

Contents

CIMdata News	2
CIMdata Releases Series of Country-Specific PLM Market Analysis Reports	2
“Innovation without Boundaries” the 2018 Siemens PLM Software Industry Analyst Conference (CIMdata Commentary)	3
James White, CIMdata’s Director for Additive Manufacturing Strategy, to Participate in an upcoming Webinar	12
Senior Technical Fellow from Boeing Research & Technology to Present at CIMdata’s PLM Road Map™ EMEA 2018 Conference	13
Acquisitions	14
Cognizant to Acquire Advanced Technology Group to Expand Cloud Quote-to-Cash Capabilities	14
Infor Acquires Vivonet	15
Siemens acquires Lightwork Design to deliver advanced 3D data visualization	16
Company News	17
Aras Outlines Core Tenets for Managing Increasing Demand for Simulation Across the Product Lifecycle	17
Bamboo Rose Launches Services as a Subscription Model	18
Dataiku Named a Strong Performer in Predictive Analytics Report	19
Fishbowl Expands Partnership with PTC	20
Fluor Uses IBM Watson to Deliver Predictive Analytics Capability for Megaprojects	20
Flutura Partners with Siemens to Offer Business-impacting Industrial IoT solutions	22
Judith Michelle Williams Hired to Take SAP’s Diversity and Inclusion Strategy to New Heights as Head of People Sustainability and CDIO	22
Montelle Intimates Doubles Business with Visual Next	23
NextLabs Announces Global Reseller Agreement with Siemens	24
NLign Analytics Joins ANSYS Solutions Partner Network	25
PLM Supports Conscious Fashion: ARMEDANGELS and Centric Design a Sustainable Future	26
Tata Technologies Ltd., I.K. Gujral Punjab Technical University Sign MOU to Set Up 5 Centers for Innovation, Invention, and Incubation	27
Tech Mahindra Recognized as a Leader in the Dow Jones Sustainability Indices 2018	28
Events News	29
2018 Altair Technology Conference Global Series: ATCx OptiStruct	29
ASSESS 2018 Congress Adds “Notes From The Front” Sessions	29
ASSESS 2018 Congress Announces NAFEMS as Sponsor	30
Industry 4.0: Into the future with Supfina	31
OneSpin’s Nicolas Athanasopoulos Co-Presents Part 2 of ESD Alliance-Hosted Digital Marketing Workshop Series	32
PSRE Co. Announces Participation at the 34th International CAE Conference	33
Solix Announces Speakers for Solix EMPOWER New York 2018	33
Product News	35
AscentERP and Propel Introduce Integrated ERP and PLM Solution for Fast-Growing Product Companies	35
Cypress Adds Certified Alibaba Cloud Support to Internet of Things Ecosystem	36
Dassault Systèmes Introduces SOLIDWORKS 2019	36
EASA Advanced Low-Code Development Democratizes Complex Simulation Models	37
Mentor Xpedition and PADS Professional design flow achieve ISO 26262 functional safety compliance	38
New Siemens thermal simulation solution addresses autonomous electric vehicle design challenges	39

CIMdata PLM Industry Summary

SAP Analytics Cloud Helps Business Users Make Fast, Confident Decisions with Augmented Analytics	40
SAP Cloud ALM Offers Customers of Cloud Solutions from SAP Tailored Application Lifecycle Management	41
Siemens' Teamcenter achieves AWS Industrial Software Competency	42
Theorem Releases Update to Visualize 3D Adapter	43

CIMdata News

CIMdata Releases Series of Country-Specific PLM Market Analysis Reports

19 September 2018

CIMdata, Inc., the leading global PLM strategic management consulting and research firm announces the release of ten additional country-specific 2018 PLM Market Analysis Reports. These new reports follow the release of the 2018 China PLM Market Analysis Report earlier this year.

The CIMdata PLM MAR series presents CIMdata's analysis of the 2017 product lifecycle management (PLM) market. The complete global analysis provides CIMdata's perspective on PLM across a variety of industry and geographic sectors, identifies market trends, reviews investments in PLM-related software and services during 2017, and forecasts PLM investments for 2018 through 2022. It includes charts that present the overall PLM market and its various sectors as defined by CIMdata. These include collaborative Product Definition management (cPDM), tools and tools sub-sectors, and digital manufacturing.

In addition to its global PLM Market Analysis reports, CIMdata now offers eight country-specific PLM Market Analysis Reports:

- Brazil
- China
- France
- Germany
- India
- Italy
- Japan
- Russia
- South Korea
- United Kingdom
- United States

These reports focus on the PLM market in each country, including its main segments and the 2017 financial results for PLM solution and service providers. Each country report includes estimates of spending by industry segment within the country, market presence within the country, growth of the top 10 suppliers in that country, revenue by global mindshare leaders, market shares in each measured

CIMdata PLM Industry Summary

segment, and five-year forecasts.

“2017 was a strong year for the PLM Economy, with 7.6% growth and few of the currency effects that impacted our reporting in previous years,” according to Stan Przybylinski, CIMdata’s Vice President. “At \$7.7 billion in 2017, the United States is the largest market and is forecast to grow at a compound annual growth rate (CAGR) of 6.3% through 2022. Japan revenues were \$3.82 billion and a CAGR of 6.0%. PLM revenues in Germany were \$3.75 billion and a CAGR of 5.7%. These three countries have dominated the PLM market for years, and will maintain that position. However, South Korea (at \$585 million and a 6.2% CAGR) and the emerging PLM economies of Brazil, China, Russia, and India have great potential. CIMdata estimates the 2017 PLM revenues in Brazil were \$270.8 million (5.2% CAGR), in India \$601.2 million (8.3% CAGR), and in Russia \$231.5 million (4.3% CAGR), and that these high growth rates (along with potential for Russia) will place them among the global PLM revenue leaders.” Mr. Przybylinski continued, “For 2017 CIMdata estimates PLM revenues in France at \$1.48 billion with a CAGR of 5.8%, Italy at \$548 million and 6.0%, and the United Kingdom at \$1.05 billion and 6.0%.”

The CIMdata country-specific PLM Market Analysis Reports are available for purchase at <https://www.cimdata.com/en/online-store/market-analysis-reports>.

About CIMdata

CIMdata, a leading independent worldwide firm, provides strategic management consulting to maximize an enterprise’s ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM) solutions. Since its founding in 1983, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on PLM solutions. These solutions incorporate both business processes and a wide-ranging set of PLM-enabling technologies.

CIMdata works with both industrial organizations and providers of technologies and services seeking competitive advantage in the global economy. In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia Pacific. To learn more about CIMdata’s services, visit our website at www.CIMdata.com, follow us on Twitter: <http://twitter.com/CIMdataPLMNews>, or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA, Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands, Tel: +31 (0) 495.533.666.

 [Click here to return to Contents](#)

“Innovation without Boundaries” the 2018 Siemens PLM Software Industry Analyst Conference (CIMdata Commentary)

18 September 2018

Key takeaways:

- *Siemens PLM Software (Siemens) is building a comprehensive set of increasingly integrated solutions, creating a ubiquitous innovation platform that customers can leverage to develop new products, systems, and business models.*

CIMdata PLM Industry Summary

- *Siemens has expanded the view of generative design to include mechanical/geometry, electronics systems, and generative architecture-level view. in what they're calling Generative Engineering.*
- *Siemens closed loop digital twin strategy is the broadest and deepest in supporting their customers' digital transformation. Their approach to autonomous mobility expands their digital twin strategy, from the virtual and physical product to the driving experience. Thus, companies can pursue digital twin initiatives as part of the environment that a product operates in.*
- *Siemens sent a clear message that they see additive manufacturing (AM) as a fundamental technology for digital transformation. They are accelerating, transforming, and scaling the global adoption of AM by aggregating digital and physical access to equipment, materials, and service providers through the Siemens Additive Manufacturing Network.*
- *Siemens is rapidly delivering broad-based offerings for the Industrial Internet of Things (IIoT), including an extensive ecosystem of top notch partners, a growing base of apps, and, with the Mendix acquisition, the ability for both Siemens and their customers to develop purpose-built applications to support their digital transformation objectives.*
- *Siemens continues to expand on their support for PaaS and IaaS to support delivery of their digital innovation platform using the cloud.*

CIMdata recently attended Siemens PLM Software's 11th annual analyst conference in Boston, Massachusetts August 27 through 30, 2018. This event continues to expand as Siemens' solution portfolio grows, with over 100 industry analysts and journalists in attendance.

Keynotes

In the opening keynote, "How Continuous Innovation Accelerates Digital Transformation," Dr. Jan Mrosik, CEO Digital Factory, described Siemens AG's evolution into a digital enterprise both developing solutions for its customers and using its own technology, like from their PLM business unit to drive its business. He claimed that Siemens AG is a top ten software company with more than 24,500 software engineers and over 250 digital offerings including digital services and industrial applications. He noted that by 2020 Siemens AG will be organized in three strategic companies and three operating companies. One of the planned operating companies, Digital Industries, will focus on driving the digital transformation of process and discrete industries. CIMdata thinks this Digital Industries focus could provide significant capabilities for Siemens customers across their business units.

Dr. Mrosik described how Siemens AG has worked for the past eleven years to bring together the worlds of software and automation, and integrate the virtual world with the digital world through a combination in-house development and strategic acquisitions (of \$10+ billion). He also announced a systematic expansion of Siemens software portfolio with Bentley's software tools for the design and simulation of infrastructure. Siemens now owns 9% of Bentley and the two companies have doubled their joint investment funding to \$100 million. Plant Data Management and design (i.e., Bentley ProjectWise, COMOS, and 3rd party offerings) will be more tightly integrated with enterprise data using Teamcenter as the collaboration platform. Based on the iModel offering from Bentley, integrating the two technologies will cover large and complex products in a holistic way. With the on-going application of manufacturing approaches to the architecture, engineering, and construction (AEC) industry CIMdata expects that Siemens can bring some real value to their joint customers.

Dr. Mrosik then discussed how Siemens has created a holistic Digital Twin that spans the value chain including product, production, and performance twins (Figure 1). He stated that Siemens, with its Digital

CIMdata PLM Industry Summary

Enterprise Suite, can provide the digital twin across the mechanical, electronics, and software domains. He noted that one of Siemens strengths is that it is gaining insights as it applies its digital solutions and PLM suite within its 250+ factories world-wide. As an example, he noted that the Siemens Electronics Manufacturing plant in Amberg, Germany has had a 13x production increase since 1990, and maintains a 99.9999% quality level across over 120 product variations built per day with approximately 350 changeovers per day to handle 1,200 different products. All these gains were made with about the same number of employees since 1990.

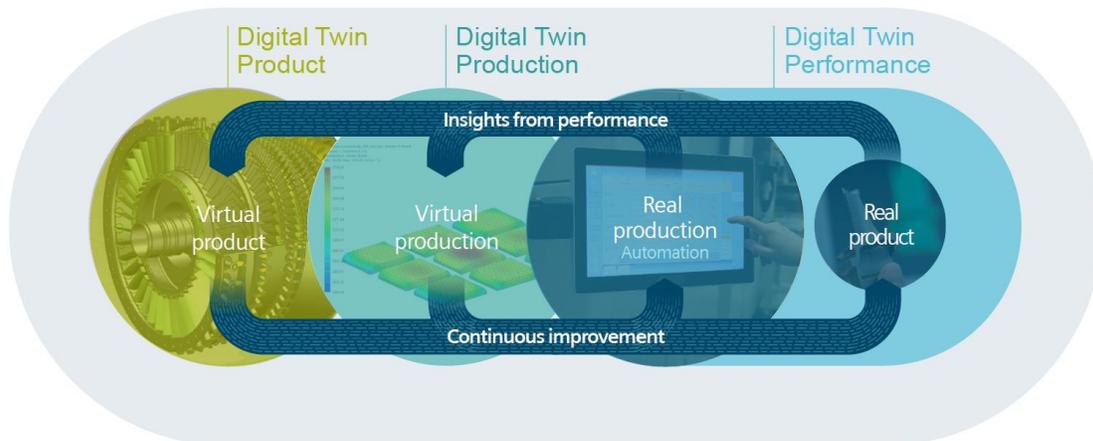


Figure 1—Digital Twins of Product, Production, and Performance
(Courtesy of Siemens PLM Software)

After Dr. Mrosik, Mr. Tony Hemmelgarn, President and CEO of Siemens PLM Software, took the stage to discuss how Siemens is helping enable “Innovation Without Boundaries.” He quoted Mark Weiser, Chief Scientist, Xerox and the father of ubiquitous computing, who stated that “the most profound technologies are those that disappear. They weave themselves into the fabric of everyday life until they are indistinguishable from it.” Mr. Hemmelgarn claimed that Siemens is doing just that in the PLM space—creating an innovation platform that disappears and is transparent and seamless to the user. However, he noted that achieving ubiquitous innovation will require deep integration and understanding of processes, while eliminating the boundaries between ideation, realization, and utilization. CIMdata agrees with this strategy—users don’t care about “how” the environment works, they just want to be able to do their tasks without having to think about “what application must I use” or “where is the data and how do I get it.” Mr. Hemmelgarn stated that Siemens is focusing on integrated solutions that have the greatest transformational business value:

- Closed-Loop Digital Twin—use real-world performance insights to change the way a company does business
- Generative Engineering—automate engineering exploration to find optimal designs and systems orders of magnitude faster
- IIoT/EDGE—leverage IoT insights to increase productivity, optimize products, and discover new business models
- Digital Factory—build intelligently automated digital factories to achieve configurable, flexible, and personalized production
- Additive Manufacturing—industrialize additive manufacturing to design and produce useful

parts at scale

- Autonomous/Electrification—realize autonomous mobility faster by integrating design and validation of the entire system in one environment
- E/E Systems Integration—optimize design and manufacturing of complex electrical, electronic, and mechanical systems of systems
- Electronics Manufacturing—accelerate NPI by “left-shifting” engineering and planning to achieve right-first-time manufacturing
- PaaS/SaaS/Cloud—Bring continuous innovation to market faster with flexible cloud solutions and rapid application development

CIMdata believes that Siemens’ strategic direction will help their customers better leverage Siemens’ very broad technological solution suite and create new, innovative products, systems, and services.

Mr. Hemmelgarn’s session, entitled “Innovation Without Boundaries,” provided an update on Siemens PLM Software’s view of industry trends and how they continue to evolve to address them. As part of his business update, Mr. Hemmelgarn claimed the Siemens PLM Software business is enjoying over 10% organic growth and reaching over €3.4 billion in revenue. He stated that they doubled their cloud revenue during the past year and now have thousands of Teamcenter users running in the cloud.

Additionally, they are certified on both Microsoft Azure and Amazon Web Services (AWS) and are the only PLM solution provider in AWS’ Industrial Software Competency Program. He noted that while Siemens is offering cloud-ready applications and developing cloud-native solutions, and they do not intend to push their customers to the cloud. Siemens will let each customer decide if, when, and how they will use cloud infrastructure and solutions. CIMdata thinks this is a very pragmatic approach that customers will appreciate.

The sections that follow provide more information about many of the strategic themes used to organize the meeting content.

Generative Engineering

Siemens has introduced the concept of Generative Engineering to enable next generation product engineering. It supports innovative design, development, and manufacturing of complex cyber-physical systems requiring cross-domain synthesis and optimization (e.g., mechanical, electrical/electronics, embedded software, and controls). While industry embraces the concept of Generative Design to take advantage of new technologies in 3D design, simulation and topology optimization, and manufacturing (both additive and subtractive), the focus has been primarily at the sub-system and component levels. Generative Engineering expands this to an overall systems-level view of product design where functional requirements and design exploration to identify optimal architectural design alternatives that are then iterated in a closed loop, managed across all of the engineering domains at the systems, sub-systems, and component design levels. Cross-domain best practices and team knowledge and learning are captured and enable collaboration across the global organization and supply chain. CIMdata believes the Siemens approach greatly expands the value of generative design compared to geometry-focused generative design by including other domains like electrical/electronics, software, IC design, and others.

The key elements of Siemens’ Generative Engineering approach are:

1. A common product innovation platform foundation (Teamcenter) that enables systems level design automation with process and knowledge capture, multi-dimensional analytics, and closed

CIMdata PLM Industry Summary

loop feedback across engineering and manufacturing domains.

2. Advanced capabilities for multi-disciplinary, multi-physics, and multi-scale modeling and simulation, robust design and optimization, and machine-in-the-loop/Hardware-in-the-Loop/Software-in-the-Loop/Human-in-the-Loop (MiL/HiL/SiL/HuiL).
3. Conceptual systems and component level design tools with capabilities for model verification and validation via physical prototype testing.
4. Open cross-domain platform based on industry standards for data interoperability and widely used systems architecture modeling languages supporting requirements, functional, logical and physical domains.
5. In-service data can be combined with digital models throughout the product lifecycle via Teamcenter connections to IIoT platforms such as Siemens MindSphere.

Closed Loop Digital Twin

Throughout the event both Siemens and its customers described the importance and use of the holistic digital twin in closed loop processes. Presenters stated that to achieve the full fidelity of the digital twin it must include product, production, and performance, and that developing a functional twin is a systems integration task. It is not just about the geometry but it must include software, electronics, networks, and other factors. Siemens described the foundation for the closed loop digital twin as including the following characteristics:

- Multi-domain—develop the whole product
- Deep—provide unified configuration across domains with visualization and VR
- Multi-discipline—support more business processes for more people
- Traceable—virtually validate and test every step of the way
- Connected—inform the whole process; capture knowledge, real-world feedback to design, simulation, and manufacturing information
- Modern—built on an architecture that is scalable, open, and low cost

Siemens is using this full definition to provide actionable intelligence via bi-directional active feedback loops between the real world and the virtual world. CIMdata supports Siemens' holistic digital twin concept and believes that the closed loop twin is what companies need to achieve maximum benefit from the use of digital twin technologies.

Autonomous Mobility

Dr. Jan Leuridan, SVP of Simulation and Testing Solutions, cited a McKinsey estimate that there will be more than 200 electrical vehicle startups by 2021, an IHS projection of 21 million autonomous vehicle sales by 2035, and a ReThinkX forecast of 6 billion ride-share passenger miles at 1/3 the cost by 2030, to focus his presentation on the design, verification, and validation challenges of autonomous and electric vehicles. Over the past 4 or 5 years, Siemens has strategically acquired businesses such as LMS, CD-adapco, Polarion, Mentor Graphics, TASS International, Infolytica, and Sarakol, to help accelerate the development of electric and autonomous vehicles. CIMdata agrees that investing in broad multi-physics capabilities is essential to meeting Siemens vision for autonomous mobility.

Siemens offerings are intended to help model and simulate at the micro and the macro levels for design,

CIMdata PLM Industry Summary

verification, and validation every step of the way for silicon, system-on-chip (SoC), IC boards, ECUs, subsystems, and the entire vehicle within its operating environment. Essentially, Siemens offerings enable the development of the digital twin of the vehicle, as well as the digital twin of its operating environment. These twins will be essential for assessing all of the possible scenarios facing autonomous vehicles.

Overall, Siemens provides a suite of solutions that can enable reliable digital twins for autonomous and electrical vehicles, as well as the digital twins of their operating environments to accelerate the economic design, verification, validation, and certification of such vehicles.

Additive Manufacturing

Siemens has made significant progress since the last analyst briefing by repositioning AM from a discrete operation to make single components or prototypes, into an end-to-end vision for producing useful final quality parts at scale, anywhere in the world.

Although there were a number of presentations focused on Siemens' AM solutions, it is significant that AM was also a theme throughout many other presentations during the event. From Dr. Jan Mrosik's presentation about Siemens AG combining the real world with the virtual world, since 2007, as well as during presentations on Generative Design, Digital Factory, Digital Twin, and MindSphere (their cloud operating system), AM was present as a consistent theme throughout.

Mr. Robert Meshel, Director, Siemens Additive Manufacturing Network, outlined how the Siemens AM Network helps customers innovate their designs by drawing upon global expertise of AM design consultancies, AM materials suppliers, specialized print shops, and software tool providers, as well harness global production capacity to scale production and manufacture close or at the location of final part usage. He also explained how using the Network can help engineers create many more design alternatives and retain proven designs in their personal "My Workspace," creating an ever-expanding corporate AM repository of intellectual property (IP). Enhancing learning opportunities and capturing knowledge is essential to taking AM from an art to production readiness. Sharing that learning will help broaden its commercial applications and revenue potential.

Mr. Aaron Frankel, Senior Director Marketing, and Siemens PLM Software's primary spokesperson about their AM strategy, lamented that despite enormous advances in the AM industry toward making final end-use production parts, most people still think AM is for prototypes. Mr. Frankel continued to highlight how this is changing and went on to elucidate Siemens digital twin concept for AM—how Siemens is repositioning AM from prototype use to end-use production, and how the concept expands into digital twins of the product, production, and performance (see Figure 1). This end-to-end digital twin concept allows customers to use insights gained from production and product performance to make improvements to all aspects of a product throughout its entire lifecycle. These approaches are commonplace in traditional manufacturing, leveraging a knowledge base of materials and processes built over many decades. For AM to succeed commercially, companies like Siemens and their customers must be able to learn faster and apply that knowledge to rapidly develop the same maturity for using AM in production.

Electronics Manufacturing

Mr. Fram Akiki, Vice President, Electronics Industry, commented that increasingly, the competition in the electronics industry is driven by personalization, miniaturization, customer experience, and application in mature industries. In CIMdata's opinion, these elements should be considered in light of constraints of: (1) cost due to remote low-cost manufacturing competition, (2) time-to-market and

CIMdata PLM Industry Summary

dynamic inventory due to direct shipping from factory and Internet shopping, and (3) large numbers of variants and configurations due to mass-customization. Essentially, electronics manufacturing must undergo digital transformation to cope with ever increasing product mix, demand volatility, and the need to maintain operational performance of automated processes.

Mr. Oren Manor, Director of Business Development for Siemens' Valor Division, presented the integrated capabilities offered by Siemens to help the digital transformation of electronics manufacturing, based on machine-to-machine closed-loop feedback and closed-loop feedback from manufacturing to design via design-for-manufacturing (DFM) analysis. He described three focus areas, namely, integration for enabling full flow coverage from design-through-manufacturing, improving manufacturing performance and flexibility, and finally, maintaining consistent and coherent data across the flow to drive improvement.

The centerpiece of electronics smart manufacturing is the Valor IoT Manufacturing Analytics platform, which is supported by Siemens MindSphere for monitoring and managing global electronics manufacturing operations for precise, real-time manufacturing utilization and overall equipment effectiveness (OEE). It collects and manages data sources from Valor shop-floor modules, thus providing visibility into materials management, shop floor equipment, traceability, supply-chain operations, and product quality, globally to support supply-chain performance. Valor IoT Manufacturing Analytics offers a comprehensive suite of IoT services and solutions that fulfil customer requirements and provide several opportunities to develop and operate digital offerings by facilitating a smooth connection between the electronic and mechanical flows, with real-time updates between each domain. The analytics-based feedback loop bridges Teamcenter manufacturing for electronics, Valor NPI DFM, and Valor process preparation, and the Camstar electronics suite, which consists of Camstar Scheduling, Valor MSS Materials Management, Valor IoT Manufacturing Analytics, and MindConnect Valor.

CIMdata observes that Siemens has provided a comprehensive solution for electronics manufacturing that enables all the necessary feedback loops between design and manufacturing to help businesses compete in the ever changing electronics industry, by providing required integrations between PLM, MES, IoT platform, edge devices, and manufacturing BI analytics.

EDGE & IIoT

A core differentiator of Siemens' digital innovation platform is support for a holistic digital twin. The IoT and the IIoT are critical enablers to achieve this vision. Companies are leveraging inexpensive sensors and communication technology to make both their manufacturing processes and their products smart and connected. Companies can instrument their manufacturing processes and their products to track their performance vis-à-vis what the product and production twins say it should be. One major question in IIoT implementations is where do you manage the vast amounts of data these strategies can generate? MindSphere, Siemens "cloud-based, open IoT operating system" allows you to stream data directly to the cloud or you can process it locally, referred to as on the edge, using edge computing resources. Having local, connected computing hardware in the field can reduce communications cost and time. Many analyses can be readily conducted and consumed locally. In April 2018, Siemens announced their offering to meet this IIoT need, Siemens Industrial Edge¹, a product line that includes: an Edge Management System, Edge Devices, and Edge Apps.

In his opening remarks Dr. Mrosik described Siemens' growing IIoT ecosystem: over 1 million

¹ <https://www.siemens.com/press/en/pressrelease/?press=/en/pressrelease/2018/digitalfactory/pr2018040239dfen.htm>

CIMdata PLM Industry Summary

connected devices (up from 800,000 last year), over 600 new tenants on MindSphere in the last six months, all supported by Siemens, and over 160 MindSphere partners. In January 2018, Siemens AG announced the MindSphere World Association, an alliance focused on developing an IIoT ecosystem around MindSphere². CIMdata is impressed with the rapid expansion of the MindSphere ecosystem and the progress shown by the customer presentations at this event. A central tenet of Siemens' strategy is openness, which requires working with a wide range of market stakeholders. But in CIMdata's opinion their digital innovation platform and holistic digital twin strategy is taking enabling (and empowering) heterogeneity to a new level.

Just as in our everyday world, for Siemens to be successful, it's all about the apps. Of course, their core PLM portfolio includes a wide range of robust applications. They and their partners are building MindApps that can leverage other enterprise knowledge to power reporting and advanced analytics. The results can be delivered to a wide range of users as clearly and quickly as possible in a way they can best consume. Active Workspace helps deliver on this promise. But Siemens and their ecosystem partners can only build so many apps. Users know better about what they want and need than their solution providers. Why not put the tools in users' hands to help them get it? With their acquisition of Mendix, discussed at the meeting but not yet closed, Siemens will get a leader in the "low code" development platform space.

Mendix can cite some gaudy efficiency gains like developing apps 10x faster using 70% less resource. In the PLM space, this is one of the benefits that PTC received from their ThingWorx acquisition: the ability to rapidly develop IoT apps with little or no code, that can readily leverage other enterprise data sources. In Mendix, Siemens gains a market leader in the low code space with over 650 customers in 29 countries and a huge ecosystem of over 60,000 developers, and over 135 partners, including both SAP and IBM, which deployed Mendix on their cloud platforms. Mr. Derek Roos, Mendix's CEO, stated that their approach lets people with domain knowledge easily develop the apps they need. Mendix describes their offering as "any existing database, any legacy system, any event, any service, any file, any cloud." If this is indeed true, and their success suggests that it might be, they could support extremely heterogeneous environments. In his opening session, Mr. Hemmelgarn stated that he loved the Mendix quote and the event made clear that the whole Siemens product line is looking forward to leveraging Mendix to deliver better solutions across their digital innovation platform. In his remarks, Mr. Hemmelgarn also envisioned that their customers will use Mendix to more rapidly digitize processes to build their own digital responses to the market. Having tools that make it easy for subject matter experts to develop their own applications, or more directly contribute to their development than in the past, will help ensure that those new applications meet their needs and can be delivered at the pace needed to support digital transformation initiatives.

IaaS/SaaS

Mr. Ray Krok, Vice President of Innovation, Architecture and Embedded Systems, discussed Siemens' cloud strategy. Siemens demonstrated their strong commitment to providing cloud-based solutions across their Digital Innovation Platform, offering both Integration as a Service (IaaS) and Software as a Service (SaaS) solutions. Teamcenter (PLM), MindSphere, and the TIA Portal (Manufacturing Operations Management) are offered as cloud platform services, with the full set of applications offered as SaaS. This shown in Figure 2.

² <https://www.siemens.com/press/en/pressrelease/?press=/en/pressrelease/2018/corporate/pr2018010136coen.htm>

CIMdata PLM Industry Summary



Figure 2—SaaS Solution Landscape
(Courtesy of Siemens PLM Software)

CIMdata research on cloud PLM deployments indicates that PLM prospects are now “cloud ready,” with 94% of surveyed respondents deploying cloud PLM solutions within the next two years, and 37% planning cloud-only PLM deployments.

Mr. Krok announced that Teamcenter now supports a number of global cloud providers, having recently been certified for use with both Microsoft Azure and Amazon Web Services (AWS). Support for other global cloud service providers is planned in the near future.

Overall, CIMdata is impressed with the progress Siemens has made in supporting cloud-ready offerings the market, with support across their broad product line and using MindSphere as a managed, secure platform for all cloud and IIoT transactions.

Conclusion

While this commentary is longer than usual, in some ways it is only scratching the surface of the information provided at this 2.5-day analyst event. Siemens’ PLM solution portfolio has become so broad that one such event is really not large enough to contain it. Organizing the event around strategic themes did help show how different parts of the Siemens portfolio can be used in combination to address those themes. As long has been true of Siemens, their efforts are both broad and deep. Time and again being part of one of the world’s largest manufacturers has proven to be a strategic advantage that its PLM competitors and others competing around those strategic themes find tough to beat. With all of these tools, and the work done to create optimized process flows, Siemens will be challenged to deliver all of these benefits in a heterogeneous solution environment that is typically found in most industrial organizations. Many of their processes and workflows seem to work best using combinations of Siemens offerings. But their efforts at ecosystem building for MindSphere, the cloud, additive manufacturing, and with the acquisition of Mendix, Siemens remains committed to meeting their customers where they are and helping them reach their vision for PLM, digitalization, and Industry 4.0.

About CIMdata

CIMdata, an independent worldwide firm, provides strategic management consulting to maximize an enterprise’s ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM). CIMdata provides world-class knowledge, expertise, and best-

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practice methods on PLM. CIMdata also offers research, subscription services, publications, and education through international conferences. To learn more about CIMdata's services, visit our website at <http://www.CIMdata.com> or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495.533.666.

 [Click here to return to Contents](#)

James White, CIMdata's Director for Additive Manufacturing Strategy, to Participate in an upcoming Webinar

21 September 2018

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces that James White, Director for Additive Manufacturing Strategy, will take part in a webinar to discuss how additive manufacturing (AM) is redefining Lean within the work environment.

In this webinar, "Lean Manufacturing Renaissance Enabled by Additive Manufacturing," Mr. White will define how major companies like Boeing and Apple navigate the second wave of Lean.

Mr. White has over 30 years of PLM, Additive Manufacturing/3D Printing, and general manufacturing industry experience. He has held roles at Fortune 1000 software and consulting companies where he was responsible for Product Management, Sales Management, Strategic Alliances, Major Account Management, and Business Development. He has extensive experience in market development, new product introduction, and client management across various geographies. His extensive industry experience includes Hi-Tech, Medical Device, Software, and Heavy Industrial, delivering new disruptive products, systems, and solutions. His passion for AM/3D Printing comes from a belief that customers need guidance to fully take advantage of recent advances in AM materials, machines, and design tools.

The webinar, which is hosted by Stratasys, will take place on Tuesday, 25 September at 11:00 a.m. EST. To learn more or register, visit <https://www.cimdata.com/en/events/cimdata-supported-events/event/418-webinar-lean-manufacturing-renaissance-enabled-by-additive-manufacturing>.

About CIMdata

CIMdata, a leading independent worldwide firm, provides strategic management consulting to maximize an enterprise's ability to design and deliver innovative products and services through the application of Product Lifecycle Management (PLM) solutions. Since its founding in 1983, CIMdata has delivered world-class knowledge, expertise, and best-practice methods on PLM solutions. These solutions incorporate both business processes and a wide-ranging set of PLM-enabling technologies.

CIMdata works with both industrial organizations and providers of technologies and services seeking competitive advantage in the global economy. In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia-Pacific. To learn more about CIMdata's services, visit our website at www.CIMdata.com, follow us on

CIMdata PLM Industry Summary

Twitter: <http://twitter.com/CIMdataPLMNews>, or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA, Tel: +1 734.668.9922. Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands, Tel: +31 (0) 495.533.666.

 [Click here to return to Contents](#)

Senior Technical Fellow from Boeing Research & Technology to Present at CIMdata's PLM Road Map™ EMEA 2018 Conference

21 September 2018

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces that Mr. Donald Farr, a Senior Technical Fellow on the Systems, Support, and Analytics Integrated Technology Team at Boeing Research & Technology (BR&T), will make a presentation at PLM Road Map EMEA 2018. This one-day event will be held in collaboration with PDT Europe. The events will take place on 24 & 25 October at Le Meridien Hotel, Stuttgart, Germany. The theme for PLM Road Map is “Digitalizing Reality—PLM's role in enabling the digital revolution.”

The Systems Engineering “V” has served government, industry, and academia well for over 25 years as a model of the product development process for complex engineered systems. This familiar V portrays the decomposition of requirements and design definition from system down to components and the resulting system integration and validation from components up to the end-user system. Today, exponential improvements in computing speed and power have allowed aerospace engineers to dramatically increase the use of analytical models and simulations leading to the creation of digital twins. Corresponding advances in software and data standards enable the use of a single-source of authoritative data and streamline the analytical interfaces and functional handoffs via the digital thread. Furthermore, as new capabilities are introduced into the model-based engineering (MBE) process, the digital thread can extend across customers, OEMs, and suppliers, providing an unprecedented level of concurrency, collaboration, and feedback throughout the ecosystem.

In his presentation, “An Alternate View of the Systems Engineering "V" in a Model-Based Engineering Environment,” Mr. Farr will introduce attendees at PLM Road Map to the “MBE Diamond,” an approach that captures these advances and brings the digital thread to life by enumerating the physical and virtual paths into a model for concurrent collaboration in the product lifecycle that spans the product, production system, and support system. He will also share an approach for establishing a true cyber-physical system where the digital twin is embedded with the physical platform.

Mr. Farr is currently working on implementing MBE approaches using BCA/BDS uses through a representative Enterprise Digital Thread. His first assignment at BR&T was the development and integration of an advanced discrimination technology into the Missile Defense architecture. Mr. Farr joined the Technical Fellowship Program as an Associate Technical Fellow while he was working on the advanced communication system on the Comanche helicopter program. He became a Technical Fellow while he was developing technology for Network Centric Operations (NCO) demonstrations. He is recognized as Boeing's expert for digital communication and multilevel security on the Comanche helicopter and as one of Boeing's leading experts in NCO technology development and integration.

PLM Road Map EMEA, in collaboration with PDT Europe, is the must-attend event for PLM industry leaders and PLM practitioners globally—providing independent education and a collaborative networking environment where ideas, trends, experiences, and relationships critical to the industry

germinate and take root.

For more information see <https://www.cimdata.com/en/education/plm-conferences/2018-plmrmeurope-pdt/2018-plmrmna-about-plmrm>

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Acquisitions

Cognizant to Acquire Advanced Technology Group to Expand Cloud Quote-to-Cash Capabilities

18 September 2018

[Cognizant](#) today announced the acquisition of Advanced Technology Group (ATG), a privately-held provider of customer and revenue management consulting and implementation services focused on the Salesforce Platform. The transaction is expected to close in the fourth quarter of 2018 subject to customary reviews.

Kansas-based ATG is a leader in helping companies effectively plan, implement, and optimize automated cloud-based Quote-to-Cash (Q2C) business processes and technologies. Streamlined and automated Q2C enables greater efficiency, more accuracy, and better business visibility from initial customer contact to final payment. An effective and integrated Salesforce Q2C implementation improves the core business processes used to acquire new customers, maintain and cross-sell existing customers, and provide a superior customer experience.

Founded in 2000, ATG has delivery centers in Kansas, Missouri, Ohio and Montana, with the largest team of specialized Configure, Price, Quote (CPQ), Contract Lifecycle Management (CLM), and Billing practitioners for multiple technology platforms anywhere. ATG's clients include major financial services, healthcare, communications and technology organizations ranging from well-funded startups to fast growing mid-market and large global enterprises. ATG will become part of Cognizant's Enterprise

CIMdata PLM Industry Summary

Application Services practice, which has among one of the largest number of Salesforce-trained experts in the world.

"Managing quote-to-cash effectively is a key part of a successful digital business model, providing a solid foundation for accelerating revenue growth, to rapidly introduce new products, and implement dynamic digital marketing strategies," said Rajesh Balaji, Global Delivery Head, Enterprise Application Services, Cognizant. "Cognizant has broad expertise helping clients around the world design, implement and manage their digital business strategies on the Salesforce platform. ATG's deep Q2C domain expertise and extensive Salesforce CPQ and Billing implementation offerings strengthen Cognizant's cloud solutions portfolio as clients increasingly shift to business models that are based on recurring revenue streams, subscriptions, consumption, IoT, and as-a-service offerings."

"ATG's advisory led approach coupled with our methodology, tools and best practices have been carefully refined to generate positive outcomes for hundreds of clients over the past 18 years," said Michael Walsh, CEO, ATG. "By joining forces with Cognizant, we are better able to expand our capabilities to help global clients be more responsive to market changes and succeed with digital monetization ecosystems encompassing people, processes and technology."

"Cognizant and ATG are key Salesforce partners focused on helping our customers improve sales processes on everything from initial leads and opportunities to quotes and contracts," said Don Lynch, Senior Vice President, Worldwide Strategic Alliances at Salesforce. "The combined expertise and capabilities of Cognizant and ATG will further enhance the value provided to customers by utilizing the world's leading CRM platform."

 [Click here to return to Contents](#)

Infor Acquires Vivonet

17 September 2018

[Infor](#) today announced it has acquired Vivonet, Inc., an industry leader in cloud-based hospitality solutions. The acquisition extends Infor's suite of solutions for hospitality with point-of-sale (POS) and inventory and procurement functionality for companies in the food service management, full and quick service restaurant, and hotel food and beverage micro-verticals.

Founded in 2000, Vancouver, BC-based Vivonet offers solutions for POS, kiosks, kitchen systems, payments, labor scheduling, and food and labor cost management. Vivonet products are deployed at more than 4,000 locations, with customers including Sodexo, Delaware North, Booster Juice, Burger 21, Pita Pit, and Texas Chicken & Burgers.

"Vivonet's specialized applications are highly complementary to Infor, creating a more comprehensive suite for customers, and expanding our marketing opportunity into three new foodservice micro-verticals," said Charles Phillips, CEO of Infor. "Last-mile industry functionality enables Infor customers to use the cloud to harness the power of their mission-critical data to transform their business with machine learning, predictive analytics, and artificial intelligence."

Infor is one of the world's largest providers of hospitality software. Its customers include 6 of the top 10 largest hotel brands, and its products are in use at almost 20,000 hotel and casino locations worldwide. Infor Hospitality solutions, which include robust capabilities for property management, revenue management, asset and incident management, analytics, and artificial intelligence, will be extended with

POS from Vivonet.

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Siemens acquires Lightwork Design to deliver advanced 3D data visualization

18 September 2018

Siemens has entered into an agreement to acquire Sheffield, United Kingdom-based Lightwork Design, a computer software and technology licensing company specialising in 3D rendering software development and virtual reality (VR) experience generation. With the addition of Lightwork Design, Siemens PLM Software will provide customers with enhanced 3D data visualization, high-end rendering and VR capabilities via its comprehensive suite of 3D product lifecycle management (PLM) applications.

In addition, the acquisition expands Siemens' 'open business' strategy with a commitment to continue to provide software toolkits for 3D data pre-processing for visualization, rendering and virtual reality, helping continue Siemens' market-leading position in technology licensing to independent software vendors. The offerings of Lightwork Design will be combined with Siemens' existing PLM Components business, which includes [Parasolid®](#) software, [D-Cubed™](#) software and [Kineo™](#) software, where more than 240 companies integrate Siemens PLM Software technology into 350 commercial applications for the benefit of six million end-users.

“With this acquisition, we increase the accuracy of the digital twin by adding advanced visualization, rendering and virtual reality technology into all phases of the virtual product development process,” said Tony Hemmelgarn, CEO, Siemens PLM Software. “The visualization and virtual reality space is continually changing and growing, and Lightwork Design has the advanced 3D data visualization, rendering and virtual reality technology required to help keep us in the forefront of the marketplace.”

This latest acquisition builds upon previous investments in software offerings for the digital enterprise, which connects virtual product development and production planning with the real production environment and lifecycle support. Lightwork Design capabilities are already embedded into [NX™](#) software, Siemens' 3D design application, and will also be added to other offerings across the Siemens portfolio. This enhances the digital twin by adding critical visualization information to the virtual product: from the initial product design and sophisticated product engineering, to simulation and test and through design visualization. Using more realistic imagery, simulations and VR environments can help customers identify and address potential product problems early in the lifecycle, saving both time and cost.

“The demand for high-end, interactive and consistent product visualization in design and manufacturing is growing quickly,” said David Forrester, CEO, Lightwork Design. “Combining our Iray®+ technology and virtual reality collaborative design review software with Siemens PLM Software's business will enable us to provide world-class solutions to the design and manufacturing industry on an even larger scale. We look forward to the opportunities for further development and integration of our visualization technology with existing Siemens software to contribute to Siemens' broader digitalization strategy.”

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Company News

Aras Outlines Core Tenets for Managing Increasing Demand for Simulation Across the Product Lifecycle

17 September 2018

[Aras](#) today announced its core tenets for managing [simulation](#) in anticipation of exponential growth in demand for simulation at all stages of the product lifecycle. The company projects a growing wave of simulation driven by increasing product complexity, competitive pressures to reduce time to market, and new technologies such as Digital Twin and IoT.

Connecting Simulation Across the Product Lifecycle

The benefits and rationale for broader use of simulation as an enabler for early design verification and reduced reliance on physical prototypes are well documented and an opportunity that manufacturers must pursue for both pragmatic and competitive reasons. As product complexity increases and businesses seek opportunities for growth, simulation moves to the forefront for strategic capabilities around the Digital Twin, for predictive maintenance and closed-loop development, as well as additive manufacturing and generative design. As a result, Aras anticipates a looming wave of demand for simulation that manufacturers need to prepare for and incorporate into their product design, development, and manufacturing processes to maximize simulation's value.

Game Time for SPDM

Although access to simulation tools and their high-performance computing requirements has always been limited by the deep domain and technical knowledge required, the greater barrier to simulation's inclusion in mainstream engineering processes has been the limited adoption of existing simulation process and data management (SPDM) tools. Without an effective SPDM capability, organizations are not able to efficiently incorporate simulation into systems engineering processes or to accurately connect simulation outputs with product data and product configuration during development, much less simulate an asset in service for many decades as in aerospace and defense.

Core Tenets for Managing Simulation at Scale

Aras believes the same characteristics of next-generation PLM – built on a platform that is open, flexible, scalable, and upgradable – must also apply to SPDM for it to effectively manage simulation at scale. Specifically, to support simulation across the lifecycle and meet the needs of manufacturers across a range of industries, SPDM must adhere to the following core tenets:

- Embrace in-house tools, including spreadsheets and custom applications, as well as the broad range of heterogeneous, commercial vendor systems
- Enable and support multi-discipline scenarios, mixed-fidelity models, and different data types that comprise the range of simulation expertise

CIMdata PLM Industry Summary

- Support simulation use cases through the product lifecycle; most importantly, those that cross lifecycle stages such as from operational feedback to design or simulation of in-service performance
- Integrate simulation processes fully with model-based engineering processes to create and maintain the Digital Thread for today's complex cyber-physical systems
- Be transparent and “invisible” to users in managing the pedigree of a simulation model and any associated geometry, performance parameters, and results.

Aras' open, platform-based approach to PLM is transforming product processes for the largest Auto OEMs, Aerospace & Defense, Shipbuilding, and High Tech Electronics companies. Bringing this approach to simulation processes is critical to manage the coming demand for simulation and maximize its value in systems engineering, configuration and variant management, verification and validation (V&V), design reuse, compliance and emerging application in Digital Twin and IoT condition monitoring.

Don Tolle, CIMdata's Practice Director for Simulation-Driven Systems Development, said, “Despite the availability of simulation process automation and data management tools for almost two decades, the utilization of such tools in industry has been far less effective and pervasive in comparison to CAD data management, especially outside of the major OEMs in Automotive and Aerospace.”

“An enterprise simulation strategy and multi-year implementation roadmap supported by SPDM is critical to unlock the business value of simulation and enable its application throughout the product lifecycle and into customer usage and support as part of a next generation Digital Twin strategy,” continued Mr. Tolle.

Marc Lind, SVP, Strategy, at Aras said, “Our customers want to expand use of simulation on a number of fronts, from replacing physical testing to enabling closed-loop product feedback and predictive maintenance with the Digital Twin. We are now able to help them incorporate simulation into mainstream design to achieve those goals. Most importantly, bringing simulation onto our open platform enables it to become an inherent part of the Digital Thread.”

 [Click here to return to Contents](#)

Bamboo Rose Launches Services as a Subscription Model

20 September 2018

[Bamboo Rose](#) today announced the launch of their services as a subscription model. This model offers a portfolio of services driven by business outcomes and is delivered as a fixed-fee, multi-year subscription.

With this new subscription model, retailers can better leverage their technology investments and the Bamboo Rose platform, as well as gain regular, planned access to upgrades, industry experts and resources.

“When retailers purchase software to support their supply chain and sourcing operations, they are, on average, only using about 30 percent of that software's capabilities – that's a lot of shelf-ware,” said Chirag Patel, chief customer officer of Bamboo Rose. “With this offering, we see an opportunity to provide retailers with a software approach focused on continuous improvement and innovation that will

CIMdata PLM Industry Summary

also lower their technology costs by 10 to 30 percent per year over the long run.”

This new offering — which functions in on-premise or cloud environments — includes several different subscription services modules:

- **Platform upgrade:** Enables Bamboo Rose customers to access new features first, avoid any potential out-of-compliance penalties, and allows them to stay ahead of trends by taking advantage of the latest retail supply chain technology, like visual dashboards and 3D sampling.
- **Functional & technical optimization:** Provides a 360 view of customer’s communities and thorough study of the business and technical environments to optimize user experience.
- **Advisory services:** Offers access to Bamboo Rose experts and regular on-site workshops that explore retail trends like digital innovation, keeping customers up-to-date on the fast-changing retail landscape.
- **Packaged training services:** Includes extensive application and technical training for classroom-based customers to support advanced platform use, helping customers take greater ownership of the technology and explore new applications for their unique businesses.

For more information about Bamboo Rose, visit bamboorose.com.

 [Click here to return to Contents](#)

Dataiku Named a Strong Performer in Predictive Analytics Report

18 September 2018

Dataiku appeared as a strong performer in a report issued recently by an independent research firm. The report also stated that “Dataiku is becoming the multimodal force majeure” in the space. Dataiku is an end-to-end solution encompassing all steps in the data-to-insights process (as opposed to being a specialized tool for a certain team or specific part of a data project).

In addition, Dataiku is designed for all members of a data-driven organization - from beginner business analysts to IT/data engineers, data scientists, and everyone in between. The platform’s breadth in these two respects allows enterprises around the globe to go from raw data to insights quickly.

“We’re proud to be recognized as a strong performer... and for the work we’ve done to make large-scale data science and machine learning (including deep learning and AI) more accessible to the enterprise, both in terms of self-service analytics and operationalization of models in a production environment,” said Florian Douetteau, CEO of Dataiku. “And with our latest release, Dataiku 5.0, we’re looking forward to bringing Enterprise AI within reach of even more businesses, helping them get real value from their data.”

Today, more than 150 companies worldwide - including GE, Unilever, Sephora, KUKA, and FOX - use Dataiku daily to power their operations with data and solve industry problems such as fraud, customer churn, logistic optimization, equipment maintenance, and much more.

 [Click here to return to Contents](#)

Fishbowl Expands Partnership with PTC

18 September 2018

Fishbowl Solutions is proud to announce their new PTC software resell partnership. Through this partnership, Fishbowl is now an authorized reseller of PTC Vuforia. Fishbowl will market, sell, service, and support PTC Vuforia for customers in Illinois, Iowa, Minnesota, Nebraska, North Dakota, South Dakota, and Wisconsin.

PTC Vuforia enables customers to visualize, instruct, guide, and improve interactions with physical things. The Vuforia product portfolio includes solutions that provide customers the ability to develop cross-platform AR applications that incorporate CAD and IoT (Internet of Things) data, view them on mobile devices as well as smartglasses like Microsoft HoloLens, and share PTC Creo 3D CAD content through AR with third parties. Fishbowl Solutions' PTC partnership enables them to resell the following Vuforia components:

- Vuforia Studio (formerly ThingWorx Studio) – enables users to reuse 3D CAD content, incorporate step-by-step instructions and IoT (Internet of Things) data, and scale AR authoring and publishing in industrial enterprises
- Vuforia Chalk – enables technicians to get remote assistance from experts

“Fishbowl already has a world-class Windchill implementation team and we have Fishbowl apps to automate and integrate PTC solutions to deliver valuable return on investment for our customers. This new partnership is exciting because we will have the opportunity to resell and build solutions around the Vuforia augmented reality platform too,” said Tim Gruidl, president of Fishbowl Solutions. “Fishbowl’s overall understanding of product data management and experience integrating PTC Windchill with 3rd-party systems means that we have the expertise to do the same for your AR applications. Data from Windchill, as well as systems such as Oracle Service and Sales Cloud, can be surfaced to your AR application to create a 360-degree view of your product.”

“We’re pleased to welcome Fishbowl Solutions to the PTC Partner Network,” said Kerry Grimes, divisional vice president, PTC Partner Network. Our carefully-selected network of partners allows us to leverage market expertise and deliver the product and service quality synonymous with the PTC brand.”

 [Click here to return to Contents](#)

Fluor Uses IBM Watson to Deliver Predictive Analytics Capability for Megaprojects

13 September 2018

[Fluor Corporation](#) and [IBM](#) announced today the use of artificial intelligence-based systems to predict, monitor and measure the status of engineering, procurement, fabrication and construction (EPC) megaprojects from inception to completion. Fluor’s extensive engineering, fabrication, construction and deep supply chain expertise, coupled with artificial intelligence and analytic technologies from IBM Watson, forms the foundation for big data analytics and diagnostic systems that help predict critical project outcomes and provide early insights into the health of projects.

Large capital projects, especially in the energy and chemicals, and mining and metals markets, are incredibly complex with enormous amounts of data, people and moving parts that are constantly changing and need to be understood to keep a project on schedule and budget. To gain insights from

CIMdata PLM Industry Summary

project data in nearly real-time and to understand the implications of changing factors, Fluor is introducing the EPC Project Health Diagnostics (EPHDsm) and the Market Dynamics/Spend Analytics (MD/SAsm) systems. Developed with IBM Research and IBM Services, working collaboratively with Fluor, these innovative tools help to identify dependencies and provide actionable insights by fusing thousands of data points across the entire life cycle of capital projects.

Fluor selected IBM Research and IBM Services to assist in the development of these advanced systems as part of its global data-centric transformation strategy. Fluor can now leverage a wealth of experience from across its entire historical data store and global workforce to quickly understand markets and monitor project factors impacting cost and schedule to drive improved certainty and cost efficiency across the entire project scope.

“Harnessing the power of data to make meaningful insights will alter how megaprojects around the world are designed, built and maintained,” said Arvind Krishna, senior vice president and director of IBM Research. “Together with IBM, Fluor is embracing artificial intelligence as an engine for transformation in data-driven industries that are ripe for innovation including energy and chemicals, and mining and metals construction projects.”

“The ability to rapidly analyze and comprehend big data that drives decisions at any point throughout the engineering, procurement, fabrication and construction of today’s megaprojects is an imperative for the success of our company and the protection of our clients’ capital investments,” said [Ray Barnard](#), Fluor’s senior executive vice president of Systems and Supply Chain. “And to be the best at predictive analytics and project execution in our industry, we teamed with IBM to create EPHD and MD/SA, an advanced and effective set of diagnostic tools and capabilities that rapidly predict best-in-class pricing globally, project status and outcomes, and improves the quality of services and decision-making as we serve our clients around the globe.”

The EPHD and MD/SA systems are designed to transform complex data into actionable business insights using domain-driven semantic models to guide artificial intelligence-based predictive and diagnostics modeling. A unique feature of the systems is the blending of data with domain expertise to learn models that are operationally insightful. An advanced cognitive user interface provides seamless access to the data, reports and results of the analysis, using EPC domain-sensitive natural language conversational interface. The underlying domain understanding is used to guide project diagnostics and provide natural language summaries based on the reports, with data visualization techniques to ease its quick consumption and understanding.

These tools assess the status of a project by:

- Predicting issues such as rising costs or schedule delays based on historical trends and patterns.
- Gaining earlier insights from many sets of complex factors across project execution.
- Identifying the root causes of issues and the potential impacts of changes as input to the decision-making process including estimate analysis, forecast evaluation, project risk assessment and critical path analysis.

“Besides the work Fluor was already doing on predictive maintenance and construction sequencing, five years ago we began investing in predictive analytics and artificial intelligence capabilities to further evaluate performance and determine critical project outcomes as a part of our data-centric journey,” said Leslie Lindgren, Fluor’s vice president of Information Management. “We will be using these innovations on select large and megaprojects to quickly discover trends, patterns and meaning in our

CIMdata PLM Industry Summary

structured and unstructured data that deliver competitive advantage through the digital transformation of data into critical information with significant benefits to our clients, other stakeholders and our company.”

As Fluor continues on its global data-centric transformation journey, the company plans to further develop and expand EPHD and MD/SA using analytics and artificial intelligence capabilities from IBM Watson and integrate them into Fluor’s processes.

 [Click here to return to Contents](#)

Flutura Partners with Siemens to Offer Business-impacting Industrial IoT solutions

17 September 2018

Flutura today announced its partnership with Siemens to help drive the adoption of Industrial Internet of Things (IIoT). The partnership will enable customers to benefit from pre-built industry-specific applications (Cerebra NanoApps™), built on Cerebra SignalStudio™, Flutura's artificial intelligence platform specifically designed for asset- and process-heavy industries, and MindSphere, the cloud-based, open IoT operating system from Siemens.

MindSphere connects products, plants, systems, and machines, enabling businesses to harness the wealth of data generated by the IoT with advanced analytics, while Cerebra will transform the treasure of data collected into actions driving business results.

"The industrial world is rapidly advancing towards digitalization. With MindSphere, Siemens has developed an innovative cloud-based open IoT operating system with high performance capability to meet this growing demand. As a leader in engineering excellence, innovation, quality, reliability and internationality, it is our privilege to partner with Siemens and help industrial customers unlock massive business value," said Krishnan Raman, CEO and Co-founder of Flutura.

"The Cerebra platform, with its advanced analytics capabilities and ability to integrate physics, heuristics and artificial intelligence to provide advanced diagnostics and prognostics solutions, can deliver tremendous value to the industrial market," said Paul Kaeley, SVP of the Global Partner Ecosystem at Siemens PLM Software. "With Flutura bringing Cerebra's pre-built industry solutions into the MindSphere ecosystem, we can continue to help deliver innovative IIoT Intelligence solutions globally."

Flutura will initially focus the partnership on the speciality chemicals and oil and gas industries. Speciality chemicals offers huge possibilities to drive transformational improvements in product quality and yield. With the oil prices looking up and activities on an upswing, oil and gas presents a unique opportunity for digitalization to drive asset uptime and throughput to new levels.

 [Click here to return to Contents](#)

Judith Michelle Williams Hired to Take SAP’s Diversity and Inclusion Strategy to New Heights as Head of People Sustainability and CDIO

12 September 2018

CIMdata PLM Industry Summary

SAP today announced that Judith Michelle Williams has been appointed head of people sustainability and chief diversity and inclusion officer (CDIO).

Delivering on SAP's commitment to help the world run better and improve people's lives, Williams will grow SAP's diversity and inclusion strategy to fuel innovation and engagement and to drive business success in this rapidly changing digital world.

SAP has made significant strides in increasing workplace equality, achieving its goal of having women fill 25 percent of global management positions as well as being the first multinational technology company to be awarded EDGE certification. In her new role, Williams will be responsible for building upon this success and further establishing SAP as a leader that embraces and drives global diversity and inclusion both internally and in partnership with its customers. Williams will lead business health and diversity and inclusion, which focuses on gender intelligence, cross-generational intelligence, culture and identity, and differently abled people.

Williams has more than 15 years of experience at the forefront of the culture change movement in technology and entertainment, with a deep focus on analytics and strategies to identify and disrupt bias in social systems and corporate culture. She joins SAP from an organization she founded that consults with startups, venture capitalists and accelerators on embedding diversity and inclusion into the foundations of their organizational cultures. Williams has also served as global head of diversity for Dropbox as well as diversity programs manager at Google.

"SAP is a place where every person brings their own unique magic to help the world run better and improve people's lives," said Bill McDermott, CEO of SAP SE. "I couldn't be prouder to welcome a proven leader like Judith to help us be the most inclusive company in the technology industry."

Williams shared, "SAP is an impressive brand not only for the way its technology helps the world run better and improves people's lives, but for its commitment to ensuring the global workforce is representative of all types of people. I am honored to join an organization with the ability to think ahead and engage in addressing workforce and business challenges in alignment with that vision, and I am excited about the potential of our technology to drive change while taking diversity and inclusion at SAP to the next level."

Williams will work from SAP's South San Francisco office, reporting directly to Stefan Ries, member of the Executive Board of SAP SE and chief human resources officer (CHRO).

 [Click here to return to Contents](#)

Montelle Intimates Doubles Business with Visual Next

18 September 2018

[Visual Next](#) today launched a new video showcasing the journey behind the success of their customer, [Montelle Intimates](#). Montelle is a Canadian based designer and manufacturer of women's intimate apparel with the mission of accentuating each woman's femininity and self-confidence without compromising of style and comfort.

In the success story video, Montelle describes their business challenges before working with Visual Next's End2End software solution, which allowed them to scale and compete in the intimate apparel space. Time-consuming tasks such as managing hundreds of SKUs in Excel, sending repetitive emails,

CIMdata PLM Industry Summary

and connecting with third party EDI systems, cost the organization a lot of time and money. By partnering with Visual Next, Montelle saw an increase in efficiency and productivity throughout their operations as well as a boost in sales and customer satisfaction.

“We have pretty much doubled the size of our business since we brought Visual on,” states William Haddad, President at Montelle Intimates. “Visual is allowing us to keep up with the all of the changes in today’s market. With all the disruption that we are facing, with eCommerce and players like Amazon, Visual gives us the tools we need to be able to adapt.”

The Montelle team also outlines the benefits of being able to make strategic business decisions faster based off of real-time data thanks to the Business Intelligence module connected to both Visual PLM and ERP. Montelle was able to reduce their inventory by 30% and reduce the data analysis time by 60%. Furthermore, Montelle describes the benefits of the Visual Sales Force Automation tool that allows them to serve their B2B customers better by automating sales transactions, email notifications and more in order to communicate key information, including order status and shipping.

Charles Benoualid, Visual Next’s Vice President of Research and Development, notes, “We have witnessed Montelle grow their business exponentially since we first implemented Visual Next’s End2End solution. It was important for them to stay agile as a company and adopt technology that would keep them competitive in a shifting market. We’re very pleased to have Montelle as a customer and are very proud to share their success story!”

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NextLabs Announces Global Reseller Agreement with Siemens

17 September 2018

NextLabs®, Inc. today announced that Siemens will resell NextLabs Enterprise Digital Rights Management (EDRM) for the Teamcenter® portfolio. The solution applies data protection to all file types of Teamcenter product lifecycle management (PLM) software so organizations can share their critical information internally and externally with the proper level of security.

Intellectual property, such as R&D data, CAD/CAM designs, trade secrets, and strategic business plans are a company’s most important assets. Given that today’s business often requires organizations to share sensitive information with partners and suppliers located all over the globe, proper security controls have to be in place to prevent unauthorized sharing of sensitive data.

NextLabs EDRM for Teamcenter applies digital rights protection that follows content no matter where it goes. Organizations can share their critical information internally, in the cloud, and throughout the extended enterprise - with the appropriate level of security controls.

NextLabs EDRM for Teamcenter is integrated natively with the program to ensure that data extracted or taken out of Teamcenter is continually protected. The product provides built-in integration with the Teamcenter business object model and transactions to make data protection transparent to the end user. It is also integrated with the Teamcenter file management service, applying digital rights policies to files coming in as well those already stored in the Teamcenter repository. As a result, this policy-based approach becomes an integral part of the business process, protecting the data no matter where it goes – whether on-premises or in the cloud.

CIMdata PLM Industry Summary

NextLabs EDRM protects a wide range of file formats, including those of Teamcenter, Microsoft Office applications, 2D/3D CAD, PDF, HTML, image files, archives, source code, rich media, and more. File classification and rights protection can be initiated either manually or automatically based on rules or events. Policies are enforced in real-time to determine whether access should be granted upon request. Ease of use and accessibility via rich clients, mobile apps, or web browsers highlight the solution's ability to scale globally.

"We strive to protect data regardless of where the data is stored, used, originated from, or sent to," said Keng Lim, CEO & founder of NextLabs. "NextLabs EDRM for Teamcenter is designed to simplify information security and allow users to focus on innovation and what they do best. We have designed our products to be natively integrated with Siemens PLM Software's Teamcenter portfolio to offer the best user experience. Security should be transparent to the end user."

"Customers use Teamcenter software to manage some of their most important product data assets. We know that protecting customer IP is critical for data in store and in motion. To give our customers more choices in how they keep their data safe, we partnered with NextLabs, a leading provider of digital rights management solutions, which is bringing tremendous value to our customers," said Rohit Tangri, Vice President, Product Management, Marketing, and Business Development for Teamcenter at Siemens PLM Software.

 [Click here to return to Contents](#)

NLign Analytics Joins ANSYS Solutions Partner Network

5 September 2018

NLign Analytics Inc. announces its selection as an ANSYS Solutions Partner. The NLign Analytics Platform renders vast amounts of process and repair data onto 3D CAD models for faster and more accurate analysis. Tasks that traditionally took days, or weeks, can be completed in hours. As an ANSYS partner, NLign software will be made more readily available to the global ANSYS user community.

NLign analysis tools are saving companies millions of dollars annually by:

- Streamlining the design/build process
- Decreasing the lead time to manufacturing
- Reducing engineering changes
- Improving first-pass yields
- Helping to monitor the health of aircraft fleets
- Aiding root cause analysis
- Greatly reducing overall program costs

In addition, organizations working toward Model Based Enterprise (MBE) practices are adopting NLign as a core technology that supplies the central fiber of the "Digital Thread."

NLign Analytics CEO, Tom Sharp comments: "We are naturally excited to be recognized as a valued member of the ANSYS Solutions Partner Program supporting current and future ANSYS users

worldwide. Today's accelerated simulation-driven development and engineering processes are fueled with operating test data. The NLign™ platform complements ANSYS simulation software by allowing users to pass inspection findings, aligned to the 3D geometry, to ANSYS for analysis. The analysis results generated by ANSYS can then be saved in NLign, tied to the proper 3D location. This allows ANSYS users to increase efficiency to more fully realize the competitive advantages of simulation-driven product development.”

[!\[\]\(b6caec9f099fb8657f94ea092216c378_img.jpg\) Click here to return to Contents](#)

PLM Supports Conscious Fashion: ARMEDANGELS and Centric Design a Sustainable Future

18 September 2018

Centric Software is delighted to announce the release of a success story about its customer, ARMEDANGELS. ARMEDANGELS was founded in 2007 in Cologne, Germany. The clothing label's philosophy focuses on promoting fair working conditions and using sustainable materials in its supply chain. With a mission to produce 'fair fashion instead of fast fashion', ARMEDANGELS sells a variety of apparel online for men and women, as well as through major retail stores and boutiques in six countries.

ARMEDANGELS started out making T-shirts but has considerably expanded and diversified its product collection, now releasing 4 collections per year for both their MEN and WOMEN departments. As Martin Höfeler, CEO at ARMEDANGELS says, the company needed to reappraise workflows and operations in order to keep up with the demands of success.

“In the early days, we used transparent paper for commenting on fit and measurements after fitting the products ourselves,” says Höfeler. “Employing technical product developers and designers brought a more professional and structural approach to the business.”

“However, we still had limited resources. We created structured stylesheets in Excel to promote a more organized way of working with styles, while keeping the flexibility and openness required by designers. While this gave us better structure, it also introduced additional problems.”

Höfeler also explains that ARMEDANGELS' commitment to fair trade practices and sustainable, organic materials added another layer of complex data to its product lifecycle.

The conclusion was clear: in order to handle an expanding product range and a corresponding amount of data, ARMEDANGELS needed to invest in a Product Lifecycle Management (PLM) solution.

After careful consideration, ARMEDANGELS chose to implement Centric Software's flagship PLM solution, Centric 8. Even from the early stages of their Centric PLM journey, ARMEDANGELS began to see results.

“Data quality has been improved significantly resulting in close to zero data mismatches while time spent updating product information across styles and seasons has been reduced by roughly 50%.” Wirtz also comments on Centric PLM's View Definition model, “This function allows us to collect actionable insights within minutes, even our designers enjoy using it to gather overviews and this saves valuable time for everyone when preparing for meetings.”

[Read the full story at Centric's website to learn more.](#)

 [Click here to return to Contents](#)

Tata Technologies Ltd., I.K. Gujral Punjab Technical University Sign MOU to Set Up 5 Centers for Innovation, Invention, and Incubation

18 September 2018

Tata Technologies Ltd. today signed a Memorandum of Understanding (MoU) with I. K. Gujral Punjab Technical University (IKGPTU) to promote technical education by setting up 5 Centers for Innovation, Invention & Incubation (CIITs) in Punjab. The objective of establishing these CIITs is to facilitate innovation and skill development of students & industry professionals who can eventually be absorbed as skilled resources in the industry. The MoU was signed by Anand Bhade, President, APAC Sales, Global Marketing & Communications, Tata Technologies and Prof. (Dr.) Ajay K. Sharma, Vice Chancellor, IKGPTU at Chandigarh in the presence of S. Charanjit Singh Channi, the Minister of Technical Education & Industrial Training, Punjab.

With the aim of establishing Punjab as a preferred manufacturing investment destination, this collaboration is oriented towards bringing about qualitative improvements in technical education. This will be done by strengthening industry-academia partnerships, training students with industrial experiential learning to improve employability and enhancing the reputation of technical institutions with modern equipment and state-of-the-art technologies. The long-term goal is to create a skilled manpower pool and increase the employability quotient for Punjab's manufacturing sector.

This initiative will be undertaken across 2 phases starting from January 2019 and March 2019 and a hub, which will have four centers namely 'Product Design and Development', 'Domain Exploration', 'Mechatronics and IoT' and lastly 'Advanced Integrated Manufacturing Center'.

Phase 1 will include CIITs at IKGPTU main campus in Kapurthala and Sultanpur Lodhi and in the 2nd phase the CIITs will be established in Chamkaur Sahib and Jalandhar.

Speaking on the occasion, S. Charanjit Singh Channi, Minister of Technical Education & Industrial Training, Punjab, said, "We are extremely happy to have Tata Technologies support I. K. Gujral Punjab Technical University to facilitate the development of CIITs to impart and increase the skill sets required to bridge the skill gap and enhance employability prospects of students in the manufacturing sector."

Talking about this association, Mr. Anand Bhade, President, APAC Sales, Global Marketing & Communications – Tata Technologies said, "We are delighted to partner IKGPTU for this skill development program. Once operational, it will help close to 40,000 students in Punjab to impart practical knowledge and become industry ready. The students and faculty will get a unique opportunity to engage in collaborative research, get access to new technologies and industry content. I am also pleased that our partners such as PTC, MSC Software are supporting us with this industry-academia initiative."

Mr. D K Tiwari (IAS) Secretary – Technical Education & Industrial Training emphasized on the importance of this collaboration adding that these CIITs will enable a large number of youth from Punjab to take up industry-relevant skill training which will help them in securing a better livelihood. These CIITs will cater to various skills needed in the manufacturing centers catering to both high and low end skilling.

"At IKGPTU, we are committed towards promoting technical education in the state at the degree level

CIMdata PLM Industry Summary

and beyond. As a leading engineering services provider, Tata Technologies is perfectly aligned with our goal of propelling Punjab to a prosperous knowledge society. The setting-up of the CIITs will enable improved employability, entrepreneurship and availability of skilled resources in the state,” said Professor (Dr.) Ajay K. Sharma, Vice Chancellor, IKGPTU.

 [Click here to return to Contents](#)

Tech Mahindra Recognized as a Leader in the Dow Jones Sustainability Indices 2018

17 September 2018

Tech Mahindra has been recognized as a leader in the Dow Jones Sustainability Indices 2018 for the fourth consecutive year. Tech Mahindra is one of four Indian companies to be included in the DJSI World Index and one of ten Indian companies in the DJSI Emerging Markets category.

S&P Dow Jones Indices (S&P DJI) is one of the world’s leading index providers, and RobecoSAM is an investment specialist focused exclusively on Sustainability Investing (SI). The DJSI ranking is a validation of Tech Mahindra’s focus on driving its sustainability agenda through specific initiatives, such as renewable energy and water reusability projects and investment in innovative sustainability solutions, including: SMART Grid, Micro Grid as a Service, Intelligent Electrical Vehicle Charging System (IEVCS), Community Action Platform for Energy (CAPE), and Green Data Centers & Cloud-based services.

Manjit Jus, Head of ESG Ratings, RobecoSAM, said, “I congratulate Tech Mahindra for being included in the DJSI World Index & Emerging Markets category. Companies that compete for a coveted place in the DJSI, challenge themselves to continuously improve their sustainability practices and we are pleased to see that the number of companies that commit to achieving measurable positive impacts continues to rise.”

The DJSI World is the gold standard for corporate sustainability and the first global index to track sustainability efforts among corporates. Every year RobecoSAM assesses the world’s largest companies via its Corporate Sustainability Assessment (CSA), on both financial and non-financial parameters.

Sandeep Chandna, Chief Sustainability Officer, Tech Mahindra, said, “Tech Mahindra’s inclusion in the DJSI World Index ranking for the fourth consecutive year is a testimony of our commitment to implement sustainability as part of our company’s culture. We continue to invest in building a sustainable future for our employees, our communities and our supply chain partners.”

Tech Mahindra is committed to ensure corporate governance, ethical business conduct, and environmental stewardship. The sustainability practices at Tech Mahindra are focused on value creation for all stakeholders. These initiatives include reducing water and energy consumption across buildings, waste reduction, using renewable sources of energy for power generation, achieving carbon neutrality, making supply chains sustainable, and employee and customer engagement.

For further methodology information, please visit the [CSA Resource Center](#). For more detailed information on the major methodology changes and observations on the CSA results, download the [Annual Methodology & Scoring Review](#).

 [Click here to return to Contents](#)

Events News

2018 Altair Technology Conference Global Series: ATCx OptiStruct

20 September 2018

Recognized as a pioneer and leading technology for structural optimization, [OptiStruct](#) has evolved over the past 25 years into a modern, single-solver solution for both linear and nonlinear analysis and optimization.

On September 27th, OptiStruct users will present the latest capabilities and advancements in simulation-driven design methods for noise and vibration, durability and fatigue solutions. In addition, Altair experts will showcase the unique OptiStruct development workflow which allows a baseline model to be analyzed and optimized for various criteria within one solver, in one format, with just one license.

Multidisciplinary optimization and Multiphysics analysis involving combinations of physical phenomena for structures, fluids, temperature, multibody systems, acoustics, controls, hydraulics, and electromagnetics solutions can all be coupled with OptiStruct to design complex products in a cost-efficient and timely manner. To better showcase these coupling techniques, there will be interactive sessions throughout the conference.

September 27th, 2018

Altair Headquarters

Troy, MI USA

 [Click here to return to Contents](#)

ASSESS 2018 Congress Adds “Notes From The Front” Sessions

13 September 2018

[ASSESS Initiative](#) is proud to announce the “Notes From The Front” presentation sessions at the [ASSESS 2018 Congress](#), to be held at Chateau Elan Winery & Resort, Oct 28th -30th, 2018.

There will be two “Notes From The Front” sessions at the ASSESS 2018 Congress. Each session is made up of multiple fifteen-minute quick presentations from industry leaders on experiences related to involvement or support of the simulation revolution.

“The Notes From The Front sessions offer a dynamic opportunity to share experiences and perspectives related to the Simulation Revolution,” says Joe Walsh, CEO & Co-Founder of the ASSESS Initiative. “We have an impressive list of presenters whose experiences should provoke insightful discussions on the changing role of Engineering Simulation.”

The first “Notes From The Front” session will be Monday October 28th, from 10:15am to 11:45am, and will include the following presentations:

- Bob Deragisch of Parker Aerospace - “CAD versus CAE – which comes first?”

CIMdata PLM Industry Summary

- Katherine Lewis of Lawrence Livermore - “Cognitive Simulation at Lawrence Livermore National Laboratory”
- Gene Allen of Decision Incite - “Building Experts with Simulation”
- Hubertus Tummescheit of Modelon - “Update from the Modelica Association”
- Scott Leemans of X-EES - “Making Simulations Believable – Where It All Started”
- Andreas Vlahinos of AES - “From Topology Optimization to Generative Design”

The second “Notes From The Front” session will be Monday October 28th, from 3:15pm to 4:15pm, and will include the following presentations:

- Scott Shaw of MBDA Systems - “Liberating computational simulation: putting CFD on the desktop of every aerodynamicist at MBDA”
- Ted Blacker of Sandia - “Generative Design: A New Era in Product Development”
- Troy Peterson of INCOSE - “Transforming Engineering Systems”
- Matt Breidenthal of HOK - “Mercedes Benz Stadium HOLO Screen support design”

The ASSESS 2018 Congress is the 3rd annual congress for ASSESS organized to “enable” both strategies and relationships related to significantly increasing the use and benefit of Engineering Simulation. Key business drivers are forcing a “simulation revolution” to overcome the issue of required expertise which is limiting the expansion of Engineering Simulation usage. The theme of the ASSESS 2018 Congress is “Launching the Engineering Simulation Revolution.”

[Registration for the ASSESS 2018 Congress](#) is by invitation only and is limited to 115 attendees. Registration will close when all available seats are taken but no later than October 24, 2018.

The ASSESS Initiative was formed to bring together key players, both users and developers of simulation software, to guide and influence the software tool strategies for performing model-based analysis, simulation, and systems engineering with a vision “To significantly expand the use and benefit of software tools for model-based analysis, simulation, and systems engineering in the engineering applications domain.”

The [ASSESS Initiative Membership](#) program provides the ability for the ASSESS Initiative to expand its efforts and community benefits beyond the annual congress. The ASSESS Membership Program is appropriate for all organizations engaged in Analysis, Simulation, and Systems Engineering activities related to Engineered products & processes. The ASSESS Membership Program is offered in individual or group memberships. Active ASSESS Initiative Members receive access to [Members Only](#) content on the ASSESS website and a discount on the ASSESS Congress Registration Fees.

 [Click here to return to Contents](#)

ASSESS 2018 Congress Announces NAFEMS as Sponsor

18 September 2018

[ASSESS Initiative](#), “a broad reaching multi-industry initiative to facilitate a revolution of enablement that will vastly increase the availability and effectiveness of Engineering Simulation,” is proud to

CIMdata PLM Industry Summary

announce that NAFEMS will be a Platinum Sponsor for the upcoming [ASSESS 2018 CONGRESS](#), to be held at Chateau Elan Winery & Resort, Oct 28th -30th, 2018.

“The annual ASSESS Congress provides NAFEMS an opportunity to effectively collaborate and network with a number of industry leaders who share a common interest in analysis, simulation and systems engineering,” stated Matt Ladzinski, VP NAFEMS Americas. “We are very glad to support the ASSESS Initiative and its Annual Congress as part of the collaborative effort of ASSESS to bring together thought leaders from various organizations to take action on improving the awareness and value of Engineering Simulation to the industry.”

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“NAFEMS has been an active participant and supporter of ASSESS since its inception and we appreciate their continued support of and participation at our annual congress and in our activities outside of the congress,” says Joe Walsh, CEO and Co-Founder of the ASSESS Initiative. “The ASSESS Initiative collaborate extensively on the joint goal of enabling a broader use of Engineering Simulation in a reliable manner.”

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 [Click here to return to Contents](#)

Industry 4.0: Into the future with Supfina

18 September 2018

Please visit the Supfina booth — B31 in Hall 5 — at AMB 2018, which runs 18-22 September in Stuttgart. The 120 m2 booth will focus on the advantages of Industry 4.0 for surface finishing.

- Supfina demonstrates the advantages of digitization in surface finishing
- Supfina Quick Support

Supfina Quick Support — SQS — are the new keywords for our future-oriented digitization initiative.

CIMdata PLM Industry Summary

Whether interactive online support with data glasses; fast access to all important documentation, articles, and service instructions directly at the machine; or a constant overview of machine status and productivity, SQS takes production into the digital future.

Which machine parameters provide optimum surface finishing? How can production be as cost-effective as possible? When is the next maintenance really needed? Supfina presents its online “Machine Monitoring” as the answer to these questions and many more. In real time, extensive plant data is collected, evaluated, graphically processed, and displayed using a web interface.

Using new realities to see the future is another exhibition highlight. A live superfinishing and fine-grinding presentation using state-of-the-art HoloLenses will demonstrate the possibilities of augmented reality for optimization in the construction phase; for online support; and for maintenance, not to mention for training and education.

Rounding off Supfina’s AMB appearance will be a presentation of its online and offline system for fast access to the latest versions of all machine documents, instructions, and service notes. Thanks to SQS and the Supfina app, this capability is no longer just one of the promises of digitization — it’s a reality.

In the context of Industry 4.0, Supfina — as demonstrated at the AMB — is setting the standards for the practical use of digitization in mechanical engineering.

 [Click here to return to Contents](#)

OneSpin’s Nicolas Athanasopoulos Co-Presents Part 2 of ESD Alliance-Hosted Digital Marketing Workshop Series

18 September 2018

WHO: Nicolas Athanasopoulos, head of digital strategy [OneSpin® Solutions](#), provider of innovative formal verification solutions for highly reliable, digital integrated circuits (ICs)

WHAT: Will co-present “Agility, Training and Collaboration — The three key ingredients to master digital-driven marketing and sales” during the Digital Marketing Workshop 2.0, hosted by the [Electronic System Design Alliance](#) (ESD Alliance), a [SEMI](#) Strategic Association Partner host.

WHEN: Wednesday, October 3, from 6 p.m. until 8:30 p.m. Dinner will be included.

WHERE: SEMI – Milpitas, CA USA

Athanasopoulos will be joined by Dave Kelf, chief marketing officer at [Breker Verification Systems](#), to address three organizational shifts — agility, training and collaboration — necessary for successful digitally driven marketing and sales.

The workshop will consist of three sections:

1. Agility — Applying an agile mindset to marketing
2. Training — Learning about the newest digital marketing tools
3. Collaboration — Putting the pieces together

The workshop is a continuation of the ESD Alliance-hosted Digital Marketing Workshop in April on best marketing practices for an effective social media strategy presented by Athanasopoulos and Kelf. It is meant for CEOs, marketing executives, content creators or others from the semiconductor industry

interested in improving their company's content marketing strategy. More information and registration can be found at: <https://bit.ly/2LLg4S9>

 [Click here to return to Contents](#)

PSRE Co. Announces Participation at the 34th International CAE Conference

20 September 2018

PSRE Co. is pleased to announce its participation as Platinum sponsor at the 34th CAE Conference and Exhibition, 8 - 9 October 2018, in Vicenza, Italy. The CAE Conference is an intense and concentrated forum for all the stakeholders that can benefit from Engineering Simulations.

“After our successful participation last year, we are looking forward to being part of this important conference again” says Leonid Korelstein, VP of R&D at PSRE Co. “Visitors at our booth and conference presentations will have the possibility to see with their own eyes why the PASS Software has earned its reputation of being highly efficient and smart but, at the same time, extremely user friendly and quick to learn.”

PASS Software experts will give live demonstrations of the PASS Software (Piping and equipment Analysis and Sizing Software), an integrated suite of programs covering piping fluid flow, heat and stress analysis, as well as pressure vessels, columns, heat exchangers and tanks stress analysis. PASS is focused on the needs of the wide community of process, piping and mechanical engineers. The demos will also include new features like analysis of three-phase gas/oil/water flow which helps designers of oil and gas field piping systems to accurately consider the resulting complex flow effects.

The conference agenda includes two “Best Practice” presentations from PSRE discussing integrated piping stress and fluid flow analysis and pressure vessel stress analysis.

 [Click here to return to Contents](#)

Solix Announces Speakers for Solix EMPOWER New York 2018

19 September 2018

Solix Technologies, Inc. today announced the first wave of speakers for Solix EMPOWER New York 2018. Hortonworks CEO Rob Bearden and CTO Scott Gnau will headline the event's keynote panel, with Hortonworks as a Platinum Sponsor.

Solix EMPOWER New York 2018 is a one-day gathering of business leaders and big data experts across industries, evangelizing analytics, big data, and the cloud. With a variety of speakers and panels, explore how enterprises can improve cost, compliance, control, customer, and cash flow by leveraging disruptive and innovative big data technologies.

When: November 1, 2018

Where: Metropolitan Pavilion, New York

Solix EMPOWER New York 2018 includes the following key industry leaders:

- Keith Angell, President & CEO at Velocity Technology Solutions

CIMdata PLM Industry Summary

- Rob Bearden, CEO, Hortonworks
- Gary Burke MBA, ACMA
- Colin Cecil, IT Director, Merck Sharp & Dohme
- Avijit Chatterjee, Chief Analytics Officer at IBM Morgan Stanley & Metlife
- Neeraj Chawla, Associate Managing Director at Accenture
- Joydeep Das, Senior Director, Products, Cloudera
- Jnan Dash, Software Industry Veteran & Visionary in Silicon Valley
- Peter Evans, Senior Director Big Data Solutions at Solix Technologies, Inc.
- Kishore Gadiraju, Vice President, Engineering at Solix Technologies, Inc.
- Charlie Garry, Director, Solix Technologies, Inc.
- Scott Gnau, CTO, Hortonworks
- Sai Gundavelli, Founder/CEO, Solix Technologies, Inc.
- Veena Gundavelli, Founder & CEO, Emagia Corporation
- Mark Harding, CTO at Minds
- Gautam Jain, Philosopher, Teacher and Corporate Resource, and Dean at Vedanta Cultural Foundation
- Rishi Kumar, Vice President, Strategic Business - Big Data, Analytics, at Solix Technologies, Inc.
- Mark Lee, Sr. Vice President, Services at Solix Technologies, Inc.
- John Ottman, Executive Chairman at Solix Technologies, Inc.
- Gaurav Patel, Director at Solix Technologies, Inc.
- Russ Puryear, VP of Sales at Solix Technologies
- Roger Royse, Founder at Royse Law Firm
- Phyllis (Miller) Saavedra, Order to Cash Executive and SME at Emagia Corporation
- Alan Schneider, Director, Solix Technologies, Inc.
- John Zhong, SVP at Citigroup

"Solix EMPOWER has grown to be the only industry event focusing on big data applications for CXOs, senior IT leaders, architects, and developers," said Sai Gundavelli, Founder/CEO, Solix Technologies. "We look forward to gaining innovative insight from our newly announced speakers in November at Solix EMPOWER New York 2018."

Confirmed sponsors and partners for Solix EMPOWER New York 2018 include Cloudera, Datafloq, Digital Analytics Association, Hortonworks, IBM, Inside Big Data, LTI, Minds, NTT Data, Roaring Elephant, and the Touch-A-Life Foundation.

 [Click here to return to Contents](#)

Product News

AscentERP and Propel Introduce Integrated ERP and PLM Solution for Fast-Growing Product Companies

20 September 2018

[AscentERP](#) and [Propel](#) today announced the Manufacturer's Starter Edition, a joint ERP and Product Lifecycle Management (PLM) software offering that is tailored to the needs of today's innovative product companies. Ascent and Propel provide integrated and robust enterprise ERP and PLM capabilities with simpler configuration that can help smaller manufacturers manage their entire business from initial customer request to product design to assembly to shipment.

Customers can use the core ERP and PLM features they need, including bill of materials (BOM) management, change management, assembly, fulfillment and returns. Because the Manufacturer's Starter Edition is built on the Salesforce Platform, companies can now manage the entire lifecycle of design, production and sales on a single cloud platform.

The Manufacturer's Starter Edition allows fast-growing companies to:

- * Use actual costs, lead times and inventory availability to better meet customer commitments - even during initial design discussions
- * Collaborate on BOMs and easily publish to assembly and fulfillment
- * Streamline customer service and return processes for product quality issues
- * Model any business process with easy point-and-click configuration, custom fields and dashboards
- * Keep customer, manufacturing and product data safe and secure
- * Implement core PLM and ERP capabilities for just \$40,000
- * Go live in just 120 days for a total of 5 users

“Many fast-growing companies are struggling to find a comprehensive yet simple solution that can keep up with their product, assembly and distribution needs,” according to Shaun McInerney, President of AscentERP. “Because AscentERP and Propel are both built on the Salesforce Platform, we offer robust, integrated, low maintenance capabilities that can help young companies innovate.”

Added Ray Hein, CEO of Propel, “By tying AscentERP, Propel and Salesforce together, innovative product companies can now start running their entire business on a single cloud platform. They can now manage everything a fast-growing company needs, including design iterations with customers and partners, as well as complex assembly and distribution needs for their eCommerce initiatives.”

 [Click here to return to Contents](#)

CIMdata PLM Industry Summary

Cypress Adds Certified Alibaba Cloud Support to Internet of Things Ecosystem

18 September 2018

Cypress Semiconductor Corp. announced today that it has expanded the cloud connectivity offerings for its Internet of Things (IoT) solutions with AliOS Things, Alibaba's embedded IoT operating system. Developers can now streamline connections to Alibaba Cloud, the cloud computing arm of Alibaba Group, and design differentiated products with the flexible computing and security features of Cypress' programmable PSoC® microcontrollers (MCUs) and the robust wireless connectivity of its industry-leading Wi-Fi® and Bluetooth® portfolio for the IoT.

Cypress' PSoC 6 MCUs have passed the advanced certification for AliOS Things with Alibaba Cloud connectivity. PSoC 6 is purpose-built for the IoT, providing the industry's lowest power, most flexible dual-core Arm® Cortex® -M4 and Cortex-M0+ MCU with hardware-based security. These features deliver prolonged battery life, robust processing and sensing, and protection of sensitive user data. Cypress' PSoC 4 MCUs have also passed the basic certification for the AliOS Things operating system. Cypress provides information on getting started with PSoC and AliOS Things, including links to supporting AliOS software development files on the Alibaba GitHub, at www.cypress.com/AliOSThings.

Cypress will demonstrate its PSoC 6 MCU running the AliOS Things operating system and connecting to Alibaba Cloud at The Computing Conference 2018 hosted by Alibaba Group in Hangzhou, China from September 19-22.

“Cypress empowers customers to create winning IoT products with our robust Wi-Fi and Bluetooth connectivity solutions and flexible PSoC MCUs, but supplementing these with a diverse partner ecosystem is critical,” said Michael Hogan, senior vice president of the IoT Compute and Wireless Business Unit at Cypress. “Collaborating with Alibaba gives our customers a direct path to connect to Alibaba Cloud and strengthens our ecosystem for China, making it easier for developers to leverage the ultra-low power consumption and integrated security of PSoC 6 and our best-in-class wireless connectivity for the IoT.”

“Cypress is a key addition to our IoT ecosystem, which is built as an open platform based on Alibaba Cloud and AliOS Things for all semiconductor vendors,” said Wei Ku, General Manager of Alibaba's IoT Business Unit. “Cypress' wireless solutions gives IoT developers uninterrupted connectivity that can meet their customers' demands, along with access to Alibaba Cloud, while the PSoC 6 MCU provides them with a reliable environment supported by AliOS Things where developers can conduct secure data processing.”

 [Click here to return to Contents](#)

Dassault Systèmes Introduces SOLIDWORKS 2019

14 September 2018

Dassault Systèmes today announced the launch of SOLIDWORKS 2019, the latest release of its portfolio of 3D design and engineering applications. SOLIDWORKS 2019 delivers enhancements and new functionalities that help millions of innovators improve the product development process to get products into production faster, and create new categories of experiences for new categories of customers in today's Industry Renaissance.

CIMdata PLM Industry Summary

Powered by Dassault Systèmes' 3DEXPERIENCE platform, SOLIDWORKS 2019 supports the design to manufacturing process with digital capabilities to solve complex design challenges and facilitate detail work in engineering. New features let product development teams better manage large amounts of data and capture a more complete digital representation of a design. SOLIDWORKS 2019 also offers new technologies and workflows that improve collaboration and enable immersive, interactive experiences during design and engineering.

"We are using SOLIDWORKS to support implementation of the Maunakea Spectroscopic Explorer 10-meter-class telescope that will open new possibilities for scientific discovery," said Greg Green, Mechanical Designer/Instrument Maker, Canada France Hawaii telescope facility. "Our design processes generate a large and growing dataset. The final production version of the telescope will contain over 100,000 parts. We needed technology that can tackle large design projects, and SOLIDWORKS delivers."

Among its new features, SOLIDWORKS 2019 provides greater design flexibility to quickly interrogate or rapidly make changes to a model thanks to an enhanced Large Design Review capability. It also dramatically improves high performance view manipulation to scale with higher-end graphics hardware. In addition, SOLIDWORKS 2019 allows teams to communicate outside of the design community by adding markups to parts and assemblies directly using a touch device, storing them with the model, and exporting them as a PDF.

Another key feature of SOLIDWORKS 2019 is SOLIDWORKS Extended Reality (XR), a new application for publishing CAD scene data created in SOLIDWORKS – including lights, cameras, materials, decals, and motion study animations – and experiencing it in VR, AR and web viewers. As increasingly affordable immersive devices contribute to the growing ecosystem of technology and interactive experiences, designers and engineers can use SOLIDWORKS XR to improve collaborative internal and external design reviews, sell designs more effectively, train users how to assemble and interact with their products, and boost confidence in designs throughout the product development process.

"This latest SOLIDWORKS release is packed with enhancements and innovations built based on insights and feedback from the SOLIDWORKS community. We continue to drive our products forward in terms of usability, quality, and productivity, and SOLIDWORKS 2019 delivers a complete design ecosystem," said Gian Paolo Bassi, CEO, SOLIDWORKS, Dassault Systèmes. "Designers and engineers who prioritize design performance, attention to detail and innovation, as well as seek the powerful storytelling capabilities of VR and AR, can experience the prototyping shop of the future—one where digital design data makes it easier to visualize parts in 3D and improve how designs are translated from virtual to real."

 [Click here to return to Contents](#)

EASA Advanced Low-Code Development Democratizes Complex Simulation Models

5 September 2018

EASA Software Ltd. is delivering an Advanced Low-Code Development Platform for fast creation of web applications and process automation. The EASA platform democratizes complex simulation models and CAE workflows by allowing "citizen developers" (non-expert programmers) to create enterprise-class web apps at a fraction of the time and cost of hand coding.

Complex workflows typically involve one or more “expert only” software tools or models. Unlike traditional low-code platforms, EASA’s advanced low-code platform focuses on the creation of web apps that leverage the re-use of existing models and workflows. While it can be used to develop new applications, EASA’s strength is enabling existing models to be improved and “webified”, greatly enhancing the leverage and ROI of these tools. This advanced development environment democratizes complex proprietary processes enabling citizen developers to transform workflows into secure and simplified enterprise accessible web apps.

EASA is shown to save up to 90% of the development investment to create custom, fit-for-purpose applications compared to hand coding from scratch. With EASA advanced low-code development, companies like Proctor & Gamble and Air International are democratizing hundreds of models for far greater utilization.

EASA Director of Business Development, Sebastian Dewhurst comments: “Today’s increased competition and accelerated product development cycles require companies to be more responsive, efficient, and cost-conscious. Virtually all low-code platforms offerings are designed to quickly create new applications from scratch. EASA’s advanced low-code development platform focuses on web-enabling existing tools and workflows created with CAE software, Excel, MATLAB and scripts. From small to midsize businesses up to large enterprises, EASA’s solution provides the ability to quickly design, build, customize, and deploy simulation and modeling apps with little or no coding.”

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Mentor Xpedition and PADS Professional design flow achieve ISO 26262 functional safety compliance

17 September 2018

Mentor, a Siemens business, today announced that the Xpedition™ and PADS® Professional printed circuit board design (PCB) design flows, including the Valor™ NPI and HyperLynx™ family of products, have each achieved ISO 26262 functional safety compliance. Mentor has met the requirements for validation and confirmation measures, providing confidence that a sufficient and acceptable level of safety can be achieved using these Mentor PCB products. The Xpedition and PADS Professional flows and related documentation were evaluated by TÜV SÜD, an internationally accredited independent testing and conformity assessment company, and certified to achieve ISO 26262 Tool Confidence Level 1 for ASIL A through ASIL D.

ISO 26262 establishes a unifying, industry-specific standard for the functional safety and expected reliability of E/E systems in passenger vehicles. With the certification of these Mentor products, automotive design teams can now use either Mentor® PCB design flow for performance efficiency, predictability, and productivity for functional safety.

“Safety is a key design requirement for automotive electronics systems. It’s critical that design teams can confidently design to fully meet Functional Safety requirements” said Mike Varnau, President at Reliability Solutions. “Now that Mentor’s PCB design tools are ISO 26262 certified, design teams can now confidently design compliant products faster at lower cost with less risk.”

The Xpedition and PADS Professional flows are certified for Tool Confidence Level 1 (TCL-1) across

CIMdata PLM Industry Summary

ASIL A through D levels. Mentor's PCB design flow provides design entry, logical and functional schematic validation, and PCB layout. Complementing the Xpedition and PADS Professional Mentor flows, signal integrity, power integrity, thermal analysis, and new product introduction (NPI), are achieved by using the HyperLynx and Valor NPI tools, respectively.

“Achieving ISO 26262 compliance for our Xpedition and PADS Professional flows, including our supporting tools, ensures that our customers can design automotive electronic systems with the greatest confidence in functional safety compliance,” stated A.J. Incorvaia, vice president and general manager, Mentor Board Systems Division. “As a result, our systems design portfolio will help our customers achieve success in reliable and innovative automotive products development.”

The certification of the Xpedition and PADS Professional flows with their supporting tools expands the Mentor Safe program into printed circuit board design. Mentor Safe is one of the industry's broadest and most comprehensive ISO 26262 qualification and certification programs, established to help automotive and industrial customers rapidly navigate the increasing complex process of functional safety certification with confidence.

Mentor is sponsoring the Integrated Electronics Solutions Forum (IESF) 2018 in Plymouth, MI on September 19, 2018. Mike Varnau, president of Varnau-Mack Engineering will present, “A Methodology and Design Flow for ISO 26262 PCB Design.” To register, visit:

<https://www.mentor.com/events/iesf/automotive-conference>

Product Availability

Mentor's Xpedition, PADS, HyperLynx and Valor NPI products are available today. For more information on these products, visit the website: <https://www.mentor.com/pcb/iso-26262>

 [Click here to return to Contents](#)

New Siemens thermal simulation solution addresses autonomous electric vehicle design challenges

19 September 2018

Siemens today introduced a new [Simcenter™](#) software solution for design-centric thermal simulation of Autonomous Electric Vehicles (AEVs) – the industry's first comprehensive, easy-to-use solution engineered to address critical, thermal-driven challenges associated with AEV design, such as extending electric drive range, optimizing in-cabin comfort, designing sensors and ensuring the reliability of all autonomous drive (AD) systems.

“Strategy Analytics expects that the vast majority of self-driving cars will feature electrified powertrains,” said Ian Riches, executive director, Automotive Practice for Strategy Analytics. “The OEMs who distinguish their vehicles with trusted AD performance, long drive range per charge and optimal in-cabin experiences are likely to be the winners in this new era of mobility. Thermal design software such as Siemens' new Simcenter solution is ideally suited to help OEMs and suppliers differentiate and win in the competitive AEV markets of the future.”

Successful AEV design requires automotive engineers to simultaneously address a range of interdependent requirements. AD functionality must execute safely including sensor fusion boxes and a broad array of sensors. The precise and correct thermal design of these sensors and other AD systems is vital to ensuring safe autonomous drive functionality. However, the thermal and power loads of the

CIMdata PLM Industry Summary

vehicle's high-performance AD systems can reduce electric drive range as much as 35 percent. Similarly, in-cabin passenger comfort requirements and machine driving behavior can significantly impact the vehicle's electric powertrain energy efficiency and drive range. Efficient, co-dependent thermal design of AD electronics -- from ICs and vehicle integration, to electric powertrain and cabin design -- is necessary to successfully develop AEVs.

Siemens' new thermal simulation solution, delivered as part of the Simcenter portfolio, is the industry's first solution specifically designed to help design engineers overcome these challenges. It unleashes the power of information-rich computational fluid dynamics (CFD) technology for mainstream automotive engineers, generating highly accurate thermal digital twin simulations of the powertrain, processors, sensors and other key enabling technologies powering next-generation AEV designs.

Other new capabilities include co-simulation of component thermal and electric powertrain performance, connectivity between simulation of electric motor performance and system simulation for electrical and thermal management, and design space exploration using thermal digital twin models. This Simcenter solution also features seamless connectivity to electronic design automation tools and CAD design platforms, helping engineers to easily account for design co-dependencies across electronic, electrical and mechanical domains from the earliest stages of development.

“Creating successful first-generation AEVs will require the intelligent integration of thermal, mechanical and electrical design – a capability that Siemens is uniquely qualified to deliver,” said Jan Leuridan, senior vice president of Simulation and Test Solutions at Siemens PLM. “Our new Simcenter thermal design solution addresses electrification and autonomous vehicle functionality, allowing design teams to create virtual prototypes with ease and accuracy for optimal design efficiency. This new solution provides a significant competitive advantage for our customers who can now design safer, more reliable AEVs with confidence.”

Siemens will present a paper on the new solution, entitled “Design-centric Energy and Thermal Management in Autonomous EVs,” today at the 19th annual Integrated Electronics Solutions Forum (IESF). The presentation takes place at 3:00 p.m. EDT in the Galilee meeting room of the Inn at St. John's in Plymouth, MI.

Product Details and Availability

The Siemens solution for design-centric thermal simulation consists of Simcenter FLOEFD™ software for electronics and electric powertrain thermal simulation within native CAD environment, Simcenter Motorsolve™ software for electric motor design, and unparalleled component design to 1D system thermal design co-simulation with 1D CFD Simcenter Flomaster™ software. General availability is planned for October 2018.

 [Click here to return to Contents](#)

SAP Analytics Cloud Helps Business Users Make Fast, Confident Decisions with Augmented Analytics

12 September 2018

SAP today announced the [SAP Analytics Cloud](#) solution is now available with new machine learning features to uncover correlations in an organization's data and help users make faster, more confident decisions.

CIMdata PLM Industry Summary

The announcement was made at the Strata Data Conference being held September 12–14 in New York City.

Data scientists, who use scientific methods to extract knowledge from data, are a scarce resource inside most organizations. With SAP Analytics Cloud, business users have simplified access to powerful capabilities that unlock complex insight and can automatically detect issues before they arise. Machine learning enabled, SAP Analytics Cloud allows users to forecast future performance with just a single click. It also can provide risk and correlation detection, autonomous creation of advanced dashboards and storyboards, and hyper-personalized insights into data about suppliers, vendors and customers, including anomaly detection.

“Analytics is shifting from a passive system to an active system, and through new augmented analytics capabilities, our technologies are able to facilitate faster and confident decisions,” said Mala Anand, president, SAP Analytics and SAP Leonardo. “With SAP Analytics Cloud, organizations are able to eliminate repetitive tasks and countless hours spent conducting simple data visualization, which allows analysts and decision-makers to spend more time focused on applying human ingenuity and creative reasoning toward actually solving these complex business decisions.”

Rainforest Connection plans to use predictive analytics and machine learning to take action on illegal deforestation.

“We use advanced analytics to alert local forest rangers to areas of concern before illegal activity begins. SAP Analytics Cloud provides a visual display of illegal logging activities to local authorities,” Rainforest Connection CEO Topher White said in the company’s [2018 SAP Innovation Award entry](#).

SAP Analytics Cloud is a cloud-based solution for analytics, providing customers with integration of data visualization, planning and predictive capabilities. Users can access relevant, contextual information in one place, without the need for data replication processes, eliminating out-of-context and stale information. Intelligence and prebuilt content from SAP Analytics Cloud can be embedded into line-of-business applications for many use cases including people analytics, customer analytics, segmentation analysis, distribution analysis and total spend analysis.

SAP is focused on helping customers manage hybrid environments spanning on-premise and cloud-based data and analytics. Live data connectivity to on-premise sources allows customers to take advantage of existing investments while transitioning to a cloud strategy. In addition, SAP Analytics Hub offers a single front-end solution for analytic assets, whether on premise or in the cloud, including SAP or third-party content. It helps customers simplify access to analytics scattered across multiple heterogeneous environments, giving users a single version of the truth to make decisions based on facts.

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SAP Cloud ALM Offers Customers of Cloud Solutions from SAP Tailored Application Lifecycle Management

18 September 2018

SAP today announced the SAP Cloud ALM solution, a cloud-based application lifecycle management (ALM) tool that helps track and manage the needs of customers of cloud solutions from SAP.

SAP Cloud ALM starts with the implementation portal for [SAP S/4HANA Cloud](#) and is expected to be

CIMdata PLM Industry Summary

available in the fourth quarter 2018 with the next release of SAP S/4HANA Cloud. SAP intends to extend SAP Cloud ALM from implementation support for SAP S/4HANA Cloud with a road map towards the entire application lifecycle of all cloud solutions from SAP, planned to become available by 2021.

Access to SAP Cloud ALM will be based on the customer's existing contract.

“As SAP customers continue to pursue cloud-based applications, providing access to cloud-centric ALM offerings is more important than ever,” said Andreas Heckmann, senior vice president, Support Delivery, SAP. “With SAP Cloud ALM, we're giving customers an application lifecycle management offering that is ready for immediate consumption and thus best fits their solution preferences and business needs.”

The implementation portal provided by SAP Cloud ALM for SAP S/4HANA Cloud is planned to help customers:

- Perform quick team onboarding and scoping: At the beginning of every implementation project of SAP S/4HANA Cloud, SAP customers are equipped with product and release-specific task lists based on the SAP Activate methodology and the implementation road map for SAP S/4HANA. The lists also specify task sequences and the roles to assign to boost efficiency.
- Follow a fit-to-standard implementation approach: SAP Cloud ALM fully supports the SAP Activate methodology for SAP S/4HANA Cloud by providing all the tools required for fit-to-standard workshops. Customers get a clear view of the steps required for successful deployment in the cloud at the outset of the project based on content from the SAP Best Practices package for SAP S/4HANA Cloud.
- Configure SAP S/4HANA Cloud and track project progress: SAP Cloud ALM guides the customer through the implementation process and tracks project progress automatically.

“SAP Cloud ALM is a major advance in SAP's ability to deliver quality software and services to customers,” said Josh Greenbaum, principal, Enterprise Applications Consulting. “The ability to use the cloud to better track and manage the customer lifecycle is an important next step in the evolution of SAP's cloud efforts and will provide an important point of differentiation in a market that is still waking up to this potential.”

It is planned that SAP Cloud ALM will serve as a complementary offering to [SAP Solution Manager](#), the ALM on-premise flagship solution from SAP. With the introduction of SAP Cloud ALM, customers can choose the most suitable ALM solution for rapid implementation and support best-run operations for their SAP solutions.

 [Click here to return to Contents](#)

Siemens' Teamcenter achieves AWS Industrial Software Competency

18 September 2018

Announced today at [AWS Transformation Day](#) in Munich, Siemens has achieved Amazon Web Services (AWS) Industrial Software Competency status for the [Teamcenter®](#) portfolio. Achieving the AWS Industrial Software Competency highlights Siemens as an AWS Partner Network (APN) member and a leading industry expert, working closely with AWS and delivering effective solutions. To support the

CIMdata PLM Industry Summary

seamless integration and deployment of these solutions, AWS established the AWS Partner Competency Program to help customers identify Consulting and Technology APN Partners with deep industry experience and expertise. To receive this designation, APN Partners must undergo rigorous AWS technical validation related to industry-specific technology, as well as an assessment of the security, performance, and reliability of their solutions.

“Siemens PLM Software went through an extensive evaluation for the AWS Industrial Software Competency designation, and we are excited to be one of the first PLM vendors selected,” said Joe Bohman, senior vice president of Lifecycle Collaboration Software, Siemens PLM Software. “Our ability to deliver Teamcenter on the cloud allows our customers to deploy more quickly with a lower cost of ownership, and scale as their business grows. Achieving AWS Industrial Software Competency status is a confirmation of the value of Teamcenter on the cloud, and it will give customers greater confidence in choosing Teamcenter.”

With Teamcenter, companies can deliver increasingly complex products to market while maximizing productivity and streamlining global operations. Acting as the digital thread that connects many data sources, Teamcenter helps companies digitalize information to closely simulate their products and processes -- improving global collaboration throughout the enterprise, and driving innovative products to market faster. Using Teamcenter on the cloud helps customers lower their cost of product lifecycle management (PLM) ownership by simplifying deployments, eliminating large upfront infrastructure costs, and improving enterprise access to PLM data and processes. By enabling true digital twins of not only the product, but also the production environments and real-time product performance, customers large and small can be empowered to make product and manufacturing information universally accessible and useful for their business.

"Upfront deployment costs and delayed time-to-value are traditional barriers to PLM implementations," said Stan Przbylinski, vice president at CIMdata. "CIMdata research indicates that cloud PLM deployments can reduce time-to-value by minimizing these barriers, allowing organizations to more quickly benefit from PLM solutions."

Siemens PLM Software's suite of integrated software and hardware solutions seamlessly integrate and digitalize entire value chains. Product lifecycle management (PLM), manufacturing operations management (MOM), and totally integrated automation (TIA) are delivered using the Teamcenter data model, and connected to MindSphere, the cloud-based, open Internet of Things (IoT) operating system which also achieved AWS Industrial Software Competency status.

 [Click here to return to Contents](#)

Theorem Releases Update to Visualize 3D Adapter

17 September 2018

Theorem Solutions has announced the release of their latest Visualize 3D Adapter for CATIA V5 to Creo View users supporting up to and including CATIA V5-6R2014-2018.

For those that need to work with, or share, visualization data as part of design and manufacturing processes, the Theorem Visualize 3D suite of products offers direct translation of 3D data for the purpose of Visualization.

Theorem's Visualize 3D brand supports lightweight data formats with a focus specifically on the direct

CIMdata PLM Industry Summary

translation of 3D CAD data from mechanical CAD systems for the purpose of Visualization, enabling users to work with and share data directly between different CAD and Visualization applications and are aimed at creating visualization data for users of digital mock-up, desktop and tablet viewing applications.

Using Theorem's Visualize 3D as a direct conversion tool between CATIA V5 to Creo View reduces processing time, simplifies integration and retains accuracy of the model.

V21.1 now supports up to and including CATIA V5-6R2014-2018 and Creo View 4.2.

V21.1 can be used independently of WindChill, or integrated into WindChill, allowing CATIA V5 managed data to be published and visualized on demand. As the Creo View data output is then synchronized with the CATIA source, an accurate up-to-date version of the design is always available, reducing costly errors.

The CATIA V5 to Creo View suite helps to secure Intellectual Property, but at the same time supports a rich enough set of design data intelligence so that suppliers have all of the information required to complete their job.

Theorem's strategic partnerships with Dassault Systemes and PTC ensures that there is parallel development between the latest releases of CATIA V5 and Creo View, and Theorem's Visualize 3D products, allowing Theorem to continue to provide data solutions for the CAD community.

 [Click here to return to Contents](#)