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CIMdata News

Assembling Your Digital Business: Mendix World 2021 - a CIMdata Highlight

20 October 2021

CIMdata enjoyed attending Mendix World 2021: a virtual event delivered the 7th through 9th of September 2021. Mendix™, a global leader in low-code application development, was acquired by Siemens AG in August 2018. It is a strategic component of Siemens Digital Industries Software's solution and technology portfolio—Xcelerator. Mendix is being leveraged throughout the portfolio, with a particular emphasis on enhancing and extending Teamcenter and MindSphere. At the same time, use of Mendix is continuing to expand within multiple industries and is not limited to working only with Siemens solutions.[\[1\]](#)

The event keynote, entitled “Assemble Your Digital Business with Low Code,” was presented by Mr. Derek Roos, Mendix's CEO. Mr. Roos stated that they now have over 250,000 makers (a term Mendix uses for persons of all development skill levels that can now create applications) who have developed over 200,000 applications on the cloud, being accessed by 50 million end users. He then discussed the four steps a company must execute to assemble their digital business, as well as how Mendix is enabling each of these steps:

1. Assemble all makers
2. Assemble building blocks
3. Assemble solutions
4. Assemble your digital ecosystem

Mr. Roos' keynote highlighted the depth and breadth of new capabilities Mendix is rapidly bringing to their customers, which is a significant reason why Mendix is consistently ranked as a leading low-code platform.

In a session titled “Assemble the Future with Mendix,” Mr. Johan den Haan, Mendix's CTO, talked about how new forces are creating opportunities for different business models. Beyond the traditional **B**usiness and **C**onsumer relationships, **T**hings (connected physical products) and **A**gents (autonomous agents driven by Artificial Intelligence) enable business models such as B-T, T-C, T-T, B-A, T-A, and others. He noted that with all these new options, companies have to determine what they want to consume and what value they want to deliver. Mr. den Haan stated that success requires an enterprise to be able to assemble and reassemble itself and its ecosystem more rapidly than ever before.

Throughout his presentation, Mr. den Haan, who was joined by guests from the Mendix R&D team, used an example of an e-bike company to describe the latest Mendix product capabilities. They illustrated how Mendix technology can be applied in each of the four steps described by Mr. Roos to assemble (and reassemble) a responsive, flexible, and digital business. During the course of their session, Mr. den Hann and his team described ten new solutions and capabilities that have dramatically expanded the capabilities of the Mendix portfolio. These new, expanded capabilities are shown in Figure 1.



*Figure 1 New Solutions and Capabilities Announced at Mendix World 2021
(Courtesy of Siemens)*

Mendix World 2021 also included a number of very thought-provoking presentations. Ms. Sheryl Koenigsberg, Mendix’s Head of Global Product Marketing, led a discussion with Ms. Neri Oxman, Sony Corporation Career Development Professor and Associate Professor of Media Arts and Sciences, MIT Media Lab, titled “Nature X Humanity.” Ms. Oxman addressed architecture and construction issues facing our planet and talked about the relationship between built, natural, and biological environments, by employing design principles inspired and engineered by nature, and implementing them in the invention of novel design technologies.

In a session moderated by Mr. Johan den Haan, Mr. Simon Sinek, author and visionary thinker, explored how understanding the rules described in his book, “The Infinite Game,” and changing your perspective is essential for anyone who wants to stay ahead and outlast any competitor, forever. Mr. Sinek asked, “How can we win a game that has no end?” His simple answer is we can’t. However, Mr. Simon says that’s precisely what so many companies are trying to do. The problem is there is no such thing as “winning business.” In a game with no finish line and no agreed-upon rules or metrics it is impossible to “be number one,” “be the best,” or “beat our competition.” In this Infinite Game there is only ahead and behind.

CIMdata found Ms. Oxman’s and Mr. Simon’s discussions to be insightful, informative, and timely. Listeners were challenged to reimagine what can be done to sustain our planet and how to manage businesses more effectively and rewardingly.

CIMdata participated in Mendix World 2021 with Mr. Peter Bilello, CIMdata’s President and CEO, participating in a roundtable discussion on low-code platforms and their future, and with Mr. Kenneth Amann, CIMdata Executive Consultant, delivering a presentation titled “Empowering a Flexible Enterprise Value Chain.”

Mendix World 2021 was an exciting event and this highlight presents only a small window into its 80 sessions. Many customers showcased how Mendix is helping them solve real-world problems by enabling makers to create and extend business-unique tailored applications ranging from sales and

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marketing, through product development and manufacturing, to inventory and service. Mendix, and its new capabilities, is enabling companies to better integrate all aspects of the product lifecycle including the extended heterogeneous ecosystem and assemble their digital business. CIMdata is glad to see the expanded use of the Mendix platform throughout the Xcelerator portfolio. It is significantly improving their customers' ability to easily and rapidly tailor and extend both Siemens-delivered and third-party solutions and deliver digital businesses.

[1] Research for this highlight was partially supported by Siemens Digital Industries Software.

Autodesk Forges Ahead Forge Central to their Future – a CIMdata Commentary

15 October 2021

Key takeaways:

- Autodesk University 2021 was an excellent virtual event highlighting the company, its strategy, and its solutions.
- While the sessions collectively spanned Autodesk's many products and business segments, the highlight was the strategic importance of the Forge platform to the company's future.
- Autodesk moved to the cloud earlier than many PLM solution providers and the cloud-native Forge platform is central to both its technical and business future.
- The company emphasized that its journey to reimagining its extensive technical capabilities as APIs and microservices built on Forge will take time but the early returns are exciting.
- Key will be engendering a broad ecosystem of Forge partners delivering their capabilities on Forge.

CIMdata had the pleasure of attending Autodesk University (AU) 2021, conducted virtually between October 5th and 7th, 2021, with additional regional learning and networking sessions scheduled for October 8th through the 14th. Historically Autodesk has great turnouts for its in-person events, and with free registration to AU's virtual live content and streaming sessions they expected over 100,000 global participants. According to Autodesk, the first three days attendees watched more than 51,000 hours of content.

Mr. Andrew Anagnost, Autodesk's President and CEO, kicked off each day with a General Session. Filmed in an industrial space, Mr. Anagnost focused on key industry trends and Autodesk's messaging and actions related to them. He was supported across the three sessions by a number of Autodesk senior executives and customers. The company used AU to kick off its new global logo and visual identity, using Autodesk as a verb—"Autodesk it"—that will be expanded upon in the next year.

While Mr. Anagnost did not get into product specifics in his remarks, all of the general sessions highlighted Autodesk's progress and strategy around Autodesk Forge. In 2015 at its Autodesk Accelerate event, the company painted a vision for its product innovation platform,[1] adopting the terminology developed by CIMdata in collaboration with Gartner and IDC.[2] Its imagery showed Autodesk Fusion 360 at the center of its vision, underpinned, as it turned out, by the Forge vision articulated at AU 2015, which had three key elements[3]:

- Forge as a Platform-as-a-Service (PaaS), whose set of cloud services, application programming interfaces (APIs), and software development kits (SDKs), focused on helping software developers (and customers) build cloud applications.

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- The Forge Developer program to provide on-going training, resources, and support for a (hopefully) burgeoning developer community, including a new Forge Developer Conference, first held in June 2016.
- A \$100 million investment fund to help small, innovative companies build solutions based on the Forge Platform.

Based on conversations with the company, the \$100 million investment fund was to “prime the pump” and it has been successful in that regard. In their collective remarks, Autodesk speakers emphasized Forge as an open, standards-based platform that puts data at the center and, when realized, will support a heterogenous data and application environment that spans the product lifecycle. From its inception, the Forge platform was designed to underpin all three of Autodesk’s business segments: Architecture, Engineering & Construction (AEC); Product Design & Manufacturing (D&M); and Media & Entertainment (M&E). The three general sessions hosted by Mr. Anagnost roughly spanned these segments, with his remarks amplified by other Autodesk executives and customer speakers in other AU sessions.

In session one, Mr. Anagnost provided his take on the events of the last 18 months, reinforcing what CIMdata and others have witnessed: in the face of the global pandemic, many trends like enhanced collaboration, cloud, and the move toward digital transformation have accelerated. According to Mr. Anagnost, meeting these needs makes Autodesk’s mantra of the last several years even more important: Autodesk needs to unlock the data that resides in the myriad files produced by the wide range of software tools that support the product lifecycle across Autodesk’s three business segments. Reusing a phrase common in the PLM Economy over the last 10 years, what if Forge could more seamlessly connect the “top floor to the shop floor”? Several customer videos drove home the importance of leveraging data to the fullest to empower increasingly global value chains and ecosystems. Autodesk defines Forge as more than just data. Mr. Anagnost spoke of the company’s multi-year journey to not only unlock data but to unlock the capabilities of Autodesk’s many solutions in a more granular way using APIs and microservices, all delivered on the Forge platform. CIMdata thinks this is an excellent vision that will require innovation across all aspects of its business, not just the technology. During all three sessions he rightfully emphasized that this is a long-term program with some of its efforts starting to bear fruit.

In session two, several Autodesk executives focused on how the Forge platform can help customers leverage varied data, supported by associative links between data produced by different applications. Mr. Scott Reese, Autodesk Executive Vice President (EVP), Product Development and Manufacturing Solutions, provided an example of the parametric relationship between Revit and Inventor. The example showed a building design in Revit that included a design of a walkway created in Inventor. The video showed how changes in the building context in Revit were reflected in the walkway design in Inventor. This is commonplace within design tools using their own data but making that connection between applications from different providers is essential to ensure that design intent and changes on one part of a design can be accurately and immediately reflected in the impacted design elements that may have originated in another solution. Mr. Reese emphasized that Autodesk is working to integrate Upchain (a cloud-native product data management solution recently acquired by Autodesk) with Forge and that the same associativity can be supported between SOLIDWORKS and Inventor. Mr. Reese stated that much more is to come. Ms. Amy Bunzell, Autodesk EVP AEC Design Solutions, echoed this message but claimed that the AEC industry is even more fragmented than manufacturing, a sentiment with which CIMdata heartedly agrees. Her primary example highlighted Autodesk’s partnership with Esri, a global leader in geographical information system (GIS) mapping, announced at AU 2017.[\[4\]](#) A new offering,

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Esri ArcGIS GeoBIM connects with Autodesk BIM Collaborate Pro to combine BIM and GIS information, a co-branded offering that both will sell. The built world exists in the real world and the combination of BIM and GIS is increasingly essential in our smart, connected future, as assets and other products will need to interact in real time. The Autodesk Construction Cloud (ACC) team also announced that it has passed 200 ecosystem partners leveraging Partner Cards^[5] and API's (including Forge API's) to deliver strong and meaningful integrations.

Ms. Diana Colella, Autodesk Senior Vice President, Entertainment and Media Solutions, continued the theme, speaking about how Forge will help enable a cloud-based production ecosystem for M&E. Today's films and streaming programs are collaborations between far-flung specialists, ideal use cases to support with an open, cloud-native platform. Ms. Colella emphasized that Autodesk is embarking on a long journey to this future and patience is necessary.

The third general session saw Mr. Anagnost quickly cede the floor to Ms. Raji Arasu, Autodesk's Chief Technology Officer. She claimed that the Inventor-Revit integration shown in an earlier session was just one of 10 integrations that Autodesk offers, which include connections with non-Autodesk solutions. She noted that the important thing is that users will have the same user experience (UX) when accessing Inventor data. Ms. Arasu stated that over 3 million customers have used the Autodesk app store which is about to get a makeover, focused on making it easier for developers to post new offerings and for customers to purchase them. Ms. Arasu said that, over time, Autodesk will evolve from a company with a multitude of products to offering a platform that makes it easier to leverage capabilities from a wide range of providers to meet their critical needs.

During an AU pre-brief, Ms. Susanna Holt, Autodesk VP of Strategic Technologies, claimed that over 2,000 firms use Forge today, ranging from small start-ups to large ISVs and SIs and even some industrial customers. During the Forge keynote, Mr. Stephen Pester, Senior Principal in Accenture's Industry X practice, hinted at Accenture's plans to embed Forge in customers' processes. Autodesk stated that Forge offers a low-code approach to development, a phrase more common in the PLM space since Siemens acquired Mendix, a global leader in low-code/no-code development. While low-code can be a buzzword, it is actually very important to democratizing technology. Early applications using low-code capabilities include custom sales configurators and digital twins. Mr. Stephen Hooper, Autodesk Vice President and General Manager of Fusion 360, highlighted two new Fusion 360 extensions. The Simulation Extension allows users to access simulation capabilities with the same UX. These extensions will be "instant on" and can be purchased within the product. Autodesk is also working on its Product Design Extension, which will bring manufacturing process expertise to the point of work for designers, enabling them to make their designs more manufacturable as part of the design process. This form of democratization is intended to help designers of all skill levels but will be particularly important for less skilled designers who do not have the wealth of practical experience on which to draw.

This is an exciting development because to CIMdata a true platform must readily support a broad ecosystem beyond just solutions from the platform provider. Mr. Hooper described how Autodesk is democratizing the use of its Moldflow capabilities within its platform in Fusion 360. Customers who need it can turn it on without impacting any other functionality. During AU, Autodesk also announced how Ansys will leverage this extension capability to bring its PCB simulation capabilities into Fusion 360. The screen shots presented were clearly delineated as "mockups" but this is exciting news. Autodesk has been working with Ansys over the last few years and bringing its market-leading capabilities into Fusion 360 is an excellent development for the two companies and their many joint customers. Autodesk emphasized that it's "early days" in this effort and that it is maturing its extension framework, working with partners to ensure Autodesk's approach works for them and their solutions.

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CIMdata believes this level of technical and business model integration is an essential step toward a true, democratized platform.

Conclusion

Of course, this commentary presents only a small window into the many sessions and announcements made during AU 2021. While atomizing their application capabilities is the future, Autodesk will remain a product company for a number of years and AU was packed with product enhancements. But Forge is Autodesk's future—and an exciting one it should be. Starting its journey natively on the cloud is a contrast with many other PLM ISVs who are using APIs, microservices, and other technological approaches to wring productive life from on-premises offerings. As emphasized by the Autodesk team, this is a long-term prospect but starting that journey natively on the cloud is a big plus. The Ansys partnership, and the PCB analysis extension, highlights how Autodesk plans to support heterogeneous tool environments. Over time it will be interesting to contrast the level of UX integration for Forge-enabled extensions with other approaches like Ansys integrating Ansys Discover Live into Creo from PTC. The evolution of Autodesk's App store is a welcome development, and very necessary to smooth the transition to this new democratized business model. Autodesk also spoke about using Forge as a marketplace platform, which again is an interesting counterpoint to the Marketplace efforts of Dassault Systèmes. Autodesk is truly “forging” ahead with Forge and CIMdata anxiously awaits future installments in this important platform story.

[1] For our initial take on this positioning, please see <https://www.cimdata.com/en/resources/complimentary-reports-research/commentaries/item/4829-autodesk-accelerate-2015-getting-down-to-business-commentary>. Other CIMdata commentaries on Autodesk expanded on this topic.

[2] <https://www.cimdata.com/en/resources/about-plm/a-cimdata-dossier-plm-platformization>

[3] <https://investors.autodesk.com/news-releases/news-release-details/autodesk-unveils-cloud-based-forge-initiative-transform-how>

[4] <https://www.esri.com/about/newsroom/announcements/autodesk-and-esri-partnering-to-advance-infrastructure-planning-and-design/>

[5] Partner cards support data exchange in Autodesk BIM 360.

ESI's Virtual Prototyping Accelerates Automotive Vehicle Development – a CIMdata Commentary

21 October 2021

Helps achieve sustainable practices right and meet “Mission Zero” goals

Key takeaways:

- Automotive market demands have shifted and are focused on being more sustainable or “green,” while the classic competitive pressures of cost, time to market, and quality continue to increase.
- Electronic and software content continues to grow within automotive products as a cost-effective way to address market demands, but they add significant complexity to product development and production processes.
- Battery- and fuel cell-based propulsion systems required to meet zero emission goals require many new technologies to be leveraged and produced at scale.

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- ESI's virtual car prototypes help automotive OEMs and suppliers address the challenges they face within chassis lightweighting, electrification and batteries, safety, production process simulation, and customer experience simulation, with all of the different multi-domain simulation scenarios and data being managed end-to-end within one single core model.

Introduction

The automotive industry is arguably the most competitive industry in the world. Its operational scale and its impact on humanity and the planet are enormous. Over the decades automotive market demands have transformed from basic transportation equipment to highly styled, feature rich, reliable, performant mobility platforms. Over the past decade as awareness of sustainability has come to the forefront and as we humans better understand our impact on the planet, we are fortunate that technology is rapidly evolving to help create products that address sustainability issues.[\[1\]](#)

Climate change, resource use, and toxic pollution are global issues in need of solutions. Consumer demand and government regulation are the main drivers for change and within the automotive market, improvements in energy consumption, safety, emissions, and reliability are the most important characteristics to be optimized. According to industry research, 60% of companies in the automotive industry have a clear “Mission Zero” sustainability strategy.[\[2\]](#) They are striving to reach the “Mission Zero” targets for mobility products: zero accidents, zero injuries, zero emissions, and zero unplanned stops while providing hours of charged, maintenance-free range. CIMdata has been observing the sustainability trend for many years and is pleased to see solution providers enhance their design, simulation, and data management software to better support green goals.

Systems-focused design and simulation solutions have grown in capability and performance in recent years to support the concept of virtual product development and validation. Using computer models and simulations to predict product performance without building physical prototypes is becoming mainstream in all industries and is a basic requirement for success in industries such as automotive and aerospace.

Automotive Challenges

There is a common phrase, often attributed to a Daimler Chrysler CEO, that 90% of innovation in the automotive industry will come from electronics and software. While this is likely true, electronics and software also contribute significantly to the classic domains of metalworking, materials, and system design. Software is used to design products, the manufacturing process, and in many cases control the manufacturing equipment from an individual manufacturing step up to managing complete factories. Additionally, with the advent of smart, connected products, leading edge vehicles have live diagnostics that “phone home,” and even download software updates over the air (OTA).

While electronics and software may provide breakthrough innovation in advanced features such as autonomy, they also provide significant incremental improvements in traditional design of the body-in-white, chassis, interior, and other systems. These systems are core to performing the basic transportation function of moving people and goods from one place to another. Within these systems optimizing performance, weight, assembly processes, and service are critical functions that receive a lot of continuous improvement.

Improving customer experience with new capabilities and automation often combine many different physics domains with software. Mechanical, hydraulic, electric, and electronic capabilities are used to develop and produce capabilities such as electric vehicles (EV), advanced transmissions, safety related systems, infotainment, and autonomy.

The most important trend in automotive is the transition to electric vehicles. Moving from petroleum-

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based powertrains to battery-driven propulsion systems in vehicles requires redesigning vehicle architectures and systems to meet myriad consumer, regulatory, and societal requirements and regulations. For example, battery development has been a multi-decade journey to improve battery energy density while ensuring safe operation at a reasonable cost. But ensuring that batteries can store enough energy is only one of the many challenges related to electrification.

Safety requirements and solutions developed over the years have led to advanced features we take for granted today, such as crush zones, side impact door beams, airbags, anti-lock brakes, and stability control. Managing the heat generated in batteries to prevent fires is a major effort today driven by electrification.

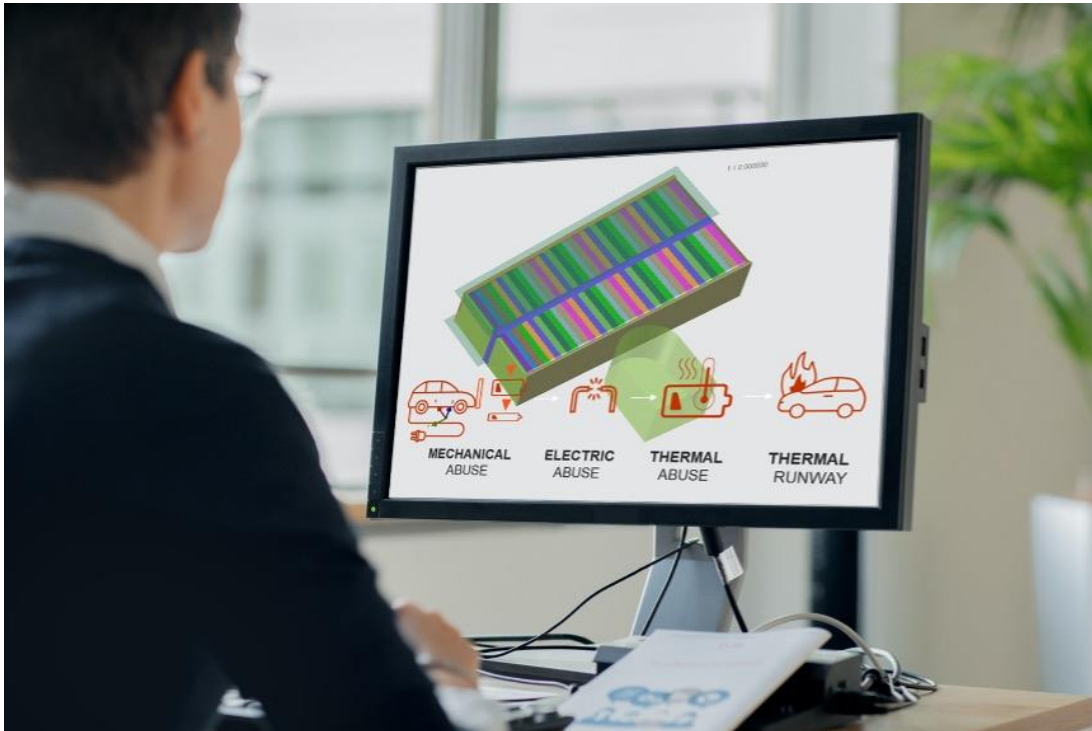
Autonomy or self-driving vehicles cannot be done without simulation. The number of tests needed to sufficiently test algorithms and automotive systems such as steering and braking cannot be done physically in real-time. The only way to fully validate a modern vehicle is to do it virtually with simulation.

Having an innovative product is great, but if it can't be produced to meet cost, quality, and time to market targets, it will fail in the marketplace. Capital investment and the effort to build up production lines and facilities is enormous. Complex factories with intricate layouts and large machines are required to produce vehicles as well as their systems and components. Vehicle designs change regularly, often requiring significant changes to production systems and regular production also drives changes as many factories are flexible enough to build product variants and even different products. Physically rearranging factories and lines to validate production is not reasonable. Stopping production to rearrange or reprogram equipment and to run validation tests won't fit in the timelines and budgets companies need to achieve to be competitive. Virtual prototyping of production is a critical capability that leading manufacturers are adopting to shorten the design to production transition.

To address these many challenges, automotive companies need a comprehensive and extensible solution that can support the breadth of simulations within the larger context of delivering a product that meets a wide variety of requirements.

ESI's Value

ESI, founded in 1973, is a leading software provider of virtual test solutions for the automotive and other industrial markets. Over the years their product portfolio has grown to meet the simulation requirements of their industrial customers. As computing power and software capabilities have evolved, ESI has moved to an industry vertical strategy. It has created solutions designed to meet the challenges of modern automotive development and production by focusing on virtual prototyping.



*Figure 1—Using ESI Solutions to Simulate Battery-Specific Safety Norms Helps Protect Car Occupants and Pedestrians in Case of Failure
(Courtesy of Farasis)*

Leveraging expertise in predictive physics-based modelling, ESI’s Virtual Car Prototypes enable their customers to study and optimize vehicle performance fully digitally. This allows designers to clearly visualize for instance, how the advent of high-performance batteries and lightweight structures affect the drivability and handling of the vehicle and its powertrain performance.

ESI has actively shaped product development processes since the first ever crash simulation conducted by ESI together with Volkswagen back in 1985 to predict VW Polo’s crash performance. Prior to this crash simulation, this critical compliance requirement was validated using expensive, time-consuming physical tests. The latest version of ESI’s Virtual Performance Solution^[3] is used across industries to reduce the number of physical tests needed for development and validation. ESI’s automotive customers are using the technology to ensure EVs will be safe from the outset. The vehicle architecture changes required when moving from internal combustion engines to electric propulsion are significant. Weight distribution, types of systems and materials, and different hazards require many different load cases—to test all of them physically will slow product rollouts impacting business results. ESI’s approach to virtual prototyping is helping automakers accelerate their EV development and production by helping them shift to a “zero physical test and prototype” approach.

As experience with new advanced technologies grows, trust that they provide value (or not) also grows. CIMdata believes in the value of ESI’s virtual prototyping approach as it leverages their strong technology and is aligned with zero emission and sustainability requirements.

Conclusion

Competition in the automotive industry is fierce. Traditional business challenges continue to grow, and a recent addition is the challenge of sustainability. Mission Zero is an approach to sustainability adopted by many in the automotive industry and is focused on creating vehicles that are greener and safer yet

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still perform their intended functions with style and at low cost. To achieve Mission Zero goals, automotive companies are transforming to operate 100% virtual in an end-to-end fashion. This best-in-class approach uses a single logical source of truth for all data and product related information.

ESI's Virtual Prototyping approach is helping major automotive OEM and suppliers meet the challenges they face in developing and producing new sustainable EVs. ESI has recently published an eBook that goes into more detail on virtual prototyping and will be having a dedicated automotive track at their annual ESI Live virtual conference on November 4, 2021. CIMdata encourages you to [download the eBook](#)[4] and [attend the free conference](#)[5] to learn how virtual prototyping improves R&D efficiency in the field of vehicle electrification. Automakers and suppliers that want to establish integrated and automated digital workflows to efficiently design, test, operate, and maintain future EVs while meeting the highest quality standards and lifetime performance, should consider partnering with ESI. Their proven solutions bring confidence early to all stakeholders involved in creating electrified vehicles at palpable ROI.

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

[2] <https://www.capgemini.com/de-de/wp-content/uploads/sites/5/2021/05/Experten-Interview-Die-Marke-neu-aufladen.pdf>

[3] <https://www.esi-group.com/products/virtual-performance-solution>

[4] <https://www.esi-group.com/industries/automotive/automotive-solutions#e-book>

[5] <https://www.esi-group.com/esi-live>

Every Business Needs Data, But Do They Understand the Big Picture?

20 October 2021

Every industrial business—indeed, every conceivable kind of organization—runs on data. Or to be more precise, they run on the insights generated from the enterprise's data, making key decisions based on those insights and their value in the appropriate context.

Yet everyone seems to agree that most of what is in our databases is of questionable value, no matter who owns the data or what it's used for.

So, here's the "running-on-data" problem. On the one hand, data is essential in running any business. On the other hand, much of our data may be worthless or inaccessible to those who need it. How can these two apparently incongruent statements be reconciled?

I believe the answer lies first in placing each discrete bucket of data in context, such as where it was created and by whom (i.e., person and/or system) and where and by whom it can be accessed. Decision-makers can then extract value from the data and the depth of insights needed for sound decisions. Even with this, uncertainties will persist.

To read the rest of the article visit: <https://www.engineering.com/story/every-business-needs-data-but-do-they-understand-the-big-picture>

Free Webinar on How to Prepare for the Next Disruptive Technology

19 October 2021

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces an upcoming free educational webinar, "The Next Step: Being Prepared for the Next Disruption." The

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webinar will occur on Thursday, 18 November 2021, at 11:00 a.m. (EST) and will last for one hour.

We are currently experiencing a rapid acceleration of PLM-related digital transformation. PLM professionals should be keenly aware of digitalization's promise, as well as the processes and technologies that enable it. To stay ahead, PLM professionals must look to the next disruption (technological as well as market) while at the same time enabling their companies with the right PLM capabilities that allow them to be disruption-proof. One of the best ways to accomplish this is learning from others who lead and define the future.

This webinar will leverage CIMdata's forward-looking perspective while reviewing the key messages and learning from CIMdata's most recent [PLM Road Map](#) conference.

Attendees at this webinar will:

- Learn about the state of the art when it comes to PLM enablement.
- Gain an understanding of what is next for PLM.
- Learn how to define best practices and implement PLM to be disruption-proof.
- Understand more about PLM-related disruptive tools and approaches.

According to Peter Bilello, CIMdata's President & CEO and the host of this webinar, "Despite the COVID-19 pandemic, the global PLM Economy continues to grow and evolve. In many cases, the rate of incorporation of new technologies is increasing significantly, along with a heightened business process focus and organizations' push to digitally transform in a manner that looks to minimize future potential disruptions. To be successful, companies need to constantly understand and evaluate where the PLM industry is at and where it is going so that the maximum value can be achieved from its implementation, especially during these challenging times."

Mr. Bilello has 30+ years of experience developing business-enabling IT solutions for research, engineering, and manufacturing organizations worldwide. He has participated in PLM analysis, selection, implementation, and training; CAD/CAM/CAE/CIM implementation and management; synchronous and lean manufacturing consulting; software engineering; and general data management strategy development and support. He has authored numerous papers and research reports on PLM and related topics, and his articles, commentaries, and perspectives have appeared in publications throughout the Americas, Europe, and Asia.

This webinar will be helpful to executives responsible for PLM initiatives, those responsible for digital transformation, those planning for how to best deal with the next disruption, PLM team leaders, PLM team members, PLM users, product managers, IT leadership, PLM solution providers, and anyone wanting to learn more about the trends and status of the global PLM industry.

During the webinar, attendees will have the opportunity to ask questions about the topics discussed. To find out more, visit: <https://www.cimdata.com/en/education/educational-webinars/webinar-the-next-step-being-prepared-for-the-next-disruption>. To register for this webinar, please visit <https://register.gotowebinar.com/register/1013624787794326288>.

How AI and PLM Maintain Order When Project Chaos Threatens

19 October 2021

In a recently published article, CIMdata President and CEO Peter Bilello discusses the linkages between AI and PLM. He also illustrates how those linkages support business activities and the constant innovations in and around PLM. Read the full story here: <https://www.designnews.com/industry/how-ai-and-plm-maintain-order-when-project-chaos-threatens>

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New Aras CEO Roque Martin succeeds Peter Schroer- a CIMdata Highlight

21 October 2021

On Wednesday, October 20, 2021, Aras Corporation announced that Mr. Roque Martin will immediately take over the CEO role from founder Peter Schroer. Mr. Schroer will assist with the transition and continue his position on the Aras Board of Directors.

Aras has been a CIMdata PLM Mindshare leader since 2017 and is well known for their innovative business model and solution architecture. Mr. Schroer founded Aras in 2000 with the vision of creating a product lifecycle management (PLM) solution that could be easily configured and updated as business processes and data models evolved. In addition to advances in architecture, Aras pioneered the concept of open-source software within the PLM market with their Enterprise Open Source approach. In recent years, Aras has been recognized for their successive funding rounds including large investments from Silver Lake, Goldman Sachs, and GI Partners and sales wins at well-known companies including Airbus and Microsoft.

CIMdata has followed Aras since its inception and has interacted often with Mr. Schroer from the early days when he wrote code, gave software demonstrations, and sold the product. His engineering background, Masters in Business Administration (MBA), and work at early PLM companies such as Workgroup Solutions and Eigner+Partner GmbH provided the background to assume the challenge of creating a different type of PLM company. CIMdata is pleased to see the success from the hard work of Mr. Schroer and his team, and we are sure we will continue to see his impact at Aras in the years to come.

Aras' new CEO, Mr. Roque Martin, appears to be the perfect successor to Mr. Schroer. He spent the last seven years at PTC, also a CIMdata PLM Mindshare leader, as General Manager of PTC's Integrity Solutions business that addresses the systems and software development needs of global companies in industries such as automotive, A&D, industrial, and high-tech. Given Aras' focus on systems engineering and recent product releases, Mr. Martin's background should be invaluable. Prior to working at PTC, Mr. Martin spent over 25 years at IBM in a variety of software engineering, sales, marketing, and executive roles. A key role at IBM involved the Rational product line. Mr. Martin was the executive in charge of the integration into IBM of Rational Software Corp., an early leader in the software development lifecycle management software that continues to be widely used today. He later became the worldwide sales director for IBM Rational Software and contributed to their Software-as-a-Service (SaaS) strategy.

Mr. Schroer took Aras from its inception to a Mindshare leader in the global PLM market with a staff of over 600. It's impressive that the founder was able to take Aras as far as it has come in such a competitive market and to succeed given the challenges the company faced over the years. Mr. Martin's experience and skills are well suited to what Aras needs to continue its growth trajectory and we are looking forward to seeing how Aras evolves under his leadership.

Acquisitions

Accenture Acquires Xoomworks to Enhance Procurement and Digital Transformation Capabilities in Europe

19 October 2021

Accenture has acquired Xoomworks Group, a consulting and technology company that specializes in procurement technology, digital innovation and software solutions development. The acquisition will expand Accenture's capabilities for helping clients accelerate technology-led business and procurement transformation. Terms of the transaction were not disclosed.

Established in 2000, Xoomworks operates two distinct businesses: Xoomworks Procurement, a specialist consultancy focused on sourcing and procurement transformation, and Xoomworks Technology, a software development business that partners with clients across industries to help them innovate at speed and scale digital solutions that create value and solve complex business problems. Headquartered in London, Xoomworks's team of more than 250 professionals are joining Accenture from across their operations in the United Kingdom, France, Germany, Romania, Bulgaria, Denmark and Sweden.

Xoomworks Procurement brings proprietary methodologies and solutions for full procurement lifecycle implementations, data-driven spend management and change management. The addition of Xoomworks Procurement strengthens Accenture's Closed Loop Spend Management capabilities, which help clients with end-to-end transformations that deliver unprecedented visibility across direct and indirect cost categories and drive new ways of working to generate sustainable cost savings and top line value. Xoomworks shares deep relationships with Accenture ecosystem partners, including SAP Ariba, Coupa and Jaggaer.

"Now more than ever, companies need to take a more proactive approach to managing third-party spend that positions them for enduring growth and prepares them for what's next," said Pierre-François Kaltenbach, senior managing director within Accenture's Supply Chain & Operations group. "We're delighted to welcome Xoomworks to our team and join our mission to help clients transform their procurement capabilities to accelerate innovation and drive breakthrough value, while answering the call for more responsible business."

Xoomworks Technology has in-depth experience in bespoke software development, UX & mobile, data engineering, product innovation, and cloud integrations. With a strong reputation for problem-solving, Xoomworks Technology brings a carefully developed approach for delivery designed to create value, foster innovation and achieve business outcomes, which has translated into long-lasting strategic client relationships.

Jan Van Den Bremen, senior managing director and Accenture's Intelligent Platform Services Europe Lead, said: "Intelligent platforms and ecosystem partners play a pivotal role in bringing together the major capabilities needed to run a modern enterprise and take advantage of new business models. With the addition of Xoomworks, we are expanding our deep technology expertise to further help accelerate the path to value for our clients at speed."

Malcolm Clark, Co-founder and Group CEO, Xoomworks, added: "When we founded Xoomworks 21 years ago, we set out to create technology-led solutions to solve specific business problems and deliver high-performance outcomes with a focus on forming deep client relationships built on trust. We've done just that. I'm immensely proud of our people, our achievements and our collaborative values-led

approach. The world has changed radically in the last two decades; by combining our experience, capabilities and expertise and with a shared vision of the future, we know we can have an even bigger impact as part of Accenture."

Accenture Completes Acquisition of Experity

18 October 2021

Accenture has completed the acquisition of Experity, a leading provider of cloud-based customer experience and commerce solutions in Brazil. Experity helps businesses build greater efficiencies and agility in commerce, marketing, content and data through leading cloud-based platforms. The terms of the transaction, which Accenture announced on September 20, were not disclosed.

Founded in 2003 and headquartered in São Paulo, Brazil, Experity, which offers consulting, implementation, support and other related services for leading cloud-based platforms, leverages its strategic relationships with ecosystem partners including Adobe, Salesforce, Oracle, SAP and Microsoft, to help organizations excel at customer experience throughout the entire brand journey.

Experity's team of approximately 420 people joins Accenture Interactive in Brazil and brings scale and strengthened abilities to seamlessly deliver cloud-based customer experience solutions for leading companies in segments like consumer goods and natural resources. Experity's expertise joined with Accenture Interactive's global scale and capabilities will enhance the company's ability to deliver seamless commerce experiences.

Atos strengthens its position in the Big Data and Computer Vision market with the acquisition of DataSentic

20 October 2021

Atos announced it has reached an agreement to acquire DataSentic, a Czech Republic-based data science company specializing in the development of Artificial Intelligence & Machine Learning (AI/ML) business solutions and products. With this acquisition Atos will enhance its AI/ML and Computer Vision portfolio with new AI-intensive products and data science capabilities and welcome a highly skilled team of approximately 100 AI/ML data scientists and engineers.

Founded in 2016 and headquartered in Prague, DataSentic is a Machine Learning and data engineering boutique, working to unify data science and engineering to deliver business impact. The company primarily sells its solutions in Central and Western Europe to large enterprises, with a strong vertical focus in the Financial Services, Retail and Media industries.

The combined capabilities of Atos and DataSentic will provide a global AI/ML factory delivering business value to all their joint customers.

"This is a fantastic opportunity to expand our existing AI/ML capabilities. With DataSentic we are strengthening our global AI/ML factory which is already leveraging the expertise from our recent acquisitions in this area: zData, Miner & Kasch and Ipsotek" said **Pierre Barnabé, Executive Vice President, Head of Big Data & Security at Atos.**

"We are excited that the global reach and strong vertical industry focus of Atos will accelerate how our AI products and solutions make a real impact on enterprises across the world" said **Petr Bednarik, CEO and Founder of DataSentic.**

The closing of the transaction is expected to take place in Q4 2021.

Sandvik completes the acquisition of leading CAM software company Cambrio

18 October 2021

Sandvik has completed the previously announced acquisition of US-based Cambrio, a leading company with a portfolio in CAD/CAM software for manufacturing industries like automotive, transportation, energy, medical and aerospace.

In 2020, Cambrio had revenues of about SEK 628 million (68 million USD) with an EBIT margin slightly dilutive to Sandvik Manufacturing and Machining Solutions. Impact on Sandvik's earnings per share will be positive.

Cambrio will be reported in the Design & Planning Automation division within Sandvik Manufacturing and Machining Solutions.

Company News

Accenture and Splunk Form Business Group to Help Organizations Capitalize on Cloud and Drive Greater Value from Data and Analytics Insights

19 October 2021

Accenture and Splunk Inc. have formed a business group that brings Accenture's functional knowledge, deep industry and technical experience together with Splunk's platform technology to help clients maximize insights from data, with a particular focus on AI-powered IT operations, security automation, and intelligent supply chain.

The Accenture Splunk Business Group expands the partnership between the two companies as they help clients better take advantage of real-time data from across their business and quickly take action to improve IT operations, supply chain and security processes, as well as manage and explore new revenue opportunities.

Accenture brings more than two decades of insights-led operations transformation experience across diverse industries. Supported by approximately 8,000 Accenture people skilled in Splunk®, the new group brings together dedicated professionals from both companies to help equip organizations to be insights-driven.

“When we talk about full-scale digital transformation, that means capitalizing on insights and innovation across your entire business and IT,” said Sanjeev Vohra, global lead, Accenture Applied Intelligence. “Our partnership with Splunk will help our clients improve their ability to gain critical real-time insights from their data through collaboration with Accenture's myWizard®, AI Operations and other key assets.”

Accenture and Australia-based Coles Supermarkets collaborated to design and develop a solution using the Splunk platform to better manage supply chain disruptions. Leveraging Accenture's Splunk-based myWizard® AIOps platform, they jointly developed a control tower monitoring solution that syncs critical data — such as sales reporting from store registers, inventory levels at distribution centers, and available in-store stock — to increase inventory and order accuracy, leading to improved product availability and healthier customer satisfaction. This has given Coles better insight into the overall health of their supply chain while enabling them to better meet customer demands.

“Harnessing the power of data in the cloud became even more relevant during the pandemic, and customers are looking for world-class solutions and services to accelerate their cloud journey,” said Teresa Carlson, president and chief growth officer, Splunk. “Our creation of the Accenture Splunk

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Business Group demonstrates our commitment to helping customers move faster, gain better visibility into their operations, and more rapidly reach their outcomes and missions.”

The business group builds on Accenture and Splunk’s existing collaboration and client work which includes Accenture’s development of a number of Splunk-powered solutions focused on operational intelligence, business operations, software development and security monitoring. Additionally, Accenture Applied Intelligence has continued focus on sustainability and social good with successful in-market Splunk-powered solutions to address challenges like human trafficking and wildfires, and will continue to partner with Splunk for Good to bring solutions that have a direct impact to the society and future generations.

Aras Announces Roque Martin as New Chief Executive Officer

20 October 2021

Aras, a leading global provider of low-code applications to design, build, and operate complex products, announced that Roque Martin has joined the company as Chief Executive Officer (CEO).

Roque succeeds Peter Schroer, the founder of Aras, who continues to be actively engaged with the company through his role on the Aras Board of Directors. Peter’s focus now shifts from day-to-day execution to corporate strategy and growth planning. The transition is effective immediately.

“I’m extremely proud of the results our team has accomplished for our customers, and I look forward to continued innovation as we welcome Roque to Aras,” said Peter Schroer. “Roque’s experience working with the largest enterprise customers and most complex use cases makes him ideally suited to drive Aras’ future growth, scalability, and industry leadership.”

“Peter and the Aras team have built an amazing business that delivers unmatched value to customers by enabling more agile digitalization than previously possible,” said Roque Martin, newly appointed CEO of Aras. “As Aras continues to disrupt the market with its open, low-code platform, I’m excited to work with the Aras community to build upon this momentum as we transform the way the world makes products.”

Roque joins Aras from PTC, where he was the general manager of the division that delivers systems and software engineering solutions for manufacturers of advanced products. Prior to PTC, Roque was at IBM for 25 years where he contributed to their Software as a Service (SaaS), acquisition integration, and competitive intelligence strategies. Roque has a proven track record of penetrating new markets, driving profitable growth, and scaling globally.

“With his extensive engineering software leadership experience, Roque will play a critical role in delivering value to customers, scaling the company for sustainable growth, and building the workforce of the future,” said Travis Pearson, Managing Director and Co-Head of Private Equity at GI Partners and Member of the Board of Directors at Aras. “We thank Peter for his vision and leadership, and for his ongoing contributions as a member of the Board.”

Eurostep announcing new Director for the AEC & Plant Industry Vertical

19 October 2021

Eurostep is pleased to announce the recruitment of Sylvain Marie, a well-known expert in the domain of AEC. Sylvain Marie will be leading the AEC & Plant Industry Vertical in Eurostep Group from December 1st, 2021.

Sylvain Marie has extensive experience from the AEC and BIM domains, arriving at Eurostep from a

position as Scientific and Technical Coordinator, at the RAILENIUM R&D Center (France), where he has participated in the development and standardization of the forthcoming IFC version. These new areas cover AEC linear infrastructures such as railroads, roads, bridges and tunnels. Sylvain Marie has been for many years heavily engaged in BuildingSMART France and BuildingSMART International. Previously to his role in RAILENIUM, Sylvain Marie has been working as platform director at Catenda and as co-founder and CEO of VTREEM.

Sylvain Marie will also have the role of office team manager in Eurostep France.

HCL Technologies and Innovaccer Partner to Accelerate Digital Health Transformation

19 October 2021

HCL Technologies (HCL), a leading global technology company and Innovaccer Inc., a health cloud company, announced a collaboration to help healthcare and life sciences organizations drive digital health transformation.

The partnership will help improve population health, value-based care, connected health, patient-physician engagement and other industry imperatives by ingesting, aggregating, and normalizing healthcare data from disparate sources to improve data quality and health outcomes.

Innovaccer's rich set of capabilities, including scalable fast healthcare interoperability resource (FHIR) APIs and an optimized data lake, allow organizations to use data analytics, AI, and machine learning to generate actionable insights at the point of care. HCL uses its next-generation digital and data transformation capabilities to help healthcare enterprises unlock the full potential of siloed -- and often complex -- data using Innovaccer's Data Activation Platform and analytics-driven applications.

By combining Innovaccer's Data Activation Platform with HCL's robust healthcare data accelerator (hDATA) suite, organizations can enable patient-centricity, cost-optimization and compliance.

"Our partnership with Innovaccer will further enable us to help our clients catalyze their digital journeys and enhance overall quality, confidence, and speed of delivering data solutions for our healthcare and life sciences clients," said Shrikanth Shetty, Corporate Vice President and Head of Life Sciences and Healthcare, HCL Technologies. "We look forward to working with Innovaccer to speed up implementation and integration timelines and quickly deliver value to our clients."

"HCL Technologies and Innovaccer share a common vision: creating a future built on pervasive collaboration," said Abhinav Shashank, CEO at Innovaccer. "We're laying the foundation to help our customers and partners drive their digital transformations and realize our shared mission of bringing all healthcare data and stakeholders together to serve patients and enable truly holistic care."

HCL Technologies Launches Early Career Program 'TechBee' for High School Graduates in Vietnam; to Onboard 2,600 Students in 5 years

18 October 2021

HCL Technologies (HCL), a leading global technology company, has launched its TechBee early career program in Vietnam with plans to onboard 2,600 candidates in the next five years, starting in 2021.

Designed exclusively for high-school graduates, the TechBee program prepares students technically and professionally for global IT careers in HCL, where candidates undergo an extensive 12-month training to become successful IT professionals and work for world-class global companies.

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True to HCL's philosophy of bringing global opportunities to local talent, HCL Vietnam strives to foster growth and train the nation's talent pool in collaboration with high schools and local ICT and engineering institutions. Any local student who has successfully completed high school and holds a high school graduation certificate or its equivalent, can apply for the TechBee Program. Enrolment in the program will take place through an entrance test.

After the successful completion of the 12-month training program, the candidates will join HCL Vietnam and will be paid salary equivalent to the job roles.

"Vietnam has great market potential and talent pool for global technology companies to harness," Sanjay Gupta, Corporate Vice President, HCL Technologies, said. "The program will give students an early start in high-tech career roles. With this program, HCL aims to hire the best talent from the country and give them financial independence early in their lives. I strongly encourage all deserving high school graduates to enroll in this program and begin their global IT careers with HCL."

HCL started this program in India in 2017 with an aim to hire the best talent and enable them to achieve financial independence. Running successfully in India, Australia and Sri Lanka, HCL's TechBee program is training selected candidates on high-tech niche technologies to make them job-ready early in their lives. Till now, more than 3,000 students have completed the TechBee program and now work with HCL for its Fortune 500 and Global 2000 clients.

HCL began its business operations in Vietnam in July 2020. A key part of HCL's business and development strategy in Vietnam is to provide the right skilling and platforms to train the local talent including high school graduates for career opportunities in high-tech domains and provide them with the requisite exposure of working on global assignments.

Propel and Jitterbit Announce Strategic Partnership to Help Manufacturers Connect Business Critical Systems

18 October 2021

Propel, developer of the only unified quality management (QMS) and product lifecycle management (PLM) solution built on Salesforce, and Jitterbit, the API transformation company, announced their strategic partnership to standardize and simplify connections between Propel and enterprise resource planning (ERP) systems. Jitterbit becomes Propel's preferred solution for integrations with ERP providers catering to small, medium, and mid-market manufacturers, including Netsuite, Infor and Microsoft Dynamics.

The Propel-ERP integration, powered by Jitterbit, eliminates expensive errors, painful product delays, and wasted time typically associated with manual data entry. When new products are released from Propel to manufacturing, the item masters, Bills of Material (BOM), and associated manufacturer parts are automatically created in ERP. Subsequent Engineering Change Orders (ECOs) executed in Propel automatically update the appropriate item masters, BOMs, and approved manufacturer parts in ERP. And as costs and inventory levels are updated in ERP, those changes can be reflected in Propel. All workflows and data are configured to meet individual company requirements, allowing manufacturers to tailor the solution to support their specific processes and business needs.

The benefits of connecting Propel to ERP include:

- **Faster time to market** by providing operations, procurement and manufacturing teams with real-time product data to ensure everybody is working on the right version.
- **Greater profitability** by providing engineers with real-time cost information and inventory

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levels, enabling them to make engineering decisions in line with margin goals.

- **Reduced operational costs** by eliminating time-consuming and error-prone manual data entry, so your teams can focus on high value work.
- **Happier customers** thanks to great products delivered on time and under budget.

“Propel customers will benefit from Jitterbit’s experience using standard connectors to integrate multiple business systems with over 1,000 end-points,” said Dario Ambrosini, CMO of Propel. “Companies rely on Jitterbit to connect their applications because the Harmony platform solution is intuitive, easy to use, and fast to deploy.”

“Jitterbit makes it easy to connect Propel’s integrated QMS and PLM to industry-leading ERP systems,” said Ron Wastal, SVP, Global Business Development at Jitterbit. “This is a great way for manufacturers to create a single source of product truth across these critical systems.”

Companies attending SuiteWorld October 18-21 at Caesars Forum in Las Vegas can visit Jitterbit at booth #719 to learn more about the benefits of connecting NetSuite ERP to Propel.

Revolution in Simulation Announces Maya HTT as Newest Sponsor

20 October 2021

The global simulation industry collaboration and technology alliance *Revolution in Simulation* (“Rev-Sim”), created to accelerate innovation through the democratization of engineering simulation, announces Maya HTT as its newest participating sponsor and collaborator.

Maya HTT got its start by providing solutions for the space industry. Now it is an established and growing global brand. Maya HTT serves customers worldwide across many sectors, with a strong focus on aerospace and defense, automotive and transportation, electronics, and heavy industrial machinery.

Throughout its longstanding relationship with Siemens, Maya HTT has developed a depth of knowledge about its products, so much so that other partners approach Maya HTT for its expertise. Maya HTT is also a software and technology partner and has developed over 30 products for Siemens to provide customers better engineering for a better future.

Maya HTT adds its name to a steadily increasing list of participating sponsors that now includes Aras, ASSESS, BETA CAE, Dassault SolidWorks, EASA, EnginSoft, ESRD, Front End Analytics, Future Facilities, Hexagon/MSC, Kinetic Vision, Modelon, NAFEMS, nTopology, Ohio Supercomputer Center, OnScale, PASS Suite, Phoenix Integration, Pointwise, PTC, Siemens, UberCloud and VCollab.

Each of these simulation leaders are providing expert leadership in the movement to make engineering simulation software more accessible, efficient, reliable, and impactful not just for CAE experts but also for others across the enterprise – what is commonly referred to as the *Democratization of Simulation*. The demand for automated simulation is exploding, resulting in next-generation usage of traditional, expert-driven simulation tools and platforms.

Maya HTT VP of Sales, Marc Lafontaine, said, “Maya HTT merges the real world – industrial data – with simulation. As a Rev-Sim sponsor, we bring our technical knowledge of Siemens software, our credibility and proven track record, and our breadth and depth of expertise. As leaders in the realm of simulation for predictive analytics, from 1D and 3D to fluid, thermal and structural co-simulation, Maya HTT helps the simulation community discover new ways to achieve valuable insights via virtual solutions rooted in physics-based understanding.”

Remi Duquette, VP of Industrial AI, said, “The next revolution in simulation is underway, and Maya HTT is pleased to be leading the way as a Rev-Sim sponsor. Innovative AI-driven models augment

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simulation's capabilities and value in exciting and surprising ways. Beyond simple data science interpretations from data-driven machine learning, the next-gen simulation revolution has the potential to offer explanations through AI results grounded in reliable physics-based understanding. The success of current projects has revealed outstanding new opportunities for combining simulation and AI."

Rev-Sim Director of Partnerships, Mike Nieburg said, "Each of our sponsors are working to advance and expand the use and value of engineering simulation software by innovating within their market spaces. We are excited to have Maya HTT join us demonstrating their revolutionary thought-leadership and technology in a collaborative alliance that benefits all industrial users of engineering simulation."

Rodolphe Belmer is appointed Chief Executive Officer of Atos

20 October 2021

Elie Girard, Chief Executive Officer and Board member of Atos, has decided to present his resignation to the Board of Directors after an intense period of transformation of the Group.

The Board of Directors of Atos, at its meeting held on October 20, has appointed Rodolphe Belmer as Chief Executive Officer and board member. His term of office will begin on January 20, 2022 at the latest.

Over the past two years, Atos has launched a comprehensive growth and transformation program. The Group is now gearing up to accelerate its strategy to strengthen its position in digital, cloud, security and decarbonization.

After a thorough review of the major challenges for Atos in the coming years, the Board of Directors has selected Rodolphe Belmer to lead the profound transformation of a global leader in secure and decarbonized digital services and to pursue its growth both organically and through strategic acquisitions.

This transformation will also strengthen Atos' deployment in research and innovation.

Effective Monday, October 25, Mr. Pierre Barnabé and Mr. Adrian Gregory are appointed interim co-Chief Executive Officers until Mr. Rodolphe Belmer takes office.

Bertrand Meunier, Chairman of the Board of Directors of Atos SE, Chairman of the Nomination and Governance Committee, said: "*The Board of Directors warmly thanks Elie Girard for the deep transformation work he has undertaken over the past two years and his management of the Group and its employees during the Covid crisis. In view of the challenges facing Atos, we have appointed Rodolphe Belmer for his strategic acumen and his proven leadership and operational efficiency, as well as his ability to successfully lead complex transformations.*"

Touchplan Announces New Affiliate Program

19 October 2021

Award-winning construction technology platform Touchplan, the software division of MOCA Systems, Inc., announces an exciting new program that makes it easier for our clients to connect with consultants and for consultants to expand their networks.

The Lean Coach Affiliate Program is designed to serve customers' needs and promptly connect them with high-quality lean practitioners that can help them transition to managing projects with a Lean Mindset.

"Our Customer Success team informed us that they were getting regular requests from our clients for referrals to Lean coaches and other consultants throughout the construction industry, said Jimmy

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Suppelsa, Touchplan's Head of Partnerships and Alliances. "Touchplan has been working with a variety of Lean Consultants since our inception. Hence, we saw a prime opportunity to build a better network to make it easier for our clients to access the knowledge base they need to progress on their Lean journey."

The program is looking for Lean consultants and other industry professionals who can add value to Touchplan's clients and expand their network. Respect for people should be a guiding principle, and any interested consultants should be dedicated to high-end service and continuous improvement.

Suppelsa added, "Our goal with this program is to make it mutually beneficial for all involved. Clients get access to world-class experts. The consultant community can provide existing clients access to an intuitive program like Touchplan, enabling them to plan their projects more efficiently and improve overall project profitability."

Trimble and Washington State University Establish Trimble Technology Lab at the Voiland College of Engineering and Architecture

21 October 2021

Building on a mission to cultivate a highly-trained workforce that will drive the innovative solutions of tomorrow, Trimble and Washington State University (WSU) have established a state-of-the-art Technology Lab in WSU's Voiland College of Engineering and Architecture to serve both the School of Design and Construction and the Department of Civil and Environmental Engineering.

The aim is to enable the university's approach in producing "work-ready, day-one" graduates by providing access to and training in the tools they will ultimately use in the office and field upon graduation. Incorporating Trimble technology into the university's programs is integral to support its mission of producing and sharing practical knowledge through research and instruction for the betterment of society.

The Trimble Technology Lab will provide students enrolled in the School of Design and Construction and the Department of Civil and Environmental Engineering with hands-on experience with a wide breadth of Trimble solutions. The lab will expand the university's access and expertise in surveying and GIS, cost- and model-based estimating, construction sequencing, site logistics, building energy analysis, constructible Building Information Modeling (BIM) and much more. Opening the Trimble Technology Lab on campus and incorporating the technologies into WSU's curriculum and research will provide a physical representation of the university's already strong interdepartmental collaboration.

"The WSU and Trimble relationship is ideal—our mission and vision align by equipping next-generation professionals with innovative tools so they can make an impact in transforming the way the world works," said Allyson McDuffie, director of Education & Outreach, Trimble. "The opportunity is especially exciting because WSU has already been engaged collaboratively within our international Trimble Technology Lab network, allowing the university to exchange knowledge, projects and best practices, collectively accelerating the global impact on the wider construction industry."

"Partnering with Trimble will give WSU students a phenomenal opportunity to build their work-ready skills," said Mary Rezac, dean of Voiland College. "Through Trimble technology, they will gain state-of-the-art preparation for professional careers and leadership in engineering and design professions."

The lab will include a broad range of Trimble's industry-leading technologies such the Trimble® XR10 Hololens with hardhat, laser scanning, robotic total stations and field tablets. Advanced software solutions include RealWorks® scanning software, Trimble Business Center, Tekla® Structures, Tekla Structural Design Suite, Trimble Connect® collaboration platform, WinEst, Vico Office Suite and the company's popular 3D modeling software, SketchUp Pro.

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Trimble's broad Connected Construction portfolio enables all professionals along the project lifecycle to accelerate project processes—improving productivity, quality, transparency, safety and sustainability, while reducing waste.

Uptake Strengthens Executive Team with CTO and CLO

14 October 2021

Uptake, the leader in industrial intelligence software-as-a-service, announced the appointments of Mark Botticelli and Matt Miller as Chief Technology Officer (CTO) and Chief Legal Officer (CLO). With their addition, Uptake has expanded its leadership team to build out its technology and business infrastructure, positioning the company for growth in 2022.

“Mark comes to Uptake with deep command of software and product development for startups and large enterprises, including in the Internet of Things space,” said Kayne Grau, CEO, Uptake. “His leadership in the industry, between both technology innovation and product delivery, will be critical as Uptake serves asset-intensive organizations with actionable insights that are easy and valuable to leverage in their regular digital workflows.”

Botticelli has over 30 years of experience in providing strategic technology leadership, having steered technology roadmaps, agile development, and product delivery. He was most recently the CTO at Trimble Transportation, where he led the development of its global technology vision, innovation strategy, and horizontal products and platforms. As CTO at PeopleNet before then, Botticelli was responsible for its enterprise software, mobile software, embedded software, and IoT hardware.

“Uptake has built a robust technology and product portfolio, along with its growing and global network of value-added industry partners, resellers, and systems integrators,” shared Botticelli. “I am incredibly excited to help our industrial customers better derive value from their data with the asset performance management and intelligence products that Uptake offers.”

As CLO, Miller brings over 25 years of experience in corporate contract negotiation, litigation, risk management, intellectual property, governance and compliance, employment, and international law. Most recently, he was the General Counsel for The Original BARK Company (NYSE: BARK), where he helped guide the company through its initial public offering on the New York Stock Exchange via its merger with Northern Star Acquisition Corp. Miller was previously the Deputy General Counsel at Groupon (NASDAQ: GRPN) for eight years, and he trained at Jenner & Block, an AmLaw 100 law firm with an international practice.

“Matt brings the far-reaching expertise and counsel which will enable Uptake to effectively scale contract management and manage and leverage its intellectual property,” shared Grau. “At Uptake, he will lead all aspects of our legal needs, including M&A, corporate governance, compliance, board-related matters, and the creation and protection of all company intellectual property.”

Miller added: “I am thrilled to join Uptake and enable more industrial organizations around the world to draw on our innovative intelligence software and steadfast customer support to drive their business forward.”

The announcement comes as Uptake recently named Kayne Grau as CEO.

Event News

ESTECO UM21 North America - Round table announced

20 October 2021

As part of the ESTECO Users' Meeting North America 2021 taking place virtually from 26 to 27 October 2021, we'll host a round table titled “Integrating MBSE with MDO to enable a holistic approach to Digital Engineering - Opportunities and Challenges” on 27 October at 10:00 AM US ET. Our President, Carlo Poloni, is going to chair the session and moderate the discussion among a few experts from the Automotive, Aerospace and Consumer Appliance industries and an independent consultant with a focus on systems engineering.

The round table is going to start with an attempt to dive into the key question for many engineers today: “**Why Model Based Systems Engineering (MBSE)?**”. This helps us setting a context of the importance of systems thinking for design of complex products and processes and its role in the engineering digital thread. The following discussion is going to **explore the value of System Models and Physics based Simulation Models and their interactions**. Industry experts are going to explain the importance of this model interaction and how an enterprise enables these by not only using the right engineering tools but also enabling the right organizational culture.

The speakers are also going to **focus on** the value of **Multidisciplinary Design Optimization (MDO) techniques** enabling requirement driven design by instituting a culture of conducting objective trade-off studies from early stage design in the digital thread. Finally, we're going to cover on the **concept of Authoritative Source of Truth (ASOT)** in the digital thread and how traceability and data management principles would help enterprises reach their vision of ASOT in their engineering digital threads.

Darcy Allison from Raytheon Technologies, **Praveen K. Poojary** from Whirlpool Corp, **Benjamin Yeh** from Cummins, **Greg Garstecki** are going to drive us into the MBSE world.

Nemetschek Group: Strong presence at trade fairs and events this Fall

18 October 2021

After almost two years without physical events, the relevant trade fairs for the construction industry are finally taking place in person again. The brands of the Nemetschek Group, one of the world's leading software vendors for the AEC/O industry, will be presenting at events, live, hybrid, and virtually in the next few months: at BIM World Munich, Digital Construction Week, the Allplan Global Summit, and the Vectorworks Design Summit.

The spread of open standards, the necessary collaboration between individual trades, increasing digitalization, and the ecological and economic challenges the construction industry is facing are the dominant topics in the AEC/O industry this year. These challenges are also reflected in the programs of BIM World Munich and Digital Construction Week, which will be held as face-to-face events for the first time since 2019.

For the past six years, BIM World Munich has been the leading trade show for all stakeholders in the construction, real estate, and urban development industries. This year, the event will once again provide a comprehensive market overview of the latest digital methods, services, and technologies to enable further – and sustainable – growth in the construction industry. BIM World Munich will take place at the International Congress Center Munich on November 23 and 24, 2021. Under the motto “Shape the World”, the Nemetschek Group brands Allplan, Bluebeam, Data Design System, dRofus, FRILO,

CIMdata PLM Industry Summary

GRAPHISOFT, NEVARIS, SCIA, Solibri, and Vectorworks will present their solutions, provide insights at lectures, and hold informative workshops.

Almost simultaneously, from November 24 to 25, the Digital Construction Week (DCW) 2021 will take place in London at the ExCeL premises. The focus will be on the latest technologies, the future of the construction industry, and networking. Together with the Nemetschek Group, the brands FRILO, dRofus, GRAPHISOFT, Solibri, and Vectorworks will be exhibiting.

In addition to BIM World Munich and Digital Construction Week, Allplan and Vectorworks are holding their own virtual events for customers and interested parties. On October 20 and 21, Allplan, the leading European provider of OPEN BIM solutions, is hosting the Allplan Global Summit for the first time, with the motto “Build the Future”. With over 30 presentations, the focus of the virtual event is on the digital transformation of the industry: architects, engineers, precast planners, contractors, and steel construction specialists can learn more about the future of construction and supported with the transition. Exciting presentations about the future of construction include the keynote by Viktor Várkonyi, Chief Division Officer, Planning & Design Division and Member of the Executive Board of the Nemetschek Group, on the concept of Building Lifecycle Intelligence and the presentation by Don Jacobs, Vice President Technology & Innovation, Build & Construction Division, Nemetschek Group on the topic of artificial intelligence in the construction industry. In addition, the new Allplan 2022 will be presented. The Nemetschek brand SCIA is also participating in the event.

Design professionals, customers, educators, and students from the architecture, landscaping, and entertainment industries around the world will have the opportunity to gain an insight from Vectorworks leadership and product experts – the provider of design software for architects and landscape planners – at the virtual Vectorworks Design Summit from November 1 to 3. Live training sessions and presentations by Vectorworks partners and other users complete the Design Summit program, providing a comprehensive look at working with the BIM and CAD software that allows designers to design without limits.

Whether you are a BIM manager, architect, facility manager, engineer, or general contractor, the four events in October and November offer a diverse program – both virtual and physical – for all participants within the construction lifecycle. The Nemetschek Group is looking forward to this year’s fall schedule of events and the wide range of learning opportunities it offers.

Financial News

3D Systems Announces Date of Third Quarter 2021 Financial Results

18 October 2021

3D Systems announced it will release its financial results for the third quarter of 2021 and file its Form 10-Q after the U.S. stock markets close on Monday, November 8, 2021. The company will hold a conference call and simultaneous webcast to discuss these financial results on Tuesday, November 9, 2021, at 8:30 a.m. Eastern Time.

Third Quarter 2021 Results Conference Call

Date: Tuesday, November 9, 2021

Time: 8:30 a.m. Eastern Time

Participate via telephone: 201-689-8345

The webcast replay will be available approximately two hours after the end of the conference call.

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Atos - Third quarter of 2021

20 October 2021

Atos, a global leader in digital transformation, today announces the revenue of its third quarter of 2021.

In the third quarter, the Group continued to stabilize its revenue at constant currency, before progressing into positive territory. Market demand post crisis remained very dynamic in Cloud application migration and development and the Digital transformation of business processes through automation, robotisation and artificial intelligence. In all regions, customers now require digital solutions with the highest standards of security, sustainability and inclusiveness, three domains where Atos brings unique technological expertise.

The Group continued to pursue its deep and wide business transformation plan, hiring a record number of new skills in a very hot talent market, resulting for the first time in a net organic increase of +1,500 employees. This will help fuel our growth ambitions. In the same vein, we reinforced our partnerships with Public Cloud hyperscalers while striking new ones with high growth Digital platforms.

Our transformation programs announced in July are moving at speed on all fronts. The German restructuring is well under way. The plan to look for partners on c. 20% of the Group revenue is being executed with advanced discussions on our Unified Communications & Collaboration asset. The acquisition of a new digital bolt-on asset has been signed. Finally, our LEAP cultural change program is ramping up.

The Group Management wants to thank our 107,000 colleagues for their tremendous support for and dedication to this transformation journey, which is setting the right foundations for achieving our mid-term targets.

Q3 2021 revenue by Industry

<i>In € million</i>	Revenue		<i>Evolution at constant currency</i>
	Q3 2021	Q3 2020*	
Manufacturing	518	469	+10.4%
Financial Services & Insurance	524	512	+2.3%
Public Sector & Defense	553	628	-11.9%
Telecom, Media & Technology	355	363	-2.0%
Resources & Services	383	378	+1.5%

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Healthcare & Life Sciences	333	317	+5.1%
Total	2,666	2,666	0.0%

* At constant currency

Revenue in the third quarter of 2021 reached € **2,666 million**, stable compared to Q3 2020 at constant currency, and decreasing by **-2.3%** organically. The key segments to which the Group directs its transformation – Digital, Cloud, Security and Decarbonization – performed a strong growth while revenue was still impacted in Classic Infrastructure.

Manufacturing reported a revenue of € **518 million**, representing 19% of the Group revenue and increasing by **+10.4%** compared to Q3 2020 at constant currency. This was an acceleration of its recovery after a second quarter already growing by +1.8%. Every geography contributed to this strong growth, driven by a repositioning of the Industry on higher value digital projects and solutions to meet customer needs. More particularly, the Industry increased business in application projects ran in Automotive and Aerospace, as well as digitization of industrial processes including IoT based smart manufacturing offerings.

Financial Services & Insurance revenue was € **524 million** during the third quarter of 2021, representing 20% of the Group revenue. Increasing by **+2.3%** compared to Q3 2020 at constant currency, the Industry confirmed its performance of the first semester, especially in the Insurance sector while activity with Banking institutions was more contrasted. Business in this Industry continued to be led by digital transformation projects and a strong demand for cybersecurity expertise, both covered by the offerings of the Group and the synergies with the newly acquired companies such as Eagle Creek, Digital.Security, and Paladion.

Public Sector & Defense reached € **553 million** representing 21% of the Group revenue and decreasing year-on-year at constant currency by **-11.9%** after a +13.0% in Q3 2020. This decrease came from volume reduction in large High Performance Computing (HPC) projects delivered last year in most of the geographies and more particularly in Northern Europe, as well as the last quarter of year-on-year effect from the large reduction of scope of the Texas Department of Information Resources contract renewed last year.

Telecom, Media & Technology represented 13% of the Group revenue and reached € **355 million**, decreasing by **-2.0%** compared to Q3 2020 at constant currency. After a positive second quarter, the Industry had a more challenging third quarter as trends were mixed between its different sectors. While projects in the Media sector grew thanks to an increased volume in North America, the situation was more challenging in High Tech & Engineering as well as in Telecom.

Revenue generated by **Resources & Services** in the third quarter of 2021 reached € **383 million** representing 14% of the total revenue of the Group. The industry managed to recover and grew by **+1.5%** compared to Q3 2020 at constant currency after a decrease by -2.5% in the second quarter of 2021. The situation remained contrasted across its components, with dynamism in Transportation & Hospitality, especially in North America and Southern Europe, while the Retail and Energy & Utilities sectors declined due to HPC sales not repeated this year compared to 2020.

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Representing 12% of the Group revenue with € 333 million, **Healthcare & Life Sciences** grew by +5.1% in the third quarter of 2021 year-on-year at constant currency led by Northern Europe, Southern Europe, and Growing Markets. In particular, the Healthcare sector recorded a very strong performance compared to the third quarter of 2020, which more than compensated the decline in Pharmaceutical.

Q3 2021 revenue by Regional Business Unit

Revenue			
<i>In € million</i>	Q3 2021	Q3 2020*	<i>Evolution at constant currency</i>
North America	617	625	-1.3%
Northern Europe	674	700	-3.8%
Central Europe	619	631	-1.8%
Southern Europe	556	520	+7.0%
Growing Markets	201	191	+4.9%
Total	2,666	2,666	0.0%
<i>* At constant currency</i>			

The majority of the Regions benefited from the rebound of the demand for Digital transformation, Cloud, and Cybersecurity in the sectors that have been impacted the most last year such as Manufacturing and Hospitality & Transportation. They benefited also from a good momentum in Healthcare & Life Sciences and Financial Services & Insurance. Combined with synergies initiated from the new acquisitions, the Group managed to compensate the decline in Public Sector & Defense coming from volume reduction and some large HPCs delivered last year in several geographies.

Revenue growth at constant currency was strong in Southern Europe and in Growing Markets.

In **Southern Europe**, the activity was solid in most of the Industries including Public Sector & Defense.

Growing Markets continued on its trend at circa +5% growth led by the ramp-up of projects in Asia in Healthcare & Life Sciences as well as in Telecom, Media & Technology in Brazil and in Manufacturing through volume increase and new projects.

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North America managed to generate growth at constant currency in all Industries except Public Sector & Defense impacted by the Texas Department of Information Resources contract and by Unified Communications & Collaboration activities.

Northern Europe recorded a strong activity in Manufacturing with Digital Transformation projects as well as in Healthcare & Life Sciences. But this geography faced unfavourable base effect on High Performance Computing in Public Sector & Defense.

Finally, **Central Europe** significantly improved its revenue trend compared to -10.3% in Q2 thanks to Manufacturing ramp-up of projects and new contracts.

Commercial activity

During the third quarter of 2021, the Group **order entry** reached **€ 2,399 million** representing a **Book-to-Bill ratio** of **90%**.

The main new contracts signed over the period included notably:

- in Manufacturing a contract with a large European Automotive supplier for the migration to S/4 Hana Cloud (Central Europe);
- in Financial Services & Insurance a contract with a US global Insurer for a migration to Public Cloud combining Atos, Syntel, and Maven Wave capabilities (North America);
- in Public Sector & Defense a large contract with a Public authority for a Digital Transformation project (Northern Europe);
- in Telecom, Media & Technology a Digital Transformation contract embarking Cloud, Security, and Decarbonization services with a European High Tech leader (Northern Europe);
- in Resources & Services a contract with a large European Utility for distribution network management and control combining SAP and Atos Energy solutions (Southern Europe); and
- in Healthcare & Life Sciences a contract with a large Healthcare leader for the development of digital tool to enhance patient experience (North America).

Contract renewals of the quarter included, in Manufacturing a large European car manufacturer with an extension to support customer in developing data-based Cloud services (Southern Europe), in Financial Services & Insurance a major bank to migrate complex data center and applications (Growing Markets), and a scope extension with a large retailer Resources & Services (North America).

Full backlog amounted to **€ 23.4 billion** at the end of September 2021, slightly down compared to June 2021. It represented **2.1 years of revenue**. **Full qualified pipeline** reached **€ 7.4 billion** stable compared to June 2021. It represented **7.9 months of revenue**.

Human resources

The **total headcount** was **106,665** at the end of September 2021, an increase of +1,857, of which for the first time +1,485 (+1.4%) organically in order to support the fast growing business segments (Digital, Cloud, Security and Decarbonization) while the Group continued to decrease the number of staff in Infrastructure activities through automation and robotization.

In the third quarter of 2021, the Group hired 8,019 staff, the majority of whom in offshore and nearshore countries. Attrition LTM (Last Twelve Months) reached 16% at the end of September 2021.

2021 objectives confirmed

The Group confirms all its objectives for 2021:

- **Revenue growth at constant currency:** stable;

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- **Operating margin rate:** 6%;
- **Free cash flow:**

Acquisition

The Group announces the acquisition of DataSentics, a European company founded in 2016 and located in Prague. DataSentics specializes in Machine Learning and Cloud Data engineering. The company works on unifying data science and engineering across Europe. It employs 90 data scientists. Its offerings will immediately complement Artificial Intelligence factory strategy of Atos to support 5G and Edge offerings and accelerate key business use cases in Manufacturing, Retail, and Telecommunications.

Program to look for partners to optimize Group assets

As part of its transformation and to accelerate its reprofiling towards Digital, Cloud, Security & Decarbonization, the Group announced on July 27, 2021 the launch of a large program to look for partners on a volume of business representing c. 20% of its current revenue.

On Unified Communications & Collaboration, advanced discussions are currently ongoing.

On Data Center hosting and associated activities, a formal process has been launched and multiple indications of interest have been received.

Bentley Systems to Announce Third Quarter 2021 Operating Results; Presenting at Upcoming Investor Conferences

19 October 2021

Bentley Systems, Incorporated, the *infrastructure engineering software* company, announced the date for the release of its third quarter 2021 operating results and its presentations at upcoming investor conferences.

Third Quarter 2021 Operating Results

Bentley Systems will release third quarter 2021 operating results, before the market opens, on Tuesday, November 9, 2021.

A live Zoom video webinar of the event can be accessed at 8:15 a.m. EST that same day from the Events & Presentations page on Bentley Systems' Investor Relations website. A replay and transcript will be available after the conclusion of the live event on Bentley Systems' Investor Relations website.

Upcoming Investor Conferences

Greg Bentley, chief executive officer, and Nicholas Cumins, chief product officer, will present at the JP Morgan Digital Twin Seminar Series on Thursday, November 11, 2021 at 11:00 a.m. EST. Additionally, Greg Bentley and David Hollister, chief financial officer, will present at the Nasdaq International Investor Conference on Tuesday, November 30, 2021.

L&T TECHNOLOGY SERVICES REPORTS STRONG BROAD-BASED GROWTH IN Q2FY22

19 October 2021

L&T Technology Services Limited, India's leading pure-play engineering services company, announced its results for the second quarter ended September 30, 2021.

Highlights for Q2FY22 include:

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- Revenue at ₹16,077 million; growth of 22% YoY
- USD Revenue at \$217.4 million; growth of 22% YoY
- EBIT margin at 18.4%; up 470 bps YoY
- Net profit at ₹2,300 million; growth of 39% YoY
- Special dividend of ₹10 per share to mark the 5-year anniversary of LTTS' IPO; Record date October 27, 2021

During the quarter, LTTS won 5 deals with TCV of USD10 million plus, which includes 2 USD25 million plus deals.

“We had a strong quarter with 6% sequential growth in constant currency driven by healthy traction in digital engineering across all our five segments. The rising digital adoption across our customer base has led to our revenue from digital & leading-edge technologies increasing to 55% in Q2.

Medical, our youngest segment, crossed \$100mn in annualized revenue and is a testament to our differentiated domain expertise and strategic relationships. We are seeing a healthy deal pipeline and good traction in our six big bets - Electric Autonomous & Connected Vehicle (EACV), 5G, Med-tech, AI & Digital Products, Digital Manufacturing and Sustainability.

Our broad-based growth was accompanied by a rise in Operating margin which at 18.4% is the highest we have reported. We will continue the journey of investing in innovation labs and capability building, that has yielded us gains in market share and operating model efficiency”, said **Amit Chadha, CEO & Managing Director, L&T Technology Services Limited.**

Patents

At the end of the second quarter, the patents portfolio of L&T Technology Services stood at 769, out of which 556 are co-authored with its customers and the rest are filed by LTTS.

Human Resources

At the end of Q2FY22, LTTS' employee strength stood at 17,983.

LTTS Crosses USD 2 billion Annual Revenue Run Rate

18 October 2021

Larsen & Toubro Infotech, a global technology consulting and digital solutions company, announced its Q2 FY22 results.

In US Dollars:

- Revenue at USD 509.0 million; growth of 8.3% QoQ and 25.8% YoY
- Constant Currency Revenue growth of 8.9% QoQ and 25.5% YoY

In Indian Rupees:

- Revenue at INR 37,670 million; growth at 8.8% QoQ and 25.6% YoY
- Net Income at INR 5,517 million; growth of 11.1% QoQ and 20.8% YoY

“We are happy to report the strongest sequential revenue growth and best ever Q2 of 8.9% in constant currency terms. As we cross the \$ 2 billion annual revenue run rate, we continue to remain committed to growth in the future. We are witnessing strong demand and are rapidly scaling up on the supply-side with our headcount up 31%

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year on year.”

– Sanjay Jalona, Chief Executive Officer & Managing Director

Recent Deal Wins

- Selected by a European company providing digital marketing solutions for a global, end-to-end managed services deal spanning across the internal IT department. The scope includes business applications maintenance, development and support of cloud and data platforms, as well as end-user services. This will cover multiple digital technologies and will ensure costs efficiency, increased service flexibility and quality, and support growth plans of the company
- Chosen by a North American manufacturer of golf cars and utility vehicles for a global end-to-end IT managed services deal including set up of processes and tools, security operations, monitoring solutions, and application support. LTI will also be responsible for cloud migration of critical applications as part of this engagement
- Engaged by one of India’s leading private sector banks to create a data platform on cloud spanning all core and foundational functions of the bank such as Retail, NRI, Wealth, Corporate, Risk, Finance, Operations and HR. The platform will deliver “Speed to Insights” through data & BI democratization, create an ecosystem for AI-assisted sales and services including hyper personalized customer management
- Selected by a leading specialty vehicle manufacturing company as primary managed services partner to support applications and infrastructure landscape. This is company’s first-generation end-to-end outsourcing contract which will bring 30% savings to operational cost
- Selected by a leading mass media company as part of a vendor consolidation exercise for database management and support to streamline operations and reduce costs
- Selected by a global bank for solving regulatory reporting issues and improving business operations efficiency through process automation
- Chosen by a Global Fortune 500 company and a world-wide leader in beauty and cosmetics for migration of its SAP systems to cloud
- Engaged by a leading property and casualty insurance software and data analytics provider based in North America in the product engineering space for their Centre of Innovation to enhance customer experience and efficiency across its core products
- Selected by a Global Fortune 500 oil exploration and production company to bring down its cost and drive operational efficiency by transforming traditional operations into an agile based service delivery
Engaged by a multinational professional services provider to provide level 3 delivery management and support on a key revenue generating platform
- Chosen by a financial services provider as its partner of choice to provide support for its key operational applications to ensure operational efficiencies and reduce costs
- Selected by the Japanese subsidiary of a utility company headquartered in Europe to migrate to SAP S/4HANA to harmonize and simplify its business processes, improve productivity and enhance user experience

Other Business Highlights

- The Board of Directors at its meeting held on Oct 18th, 2021 have declared an interim dividend

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of INR 15 per equity share (Face value of INR 1)

- LTI has entered in a partnership with eClinicalHealth Limited to accelerate digital innovation in R&D clinical trials management process for patient centric drug development. LTI will help accelerate joint go-to-market pursuits and faster deployment for Clinpal (cloud-based patient-centric SaaS solution). The solution will make use of exponential technologies such as analytics and AI to enhance patient engagement and faster clinical studies
- LTI is now a signatory to the Ten Principles of UN Global Compact. These principles lay down the operating guidelines for a company to meet their fundamental responsibilities in the areas of human rights, labor, environment and anti-corruption
- LTI has been recognized as a Great Place to Work-Certified™ Company in the USA for a second consecutive year
- LTI has been awarded the Golden Peacock National Quality Award 2021. The award recognizes LTI's consistent endeavor to deliver excellence while maintaining optimum quality benchmarks

PTC to Announce Fiscal Q4'21 Results on Wednesday, November 3rd, 2021

20 October 2021

PTC will release its fiscal 2021 fourth quarter and full year results on Wednesday, November 3rd after the stock market closes. Senior management will host a live webcast and conference call to review the results on Wednesday, November 3rd 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 web site at PTC Investor Relations.

What: PTC Fiscal Q4'21 Conference Call and Webcast

When: Wednesday, November 3rd, 2021 at 5:00pm (ET)

Webcast: <https://investor.ptc.com/>

Replay: To access the replay via webcast, please visit <https://investor.ptc.com/>.

Rockwell Automation to Report Fourth Quarter Fiscal 2021 Results

19 October 2021

Rockwell Automation, Inc. is scheduled to report its fourth quarter fiscal 2021 results on Tuesday, Nov. 2, before the market opens. The release will be posted on the Rockwell Automation Investor Relations website.

A conference call to discuss the quarterly results will be held at 8:30 a.m. EDT on Nov. 2. This call will be audio webcast and accessible on the Rockwell Automation website. Presentation materials will also be available on the website prior to the call.

Interested parties can access the conference call by dialing the following numbers: +1 (888) 330-2022 in the U.S. and Canada; +1 (646) 960-0690 for other countries. Use the following passcode: 5499533.

Please dial in 10 minutes prior to the start of the call.

Both the presentation materials and a replay of the call will be available on the Investor Relations section of the Rockwell Automation website through Dec. 3.

Sandvik - Interim Report Third Quarter 2021

18 October 2021

Third quarter 2021

Continuing operations

- Order intake SEK 26,292 million (19,909)
- Organic growth 21% (-11)
- Total order intake growth, at fixed exchange rates 31% (-12)
- Revenues SEK 24,826 million (20,145)
- Organic growth 13% (-11)
- Total revenue growth, at fixed exchange rates 23% (-13.0)
- Adjusted EBITA SEK 4,731 million (3,564)
- Adjusted EBITA margin 19.1% (17.7)
- Reported EBIT SEK 4,480 million (3,459)
- Reported EBIT margin 18.0% (17.2)
- Adjusted EBIT SEK 4,371 million (3,494)
- Adjusted EBIT margin 17.6% (17.3)
- Adjusted profit after net financial items SEK 4,437 million (3,436)
- Profit for the period SEK 3,923 million (3,186)
- Adjusted profit for the period SEK 3,817 million (2,626)
- Earnings per share, diluted SEK 3.12 SEK (2.54)
- Adjusted earnings per share, diluted SEK 3.03 (2.09)
- Free operating cash flow SEK 3,940 million (4,778)

Additional information may be obtained from Sandvik Investor Relations, phone +46 70 782 63 74 (Louise Tjeder).

A webcast and conference call will be held on October 18, 2021 at 1:00 PM CEST.

Stratasys Conference Call to Discuss Third Quarter 2021 Financial Results

21 October 2021

Stratasys Ltd. will release financial results for the third quarter ended September 30, 2021 on Thursday, November 4, 2021. The Company plans to hold the conference call to discuss its third quarter 2021 financial results on Thursday, November 4, 2021 at 8:30 a.m. (ET).

The investor conference call will be available via live webcast on the Stratasys Web site at investors.stratasys.com.

To participate by telephone, the U.S. toll-free number is 877-407-0619 and the international dial-in is +1-412-902-1012. Investors are advised to dial into the call at least ten minutes prior to the call to register. The webcast will be available for 6 months at investors.stratasys.com.

Implementation Investments

Asahi Intecc utilises simulation to develop delivery devices that carry markers to the vicinity of cancers more efficiently

20 October 2021

Asahi Intecc Co., Ltd. is using the nonlinear structural analysis software, Marc, to develop delivery devices that carry markers to the vicinity of cancers in preparation for endoscopic surgery, having introduced the MSCOne software licensing system to enable its engineers to easily access Computer Aided Engineering (CAE) products from MSC Software, part of Hexagon's Manufacturing Intelligence division.

Asahi Intecc, based in the city of Seto, in Japan, manufactures 'minimally invasive treatment' products that help to keep operation wounds as small as possible, and minimise pain. This contributes to the patients' overall quality of life and leads to early discharge from hospital, reducing medical expenses.

As an R&D-focussed company, Asahi Intecc mainly develops and manufactures products that are used in medical devices that are indispensable for catheter treatment, such as guide wires, using unique technologies that have been created through the process of responding to the advanced needs of its customers.

Asahi Intecc's products have been developed based on its medium-term management plans of 'Strategic development of the global market and expansion of affected / treatment areas' and 'Creation of new businesses in global niche market'. As a result, there's an increasing need to create and establish previously unexplored functions and structures. As such, it's important for the Company to ensure that the direction of design is correct at the initial phase, and to employ agile development processes so that its team can bring new value to the market at the earliest possible time.

The company invested in MSCOne in 2020, which is a flexible licensing system that allows the Company to access any Computer Aided Engineering (CAE) software they need from the Hexagon portfolio. They use Marc to understand how the endoscopic delivery device will deform when subjected to forces within the body. Through MSCOne, they also use the visualisation capabilities of the Cradle scFLOW software to generate high-quality polyhedral mesh elements and to construct complicated models.

The latest CT scanning technology makes it cheaper and easier for cancer to be detected when it is still extremely small. But even if CT scans pick up signs of cancer on some organs, especially the lungs, it may be difficult to pinpoint its exact location during surgery, and that's where Marc helped.

Marc is a powerful, general-purpose, nonlinear finite element analysis solution that accurately simulates the device's behaviour under static, dynamic and multi-physics loading scenarios. Its versatility in modelling nonlinear material behaviours and transient environmental conditions makes it ideal to help Asahi Intecc design a delivery system to place a marker near the cancer.

A coiled wire known as a retaining fin, is attached to the marker. The marker is carried to the cancer site by the delivery device, with the retaining fin housed in a dedicated cylinder, and ejected at its destination. The fins are then deployed into their original coiled shape, attaching themselves to the organ, placing the marker there.

The deployment of the retaining fins is very fast, so it is usually difficult to see with the naked eye, and the initial value of deployment differs depending on the stored state. As such, the opening pattern varies, making it difficult to verify that a design works as intended.

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The Asahi Intecc team has been able to resolve this issue, and visualise how the spring coils will be stored and deployed – even taking large deformations into account – by using numerical analysis with Marc to help develop the delivery device. This gives them the ability to verify the behaviour of the mooring fin will when implemented in different surroundings, and greatly improves their development efficiency.

Senior Researcher at Asahi Intecc, Hiroyuki Aiba, says “Marc’s advanced analysis makes it possible to confirm at the idea stage how the new structure will accurately perform, before taking the traditional steps of trial production and experimentation. It promotes fresher ideas and highlights manufacturing risks.”

They are also currently considering using MSCOne to advance fluid analyses with Cradle scFLOW. “This software makes it possible to find the highest performing structures at an early stage of the design process; again, an effective way of improving the efficiency of how a product is developed, and getting it to market quickly.”

The company made decision to invest in MSCOne after sample analysis from a number of vendors and feedback about them. It was attracted by Marc’s analysis, Hexagon’s consulting ability, and the fact that MSCOne gives them access to analysis software that can be used across a wide range of complex areas. Having experienced the convenience of MSCOne, the Company is looking forward to developing other products in Asahi Intecc’s extensive medical portfolio using the Hexagon CAE portfolio.

Atos accelerates its digital transformation as it goes live on SAP S/4HANA Cloud

18 October 2021

Atos announces that it is one of the first SAP global partners to go live on SAP S/4HANA® Cloud, private edition, a core component of the RISE with SAP offering announced at the beginning of the year. This successful implementation spanned across the entire Atos business - to all 105,000 employees across 71 countries - and made possible in record time. In less than nine months, Atos effectively moved all 42 of its **business-critical systems** with more than 500 interfaces, from its SAP S/4HANA on-premise instance to SAP S/4HANA Cloud. Atos is **one of the very first companies** to complete this migration to the cloud. Its business-critical systems include finance, logistics and HR platforms, staff self-service portals and data analytics tools.

Atos is now equipped with the latest leading business processes and practices from SAP to support its own digital transformation and accelerate innovation. With low-latency connection to very advanced cloud services Atos will now be able to leverage and optimize Artificial Intelligence, Predictive Analysis, Machine Learning, and Blockchain to fast-track innovation and develop new solutions. Using SAP S/4HANA Cloud, Atos will streamline operations and optimize processes so that its IT teams are freed up to focus on innovation and projects that bring value to the business.

Additionally, Atos can support its clients more effectively, by sharing its first-hand best practice and benefits in support of customers, who like them, are looking to securely implement or to migrate to SAP S/4HANA Cloud through RISE with SAP.

Moving to the cloud from on-premise also supports Atos’ decarbonization objective to reach “net zero” by 2028. It assures that Atos uses only the resources that are needed, thereby positively reducing its carbon footprint.

“We are really proud to have now successfully completed the full migration to SAP S/4HANA Cloud and in such a short timeline. This ensures that we now have a strong foundation, bringing us speed,

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flexibility and innovation, on which to build and accelerate our own digital transformation,” said **Frédéric Aubrière, Group CIO at Atos**. *“The benefits are clear - not only in terms of streamlined operations, cost optimization and resource redeployment meaning we can be more focused on our clients and continue to drive forward our industry-tailored approach, but also in terms of decarbonization and meeting our carbon objectives.”*

“SAP is pleased to support Atos’ digital journey and ongoing business transformation. Thanks to a remarkable collaboration between our teams, we collectively delivered on plans within a nine-month period enabling Atos to further develop its competitive edge and benefit from SAP’s comprehensive, intelligent, customer-centric offering to unlock future opportunities for growth,” said **Brian Duffy, President of Cloud at SAP**.

RISE with SAP is SAP’s newest offering that allows customers to take their business-critical elements into the cloud, accelerating their digital transformation and value realization of their investments in their journey to an intelligent enterprise.

In support of this offering Atos brings its Atos OneCloud initiative, providing customers with its extensive cloud expertise, including its unique bare metal capabilities with its SAP-certified BullSequana S high-performance servers. It will help accelerate customers’ journey to an intelligent enterprise with RISE with SAP by providing a fully managed, secure, and decarbonized transition to the cloud. Atos has over 35 years’ experience in implementing SAP solutions.

Brent Council Collaborates with Infosys to Provide its Residents with Free Digital Training Platform to Boost Employability Skills and Prospects

18 October 2021

Infosys, a global leader in next-generation digital services and consulting, announced a new collaboration with Brent Council to make high-quality digital education accessible to every Brent resident and boost employability skills through its digital learning and training program, Infosys Springboard.

During the pandemic, the number of unemployment claimants in Brent aged 18 to 49 trebled, and today one in five adults in the borough do not possess the "essential digital skills" that could benefit them in life. Brent Council’s mission is to improve prospects for low-paid workers by improving adult education and skills, and connect economic opportunities for sustainable employment.

To help Brent Council deliver on its mission, Infosys will support residents to acquire new skills to increase their employability and re-enter the job market. The digital learning platform provides access to digital training in addition to core subject learning, helping users track their progress and navigate different courses.

Developed to support the reskilling and upskilling of the UK workforce, the cloud and mobile-based solution is designed to be accessible anytime, anywhere and on any device to ensure equitable access for all residents.

Infosys Springboard currently offers over 220 courses on technologies, emerging job roles, as well as professional and behavioral skills. From modules on sending effective emails to cyber-security and coding, the courses are designed to help users to build their digital skill set and boost their appeal to employers.

Brent Council is one of the first to onboard on to Infosys’ Springboard program, which in addition to providing universal access to digital training and skills building, aims to empower digitally engaged

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communities by providing access to devices coupled with fundamental IT training.

Under this initiative, Infosys has already donated laptops to the council to support children and vulnerable residents lacking access to devices. The program also supports entrepreneurs to innovate and build digitally enabled enterprises through mentorship and technical support. Infosys' award winning creative and consumer insight agency Wongdoody is helping Brent develop a structured program tailored to supporting entrepreneurs and SME's.

Digital inclusion is a key strategy for the UK government, and was highlighted during the pandemic, following high levels of unemployment and workers being furloughed. The initiative with Brent Council builds on Infosys' recent commitment to creating 1,000 digital jobs in the UK to fuel post-pandemic growth and reinforces the company's expertise and dedication to nurturing digital skills. The company will continue to expand the program across Europe to democratize access to reskilling and upskilling opportunities.

Cllr Muhammed Butt, Leader of Brent Council, said: "Having digital skills opens up a world of opportunities. Lockdown nudged more businesses to look towards new technologies, accelerating the shift online, and job adverts are increasingly looking for people with skills that match.

"Today one in five adults in Brent don't possess essential digital skills and many more would benefit from training to access the jobs of the future – that's the problem Infosys Springboard is trying to address. Our borough is awash with opportunities and, as a council, we want to help local people develop the skills and the confidence they need to get out there and snap them up."

Mohit Joshi, President, Infosys, said, "Supporting local communities such as Brent to secure sustainable employment starts with equipping residents for the demands of a new and evolving workplace. Ensuring equitable access to digital education is fundamental to achieving this, and to supporting the UK navigate economic recovery with a focus on digital inclusion. The Springboard digital platform will play a key role in not only helping to build a better Brent, but also a robust UK workforce."

CAINZ Partners with TCS to Drive Business Transformation

18 October 2021

Tata Consultancy Services, a leading global IT services, consulting and business solutions organization, has been selected as a strategic partner by Cainz Corporation (CAINZ), Japan's leading home improvement company, to accelerate its digital transformation, improve customer experience, and drive growth.

CAINZ operates 226 stores across 28 prefectures nationwide, making it the largest home improvement retailer in Japan. The brand is committed to improving consumer lifestyles, and believes that the little sparkle found in our daily lives can make the world a better and brighter place. To fulfill this purpose and keep pace with diverse consumer needs and behaviors, CAINZ outlined its vision to transform into an '*IT-Empowered Retail Company*'.

The retailer partnered with TCS to realize its vision and drive digital initiatives like the agile development of *Find in CAINZ*, a mobile application for customers and store associates to identify the location and availability of products in the store. The partnership is being significantly expanded to scale up co-development initiatives at the new Global Development Center that TCS is setting up for CAINZ. Here, TCS will leverage its deep contextual and domain knowledge as well as global best practices to accelerate agile development of digital solutions aimed at further enhancing customer experience across channels including POS, EC, CRM, and in-store applications.

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Naoki Iketeru, Chief Digital Officer, Cainz Corporation, said, “Against the backdrop of acute IT talent shortages spurred by Japan’s declining population, there is burgeoning demand for retailers to digitalize in response to the rapid diversification of consumer behaviors. It is thus critical that we strengthen our ability to deliver digital solutions with agility and flexibility, and this requires us to open our sights to global talent and expertise. TCS has partnered in our digital journey from the early stages, starting with application development, and demonstrated not only an understanding of our business, but also global expertise backed by deep domain knowledge and a proven track record. This has all contributed to the decision to establish this dedicated development center.”

“Progressive retailers are betting big on next-gen technologies to accelerate digital transformation and design hyper-personalized customer experiences,” said **Shankar Narayanan, Business Group Head, Retail Cluster, TCS**. “TCS will leverage its deep domain knowledge of the retail industry and expertise in digital technologies to help CAINZ respond to customer needs with agility, enhance competitive differentiation, and help realize their vision of becoming an ‘IT-Empowered Retail Company’.”

TCS Japan leverages a unique hybrid model combining deep domain knowledge, technology expertise, and strong global and local execution, to help leading Japanese corporations achieve their growth and transformation aspirations. It is a strategic partner today to over half of the Japanese Fortune 500 companies, leveraging its Tokyo Pace Port™, a co-innovation and research center, to accelerate their product and business-model innovation initiatives. With a local workforce of over 4,000, augmented by a Japan-centric delivery center in India, TCS Japan is one of the fastest growing IT services firms in its class.

CGR Products Moves to Infor CloudSuite Distribution Enterprise to Help Grow its Business

18 October 2021

Infor, the industry cloud company, announced that CGR Products, a leading manufacturer of high-quality components for industrial applications, is moving to Infor CloudSuite Distribution Enterprise to help grow its business. The Infor multi-tenant cloud solution, powered by its Infor M3 ERP (enterprise resource planning) system, can help the company innovate, standardize business processes, and improve financial reporting and warehouse operations.

CGR Products, headquartered in Greensboro, N.C., offers custom cutting and fabricating capabilities to transform raw materials into precision components for industrial original equipment manufacturer (OEM) customers in multiple markets – including automotive, commercial vehicles, marine, appliance, plastic molders, power tools, electrical, small engine, lighting, heavy equipment, and many more. The company manufactures high-quality gaskets, seals, rings and other engineered parts designed to help industrial applications perform at their best.

Steve Bartlett, CIO at CGR Products, said, “With Infor’s multi-tenant cloud solution, we will have access to the latest, industry-specific capabilities that can help us continue to deliver innovative products to our customers. Infor has been a trusted partner, and we look forward to this solution providing us with a solid foundation for increased operational efficiency and business growth.”

CGR Products operates in North Carolina, Alabama, Wisconsin and Minnesota with more than 125 employees and over 170,000 square feet of manufacturing, office and warehouse space. Operators use more than 100 pieces of equipment to handle jobs efficiently and with precision.

Moving to Infor CloudSuite Distribution Enterprise can help CGR Products standardize and simplify business processes, by eliminating pockets of complexity and over-customization. The company expects

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to use Infor Birst networked analytics to help standardize and improve financial reporting and analysis across its business.

In addition, CGR Products plans to deploy Infor Factory Track to help automate and improve its manufacturing and warehousing operations. The company expects to leverage the solution to help streamline production, properly inventory materials, improve mobility and speed inventory operations, for example.

Designed to provide an intuitive user experience, Infor CloudSuite Distribution delivers industry-specific capabilities without extensive customizations or integrations by combining the Infor cloud platform, built on infrastructure services from AWS (Amazon Web Services), and Infor OS (Operating Service). With this approach, Infor CloudSuite Distribution can be rapidly implemented, which can help drive faster time-to-value and lower total cost of ownership. It can also help remove the burden of managing infrastructure, so companies can focus on strategic growth and other initiatives.

With Infor CloudSuite Distribution's critical business applications, organizations can experience automatic upgrades that deliver Infor's latest advances in enterprise functionality. The platform enables scalable business, networked analytics, and a user experience that can be augmented by artificial intelligence (AI).

Damen Naval selects ShareSpace to streamline and accelerate supplier collaboration capabilities

18 October 2021

The maritime industry is increasingly competitive with a growing need to conduct business in an agile way, responding to business opportunities on the global market. Leading shipbuilders like Damen Naval are advanced system integrators supplying platforms that meet high demands on performance, sustainability, and industrial collaboration.

The selection of ShareSpace will enable Damen Naval to improve and advance collaboration with suppliers and partners, introducing state of the art data sharing capabilities at the same time managing and securing access to intellectual property and restricted information. ShareSpace from Eurostep is the software selected to support Damen Naval to request, receive and review technical information from hundreds of suppliers and sub-contractors in vessel programs.

“Collaboration with external partners and suppliers is becoming increasingly important”, says Harm Dekker, Manager Procurement at Damen Naval. “The software suppliers of Damen are all specialized in their disciplines, and we appreciate the commitment from Eurostep and their focus on collaboration solutions. The selection of ShareSpace is an important step in advancing the capabilities of Damen Naval making us even more competitive and is another example of successful Swedish-Dutch cooperation”, ends Mr Dekker.

“We are extremely proud to have Damen Naval as client”, says Simon Pettersson, Director Defence Industry at Eurostep. “During the work leading up to this announcement, we have been impressed by the vision and commitment demonstrated by Damen Naval, to strengthen their collaboration capabilities and drive to move above and beyond how supplier integration is traditionally done in the maritime industry“, ends Mr Pettersson.

Ford and Ansys Accelerate Development of Next-Generation Predictive Headlight Technology

20 October 2021

Ansys simulation solutions enable Ford to accelerate the development of its predictive smart headlights and improve nighttime driving for consumers. Engineers at Ford value Ansys' high fidelity, physics-based lighting capabilities to optimize and validate headlight performance virtually, significantly reducing dependency on costly, real-world night drives.

Nighttime and low-light conditions decrease visibility for drivers, making it harder to react to wildlife, pedestrians and sudden turns. Ford is testing a new predictive smart headlight system that uses real-time location data to direct beams into upcoming turns, allowing motorists to better see around corners and respond to hazards. But as advanced driver assistance systems permeate more automotive features and increase functionality, an ever-increasing number of scenarios must be accounted for — making physical testing and validation a difficult and complex process.

To reduce reliance on building and testing physical prototypes — a costly and time-consuming process — Ford leverages Ansys' AVxcelerate Headlamp solution to optimize performance in a virtual environment. Ansys' vehicle headlight solution features real-time, physics-based optical simulation and driver-in-the-loop functionality to replicate the physical world with a high degree of predictive accuracy. Empowered by a realistic virtual night driving experience, engineers at Ford can rely on insights gained from simulations to improve product design long before physical headlamp prototypes are available.

“The predictive accuracy of Ansys simulations yield a variety of significant benefits for our team, from being able to engineer for edge case scenarios to less late-night road tests,” said Michael Koherr, advanced lighting research engineer at Ford of Europe. “With the ability to truly gauge system performance in a virtual environment, we're able to identify opportunities to improve our product well before entering the physical testing stage. Simulation has and will continue to play a critical role in our quest of making driving at night as safe and easy as during the day.”

“Ford's intelligent headlights represent an excellent case of how simulation, innovation and safety go hand-in-hand,” said Shane Emswiler, senior vice president of products at Ansys. “With our solutions, engineers at Ford can quickly test its system under countless scenarios and lighting conditions to help ensure that the first physical prototype is in excellent working condition. Ultimately, that means Ford's technology can spend less time as a concept and more time on the road, reducing accidents and saving lives.”

French Wine Maker Chooses Infor to Ferment New Business Process Management

19 October 2021

Infor, the industry cloud company, announced that French wine company Sieur d'Arques has chosen to deploy Infor M3. The integration of this enterprise resource planning (ERP) software is part of a project to transform the information systems of Sieur d'Arques, which wants to benefit from the many advantages of a solution designed to respond precisely to the requirements of the wine business and its relationships with its producers, distributors, and resellers.

Founded in 1946 in Limoux in the Languedoc region of France, a land with ideal conditions to produce great wines, Sieur d'Arques is a true pioneer in the field of wine production and techniques. It has inherited a tradition of producing sparkling wines that goes back to the 16th century. Today, the company is gathered around a cooperative of 188 wine-grower members that produces around 9 million

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bottles each year, 45% of which are dedicated to export. At its headquarters, it employs 117 people and generated a turnover of 32.3 million euros in 2020.

The IT overhaul project initiated with Infor and its partner Hetic3 was born from the increasing demand on the system from the winery's growing commercial activities, which require each day more agility, flexibility, visibility, and integration of exploitable data.

"We wanted to standardize our business processes by capitalizing on a technological solution that would allow us to avoid continually developing specific functionalities and that would allow us to communicate, exchange and analyze crucial data within the framework of our growth in France and internationally," comments Pascal Vigata, Sieur d'Arques management controller and project manager.

"From the very beginning of the project, we had established precise specifications. One of the conditions was to be able to count on a vendor and systems integrator pairing that was perfectly accustomed to working together. Then, it was essential for us that the chosen solution could offer simple and efficient answers to all of our challenges and standardize our practices related to commercial and financial aspects, production itself, quality control and traceability, logistics aspects (storage and shipping) ... The positive feedback from our ecosystem regarding the Infor M3 solution and its functionalities dedicated to our wine business also weighed in our final decision," Vigata says.

The integration of the Infor M3 solution will be spread over two phases of 12 months each, one devoted to the commercial management part, the other to all activities involving the cooperative. It will occupy a team of nine people within the Maison Sieur d'Arques accompanied from start to finish by the Infor and Hetic3 teams.

Christophe Pino, Hetic3 sales manager, said: "The project entrusted to us by Sieur d'Arques is typical of the expectations of our customers in the wine and spirits industry who are looking to improve and accelerate their operations without sacrificing the quality of their products and services. With Infor M3 integrated by Hetic3, Sieur d'Arques has acquired a solution specifically dedicated to the industry. The functional business processes and the high level of parameterization of Infor M3 will allow Sieur d'Arques to efficiently manage its production activities as well as its relations with all of the company's distribution channels, which are as numerous as they are varied."

This new signature validates, once again, the relevance and constant innovation of Infor's solution dedicated to the food & beverage industry. "We are very happy to accompany Sieur d'Arques in a large-scale project at a particularly difficult time for the wine industry," said Philippe Maillet, Infor sales director for France SMB & channels. "Infor's vision, Hetic3's support and the customer's resilience allow us to look forward to the coming months with optimism thanks to the implementation of Infor M3, our high value-added solution that is particularly well suited to Sieur d'Arques' ambitions in France and internationally."

HALLHUBER Simplifies Operations and Accelerates Decision Making with Centric PLM

19 October 2021

Leading German women's fashion company HALLHUBER has successfully implemented Centric Software®'s Product Lifecycle Management (PLM), increasing productivity in just four months. Centric Software provides the most innovative enterprise solutions to plan, design, develop, source, and sell products such as apparel, footwear, sporting goods, furniture, home décor, personal care, food & beverage, and luxury to achieve strategic and operational digital transformation goals.

For over 40 years, Munich-based fashion company HALLHUBER has been renowned as a stylish and

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feminine fashion brand, aiming to counter the trend of disposable fashion with its long-lasting garments. Offering high-quality and contemporary collections, special emphasis is placed on the high standard of the products, which are available through its online shop and in almost 200 stores and retail spaces across seven countries, including its own stores and concessions.

The brand launched Centric PLM at the beginning of October in 2020, a move perfectly timed to start the planning processes for the upcoming season. Previously, the company was using spreadsheets, e-mail and a very old-fashioned PDM system, and it required one 'single version of the truth' to streamline design processes, save time and minimize mistakes.

Centric PLM was the obvious choice for HALLHUBER due to its features and functionalities tailored specifically to the fashion and lifestyle industry, as well as its constant development of new product features and effective growth strategies. HALLHUBER went live in under four months.

"By incorporating information from previous collections, Centric PLM saves teams hours usually spent searching for crucial data. Increased visibility and efficiency at every stage of product development maximizes time to value, ensuring quantities and quality are on track to meet promised delivery and fulfilment commitments," says Junior Project Manager at HALLHUBER, Annika Storck.

"The greatest benefits of Centric PLM for us include increasing productivity by simplifying operational activities, minimizing errors by running everything in one system, creating greater transparency and digital documentation, accelerating decision making as well as enlarging evaluation possibilities."

HALLHUBER's teams are now enjoying the benefits of working in one tool that is shared across divisions among designers, sourcing and merchandisers. These teams are now communicating digitally, conducting meetings and documenting information – a feature especially valuable in times where more and more hours are spent working remotely.

"We hope to further develop our system by implementing modules such as direct supplier integration and calendar management," concludes Storck.

Chris Groves, President and CEO of Centric Software, comments, "We are delighted to be working with HALLHUBER to support its exciting digital transformation journey. We are proud of the trusting relationship and remarkable results we have achieved together so far and look forward to continuing this dynamic partnership together."

Israeli Food Manufacturer Tnuva Selects DXC Technology to Transform Supply Chain

20 October 2021

DXC Technology announced that it has been awarded one of Israel's largest ever commercial IT implementation contracts, worth US\$40 million, by Tnuva, Israel's leading producer of dairy and food products.

Under the terms of the five-year agreement, DXC will modernize Tnuva's IT estate by implementing a new digital supply chain system, which will help the food producer to accelerate operations and provide high quality food to millions of consumers across Israel.

DXC will implement a single Enterprise Resource Planning (ERP) solution, based on SAP's innovative ERP platform SAP S4/HANA®, to consolidate and modernize approximately 240 of Tnuva's legacy systems across business applications and dairy management. The system will enable Tnuva to shorten the time to market for new products and optimize its dairy and food manufacturing resources.

"The solution delivered by DXC will enable us to implement advanced technologies to support key

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processes, increasing production line output and improving our value proposition to customers,” said Shay Michel, CIO at Tnuva.

Incorporating a variety of digital tools powered by Artificial Intelligence, the new system will capture valuable data and generate insights that will increase manufacturing accuracy and improve decision making and planning. With increased flexibility, the food producer will be able to respond faster to shifts in the market and changing consumer preferences.

“We are delighted to support Tnuva’s transformation and their goal to grow and become a smart manufacturing leader,” said Sassi Meir, General Manager for Israel, DXC Technology. “DXC is proud to be helping one of Israel’s most essential companies to supply their products to consumers more rapidly and efficiently.”

New Look Implements CGS BlueCherry PLM Solution to Streamline Business Processes

20 October 2021

CGS, a global provider of business applications, enterprise learning and outsourcing services, announced that London-based retailer New Look went live with BlueCherry® Product Lifecycle Management (PLM) from CGS. PLM is an essential module within the BlueCherry Enterprise Suite of solutions, providing end-to-end capabilities for retail, apparel and consumer lifestyle brands.

New Look was seeking to reduce siloed systems, establish better control and visibility of purchasing across the whole supply chain and implement a configurable PLM platform to benefit New Look’s whole landscape. The retailer wanted a single solution and found BlueCherry PLM can help support the retailer's growth, eliminate manual processes and improve overall productivity. Additionally, the CGS team’s expertise and resources in retail and apparel provided reassurance to New Look.

“We have been working with CGS for a number of years and the PLM software forms a core part of our trading system. CGS provides a collaborative way of working with New Look and this has been key to us as we have implemented and expanded our usage of the BlueCherry solution,” said Claire Dunford, BMD Support Senior Manager, New Look.

“The rapidly changing retail industry has elevated the need for digital optimization – from concept to consumer,” said Paul Magel, president, Business Applications division, CGS. “As more fashion and retail brands like New Look embrace a multichannel customer experience, CGS has a unique blend of expertise and solutions to help them achieve their goals and improve their business processes. We are excited to continue our relationship with New Look as it elevates its digital mission to further fashion globally.”

The CGS BlueCherry® PLM is a best-in-class product lifecycle management solution for fashion and consumer lifestyle products companies, providing a comprehensive set of tools to manage the entire product lifecycle. In addition to core product data management (PDM), bill of materials (BOM), technical specifications and other commonly available PLM tools, BlueCherry PLM draws from its enterprise solution heritage to deliver a broader set of integrated line planning, design, product development, sourcing and production capabilities to meet the demands of today's rapidly changing marketplace.

Panda Restaurant Group Selects Infor's Restaurant Expense Management Reporting in the Cloud

20 October 2021

Infor, the industry cloud company, announced that Panda Restaurant Group — the parent company of the largest family-owned and operated Asian dining concept in the U.S., Panda Express — has selected Infor Expense Management (XM) to automate expenses, realize greater efficiencies, and streamline how the organization tracks travel and entertainment (T&E) spend for its multiple brands. Infor XM is one of the most flexible and configurable T&E expense management solution on the market. The application supports mobile usage and social collaboration, helps eliminate manual processes and delivers a consumer-grade experience built for enterprise users.

Infor XM delivers real-time reporting for advanced T&E data visibility and includes a modern and user-friendly experience design that streamlines all phases of the expense reporting process, including four modules for Expense Reports, Travel Plans, Payment Requests, and Timesheets. As a result, users have the tools to improve the way they track, analyze, and control employee-initiated expenditures to realize important opportunities for cost savings.

“To meet constantly evolving business needs, organizations need a technology partner that can deliver insightful capabilities for spending control, reporting, and analysis, while giving executives the confidence to make more informed business decisions,” said Jason Floyd, general manager of Infor Hospitality. “Infor Hospitality is thrilled to be partnering with Panda Restaurant Group to support the growth and change for its sub-sector of the hospitality industry.”

Product News

3D CAD & CAE manufacturer catalogs powered by CADENAS now available in SOLIDWORKS Electrical 3D

20 October 2021

Smooth collaboration between MCAD and ECAD thanks to integration of multi CAD product data in SOLIDWORKS Electrical 3D

Good news for all electrical engineers and component manufacturers: SOLIDWORKS® Electrical 3D joins the long list of software solutions for CAD, CAE, PLM and simulation that offer direct access to thousands of digital manufacturer catalogs powered by CADENAS. Millions of manufacturer-verified 3D CAD and CAE data are now directly integrated into the popular solution for electromechanical design. By integrating the Strategic Parts Management PARTsolutions, users have access to not only the countless 3D CAD models. They also benefit from an extensive selection of standards as well as intelligent functions for managing and finding proprietary, purchased and standard parts.

Optimized cooperation between MCAD and ECAD divisions

The electrical design situation is different from mechanical design, where not only, but above all, the geometries of the digital components are decisive. Electrical engineers need information about circuit diagram symbols, connections, component types (connector, cable, standard component, terminal, etc.) or parent-child relationships when selecting the appropriate component. The product models must also provide information on which connectors are compatible or how the installed components are to be correctly dimensioned in relation to each other. If this data is not stored within the CAD model, it must be compiled in a time-consuming process from various sources. Multi CAD capable product data based

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on CADENAS technology enables seamless collaboration between ECAD and MCAD, as component information can easily be transferred between mechanical and electrical design - without loss of information.

SOLIDWORKS Electrical 3D by Dassault Systèmes provides additional support for smooth electromechanical collaboration. With the software module, design data of circuit diagrams can be integrated bidirectionally into the 3D model of a machine or assembly. ECAD components such as wires, cables and harnesses can be easily positioned and automatically routed in the 3D MCAD model. Design and bill of materials are also synchronized in real time, minimizing sources of error.

Ansys and Electro Magnetic Applications, Inc. Launch EMA3D Charge to Improve Design and Safety of Electronic Components

21 October 2021

Together with EMA, Ansys added EMA3D Charge to its industry-leading simulation solution portfolio, addressing critical design and safety needs for applications ranging from space exploration to everyday commutes. The new solution enhances predictive accuracy for engineers analyzing charging and discharging events that can lead to catastrophic product failures early in the design cycle, driving faster time-to-market and bottom-line savings.

Aerospace, electronics and automotive industries must meet rigorous electrical performance requirements to mitigate safety risks related to charging and discharging events. Engineers need to be confident a spacecraft will survive exposure to space plasma. High-voltage systems must operate safely without risk of fire. Autonomous vehicles must maintain safety critical functions when faced with an unexpected electrical event. Without fully understanding and addressing these risks, companies may face costly late-phase redesigns, often totaling millions of dollars.

High-fidelity predictions from EMA3D Charge provide engineers with a deeper understanding of electrical charging and discharging phenomena. These insights can have a significant impact on product design, helping engineers determine how electrical components may be harmed — and to what extent — by charging and discharging events. Mitigating risks early in the design phase reduces the chances of late-stage redesigns and costly product failures.

“EMA3D Charge has an impressive array of capabilities,” said EMC engineers at NASA Johnson Space Center. “For example, its ability to easily manipulate and mesh mechanical computer-aided design (CAD) models greatly simplifies the process of going from a structural model of the spacecraft to analytical results. We have also seen great value in its ability to perform charging analysis on spacecraft that are being charged by direct contact with lunar dusts whilst simultaneously being charged from exposure to space plasmas on or near the lunar surface.”

While the technology within EMA3D Charge has been applied in the electronics and aerospace industry before, the solution is the first to be focused entirely on charging and discharging prediction. Leveraging Ansys SpaceClaim to create an intuitive user interface and workflow, EMA3D Charge combines CAD import, design and simplification, simulation setup and meshing, and result generalization and visualization into one solver technology.

“EMA3D Charge fills a need in a marketplace in which no other simulation product exists,” said Shane Emswiler, senior vice president of products at Ansys. “Engineers simulating charging and discharging events once had to navigate multiple codes and challenging workflows that fell short of a full solution. EMA3D Charge is a full solution—one that provides high-fidelity analysis and an end-to-end workflow designed for efficiency.”

Ansys Enables More Sustainable Product Development with Fujitsu

15 October 2021

Ansys LS-DYNA is the first-ever commercial CAE structural simulation software to support 64-bit Arm architecture based FUJITSU Supercomputer PRIMEHPC FX1000 and FX700. Through a new collaboration with Fujitsu, Ansys is not only reducing product costs and hardware limitations for joint customers, but also enabling more sustainable product development.

Demand for high-performance computing (HPC), which can require large amounts of energy consumption, is increasing while companies also work to implement critical sustainability initiatives. Green computing initiatives focus on reducing energy consumption, which helps lessen emissions and lowers cost of ownership for customers. By supporting LS-DYNA on Fujitsu's hardware platform, Ansys helps customers reduce energy consumption and costs by offloading CAE workloads to a more energy-efficient supercomputer.

“Fujitsu is pleased to make LS-DYNA available on the PRIMEHPC series, which is based on the same architecture with the supercomputer Fugaku,” said Masahide Fujisaki, executive director, Business Strategy Division, Infrastructure System Business Unit, Fujitsu Limited. “We look forward to working together with vendors to optimize commercial applications for the PRIMEHPC series, while simultaneously offering the PRIMEHPC series to manufacturers and other companies so that the results of this work can be widely used in industry.”

Moving forward, Ansys will integrate additional software solutions to support the FUJITSU Supercomputer PRIMEHPC FX1000 and FX700 and to expand the availability of LS-DYNA to other Arm-based solution providers.

“Ansys LS-DYNA is the first commercially released CAE structural simulation solution available that supports the Arm-based FUJITSU Supercomputer PRIMEHPC FX1000 and FX700,” said Shane Emswiler, senior vice president of products at Ansys. “Our work with Fujitsu enables users to overcome hardware limitations and reach production goals more sustainably. Our customers no longer have to choose between the fast, high-fidelity results delivered by HPC or meeting sustainability goals – they can have both.”

The single precision version of Ansys' solver is available now. Ansys will release a double precision version of the solver in 2022. Early results of the single precision version on PRIMEHPC FX1000 indicate impressive performance over 2X faster when compared to PRIMEHPC FX100.

Autodesk Premium Plan Available for Companies with 50+ Subscriptions

19 October 2021

Applied Software, a leading systems integrator for the architecture, engineering, construction, and manufacturing industries, has announced it will assist customers who want to upgrade to the Autodesk Premium Plan for more efficient management of 50 or more subscriptions. The upgrade is available for most Autodesk products.

The Premium Plan was designed for companies that: frequently add new users and prefer to not manually create and assign access; desire 24/7 support and faster response times; need additional security features of single-sign-on; have widely dispersed employees or contractors; and/or need an easier way to optimize subscription licensing when users need product access.

Applied Software is also offering an exclusive webinar on October 21, 2021 that will explain the benefits of the Premium Plan.

“The Premium Plan ensures that Autodesk software users will receive additional reporting, security and administrative benefits,” said Richard Burroughs IV, Applied Software Vice President of Customer Engagement. “The flexibility of centralized purchasing, extended support, usage reports, and SSO enables medium-size to large companies to operate more efficiently.”

Cadence Digital and Custom/Analog Flows Achieve the Latest TSMC N3 and N4 Certifications

21 October 2021

Cadence Design Systems, Inc. announced that its digital and custom/analog flows have achieved certification for TSMC’s N3 and N4 process technologies in support of the latest Design Rule Manual (DRM). Through continued collaborations, Cadence and TSMC delivered the corresponding process design kits (PDKs) for TSMC N3 and N4 processes to accelerate mobile, AI and hyperscale computing innovation. In addition, mutual customers have already validated the benefits of the Cadence® flows and TSMC’s process technologies through successful tapeouts.

N3 and N4 Digital Flow Certifications

Cadence worked closely with TSMC to optimize the digital flow for TSMC’s advanced N3 and N4 process technologies to help customers achieve power, performance and area (PPA) goals and speed time to market. The complete, integrated RTL-to-GDS flow includes the Cadence Innovus™ Implementation System, Liberate™ Characterization Solution, Quantus™ Extraction Solution, Quantus Field Solver, Tempus™ Timing Signoff Solution and ECO Option, and the Voltus™ IC Power Integrity Solution. Additionally, the Cadence Genus™ Synthesis Solution and predictive iSpatial technology are enabled for the N3 and N4 process technologies.

The digital full flow enables customers to successfully design on TSMC’s N3 and N4 process technologies through several capabilities, including:

- **Efficient processing of large libraries:** Among the variations of threshold voltage and drive strength, the Cadence flow efficiently processes these large libraries, ensuring the best run-time for increasingly complex designs.
- **Timing analysis accuracy:** N3 requires additional accuracy during library cell characterization and static timing analysis (STA). The Cadence flow has been enhanced to address all N3 timing characterization and signoff requirements.
- **Accurate power signoff:** Support for accurate leakage calculation required in N3 and static power calculation for new N3 cells has been added. N3 power calculation accuracy, which included different power components—switching, internal, and leakage, for example—has been validated at multiple corners, temperatures and voltages. The Cadence flow meets all N3 power signoff requirements.

N3 and N4 Custom/Analog Tool Suite Certification

Cadence has continued its long-standing collaboration with TSMC engineers to deliver a comprehensive custom, analog, EM-IR and mixed-signal design solution, addressing the challenges and complexities for designing custom and analog IP in TSMC’s N3 and N4 process technologies. Through this collaboration, the Virtuoso® Design Platform, Spectre® Simulation Platform and the Voltus-Fi Custom Power Integrity Solution have achieved the latest TSMC N3 and N4 PDK requirements.

The custom flow for N3 and N4 process technologies make use of the following design solutions:

- **Spectre Simulation Platform:** Offers comprehensive time- and frequency-domain analyses

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capabilities, including AC, DC and transient simulations with an emphasis on managing large device and interconnect parasitic networks, harmonic-balancing, noise analysis and EM-IR with the Voltus-Fi Custom Power Integrity Solution.

- **Virtuoso Schematic Editor:** Provides design capturing and drives the Virtuoso Layout Suite for Schematic-Driven Layout.
- **Virtuoso ADE Suite:** Integrates with the Spectre X Simulator to effectively manage corner simulations, statistical analyses, design centering and circuit optimization.
- **Virtuoso Layout Suite EXL:** Offers an advanced layout environment for efficient layout implementation, which leverages a unique row-based implementation methodology with interactive, assisted features for placement, routing, fill and dummy insertion.
- **Mixed-signal implementation flow:** Provides a tight integration between the Virtuoso Design Platform and the Innovus Implementation System, improving engineering productivity through an enhanced implementation methodology for mixed-signal designs using a common mixed-signal open access database.

In addition, the Virtuoso and Spectre platforms have been certified for TSMC's N3 and N4 process technologies.

"Through our continued collaboration with Cadence, we're enabling customers to improve productivity with certified flows for our advanced N3 and N4 process technologies," said Suk Lee, vice president of the Design Infrastructure Management Division at TSMC. "This joint effort between TSMC and Cadence is making it easy for customers who are creating next-generation mobile, AI and hyperscale computing designs to achieve PPA goals and quickly launch their differentiated products to market."

"By working closely with TSMC, our customers have access to the most sophisticated capabilities to create competitive designs with TSMC's N3 and N4 process technologies and our digital flow and custom/analog flow," said Dr. Chin-Chi Teng, senior vice president and general manager in the Digital & Signoff Group at Cadence. "We continuously listen to our mutual customers to gain an understanding of their real-world design requirements, and their feedback enabled us to tailor our flows accordingly so they can achieve SoC design excellence."

Cadence Introduces Comprehensive Safety Solution for Faster Certification of Automotive and Industrial Designs

19 October 2021

Cadence Design Systems, Inc. announced the Cadence® Safety Solution, a new offering targeting safety-critical applications and featuring integrated analog and digital safety flows and engines for faster ISO 26262 and IEC 61508 certification. The solution, which includes a new failure modes, effects, and diagnostic analysis (FMEDA) offering called the Cadence Midas™ Safety Platform, allows customers to perform FMEDA-driven analog and digital verification of safety-critical semiconductors for advanced automotive, industrial and aerospace applications.

As state-of-the-art electronics propel the automotive, industrial and aerospace industries into a future of more connectivity and autonomy, the development of safety-compliant semiconductors is critical. Developed to improve automation, confidence and productivity associated with achieving compliance to functional safety standards, such as ISO 26262, the Cadence Safety Solution offers new verification tools, including the Midas Safety Platform, vManager™ Safety Manager and Xcelium™ Safety Simulator. Additionally, the safety solution consists of existing verification, design, analog and digital

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tools, including the Cadence Jasper™ Functional Safety Verification (FSV) App, Legato™ Reliability Solution, Spectre® Simulation Platform, Genus™ Synthesis Solution, Innovus™ Implementation System, Modus DFT Software Solution and Conformal® Equivalence Checker.

“Semiconductor development for automotive applications presents a host of challenges that the entire supply chain needs to address, including rigorous safety certifications required to achieve compliance with the ISO 26262 standard,” said Paul Cunningham, corporate vice president and general manager of the System & Verification Group at Cadence. “With the new Cadence Safety Solution, customers have access to the Midas Safety Platform, which fully integrates with Cadence design and verification flows, including vManager Safety Manager, Xcelium Safety Simulator, Jasper FSV App, Genus Synthesis Solution, and Spectre Simulation Platform, offering improved productivity and accelerated safety compliance.”

The Cadence Safety Solution includes flows and engines enhanced for advanced safety design and verification. The solution includes:

- **FMEDA Management:** The new Midas Safety Platform provides early phase exploration of functional safety architectures and leverages native chip design data to perform accurate safety analysis efficiently. The platform is a unified solution available across Cadence products, and with its modular architecture, supports both embedded or standalone usage with the Cadence flow.
- **Fault Simulation:** The new Xcelium Safety Simulator leverages Cadence’s leading native serial and concurrent fault simulation technologies to drive the highest performing safety analysis available. The simulator’s machine learning algorithms, coupled with the formal-based flow, dramatically accelerates the overall verification throughput.
- **Fault Campaign Management:** The new vManager Safety Manager offers functional and safety verification management integrated in one unified system for verification campaign management across all Cadence engines. Customers can experience a 3X turnaround time reduction for safety verification campaigns by leveraging vManager Safety Manager to orchestrate fault coverage across the Jasper FSV App and Xcelium Safety Simulator. Also, the vManager Verification Management platform offers customers connections to enable requirements traceability, while vManager Safety Manager handles safety verification in both analog and digital domains and automates reporting for required safety documentation.
- **Formal Verification:** The Jasper FSV App applies industry-leading formal techniques to fault analysis, reducing a simulation fault list by up to 30%, increasing safety verification performance.
- **Automated Analog Functional Safety:** The Safety Solution integrates the Spectre Simulation Platform and the Legato Reliability Solution to allow automated launching of analog and mixed-signal fault simulations for different failure modes and generation of functional safety diagnostic coverage reports with an annotation back into the Midas Safety Platform, accelerating functional safety closure.
- **Automated Safety Mechanism Insertion, Optimization and Verification:** The Safety Solution integrates the Genus Synthesis Solution, Innovus Implementation System and Conformal Equivalence Checker to guide the insertion of safety mechanisms, such as triple modular redundancy and dual-core lock-step safety islands, in the implementation flow, allowing customers to achieve safety requirements while optimizing for power, performance and area objectives.

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"As automation advances in functional safety, the role of standardization from groups like Accellera Systems Initiative and IEEE becomes important," said Alessandra Nardi, senior engineering group director at Cadence. "The Accellera Functional Safety Working Group is defining a standard language to capture and exchange functional safety data that will significantly benefit interoperability and traceability. Cadence is contributing to the Accellera Functional Safety Working Group and supporting the IEEE P2851 efforts to continue the development of these standards."

The Cadence Safety Solution supports the company's Intelligent System Design™ strategy, enabling SoC design excellence through best-in-class tools and flows.

Endorsements

"Functional safety is increasingly critical in the design of modern automotive computing systems and remains vital to applications requiring a high level of reliability across the industrial and aerospace markets as well. The new Cadence Safety Solution to help in design and verification efficiency for various safety-related applications embodies the spirit of the Arm Functional Safety Partnership Program in providing reliable and integrated solutions to end customers."

- *Suraj Gajendra, senior director of technology strategy, Automotive and IoT Line of Business, Arm*

"ASIL-B process and safety architecture were critical requirements in the development of our advanced AI processor when addressing automotive applications. The Cadence Safety Solution helped us achieve these goals by allowing us to perform early estimations of the safety metrics based on a predecessor design, enabling proper planning for safety mechanisms."

- *Ori Katz, VLSI director and safety manager, Hailo*

"In our Automotive SoC functional safety flow, we achieve ISO 26262 compliance by running fault analog simulations with customizable rules for optimized distribution, sampling size, monitoring and safety criteria. We use the Cadence Legato Reliability Solution to perform fault injection into our analog designs, run simulations and incorporate the results into our safety metrics. The solution integrates well with the Virtuoso platform, allowing us to reuse the testbenches and simulation environment setup. With this solution, we are able to meet ISO 26262 safety requirements with the necessary accuracy and flexibility with high productivity."

- *Yurii Toporov, design engineer, Melexis*

"Simulating random faults in functional safety verification is a big challenge in industrial applications. Modeling the diverse nature of safety mechanisms adds significant complexity and requires reliable and flexible simulation tools. In providing flow automation, turnaround time optimization and quality of results, the new Cadence Safety Solution extends the existing Cadence Verification Suite and helps us achieve faster IEC 61508 certification."

- *Franck Roche, architecture, technical support, application and tools director, Microcontroller Division, STMicroelectronics*

Cooper Lighting Solutions Partners with BIMsmith to Bring Lighting Innovation to BIM Projects

20 October 2021

Cooper Lighting Solutions, a leading manufacturer of indoor and outdoor lighting, lighting controls, and smart lighting systems, and BIMsmith, the leading building product research platform for building professionals, have partnered to provide a new suite of Building Information Modeling (BIM) resources to the architecture and design community.

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The partnership involves the creation of all-new digital product models for Cooper Lighting Solutions. The new digital assets, or BIM content, are custom-built to operate within Autodesk Revit, the leading BIM software platform. Representing key physical and performance data for lighting design, the new models are pivotal to equipping architects, interior designers, engineers, and other professionals to design with products by Cooper Lighting Solutions in their BIM projects.

As a result of the partnership, the Cooper Lighting Solutions BIM Library is also now available on BIMsmith Market, the leading platform for building professionals to perform product research.

“At Cooper Lighting Solutions, our dedication is to provide accurate, high-quality BIM content that designers truly want to use in their projects,” said Rosalind Pumphrey, BIM Manager at Cooper Lighting Solutions. “We’re thrilled to partner with BIMsmith to achieve this.”

“At BIMsmith, we seek to partner with brands who are undisputed leaders in their respective fields,” said Benjamin Glunz, CEO of BIMsmith. “Cooper Lighting Solutions is that and more, with a storied history of innovation in lighting and a product lineup to back it up.”

Hexagon democratises engineering simulation further with first Image-recognition AI for Computer-Aided Engineering

18 October 2021

Hexagon’s Manufacturing Intelligence division has announced the release of ODYSSEE A-Eye, a new artificial intelligence (AI) tool that enhances Computer-Aided Engineering (CAE) for a multitude of industry solutions without the need for complex CAE preparation and simulation expertise.

ODYSSEE A-Eye applies advanced pattern recognition to images, pictures, video and simple datasets so that they can be analysed for machine learning (ML) applications in engineering simulation. The tool’s unique ability to match existing CAE simulation data to imagery and provide like-for-like predictions based on a posed problem makes it an invaluable tool for use in any engineering-related problem – design optimisation, cost impact, or even how long a new product will take to produce without the laborious and highly-skilled process of preparing a model and defining simulation boundary conditions.

Applying ML processes to engineering problems typically requires expert knowledge and large amounts of training data to produce valid and reliable results, which leaves it out of reach for many smaller enterprises and non-specialists. By removing the need for complex data models and allowing the user to solve their problem by inputting widely-available CAD files, imagery or scalar data and relate it to training data from Hexagon’s simulation solutions, the ODYSSEE A-Eye platform makes powerful Digital Twin capabilities available to designers, production engineers, operators and other non-specialists. They can then make informed engineering decisions and explore problems interactively with near-realtime results.

Example applications include:

- Exploring how car wheel designs behave when impacting obstacles such as a kerb or debris. Engineers can build a database of different configurations using nonlinear finite element simulations such as the design or number of spokes to understand the effect of various designs. Vehicle design teams can then use this to quickly understand the behaviour of a wheel without any engineering or CAE knowledge based on only a 2D image.
- Predicting lift and drag coefficients for new aircraft wing profiles based on a 3D image of a new wing design, by building a database of just 16 wing profile simulations from the widely-used National Advisory Committee for Aeronautics (NACA) definitions. Typically, this process

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would take several days, and demand the time and attention of a CAE analyst and multiple simulation tools.

- A machinist or machine salesperson using an ODYSSEE A-Eye application to predict how long a part will take to produce with a given CNC machine tool and metal, using just the database and 3D Step file, capturing valuable process knowledge for others to better plan production and bid for projects. By applying manufacturing process simulation, the same process can be applied to predict dimensional tolerances or the strength of joinery.

Engineers without machine learning knowledge can use ODYSSEE A-Eye to develop their robust AI applications based on any particular problem that needs to be overcome, from optimising tyre-tread design to fault-analysis of computer chips, and then make them available to others who need that knowledge. The new platform integrates with all of Hexagon's CAE solutions, working seamlessly with customers' existing processes and bringing AI to industries that may not have seen this as a feasible solution to their current design needs. Its accessibility means it can be used by companies who either do not carry CAE specialists, or want the expertise they do have to solve other problems or perform final design validation. With ODYSSEE A-Eye, a single engineering expert is able to specify an application that would help progress a design, and then feed that to the product design team and operators to execute.

Roger Assaker, President of Hexagon's Design and Engineering Software Business Unit, said: "AI is an increasingly valuable tool within design and engineering, helping push virtual engineering to the next level. It has the potential to shorten the time taken to complete labour-intensive design tasks that may have previously taken days or weeks down to minutes or hours without losing simulation fidelity. Furthermore, the user-friendly design of ODYSSEE A-Eye makes it simple to integrate into modern engineering practices, democratising a highly advanced process for use by non-experts, and producing the results in a very accessible format."

Hexagon Releases Power Portfolio 2022

21 October 2021

Hexagon's Safety, Infrastructure & Geospatial division announced the launch of Power Portfolio 2022, the latest version of its leading GIS, remote sensing, photogrammetry and geospatial data management products. The Power Portfolio helps organizations collect, process, analyze and understand geospatial data and organize it into centralized libraries for easy sharing through web and mobile applications, including custom apps and solutions.

The latest release increases efficiency for users of ERDAS IMAGINE, ImageStation and GeoMedia with automated workflows and the ability to extract point clouds from larger stereoimagery files up to three times faster. GeoMedia WebMap also enhances productivity by empowering field personnel to access and edit data anywhere, anytime with new mobile capabilities.

Interface improvements across the portfolio elevate the user experience for many products, most notably ERDAS APOLLO with the new web-based administration client APOLLO Studio, while enhanced support for industry standards, such as OGC, MGCP and INSPIRE, makes data sharing easier than ever. Additionally, analysts can now double the amount of imagery in the graphics area of ERDAS IMAGINE at a 1:1 pixel resolution for greater detail.

"With Power Portfolio 2022, government, defense and transportation organizations can extract location intelligence faster from their spatial and enterprise data," said Mladen Stojic, President, Geospatial, Hexagon's Safety, Infrastructure & Geospatial division. "That not only saves time and resources, but it

also helps users generate better maps and analytical products to improve their services and stay ahead of challenges."

Used by numerous public and private-sector organizations around the world, from national mapping and geospatial intelligence agencies to city planners and transportation analysts, the Power Portfolio is comprised of globally recognized and proven geospatial visualization, analysis and data management products. In 2021, Hexagon's geospatial products received the top spots in SoftwareReviews' Emotional Footprint and GIS Data Quadrant awards.

Industrial Enterprises to Gain Secure, Cloud-Based Operational Data Sharing with Announcement of AVEVA Data Hub

19 October 2021

AVEVA, a global leader in industrial software, driving digital transformation and sustainability, announced its first SaaS offering that integrates key features of the market-leading PI System™ operations data management platform with the AVEVA industrial software portfolio.

AVEVA Data Hub, a secure, cloud-native hub for aggregating, managing and securely sharing operations data to gain new insights and improve operating performance, will deliver the proven operations data-sharing capabilities of OSIsoft Cloud Services (OCS) through the convenient AVEVA Connect industrial cloud platform.

AVEVA Connect subscribers will enjoy the flexibility to access AVEVA Data Hub services alongside any mix of other AVEVA cloud, hybrid and on-premises solutions as their business needs change, using the AVEVA Flex subscription program.

"Customers are telling us that it's not a question of whether they will adopt the cloud to view, enrich and share real-time and historical operations data, but how and when," said Rónán de Hooge, AVEVA's Executive Vice President of Information. "AVEVA Data Hub provides this answer, making it easy to aggregate and contextualize on-premises and remote data sources and securely share insights with a colleague across town, a business partner on the other side of the world, or even a data science application in the cloud for predictive modelling."

Customer applications for the technology have ranged from ensuring safe drinking water with predictive notifications to preparing data for advanced analysis to monitoring critical, remote equipment.

The benefits of AVEVA Data Hub include:

- Native integration with PI System products such as PI Server and Edge Data Store, enabling easy, secure access to a single source of truth for operating data, from multi-plant facilities to the most remote and rugged environments.
- Nothing to install, maintain or program: authorized users have self-service data access through a simple browser interface, with all software updates and infrastructure managed by AVEVA.
- Purpose-built to handle the unique needs of operations data, even if receipt is delayed or out of order.

AVEVA Data Hub was unveiled at this week's AVEVA PI World Digital conference, which continues through October 21. It will become generally available for customer deployment in early 2022. Its predecessor product, OCS, is still available. Existing OCS customers will continue to be supported and have a path forward that preserves their information investments.

Kubotek3D Debuts KeyCreator 2022 Expanded Product Line at Eastec 2021

19 October 2021

Kubotek3D, a leading supply chain software provider, announced the availability of the 2022 release of the KeyCreator CAD software product line at the Eastec 2021 trade show. The 2022 KeyCreator release provides productivity enhancements to various functions and extensive updates to CAD translators for maintenance customers. With the 2022 release, the KeyCreator product line has been expanded. The original KeyCreator product, launched in 2004 after Kubotek acquired CADKEY, has been renamed KeyCreator Pro while KeyCreator Prime and KeyCreator Drafting have been added to the KeyCreator product line. The added KeyCreator products feature an all-new Microsoft Office-like user interface intended to make it easier for new users to gain proficiency for manufacturing design and drafting applications.

KeyCreator Pro

The KeyCreator Pro product retains the KeyCreator user interface with classic pull-down menus, customizable toolbars, and keyboard shortcuts which users have consistently ranked among the easiest-to-use CAD programs. Improvements included in the 2022 release of KeyCreator Pro were focused around working with visual face properties, selection of faces and profiles, re-use of geometry in referenced parts, and creating projected drawing views. Significant performance gains were realized in reading assemblies with large numbers of part references. KeyCreator Pro 2022 continues to improve interoperability by adding a STEP AP242 export option, read of native Solid Edge drawing files, and updating eleven other translators to the latest versions.

“Expert KeyCreator users flying through designs with the original KeyCreator user interface is a beautiful thing to watch. We believe these are the fastest precise designers in the world,” said John Wright McCullough, General Manager Marketing for Kubotek3D.

KeyCreator Prime

The new KeyCreator Prime product introduced with the 2022 release provides the powerful capabilities of KeyCreator for new users through the popular Office-style user interface and proprietary DynaHandle object for direct manipulation of selected geometry. KeyCreator Prime also includes extensive context-specific pop-up menus that significantly reduce the overall number of commands for new users to learn and cut time spent moving the cursor to menus at the top of the application window or icon buttons on the edges.

“The KeyCreator Prime interface was designed to dramatically reduce effort for new and part-time users while avoiding impacts to the high level of productivity that KeyCreator is known for.” continued McCullough.

KeyCreator Drafting

KeyCreator Drafting is a sub-set of capabilities designed specifically for CAD users who need maximum productivity creating and editing mechanical drawings. The product has a unique ability to edit CAD drawings from the most popular formats including Dassault Systems CATIA and SolidWorks, Siemens Digital Industries Software NX and Solid Edge, PTC Creo, DWG/DXF, and CADKEY. The program also has full ability to read 3D data from these same programs and quickly complete detail and assembly drawings.

KeyCreator Viewer

KeyCreator Viewer is a free program for reviewing all design data in the KeyCreator format.

NetSuite Announces SuiteBanking, the First Cloud ERP to Integrate Fintech into a Unified Suite

19 October 2021

To help organizations improve forecasting and make more strategic cash decisions, Oracle NetSuite announced SuiteBanking. As the first unified suite that embeds fintech into cloud ERP, SuiteBanking helps customers automate key financial processes and gain full visibility into cash flow. By bringing together automated accounts payable and accounts receivable processes, SuiteBanking makes it fast and easy to pay bills, send invoices, and get paid, all from within NetSuite.

“Growing organizations cannot afford to have teams of people entering data, dealing with banks, monitoring transactions from multiple systems, and manually processing vendor payments. The time saved from automating these processes could be spent on strategic projects that help drive further growth for the organization,” said Evan Goldberg, EVP, Oracle NetSuite. “SuiteBanking is the first step in bringing the worlds of ERP and fintech together. It will help our customers automate all of these processes in one single suite and increase visibility and control so they can maintain healthy cash flow as they grow.”

SuiteBanking improves cash flow by accelerating accounts payable and accounts receivable processes. Enhanced automation gives organizations greater control over expenses, increases the effectiveness of accounting processes, and provides detailed insights all in one system. By providing a unified system, NetSuite eliminates the need to collect and normalize data from other departments and systems, saving finance teams dozens of hours every month. In addition, integration with banking partners like HSBC gives NetSuite customers convenient access to a variety of financial services, including a global digital wallet and virtual payment card. HSBC, a leading international bank that is embracing fintech innovation, is the first SuiteBanking alliance partner.

With SuiteBanking, NetSuite customers are able to improve the following cash flow processes:

- **Accounts Payable:** Helps customers accelerate accounts payable processes with automated invoice scanning and general ledger code assignment, three-way invoice matching, and automated outbound payments. Customers can see multiple payment options and select the preferred method for each vendor. For example, they can choose either the fastest or the least expensive option.
- **Accounts Receivable:** Helps customers increase on-time payments, reduce days sales outstanding, and improve the efficiency of billing staff. The new Payment Link feature makes it easier for customers to receive payment by including a “pay now” option on electronic invoices. Multiple payment methods are supported, including credit/debit card, ACH transfer, or a third-party payment provider like PayPal. In addition, customers can automate the creation and scheduling of invoices and increase collections by sending payment reminders automatically.
- **Bank Reconciliation:** Helps customers eliminate manual, error-prone, and time-consuming tasks and accurately match transactions with their organization’s bank account. Customers gain improved cash flow visibility through real-time insight into the status of inbound and outbound payments. In addition, customers are able to increase the accuracy of accounting data by matching and reconciling cleared transactions more often and are able to gain a better understanding of their current cash position so they know how much cash is available in their accounts at all times.
- **Spend Management:** Helps customers control corporate spend through better visibility and

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reporting capabilities. It enables customers to create approval workflows to fit their organization's structure and customize expense policy rules to flag expenses that need a manager's review. In addition, budget validation capabilities help managers avoid overspending by automatically comparing open purchase requests to available budget and alerting to potential budget overages prior to approval. Budget versus actuals reporting also helps managers control spending by comparing actual expenses against budgets in real time.

- **Expense Management:** Helps customers control costs, enforce internal policies and procedures, and improve the timeliness and accuracy of employee expense reports. Customers can pay vendors that accept credit cards directly out of NetSuite via their SuiteBanking virtual payment card, which extends payment terms and relieves cash flow. Customers can also better manage business expenses by using the virtual card to cover employee expenses or corporate credit card charges. Expenses are captured and submitted electronically and automatically flow into NetSuite, eliminating double entry and accounting errors. In addition, customers receive cash back rewards on all transactions when using the virtual card to make payments.
- **International Payments:** Provides customers with a global digital wallet to make and accept payments from a single account, utilizing HSBC's global footprint and presence in more than 60 countries, instead of using country-specific payment providers that result in separate AP processes. This makes it easy for customers to make and receive international payments and removes the complexities of opening and managing multiple foreign bank accounts.
- **Access to Working Capital:** Helps improve cash flow by giving customers a convenient way to convert unpaid invoices into cash. NetSuite enables quick, convenient access to additional working capital with accounts receivable financing.

OpenText Offers New MDR Solutions to Enhance Cyber Resilience & Compliance

13 October 2021

OpenText™ announced two new MDR offerings designed to meet the unique requirements of small and medium-sized businesses (SMBs) and managed service providers (MSPs). The addition of Webroot MDR powered by Blackpoint Cyber and OpenText MDR Service to the OpenText Security & Protection Cloud provides SMBs and MSPs of all sizes and industries a choice of MDR that fits their business needs, IT environments, and compliance requirements.

These MDR offerings proactively monitor and help mitigate attack vectors across users, networks, devices and data by leveraging contextual insights provided by Webroot Endpoint Protection. In addition, OpenText's award-winning BrightCloud Threat intelligence platform incorporates knowledge gathered from 285 million sensors and a 10-year threat intelligence history using real-time, multi-point threat detection to detect emerging and targeted attacks, such as ransomware. Each offering is coupled with 24x7x365 proactive monitoring and response capabilities staffed by experts in security infrastructure remediation response to ensure SMBs and MSPs are protected against an evolving threat landscape.

“Small and medium businesses are increasingly targets for bad actors looking to extract valuable data or ransomware payments from their victims,” said Prentiss Donohue, EVP SMB Sales, OpenText. “With limited in-house security expertise and IT operational management costs on the rise, our MDR offerings deliver a scalable, integrated approach to reducing risk that streamlines delivery for MSPs and gives SMBs access to the sophisticated security infrastructure needed to build and strengthen their cyber resiliency.”

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OpenText MDR Service pairs best-in-breed technologies in regulated and compliance-centric customer environments with security personnel that understand threat actors' tactics, techniques, and procedures to realize faster identification and remediation of risks.

Webroot MDR powered by Blackpoint Cyber is based on Blackpoint's proprietary incident response solution and security operations center (SOC) and enabled through capabilities such as network visualization, insider threat monitoring, and traffic analysis for lateral movement detection. It offers high-performance, robust security for the greater SMB and MSP community with a turnkey, easy-to-implement cybersecurity and compliance solution.

"Webroot MDR powered by Blackpoint is a cost-effective approach that executes effective offensive and defensive tactics while catering to the specific risk and security needs of our customers, ultimately empowering true cyber resiliency," said John Hart, EntrepreNERD and IT Consultant, Nerds On Site. "As organizations continue to require predictive analytics and real-time threat response, we dually remain committed to providing proactive threat intelligence and threat hunting in the most streamlined method for our SMBs and MSPs."

These offerings are currently available for North American customers and will be available in additional regions later this year.

Sage and Procore launch connector for Sage Intacct Construction

20 October 2021

Sage, the market leader in cloud business management solutions, and Procore Technologies, Inc., a leading provider of construction management software, announced the launch of the Sage Intacct Construction and Procore Connector. This new integration builds on the existing Sage and Procore partnership, which features widely used existing integrations for Sage 100 Contractor and Sage 300 Construction and Real Estate. This is Sage and Procore's first joint cloud-to-cloud integration, leveraging the strength of Sage's industry-leading cloud-based construction accounting solution and Procore's construction management solution.

The new Sage Intacct Construction and Procore Connector provides users with an intuitive and comprehensive view of their business, the ability to forecast confidently from the field, and real-time access to financial information from anywhere. It helps businesses create more streamlined processes that improve collaboration and efficiency while delivering enhanced capabilities to further accelerate cloud adoption and digital transformation.

"We strive to make it as easy as possible for contractors to integrate Sage products with the other solutions they are using" said Dustin Stephens, Sage VP for Construction and Real Estate. "Our longtime partnership with Procore has played an integral role in this commitment. As more construction companies move their systems to cloud, the Sage Intacct Construction and Procore Connector builds upon the success of our previous integrations to deliver a truly best-of-breed cloud solution for the field and back office."

"We're excited to grow our existing partnership with Sage by launching our new connector with Sage Intacct Construction," said Kris Lengieza, Vice President of Global Partnerships and Alliances at Procore. "Through bringing together our world-class cloud solutions, we're providing contractors and their accounting teams with improved access to financial data in real-time. Construction professionals using Procore with Sage Intacct Construction can trust that they have the most accurate and up to date information shared between the jobsite and the back office to deliver their projects on time and within budget."

Sage Intacct Construction combines the proven Sage Intacct financial management with the 50 years of experience from Timberline Software (now known as Sage 300 Construction and Real Estate) to meet the unique needs of the construction industry. Built as a native-cloud solution, Sage Intacct Construction empowers construction financial managers to make critical financial decisions.

Sage Intacct Construction enables industry professionals to manage costs and productivity in real-time, from any location, and reduces typical financial consolidation from 100+ hours down to just minutes. Sage Intacct Construction not only simplifies and automates accounting tasks, but it also provides real-time business insights.

Schneider Electric Launches EcoStruxure Automation Expert Version 21.2 to Manage Full Automation Lifecycle of Water and Wastewater Operations

18 October 2021

Schneider Electric, the leader in the digital transformation of energy management and automation, announced version 21.2 of EcoStruxure™ Automation Expert, further enhancing the capabilities of the world's first software-centric universal automation system.

Following previous success with its implementation across the consumer-packaged goods and logistics sectors, the new release will focus on helping future-proof water and wastewater (WW) plant operations.

Water and wastewater plants that implement EcoStruxure Automation Expert will now have complete lifecycle management, seamless integration of IT/OT services and improved system diagnostics for their automation systems. The solution also enables close integration with the AVEVA portfolio, further extending capabilities and options to add or modify as future needs arise.

EcoStruxure Automation Expert v21.2 is the next in an ongoing series of updates and enhancements that Schneider Electric delivers to the market at least twice a year. Named the most sustainable company in the world, Schneider Electric will be showcasing this and other innovations for the water and wastewater industries at the 2021 Water Environment Federation's Technical Exhibition and Conference (WEFTEC) in Chicago Oct. 16-20 in booth #2604.

“As the water/wastewater industry prepares for significant investments in modernization and growth, they will need to incorporate new digital tools to properly manage their operations and gain the greatest efficiencies moving forward,” said David Lee, Water/Wastewater Segment Leader, Schneider Electric. “By incorporating EcoStruxure Automation Expert, operators will gain greater control of their systems and reduce operating costs, while simplifying future maintenance needs.”

With \$2.25 trillion dedicated to infrastructure spending in the proposed American Jobs Plan, the water and wastewater industries expect to see a dramatic increase in investment in the coming years. This is the time to make significant enhancements and progress in the sector by embracing universal automation to drive the next level of sustainable water operations.

Future-proof flexibility

With a life span of 25-35 years, water and wastewater plants typically remain with one automation provider throughout their entire project lifecycle, leaving them with outdated and rigid operations. Introducing EcoStruxure Automation Expert allows the automation software to be separated from the hardware, providing freedom for WW enterprises to break their dependency on proprietary hardware suppliers.

EcoStruxure Automation Expert will provide a single platform that evolves with time for water and

wastewater subsegments, including:

- **Treatment infrastructures:** water treatment and wastewater treatment plants, desalination plants and industrial wastewater
- **Network infrastructures:** water and wastewater networks
- **Water resources:** distributed systems, such as irrigation systems

Technology transforming industries of the future

New enhancements in EcoStruxure Automation Expert v21.2 include:

1. **Enhanced lifecycle management:** From designing and building water and wastewater plants to improving operation and maintenance, EcoStruxure Automation Expert offers seamless connection to engineering software – including AVEVA – so new designs or changes to existing ones can be validated virtually prior to implementation, both reducing errors and saving time and money. This asset centric approach allows for automatic deployment of process elements (with e.g., their control, supervisory, mechanical, electric and control designs) enabling process assets to be managed digitally across their entire lifecycle.
2. **Improved device integration and out of the box application libraries:** A continued drive for open, universal automation platforms has led to a streamlined licence model and the introduction of a native visualization solution with EcoStruxure Automation Expert HMI now available on cost effective local panels.
3. **Complete digital solution from end point to the cloud:** A seamless integration of IT and OT systems boosts security and longevity, while ensuring customers have a solution that will evolve over time.

Embracing universal automation

Schneider Electric believes the time is right for a bold move in industrial automation and is calling on industrial users, vendors, OEMs, systems integrators and EPCs across industry to embrace universal automation.

Universal automation is the world of plug and produce automation software components based on the IEC61499 standard that solve specific customer problems in a proven way. Adoption of an IEC61499-based standardized automation layer, common across vendors, will provide limitless opportunities for growth and modernization across industry.

With the launch of EcoStruxure Automation Expert v21.2, Schneider Electric further extends the capabilities of existing IEC61131-based systems and enables an app-store-like model for automation software components. As more universal automation solutions become available, Schneider Electric believes other vendors will adopt universal automation, and end users will begin to demand it from their automation suppliers and ecosystem.

Siemens accelerates IP validation by 1,000X at Arm using ML-powered Solido Variation Designer on AWS Graviton2

19 October 2021

Siemens Digital Industries Software announced that Arm, a global leader in semiconductor intellectual property (IP), used Siemens' machine learning (ML)-powered Solido™ Variation Designer software to improve IP validation runtime by 1,000X compared to traditional brute force statistical methods*, while achieving greater accuracy and coverage. This dramatic acceleration enabled Arm to verify its standard

cell IP to Six Sigma, while significantly improving validation runtime.

“Improving compute cost and time-to-market is a constant priority for Arm, and we continue to meet and exceed high-quality and reliable operation requirements, enabling higher chip yield, performance, power, and area (PPA) metrics for our partners,” said Philippe Moyer, vice president of design enablement, Arm. “Solido Variation Designer helps Arm to deliver these benefits to customers by providing greater verification accuracy and coverage in a fraction of the runtime, and using AWS Graviton2-based instances powered by Arm Neoverse cores, we can further extend that advantage in cost-to-compute and turnaround time.”

By migrating its Solido Variation Designer usage to Arm®-based processors on Amazon Web Services, Inc. (AWS), Arm was able to further reduce compute costs by 24 percent and total CPU time by 12 percent, as well as improve turnaround time by 6 percent.

“As semiconductor IP validation workloads increase, access to cost-efficient and high-performance computing resources becomes a critical factor to meeting production schedules,” said Nafea Bshara, vice president and distinguished engineer, Annapurna Labs, AWS. “Solido Variation Designer running on AWS Graviton2 processors on AWS cloud is an example of Siemens driving greater scalability of semiconductor workloads and advancing innovation in the industry.”

Solido Variation Designer offers a comprehensive suite of tools for variation-aware design and verification. It uses machine learning methods to deliver fully-accurate results while using orders-of-magnitude fewer simulations. This breakthrough technology enables Arm IP designers to verify designs more thoroughly and iterate revisions faster than before, resulting in high-yielding standard cell IP that helps customers achieve the aggressive PPA targets of today’s chip designs.

“Arm’s acceleration of IP validation cycles using Solido Variation Designer demonstrates the huge dividends that our investments in ML-powered technology are paying for our customers,” said Ravi Subramanian, Ph.D., senior vice president, IC Verification, Siemens Digital Industries Software. “We are pleased to have helped engineering teams at Arm to accelerate IP verification for their next generation of semiconductor products. In addition, this successful customer deployment on AWS Graviton2 processors demonstrates our commitment to working with the Arm ecosystem and cloud partners to deliver scalable solutions to mutual customers.”

Toggled Launches Toggled iQ Smart Building Control Solutions for Sustainable Operations

18 October 2021

Toggled, a wholly owned subsidiary of Altair focused on smart building management solutions and lighting technology, announced the roll-out of its comprehensive connected building data and device management solution, Toggled iQ. Leveraging the Internet of things (IoT), Toggled iQ helps businesses optimize their building environments by streamlining operations, improving energy efficiency, saving money, and reducing their carbon footprint, through the connection of smart connected lighting with wireless sensors, controls, and intuitive analytics.

Energy use is the largest operating expense for businesses, representing approximately one third of budgets, and negatively drives building operations’ impact on climate change. To help organizations tackle this problem, Toggled iQ offers a proven solution that reduces energy through an easy-to-install, smart building platform. Its high-end electronics and cutting-edge software apply to a variety of use cases including, direct-wire LED retrofits, lighting control, HVAC, remote sensors, and smart building control.

CIMdata PLM Industry Summary

“Most businesses want to make sustainability improvements to their building operations, but complexity and other concerns have stood in their way,” said Daniel Hollenkamp Jr., chief operating officer, Toggled. “We’ve tackled the problem through an engineering-first approach, while leveraging our proven success in LED lighting. The result is a solution specifically designed to simplify and accelerate adoption, while giving end users more control over their smart-building environment. We deliver value from the onset and provide a flexible infrastructure for the future, which we believe are the keys to driving smart building adoption.”

With more than a decade of experience in smart connected LED retrofit lighting, Toggled iQ has become a complete sustainable building ecosystem, which allows organizations to customize and control their lighting in real-time, whether it be a single fixture, room, building or group of properties, all from the convenience of the Toggled iQ mobile app. Using Toggled direct-wire LEDs, customers can upgrade their fluorescent lighting system and reduce energy consumption by up to 60 percent. Pairing the lighting with the Toggled iQ portfolio of sensors, switches, and soon-to-be-released controllers results in savings of 80% or more. Additionally, customers benefit from creating their own unique and scalable smart building environment, which gives them the power to reduce their carbon footprint.

“When organizations turn to smart technologies to more efficiently manage their building operations, they often deploy systems without considering existing connectivity capabilities, interoperability or the infrastructure requirements,” said Gerry Cellucci, principal, Yorkland Controls. “Toggled iQ’s approach is smart from the start, allowing building owners and operators to easily integrate lighting and smart devices to existing or new IoT and building automation systems, while also providing a scalable solution that can be easily modified in the future.”

The Toggled iQ difference: Complete, easy-to-use, and flexible

Toggled is the only software-focused company that delivers end-to-end solutions in smart building management, which ensures consistent product quality and customer satisfaction. Because the system is wireless, users don’t have to tear up the office space during installation. Toggled iQ works with a range of common protocols such as BACnet IP and Modbus allowing for seamless BMS/HVAC integration. Designed with end user functionality in mind, users can modify the Toggled iQ smart system to suit their needs and preferences now and into the future.

Toggled iQ improves building management and the environment through:

- **Reduced installation times** – The wireless system doesn’t require additional hardwiring and allows for device groupings during setups to improve overall commissioning times.
- **Optimized functionality** – A user-friendly app is intuitively designed for user satisfaction and easy commissioning. The app’s setup wizard ensures that users are aware of each system device’s available features.
- **Improved overall user satisfaction** – Toggled iQ’s app allows users to customize their lighting and building preferences through room scene creation, color-tuning and dimming, motion control sensitivity levels, and smart building analytics.
- **Improved energy savings** – Toggled iQ allows for multiple layers of energy savings:
 - Fluorescent to LED conversions
 - Network controls features include motion and daylight harvesting
 - Back-end analytics provides data insights to optimize energy usage, identify active problem areas, and proactively establish maintenance schedules to ensure devices are working at their optimal efficiency levels

CIMdata PLM Industry Summary

- **Long-lasting** – Toggled LED tubes are guaranteed to last 50,000 hours. Additionally, LED products contain no mercury and require no special handling during their end-of-life disposal.

Formed in 2007, Toggled leverages the design and engineering strength of parent company Altair, and holds more than 150 patents in LED lighting, optics, communication and control, advanced physics, and power conversion circuitry.

Wipro Launches Technology Business Management Practice in Collaboration with Apptio

21 October 2021

Wipro Limited, a leading global information technology, consulting and business process services company, announced that it will be launching a Technology Business Management (TBM) Practice as part of its strategic relationship with Apptio, a leading provider of technology business management (TBM) solutions that help organizations analyze, optimize, and plan technology spend.

TBM provides technology leaders with valuable insights, data and standards to communicate the cost, quality and value of technology investments to business partners. It is an essential component of any comprehensive business strategy and allows IT to transform into a services organization. IT as a Services Organization (ITaaS) is a new operating model driven by an enterprise's specific use of infrastructure or technologies and focused on delivering value in a cost-effective manner.

Wipro will collaborate with Apptio to guide clients' digital transformation through three Apptio solutions: ApptioOne, Cloudability, and Targetprocess SaaS. This suite will provide companies with actionable insights about their technology investments to drive business decisions and innovation across their organization.

“As part of Wipro's CIO Advisory practice, our comprehensive range of TBM services will go beyond technology rollouts, cloud or digital-transformation initiatives. We view TBM as a fundamental part of the organization's DNA across the entire IT operating model, equipping the CIO and IT teams to operate as effectively as possible with the IT as a Services Organization model,” said **David Kenner, GM & Global Head CIO Advisory, Wipro Limited**.

“Apptio's TBM consulting partners help businesses define strategy and vision while enabling organizations to codify TBM as part of their day-to-day operating model. Successful TBM initiatives require full buy-in from change leadership, as well as a commitment from all IT leaders. We're thrilled to work with Wipro as it expands its TBM focus and capabilities, creating more value for our joint customers,” said **Dave Scholtz, Vice President of Global Partner Strategy & Operations, Apptio**.

By taking every aspect of modern business process into account – including organizational change management – Wipro provides a unique solution encompassing TBM, IT financial management and services transformation to align customers' IT practices and priorities with their business goals to ensure the business supports IT and vice versa.

Xometry Launches Autodesk Fusion 360 App Version 2.0

20 October 2021

Xometry, Inc., a leading AI-enabled marketplace for on-demand manufacturing, announced the launch of version 2.0 of its app for Autodesk Fusion 360, a leading CAD design platform. The app is free and can be downloaded directly from the Autodesk Fusion 360 App Store.

Updated with new features in addition to the instant price and lead time capabilities launched earlier in

CIMdata PLM Industry Summary

2021, Version 2.0 now offers manufacturability feedback and multiple part upload features, improving processes for engineers and designers working in Autodesk. With manufacturability feedback, engineers and designers receive information on part manufacturability while they are designing in the Fusion 360 interface, allowing them to improve their designs. And with the ability to upload multiple parts, engineers can price and receive feedback on multiple parts at the same time, streamlining their work. Version 2.0 is a critical enabler for engineers looking to fast-track product iterations and incorporate real-time feedback.

“We are thrilled to deepen our partnership with Autodesk with Version 2.0 of the Xometry Autodesk Fusion 360 app,” said Randy Altschluler, Xometry’s CEO. “Now designers can get all the key information they need - pricing, lead time, and manufacturability feedback - through the app while they are designing their parts.”

“Autodesk Fusion 360 connects and streamlines workflows across the entire product development process,” said Stephen Hooper, Autodesk Vice President and General Manager, Fusion 360. "Providing our customers real-time insights through the Xometry app about the cost and feasibility of manufacturing a part, at the very moment they're designing that part, is a huge step toward saving time that might otherwise be lost developing a flawed, unworkable, or unaffordable design."

Xometry offers an exclusive 10% discount on all custom parts orders placed through Autodesk Fusion 360 app in the US. The company is also rolling a European version of the app with multiple languages and pricing in Euros.

Xometry also offers an add-in for Autodesk Inventor. The Inventor add-in is available for free on Xometry's website along with other popular CAD software add-ins.