performance of edge AI, graphic processing, and wireless communication products by avoiding wasteful over-design. The collaboration with IFS validated a seamless electronic design automation (EDA) flow that delivers high productivity for joint customers.

Ansys RedHawk-SC and Ansys Totem are recognized as industry standards for power integrity signoff of digital and analog designs. The solutions' cloud-enabled data infrastructure provides unparalleled capacity to analyze full-chip designs, hierarchically or flat. Ansys PathFinder-SC uses the same elastic compute infrastructure to verify the electrostatic discharge (ESD) protection circuitry found on all chips.

"Ansys and IFS, with a history of close collaboration, are pleased with the broad support of our Intel 16 process including our RF capabilities," said Rahul Goyal, vice president & general manager for Intel's Product & Design Ecosystem Enablement group. "We believe in providing our foundry customers with the widest possible array of industry-leading EDA tools that work in their existing design platforms and that make optimal use of our advanced manufacturing technology."

“Ansys works with leading foundry partners like Intel Foundry Services to address complex multiphysics challenges and meet stringent power, performance, and reliability requirements,” said John Lee, vice president and general manager of the electronics, semiconductor, and optics business unit at Ansys. “Ansys’ signoff platform helps empower mutual customers to accelerate design convergence with greater confidence thanks to the collaborative work between the companies to ensure silicon predictive accuracy and a smooth user experience.”

Bridgit launches new functionality to support specialty and self-performing contractors

27 June 2023

Bridgit, the leader in construction workforce planning technology, announced the launch of its newest feature set for Bridgit Bench; a comprehensive solution for planning field and craft teams, designed specifically to support the unique needs of self-performing general contractors and the ENR Top 600 specialty contractors.

The new functionality helps contractors to schedule, track, and shift their field and craft workforce more effectively while providing a unified platform to manage all of their people. ENR 600 customers can also access new reports to understand project demands on their craft team and advanced communication features to help dispatch team members.

Along with field and craft support, new communication options in Bench will help specialty contractors streamline labor requests and establish a standardized process for managing labor needs. With “Assignment Alerts”, field ops can keep their field teams informed on their latest assignments. In addition, the “Broadcast” helps users easily share critical information to project teams when rapid communication is needed.

Functionality that better supports field teams empowers contractors to manage both their project admins and field teams with ease, flexibility, and accuracy. A data-driven approach to admin and field staffing helps to eliminate inefficiencies brought about by outdated, manual software and processes.

“We’ve been exploring functionality that better supports specialty trades and their field teams and we’re really excited to roll out what we’ve built.” Says Mallorie Brodie, CEO and Co-Founder of Bridgit. “By directly incorporating feedback from specialty contractors into Bridgit Bench, we’re better equipped to help them create a central foundation for strategic workforce and pipeline planning.”

Cadence Digital, Custom/Analog Design Flows Certified and Design IP Available for Intel 16 FinFET Process

11 July 2023

Cadence Design Systems, Inc. announced its digital and custom/analog flows are certified on the Intel 16 FinFET process technology and its design IP supports this node from Intel Foundry Services (IFS). The companies also delivered the corresponding process design kits (PDKs) to accelerate the development of a wide variety of low-power consumer, high-performance

computing (HPC) and secure U.S. Military, Aerospace and Government (USMAG) applications. Customers can begin using the production-ready Cadence® design flows and design IP now to achieve design goals and speed time to market.

Intel 16 Digital Full-Flow

The complete Cadence RTL-to-GDS flow has been certified and optimized for use with Intel 16 technology, allowing customers to meet power, performance and area (PPA) targets. The flow includes the Innovus™ Implementation System, Genus™ Synthesis Solution, Quantus™ Extraction Solution, Tempus™ Timing Signoff Solution and Tempus ECO Option, Pegasus™ Verification System and Pegasus DFM and Voltus™ IC Power Integrity Solution. Some of the Cadence flow's capabilities for Intel 16 process rules have been enhanced, including via insertion and antenna rule support, which ensure high-quality designs.

Intel 16 Custom/Analog Flow

Cadence Virtuoso® Studio, which consists of the Virtuoso Schematic Editor, Virtuoso Layout Suite, Virtuoso ADE Suite, and the integrated Spectre® X Simulator, have all been certified for Intel 16 technology. These tools have all been enhanced for better management of corner simulations, statistical analyses, design centering and circuit optimization.

The Virtuoso design platform provides a tight integration with the Innovus Implementation System, enhancing the implementation methodology of mixed-signal designs using a common database. In addition, the Virtuoso Layout Suite has been refreshed for efficient layout implementation on Intel 16, which leverages better performance and scalability throughout the layout environment; a non-uniform grid-based device place-and-route methodology with interactive, assisted features for placement, routing, fill and dummy insertion; width-based spacing pattern (WSP) support; integrated parasitic extraction and EM-IR checks; and integrated signoff-quality physical verification capabilities using Virtuoso InDesign DRC.

Intel 16 Design IP

Cadence Design IP has been ported and silicon-tested for Intel 16 technology and including the enterprise-class PCI Express® (PCIe®) 5.0 and 25G-KR Ethernet multi-protocol PHY; multi-protocol PHY for consumer applications supporting standards such as PCIe 3.0 and USB 3.2; multi-standard PHY for LPDDR5/4/4X to enable a diverse set of memory applications; MIPI® D-PHYSM v1.2, enabling a broad range of MIPI consumer applications such as cameras and displays; and MIPI SoundWire® I/O for audio applications.

“Our mutual customers create designs for a wide range of vertical markets, and in particular, the USMAG market has really come to rely on us as their trusted foundry partner due to their unique security requirements,” said Rahul Goyal, vice president & general manager for Intel's Product & Design Ecosystem Enablement group. “Through our ongoing collaboration with Cadence, we're empowering customers in all markets to unlock the power-saving benefits that come with our Intel 16 technology and the advanced Cadence flows and IP.”

“The Cadence R&D team collaborated with IFS to certify its flows and design IP for the Intel 16 process technology, ensuring customers have a fast path to adopt our technologies to deliver innovative consumer and USMAG applications in a timely manner,” said Nimish Modi, senior vice president and general manager, Strategy and New Ventures at Cadence. “With chip design innovation continuing to evolve at such a rapid pace, our customers can design with confidence, knowing that we’ve optimized our tools and IP so they can meet the most challenging design requirements.”

Cadence advanced-node EDA solutions and IP support the company’s Intelligent System Design™ strategy, enabling customers to achieve SoC design excellence.

CoreLogic Revolutionizes Data Access and Insights For Mortgage Lenders

12 July 2023

CoreLogic®, a leading provider specializing in property information, analytics, and data-enabled solutions, has announced an enhancement to the CoreLogic Discovery Platform™. This robust, cloud-based platform is known for its innovative data exchange, property analytics and integration with major cloud and tech providers, further positioning CoreLogic as a premier property and location intelligence service provider.

With the recent enhancement, the platform now offers pre-designed solutions that assist mortgage lenders with turning data into valuable insights. This update allows for faster decision-making and improved business outcomes, providing clients immediate access to actionable insights. The ‘click-to-insight’ capability highlights a commitment to usability and efficiency for lenders’ data-guided decision-making journey.

“Discovery Platform was designed to be an industry-leading, unified solution that combines best-in-class data, enhanced analytics and cross-functional collaboration capabilities to help enterprises understand, improve and grow their business,” said Devi Mateti, President, Enterprise Digital Solutions Group. “A year later, we are proud to continue evolving this transformative technology for more mortgage lenders, including those without access to data scientists, to enable them to compete more effectively in today’s challenging marketplace,” continued Mateti.

Pre-built solutions within the CoreLogic Discovery Platform include:

- **Market Share:** empowers lenders to assess their market share at a granular level, including geography and loan type, to know who their key competitors are.
- **Prospect Marketing:** helps lenders optimize their marketing efforts by establishing specific “buy box” criteria. This allows them to focus on potential borrowers most likely to be in the market for a loan.
- **Lost Leads & Pay-Off:** allows lenders to track their portfolio run-off and identify which competitors won their lost leads to improve their competitive positioning.
- **Collateral Risk:** allows lenders to detect loans and regions with the highest risk of default, leveraging home price forecasts and identification of “underwater” loans.

- **Affordable Housing:** helps lenders identify low-to-moderate income census tracts and compare their performance to the top lenders and loan officers in that area.
- **Climate Risk:** delivers powerful climate-based insights by market, and within a lender's portfolio

In the first year since it was launched, Discovery Platform, which is powered by the industry's first integrated property identifier, CLIP® ID, and built on more than 50 years of data spanning 99.9% of U.S. residential properties, has enabled over 100 companies to discover, integrate, analyze and model property insights to make critical business decisions faster. CoreLogic is dedicated to continuing the transformation of its comprehensive property analytics solution, with plans to diversify across new industries, adding additional pre-built use cases that aren't currently available in the market.

Discover the new functionalities of iPoint Product Sustainability

12 July 2023

By combining Smart Mapping (Automotive) and Smart Connector (IMDS), iPoint Product Sustainability can be described as one of the best Product Sustainability solutions on the market in the automotive sector. It facilitates and accelerates the work of LCA experts and makes relevant information and assessments more quickly accessible to others.

By using iPoint Product Sustainability, it is possible to automatically map IMDS (and other BOMs with data sets) and automatically generate Product Carbon Footprints using time-saving machine learning and automatically pre-trained material mapping.

In our webinar on 26 July at 4 pm, we introduce you to our solution and how compliance and sustainability can be considered holistically in the automotive industry. We will show you how existing material data from systems like IMDS can be used to automate the PCF calculation and create a central information point.

Be our guest and learn more about the benefits of automating PCF calculation in the automotive industry. The webinar offers you the opportunity to exchange ideas with our experts, ask questions and benefit from their experience.

Register [here](#).

ENGYS RELEASES HELYX AND ELEMENTS V4.0.1

12 July 2023

ENGYS is thrilled to announce the release of **HELYX** and **ELEMENTS 4.0.1**. These cutting-edge software updates mark a significant milestone in the company's commitment to delivering open-source CFD solutions to its global stakeholders.

HELYX and **ELEMENTS** take a leap forward with the introduction of version 4.0.1. This patch release includes a series of substantial enhancements, addressing known issues from the previous version. The comprehensive improvements cover the graphical user interface (GUI), meshing capabilities, setup utilities, flow solvers and documentation. Users can now benefit

from a more seamless experience, tackling complex CFD challenges with increased efficiency and accuracy.

To access **HELYX** and **ELEMENTS 4.0.1**, users can log in to the ENGYS Customer Portal and navigate to the Downloads section. The latest installation files are available for both Linux and Windows operating systems, ensuring seamless integration into existing workflows.

ENGYS encourages any users who have not yet experienced the power of HELYX and ELEMENTS to schedule a live demonstration and discover firsthand the capabilities that have made these CFD software solutions the first choice of many industries, leading automotive OEMs, tier-1 suppliers and F1 teams.

ENGYS remains committed to empowering engineering professionals worldwide with advanced, open-source CFD solutions that drive innovation and unlock new possibilities. This release of **HELYX** and **ELEMENTS 4.0.1** underscores the company's dedication to continuous improvement and delivering unmatched value to its clients.

EPLAN Data Portal Update 01 July 2023

12 July 2023

453 manufacturers and more than 1,475,000 data sets are available with the update July 12, 2023.

New manufacturer catalogs

- ACREL Co., Ltd. – 1,000 new data sets with measuring instruments, inductors and protection devices
- B.E.G. Brück Electronic GmbH – 191 new data sets with Sensor, switch and pushbuttons
- GGK GmbH & Co. KG – 22 new data sets with cable ducts
- MORNSUN Guangzhou Science & Technology – 76 new data sets with voltage source and generators

Updates and new data

- Banner Engineering Corporation – 79 new and 1 updated data sets with lights, signal devices, sensors, switches and pushbuttons
- Bernstein AG – 14 new data sets with generals
- Block Transformatoren-Elektronik GmbH – 12 new and 71 updated data sets with transformers and generals
- Zhejiang Chint Electric Cable Co., Ltd. – 23,184 new data sets with cables
- Eaton Industries GmbH – 1 updated data set with a power switchgear
- ifm electronic gmbh – 15 new and 1 updated data sets with generals, cables, sensors, switches and pushbuttons
- Suzhou Inovance Technology Co., Ltd. – 47 new and 1 updated data sets with PLC

- Leuze electronic GmbH + Co. KG – 26 updated data sets with signal devices, sensors, switches and pushbuttons
- Murrelektronik GmbH – 14 new and 21 updated data sets with relays
- Pepperl+Fuchs SE – 15 new and 5 updated data sets with amplifiers, controllers, voltage sources and generators
- Pilz GmbH & Co. KG – 6 new and 25 updated data sets with relays and contactors
- Phoenix Contact GmbH & Co. KG – 10 new and 10 updated data sets with protection devices, converters and terminals
- Sick AG – 975 new and 307 updated data sets with sensors
- WAGO GmbH & Co. KG – 9 new and 173 updated data sets with converters, power switchgears, terminals and PLC
- YASKAWA Europe GmbH – 5 new data sets with PLC

Summary

- 4 new manufacturer
- 15 updated manufacturer
- 25,674 new data sets
- 642 updated data sets
- 27 deleted data set
- 25,919 new parts with EDS
- In total 877,030 parts with EDS
- In total 299 manufacturers with EDS parts
- In total 1,478,391 data sets live in EDP

GENESYS 2023 Brings High Performance and Expanded View Functionality to Model-Based Systems Engineering Software

11 July 2023

Zuken Vitech Inc., a leading provider of model-based systems engineering software, has announced the release of GENESYS 2023, the latest version of its flagship software. Packed with new features and enhancements, GENESYS 2023 empowers engineers and organizations to work more efficiently and collaboratively.

Bulk operations optimized for improved speed

GENESYS 2023 delivers significant performance enhancement with bulk operations, making complex tasks more manageable and allowing for great efficiency gains—a benefit that is especially valuable when one is working in teams or on large models.

Improved capabilities for storing, organizing, and managing views

New capabilities in GENESYS 2023 that allow one to customize lists and manipulate data in a table view give the systems engineer new power. Project pinned lists, user favorite views, filtered lists, and custom lists—all new in GENESYS 2023—support the user in better organizing the multitude of views that exist in a GENESYS model.

Table Views in GENESYS 2023 give the user the ability to look at model data in a familiar Excel-type format. One can create, edit, and modify data in the traditional tabular form, with changes being updated in real-time.

Integration with digital thread broker SBE Vision

Because today's digital engineering environments demand robust connectivity, this version's integration with the powerful digital engineering integration platform SBE Vision gives model-based systems engineers a boost. "GENESYS 2023 is an obvious choice for organizations wishing to establish an MBSE-centric digital thread," says David Vredenburg, president and CTO of SBE Vision. "Our company has historically had a strong partnership with Zuken Vitech, but we are particularly excited with this release, given its built-in adapter to the SBE Digital Thread Platform."

The GENESYS 2023 release affirms Zuken Vitech's commitment to delivering innovative solutions that empower engineers and organizations to excel in system modeling and design. "We continue executing on our vision of delivering open, connected, and integrated solutions that enable companies to build best-of-breed digital engineering environments with MBSE as a critical component to achieving digital continuity," said Brian Selvy, Vitech's Chief Innovation Officer.

Integrating BIMcollab and mh-software: Simplifying Issue Communication in Construction Projects

12 July 2023

We are thrilled to announce the availability of an API integration between BIMcollab, a leading collaboration solutions provider for the construction industry, and mh-software, a renowned project management solutions provider. This integration revolutionizes issue communication, streamlining the workflow for professionals involved in construction projects.

The API integration, now accessible to mh-software customers, enables a direct connection between the two solutions, facilitating a real-time exchange of issue-related information. Through seamless synchronization of issue data between BIMcollab and mh-software, users can collaborate more efficiently, avoiding duplicated efforts and maximizing productivity.

One of the key challenges in construction projects is effective issue communication. We are excited to address this challenge through the API integration with mh-software. By integrating our platforms, we enable seamless collaboration, enhanced data synchronization, and a centralized workflow for our mutual customers.

– Erik Pijnenburg, CEO of BIMcollab

“We are excited to collaborate with BIMcollab in order to provide our customers with an ideal openBIM workflow”, said Heinz Lang, CEO of mh-software.

In addition to issue management, information can be utilized consistently and collaboratively across system boundaries. openBIM is becoming an increasingly important aspect of the digital future of the construction industry. Therefore, it is crucial for us to stay updated with these advancements. We are motivated to support our customers in further enhancing and optimizing their work processes.

– Heinz Lang, CEO of mh-software

The integration between BIMcollab and mh-software enables users to access and view issues directly within the mh-software workspace, eliminating the need to switch between different platforms and providing a more intuitive and centralized user experience.

Interface between Enterprise 3Dfindit and PRO.FILE next

11 July 2023

To streamline information management and the design process, Enterprise 3Dfindit is linked to PROCAD's new PLM system

The partnership between the two software developers CADENAS and PROCAD helps companies to ensure that their systems do not become data graveyards and that their work processes become more efficient. Since version 12SP04, Enterprise 3Dfindit, the solution for Strategic Parts Management from CADENAS, has been integrated into the Product Lifecycle Management (PLM) system PRO.FILE next. This enables firms to better organise their standard, purchased and proprietary parts.

From the initial idea to the marketability of a new product is a long road that many employees have to travel together. Designers work out a digital draft, buyers order the individual components and the production department manufactures the final product. A clear structure is needed so that everyone can keep an overview of this process.

Clarity in the parts library

This is where Enterprise 3Dfindit and PRO.FILE next come in together. The interface simplifies and accelerates the search for components immensely for designers. On the one hand, they can directly access the numerous electronic product catalogues with manufacturer-verified data of the CADENAS platform. In addition, intelligent search functions, such as the geometric similarity search, sketch search, colour search, raster search and text search, make finding parts much more effective. Thanks to the connection, users can immediately transfer the parts found into the PLN software and enrich them with the intelligent, CAD-, CAE- and BIM-enabled metadata of 3Dfindit.

In addition, Enterprise 3Dfindit prevents duplicates by checking whether identical or similar components already exist and in this case evades the creation of new data records. This makes unnecessary data diversity for standard, normed and proprietary parts, which is confusing and slows down the design process, a thing of the past. In combination with a modern PLM solution

such as PRO.FILE next from PROCAD, the advantages of Enterprise 3Dfindit become particularly clear.

Advantages for the entire process chain

Since PRO.FILE next is based on a no-code concept, the programme is suitable for all employees across departments. This allows companies to implement their PLM processes and technical data management quickly and easily via configurations, without time-consuming programming. The combination of PRO-FILE next and Enterprise 3Dfindit further facilitates company-wide collaboration between design, engineering and other disciplines. In addition, lean, digital processes result in higher quality and faster market maturity of products.

Keysight Introduces PathWave Design 2024 with Automation and Collaboration Support for Enterprise EDA Workflows

10 July 2023

Keysight Technologies, Inc. introduces PathWave Design 2024, the latest release of its suite of electronic design automation (EDA) software tools, giving design engineers new software automation, design data and intellectual property (IP) management, team collaboration, and development lifecycle transformation capabilities.

Design organizations face a daunting set of semiconductor and electronics industry challenges due to rising complexity and competitive pressures to bring products to market quickly and reliably. Engineering leaders are looking for design productivity solutions that streamline their tool workflows, enable sharing of large volumes of design and simulation data across global operations, and digitize all aspects of their development programs.

PathWave Design 2024 EDA software delivers the following engineering productivity enhancements:

Software Automation

Keysight's new Python API for EDA workflows establishes an open ecosystem to connect and control best-in-class simulators, platforms, data exchange, and report generation to meet specific development project needs. The Python API enables Keysight's EDA software tools to interoperate with third-party partner tools in custom-tailored automation workflows. For example, it supports more efficient design verification and provides greater confidence for attaining first-pass success. In addition, Keysight speeds the development of automated workflows themselves by offering professional consulting and customization services for PathWave Design 2024 customers.

The Python API addresses customer requirements to use the tools in a larger ecosystem environment and control Keysight EDA software programmatically. It includes documentation and examples on how to tackle common automation challenges making Keysight tools a component of larger enterprise workflows. Using the Python API for EDA workflows, engineers can streamline processes to reduce repetitive, tedious work and avoid mistakes due to human error. An example use-case is the repeated electromagnetic (EM) extraction of a printed circuit

board or package for high-speed digital signals, performing channel simulation on the resulting EM model, and invoking digital standard compliance tests, in one automated process.

IP and Design Data Management

Keysight has integrated the former Cliosoft products into the PathWave Design 2024 software suite. Keysight remains committed to broad support of its IP and data management products for all major EDA tools with data originating from third-party vendors' tools and continued support for the full Cliosoft ecosystem.

Keysight Design Data Management (formerly Cliosoft SOS) is the leading solution for hardware design engineers seeking a comprehensive and efficient design data management platform. Keysight Design Data Management empowers engineers with robust features and benefits such as optimal file archiving, advanced revision control, disk storage optimization, tight EDA vendor integration, and seamless software configuration connectivity.

Keysight IP Management (formerly Cliosoft HUB) is the enterprise solution for efficient IP management, IP reuse, and IP traceability. With Keysight IP Management, IP and system designers can streamline their IP processes and maximize productivity. Keysight IP Management empowers engineers to seamlessly organize, catalog, and track valuable IPs, ensuring easy access and efficient reuse across design projects. It provides unparalleled traceability, enabling engineers and managers to monitor the entire lifecycle of their IPs and make informed decisions.

Simulation Acceleration

Using Keysight's Design Cloud for parallel simulation dramatically improves designer productivity, reducing simulation time by up to 80% for circuit simulation and EM simulation and enabling faster design cycles with better simulation coverage to reduce design risk. Keysight's Design Cloud uses parallel computing across hardware deployments ranging from on-premises clusters to private, public, and hybrid clouds, and through a turnkey cloud solution.

PathWave Design 2024 enables a new Design Cloud use-case for parallel simulation supporting electrothermal (ETH) simulation for radio frequency (RF) power amplifier design. ETH parallelization increases the accuracy of typical RF circuit simulations with dynamic large-signal stimulus, which is important for 5G and 6G applications. Parallel simulation enables coverage of more temperature corners in a shorter simulation time.

Niels Faché, Vice President and General Manager, Keysight EDA, said: "Keysight's EDA products give customers the design, simulation, and API capabilities required to automate workflows optimized for their specific domain and application context. Our enterprise EDA customers are emphasizing digital transformation of design tool workflows and data management processes to better serve their global engineering footprints. Given today's shortage of engineering talent, they need to scale up output from available resources and maximize ROI from people and technology through more efficient utilization of design data and IP. PathWave Design 2024 addresses these issues head-on to deliver open, interoperable tool environments that improve productivity for engineering organizations engaged in complex circuit, chip, multi-technology module, board, and system design."

Lectra launches VectorFashion iX2 and VectorFashion Q2, a new generation of intelligent, connected cutting equipment for the fashion industry

11 July 2023

Lectra supports the transformation of fashion, automotive and furniture players by providing them with technological solutions that accelerate their transition to a more efficient and more sustainable Industry 4.0. The Group announces the launch of a new generation of intelligent, connected low-ply equipment for the fashion industry, VectorFashion iX2 and VectorFashion Q2. They are particularly well suited to ensuring a quick, easy transition from small-volume production to larger order volumes, while maintaining optimal cutting quality. Developed with an eco-design approach, their environmental and social impact has been significantly improved.

In fashion, the current trend is towards capsule collections and the constant renewal of products. Manufacturers therefore have to produce smaller volumes of the same design and the number of orders to process and materials to cut is increasing. VectorFashion iX2 and VectorFashion Q2 allow manufacturers to cut variable volumes in an agile manner, in all types of materials.

"As economies of scale are increasingly difficult to achieve, fashion manufacturers need to gain flexibility while controlling the costs associated with the production of the orders they receive. With optimized running costs and enhanced performance, the new generation of VectorFashion iX2 and VectorFashion Q2 cutting solutions offers them a better return on investment, and helps them increase their margins while also reducing their environmental footprint. As corporate social responsibility is a major priority for Lectra, we have reinforced the integration of eco-design principles in the development of this new range. This enables our customers to meet the fashion industry's two major challenges: reducing energy and material consumption," explains **Maximilien Abadie, Chief Product Officer at Lectra.**

A reduced environmental footprint

Fashion players also have increasingly high expectations regarding the environmental footprint of their business. Lectra meets their needs by applying eco-design principles. VectorFashion iX2 and VectorFashion Q2 use 30% to 40% less energy than the previous versions, which were already renowned for their energy performance, for superior efficiency. They weigh 200 kg less than their predecessors, and are more compact in size. As a result, the carbon footprint associated with transporting the equipment, and with the resources used in its production and maintenance, is also significantly reduced.

Ergonomics and operator protection, Lectra's key concerns, have been completely reconsidered, with the introduction of new standards for electronic cards, the integration of motion detection radars, and the reduction of equipment noise levels. This guarantees optimum operator comfort and safety, while minimizing equipment downtime.

More connectivity, more intelligence, more efficiency

VectorFashion iX2 and VectorFashion Q2 offer a high level of connectivity thanks to numerous built-in sensors, which makes them fully compatible with Industry 4.0.

Thanks to data intelligence and improved connectivity, manufacturers have all the data they need to increase the efficiency of their processes, boost productivity, improve product quality and better meet the challenges of tomorrow.

They also benefit from new associated services, as well as predictive maintenance with enriched digital content for greater autonomy. Maintenance operations are halved, resulting in lower consumable costs, and a significant increase in equipment availability compared to the previous generation.

New Trimble Terra Office Workflow Delivers Integration with Esri ArcGIS Pro

11 July 2023

Trimble announced the release of the Trimble® Terra™Office add-in for Esri ArcGIS Pro. The add-in is a new product in Trimble's Terra Office suite of desktop solutions for integrating Trimble TerraFlex® field data collection software with GIS systems of record.

The announcement was made today at the 2023 Esri User Conference.

With a streamlined user interface, the new Terra Office add-in for ArcGIS Pro allows a customer to connect TerraFlex workflows directly to their ArcGIS environment from within ArcGIS Pro, Esri's desktop GIS application. An ArcGIS Pro user can now create and manage TerraFlex geospatial data collection projects without leaving the ArcGIS environment. The add-in enables connectivity to feature services (and hosted feature layers) published in ArcGIS Online and ArcGIS Enterprise, as well as traditional on-premise enterprise or personal geodatabases.

Organizations that collect data in TerraFlex and bring it into ArcGIS through the add-in will also benefit from being able to use the Trimble Offline GNSS Corrections™ service, for situations where real-time correction services are intermittent or unavailable. Using this service, which is unique to TerraFlex, all data from the field is automatically processed in the cloud without user intervention, and the most accurate real-time or post-processed position is stored for each feature and made available for download through the Terra Office add-in for ArcGIS Pro.

"The Trimble Terra Office add-in for ArcGIS Pro delivers functionality that will allow organizations that have adopted ArcGIS Pro and feature services to leverage the unique capabilities of TerraFlex," said Gareth Gibson, marketing director, Trimble Mapping & GIS. "TerraFlex, with its support for Trimble Offline GNSS Corrections, can now be used in parallel with the Esri ArcGIS Field Maps application in the same ArcGIS environment."

Availability

Consistent with the existing Trimble Terra Office add-in for Esri ArcGIS Desktop (ArcMap®), the new Trimble Terra Office add-in for ArcGIS Pro requires an annual subscription of Terra Office Standard. A user with this subscription can use either add-in. Terra Office subscriptions are available through Trimble Geospatial Distribution Partners and the software can be

downloaded from the Trimble Geospatial website. The Terra Office add-in for ArcGIS Pro requires ArcGIS Pro version 3.0 or higher.

Rockwell Automation Offers Visualization and Maximum Connectivity on Plant Floors with Highly Customizable Graphic Terminals

10 July 2023

Rockwell Automation, Inc., the world's largest company dedicated to industrial automation and digital transformation, announced the release of a new line of graphic terminals that can help machine builders differentiate their machines and meet a wide range of application needs. The Allen-Bradley® OptixPanel is also compatible with FactoryTalk Optix software, providing visualization and maximum connectivity.

New OptixPanel graphic terminals offer several design options. These options give machine builders significant freedom to customize based on factors like cost, performance, and look and feel. Key design options include:

- Compact models are available in smaller physical sizes making certain applications easier.
- Standard models have a larger screen size and the ability to operate independently on two networks.
- Stainless-steel models that include the IP69K rated option, help meet the needs of users that have washdown requirements.

“OptixPanel graphic terminals are a great option for machine builders. They give you a PC-like user experience in a sealed HMI appliance and with no access to the operating system, there is no need for antivirus software,” said Filippo Tosoni, product manager, Rockwell Automation. “These graphic terminals can be tailored for a wide range of applications. And when you combine them with FactoryTalk Optix software, you add the flexibility to develop your applications independently - with a local desktop editor - or collaboratively - on the cloud-based FactoryTalk® Optix Studio™, through a web browser.”

OptixPanel graphic terminals are available in screen sizes from 4 inches to 21.5 inches, in 4:3 or widescreen proportions. Bezel options include stainless-steel, basic aluminum, aluminum True Flat, and aluminum and glass P-CAP. Additionally, the capacitive multitouch screen technology supports gestures, such as swipe and pinch, for a more intuitive user experience.

Using FactoryTalk Optix software with OptixPanel graphic terminals allows you to have cloud-based access to process data leveraging communication standards like OPC UA and MQTT. Built-in drivers support connections to all types of controllers. SaaS-enabled workflows will enable your team to collaborate anytime, from anywhere, with change tracking and versioning that automatically keeps track of who changed what and when.

OptixPanel graphic terminals leverage the expertise and technology of ASEM™, a leading provider of digital automation technologies acquired by Rockwell Automation in 2020.

Siemens advances intelligent custom IC verification platform with new, AI-powered Solido Design Environment

10 July 2023

Siemens Digital Industries Software introduced Solido™ Design Environment software – an artificial intelligence (AI)-powered, cloud-ready integrated circuit (IC) design and verification solution that can help design teams meet and exceed increasingly aggressive power, performance, yield and reliability requirements while helping to dramatically speed time to market.

IC engineering teams must increasingly adapt to a new era of substantially higher design complexity driven by demand for compelling, highly differentiated applications across industries including wireless, automotive, high-performance computing (HPC), and internet-of-things (IoT). Siemens' new Solido Design Environment software has been developed to help circuit designers address this challenge, delivering a unified approach for custom IC design and verification that can help designers to achieve high overall design quality and reduce time-to-market, while optimizing for these inter-dependent tradeoffs.

The newest addition to Siemens' intelligent custom IC verification platform, the Solido Design Environment software, features AI technology and cloud deployment readiness. The Solido Design Environment software provides a single, comprehensive cockpit that handles nominal and variation-aware analysis, including SPICE-level circuit simulation setup, measurements and regressions, as well as waveforms and statistical results analysis.

Using AI technology, the solution can help users identify optimization paths to improve circuit power, performance, and area, as well as to perform production-accurate statistical yield analysis at a fraction of runtime compared to brute-force methods. It also features new Additive Learning technology that assists in significantly boosting performance for design and verification teams, producing smarter and faster AI decisions and analysis using retained AI models. With these advanced capabilities, the Solido Design Environment software can help to achieve verification accuracy up to 6 sigma and higher yield at speeds orders of magnitude faster than brute-force Monte Carlo, while helping to significantly improve coverage and accuracy.

"Semiconductor content is growing dramatically in a multitude of applications," said Amit Gupta, vice president and general manager of the Custom IC Verification division at Siemens Digital Industries Software. "Engineering teams must adapt to higher design complexity and increasing variation effects, while meeting power, performance, area, and yield targets. With cutting-edge AI technology for signoff variation analysis seamlessly integrated into an intelligent, cloud-ready design environment, Solido Design Environment software represents a breakthrough for custom IC design, providing disruptive advantages for standard cell, memory, and analog IP design teams."

Early customers are experiencing significant benefits. Using the new solution, SK hynix Inc., a top tier global provider of advanced memory and sensor technologies, significantly reduced the time it takes for them to go from initial design to production. "Verification accuracy and

turnaround time are key factors in our design flow, as we create the next generation of memory technology,” said Mr. Do Chang-Ho, head of Computer Aided Engineering at SK hynix. “Siemens’ Solido Design Environment software has delivered brute force-accurate variation analysis coupled with powerful and easy-to-use design optimization, which has significantly reduced the time it takes for us to go from initial design to production.”

Other industry leaders on Solido Design Environment

“The Solido Design Environment software is a clear example of how Siemens EDA listens to their users and develops solutions that empower users to achieve better results,” said Sam Bagwell, director of US Design Services for Forza Silicon (AMETEK, Inc.). “Our designers use Solido Design Environment software as their simulation environment when custom designing state-of-the-art, low-noise, high-resolution, ultra-high speed CMOS image sensors for a wide range of applications including cinematography, machine vision, automotive, AR/VR, and more. We have had an outstanding experience with the solution, due to its productivity-boosting design workflows, intuitive results visualization, and excellent user support.”

“We have been using the Solido Design Environment software in our production custom design methodology, and it has exceeded our expectations,” said Patrick Camilleri, co-founder and vice president of Engineering at Crypto Quantique. “Thanks to the solution’s flexibility to adapt to our use models, we were able to integrate it into our existing methodology with ease and take advantage of its tool-assisted workflow capabilities to boost our design efficiency.”

“Solido Design Environment’s variation-aware verification capabilities have significantly benefited our design flow,” said Randy Caplan, chief executive officer for Silicon Creations. “Its ability to quickly and accurately identify potential issues at high sigma, as well as to provide insights on optimizing our designs to work at a high degree of robustness, have been helpful to designers as we continue to provide world-class design IP to our customers.”

Siemens unveils Calibre DesignEnhancer for Calibre correct-by-construction IC layout optimization

10 July 2023

Siemens Digital Industries Software introduces Calibre® DesignEnhancer software, an innovative solution that enables integrated circuit (IC), place-and-route (P&R) and full-custom design teams to dramatically improve productivity, boost design quality and reduce time to market by automatically implementing ‘Calibre correct-by-construction’ design layout modifications much earlier in the IC design and verification process.

The latest in a series of ‘shift left’ tools for Siemens’ industry-leading Calibre® nmPlatform for IC physical verification, the new Calibre DesignEnhancer tool empowers custom and digital design teams to enhance physical verification readiness by quickly and accurately optimizing their designs to reduce or eliminate voltage (IR) drop and electromigration (EM) issues. By supporting automated layout optimization during the IC design and implementation stages, the Calibre DesignEnhancer tool helps customers deliver “DRC-clean” designs to tapeout faster while improving design manufacturability and circuit reliability.

“The Calibre DesignEnhancer solution proved instrumental in our ongoing efforts to 'shift left' our IC design processes, for example, in addressing and resolving out of specification resistance and IR drop issues,” said Pier Luigi Rolandi, Senior Director for R&D at STMicroelectronics.

Before conducting physical verification on an IC design, engineers have traditionally relied on third-party P&R tools to incorporate design for manufacturing (DFM) optimizations, often requiring multiple time-consuming runs before converging on a “DRC-clean” solution. With Siemens’ new Calibre DesignEnhancer tool, design teams can significantly shorten turnaround time and reduce EM/IR issues while preparing a layout for physical verification.

The Calibre DesignEnhancer tool currently provides three use models:

- Via modification automatically analyzes layouts and inserts up to 1 million+ Calibre-clean correct-by-construction vias to reduce the impact of via resistance on EM/IR and reliability. Because these modifications are based on a thorough understanding of the layout and signoff design rules, via insertion can help customers meet their power goals without impacting performance or area metrics.
- Power/ground enhancement automatically analyzes layouts and inserts Calibre nmDRC-clean vias and interconnects in open tracks to create parallel runs that can lower resistance on power/ground structures and reduce IR and EM issues associated with the power grid. Customers using the Calibre DesignEnhancer tool have achieved up to 90 percent reductions in IR drop issues.
- Filler cell insertion optimizes the insertion of decoupling capacitor (DCAP) and filler cells required for physical verification readiness. It replaces traditional P&R filler cell insertion processes, which helps to provide better quality of results and up to 10X faster runtimes.

“In today’s challenging IC design environment, engineering teams working at advanced nodes are struggling to optimize layouts for manufacturability and performance within the given area and project timeline constraints in which they must work,” said Michael White, Senior Director, Physical Verification Product Management, Calibre Design Solutions, Siemens Digital Industries Software. “By using the Calibre DesignEnhancer software, designers can bring Calibre polygonal processing speed and accuracy into play earlier in the design cycle, which can help to avoid late design cycle surprises.”

The Calibre DesignEnhancer solution uses proven technology, engines, and qualified rule decks from Calibre, all of which can help customers generate results that are correct by construction, Calibre DRC-clean, and ready for signoff verification. It can read OASIS, GDS, and LEF/DEF as input files, and output layout modifications in any combination of OASIS, GDS, or incremental DEF files, helping design teams to easily back-annotate Calibre DesignEnhancer software changes to the design database for power and timing analysis using commonly preferred tools for further analysis earlier in the design creation lifecycle.

The Calibre DesignEnhancer tool integrates with all major design and implementation environments using industry interface standards, providing a user-friendly environment that requires minimal training and setup. Calibre DesignEnhancer kits are available now for all

leading foundries supporting designs from 130nm to 2nm, depending on the use model and the technology.

Siemens' Calibre platform now certified for IFS' Intel 16 process technology

11 July 2023

Siemens Digital Industries Software announced that its industry-leading Calibre® nmPlatform tool for integrated circuit design verification is fully certified for the Intel 16 process. The Calibre nmPlatform tool products certified for Intel 16 process include: Calibre nmDRC software, Calibre YieldEnhancer™ software, Calibre PERC™ software and Calibre nmLVS software.

With this certification, Siemens' Calibre and Intel IFS customers can now leverage the versatility, power efficiency and optimized performance of the foundry's Intel 16 process technology for their next-generation designs. Intel 16 is a gateway to FinFET (fin field-effect transistor) technology from planar nodes, providing 16nm class performance with fewer masks and simpler back-end design rules. Intel 16 offers industry leading RF and analog capability making it well suited for storage controller, RF (WiFi,BT), mmWave, defense, aerospace, government and consumer applications.

"With the increasing importance of semiconductors in the global economy, Intel's commitment to the foundry market through IFS is an important source of new innovative capacity for advanced products," said Michael Buehler-Garcia, Vice President of Calibre Design Solutions product management for Siemens Digital Industries Software. "Siemens EDA is pleased to extend its longstanding relationship with Intel by providing mutual customers an additional IFS process to choose from."

This certification represents the latest milestone in the Siemens/IFS partnership. Siemens EDA is a founding member of the Intel Foundry Services Accelerator's EDA Alliance, a program focused on establishing an ecosystem for the design and fabrication of next generation System-on-Chip (SoCs) manufactured on IFS' leading-edge process technologies. With this program, Siemens and its EDA customers receive can access IFS process and packaging technologies, allowing them to optimize and enhance tools and flows to best realize Intel's technology capabilities.

"We are excited to collaborate with Siemens in certifying their industry-leading Calibre nmPlatform tool for our Intel 16 process technology," said Rahul Goyal, vice president and general manager for Intel's Product & Design Ecosystem Enablement group. "The combination of Siemens' world-class EDA offerings and IFS' cutting-edge process technologies can empower design teams across the industry with solutions required to thrive in today's competitive IC markets."

Simulations Plus Releases ADMET Predictor® 11

13 July 2023

Simulations Plus, Inc. , a leading provider of modeling and simulation solutions for the pharmaceutical and biotechnology industries, announced the release of ADMET Predictor® 11, its flagship machine learning modeling platform.

The latest version of ADMET Predictor includes:

- New industry partner data that more than doubles the number of ionization constants (pKa), leading to enhanced predictive accuracy and wider applicability of our S+pKa model
- New functionality to perform 3D virtual screening based on shape and pharmacophore-feature similarity
- New CYP inhibition (Ki) models to allow for rapid drug-drug interaction (DDI) risk assessment
- Significant enhancements to the AI-driven drug design (AIDD) module

“The advancements the team incorporated into ADMET Predictor 11 enable us to seamlessly connect research endeavors across biology, chemistry, and early drug development phases,” stated Dr. David Miller , Vice President of ADMET Cheminformatics. “With the enriched and expanded property prediction models, combined with the newly introduced 3D virtual screening functionality, the AIDD module becomes an even more valuable tool, opening doors for accelerated hit-to-lead and lead optimization stages.”

“Amidst the growing adoption of machine learning in the pharmaceutical industry, there has been an influx of software platforms boasting machine learning capabilities,” commented Dr. Robert Fraczkiwicz , Research Fellow at Simulations Plus and project leader for the pKa collaborations. “However, it is important to recognize that rapid and reliable predictions cannot be achieved through machine learning alone. It necessitates training on premium, extensively curated datasets and the implementation of refined, time-tested algorithms. ADMET Predictor 11 stands out as the sole platform in the market that fulfills all these key criteria, setting a new benchmark for excellence in the field.”

“We continue to support our clients through the integration of machine learning with mechanistic modeling,” added Dr. Eric Jamois , Senior Director of Key Accounts and Strategic Alliances. “The latest advancements enable our users to complement high-throughput pharmacokinetic (HTPK) simulations with rapid assessment of drug-drug interaction (DDI) liabilities, powering the novel selection of clinical candidates. We are proud to deliver this cutting-edge version to our expanding user community and help propel drug discovery research to unprecedented heights.”

Synopsys Delivers Certified EDA Flows and High-Quality IP for Intel 16 Process

11 July 2023

Easing the design of chips for power- and space-constrained applications, Synopsys, Inc. announced its digital and custom design flows, powered by the Synopsys.ai™ full-stack AI-driven EDA suite, are certified for the Intel Foundry Services (IFS) Intel 16 process. Used alongside high-quality Synopsys Foundation IP and Interface IP, which have been optimized for the same IFS technology, customers can confidently meet or beat design targets for advanced mobile, RF, IoT, consumer, storage and military, aerospace and government (MAG) systems.

The collaboration highlights Synopsys' key role in facilitating the design and verification of chips for mission-critical applications. Within the IFS Accelerator USMAG Alliance, Synopsys is part of a trusted ecosystem fostering assured chip design and production on advanced processes. The efforts of the two companies also support the U.S. Department of Defense's implementation of the Microelectronics Commons, a national network established under the CHIPS Act to provide direct pathways to commercialization for U.S. microelectronics researchers and designers from "lab to fab."

"While enabling our mutual customers to achieve silicon success in their designs, Synopsys and IFS are also laying the groundwork to help revitalize the semiconductor industry," said Shankar Krishnamoorthy, GM of the Synopsys EDA Group. "With our certified EDA flows and silicon-proven IP for the Intel 16 process, we are advancing the smart everything world with greater intelligence and connectivity."

"With its solutions for process node enablement and design and development experience with Intel manufacturing, Synopsys has been an ideal collaborator for Intel Foundry Services enablement," said Rahul Goyal, vice president and GM for Intel's Product and Design Ecosystem Enablement Group. "Mutual customers can achieve higher silicon utilization for their consumer, aerospace and government SoC designs using Synopsys EDA flows and IP on our Intel 16 technology."

Stress-Tested and Ready-to-Go Flows

Collaborating closely with IFS, Synopsys has enhanced its digital and custom design flows for more efficient routing and optimization of smaller chip area while reducing power consumption. A customized PPA-driven design reference flow—vetted through test chip tape-outs that stress-test each tool from design through signoff—delivers numerous productivity accelerators and enables faster time to successful silicon for mutual customers. In addition, Synopsys Custom QuickStart Kits deliver proven methodologies for higher quality and fast turnaround times.

Intel 16 is a gateway to FinFET technology from planar nodes, providing great performance with fewer masks and simpler back-end design rules. Intel 16 offers industry-leading RF and analog capability, making it well suited for storage controller, RF (Wi-Fi, BT), mmWave, MAG and consumer applications.

Wipro Launches Wipro ai360, Commits to Investing \$1 Billion in AI Over the Next Three Years

12 July 2023

Wipro Limited, a leading technology services and consulting company, announced the launch of Wipro ai360, a comprehensive, AI-first innovation ecosystem that builds on Wipro's decade-long investments in artificial intelligence (AI) with the goal of integrating AI into every platform, every tool, and every solution used internally and offered to clients. Along with the launch of Wipro ai360, the company also committed to making a \$1 billion investment in advancing AI capabilities over the next three years.

Wipro ai360, fueled by this new investment, will help unleash a new era of value, productivity, and commercial opportunities through the application of AI and generative AI.

"Artificial Intelligence is a fast-moving field," said **Thierry Delaporte, Chief Executive Officer and Managing Director, Wipro Limited**. "Especially with the emergence of generative AI, we expect a fundamental shift up ahead, for all industries. New business models, new ways of working, and new challenges, too. This is exactly why Wipro's ai360 ecosystem places responsible AI operations at the heart of all our AI work. It's meant to empower our talent pool and be ubiquitous across all our operations and processes, as well as our solutioning for clients. We are ready for the AI-driven future!"

With responsible AI at its core, Wipro ai360 will bring together the 30,000 Wipro experts in data analytics and AI with Wipro's technology and advisory ecosystem from four global business lines. Capabilities across cloud and partnerships; data, analytics and AI; design and consulting; cybersecurity; as well as engineering will be leveraged to develop new solutions and embed AI into all processes and practices. Wipro's new global business line model will enable new levels of agility, speed, and depth in delivery.

Furthermore, Wipro's innovation hub Lab45 will be a core part of the Wipro ai360 ecosystem, providing clients with the talent, training, scale, as well as the research and co-innovation capabilities needed to accelerate AI adoption.

The \$1 billion investment will help further advance Wipro's AI, data and analytics capabilities and foundation, R&D and platforms, enhance FullStride Cloud, and build new consulting capabilities to help clients adapt to change and unlock new value through AI.

Wipro will also accelerate investments in cutting-edge startups through Wipro Ventures. Additionally, the company will launch a GenAI Seed Accelerator program, which will provide select GenAI-focused startups with the training needed to become enterprise-ready.

In achieving these goals, the company will train *all* 250,000 employees on AI fundamentals and responsible use of AI over the course of the next 12 months and will continue to provide more customized, ongoing training for employees in AI-specialized roles.

Wipro will develop a curriculum that maps out the complete AI journey for different roles. The completion of the curriculum will culminate in the credentialing of employees through the Decentralized Identity & Credential Exchange (DICE) ID platform. Wipro will also run

hackathons and challenges on its talent crowd platform, Topcoder, for continuous upskilling of employees.

Xometry Further Expands Offerings On Its AI-Powered Marketplace

10 July 2023

Xometry, the global AI-driven marketplace connecting enterprise buyers with suppliers of manufacturing services, announced the continued expansion of its AI-powered Xometry Instant Quoting Engine® to include instant-quoting of inserts, multi-part assemblies, and expanded sheet-cutting processes. The enhanced features allow buyers to instantly get pricing and lead times on CNC, sheet metal and sheet-cut parts with standard inserts while also analyzing multi-party assemblies, further accelerating Xometry's assembly production work.

AI is at the heart of Xometry's industry-leading Marketplace, generating prices for buyers and suppliers across a range of manufacturing processes that are critical for prototype and large-scale production. Today's announcement comes on the heels of Xometry's recent introduction of auto-generated quotes for parts with multiple finishes.

"Our machine-learning algorithms give us unique insight into 3D design data and other important variables that are critical to providing accurate and instant quotes for an ever-expansive universe of parts, processes and finishes, as well as particularly complicated multi-part jobs," said Randy Altschuler, CEO of Xometry. "AI is at the heart of our operations, allowing our Marketplace to 'learn' from every interaction. As a result, we're able to continuously evaluate, build and roll out new features, including for assemblies. We're driving a fundamental paradigm shift in manufacturing, and our AI-driven quoting engine is fueling it."

The expanded feature set:

- Allows buyers to auto-quote CNC, sheet metal and sheet-cut parts with standard inserts;
- Enables buyers to isolate and specify individual parts on multi-part files or assemblies;
- And delivers expanded sheet-cutting options to include a wider array of metal, composite and rubber materials. Xometry's sheet-cutting service can cut a variety of materials using the latest laser and waterjet-cutting technologies.

Xometry's two-sided marketplace plays a vital role in the rapid digital transformation of the manufacturing industry, connecting enterprise buyers with manufacturers who build the big ideas that fuel the global economy. Xometry's AI-driven Instant Quoting Engine, cloud-based software and digital sourcing tools are deeply embedded with procurement managers, buyers and engineers on one side and thousands of manufacturers on the other side. Xometry's proprietary technology shortens development cycles, drives efficiencies within corporate environments and helps stabilize supply chains to make them more resilient.