CIMdata

PLM Industry Summary

Sara Vos, Editor

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CIMdata, Inc. 3909 Research Park Drive Ann Arbor, Michigan 48108 Tel: +1 (734) 668–9922 Fax: +1 (734) 668–1957
E-mail: s.vos@CIMdata.com Web: http://www.CIMdata.com

CIMdata News

CIMdata Announces its 2019 PLM Market & Industry Forum Series

11 December 2018

CIMdata, Inc., the leading global Product Lifecycle Management (PLM) consulting and research firm, announces its 2019 PLM Market & Industry Forum schedule and theme. The one-day events will be held in Ann Arbor, Michigan, USA on April 4; Frankfurt, Germany on April 11; Pune, India on April 15; Beijing, China on April 19; and Tokyo, Japan on April 24.

CIMdata's PLM Market & Industry Forum is designed exclusively for PLM software providers, PLM service providers, PLM systems integrators, and PLM channel partners of all sizes. Forum attendees will explore the challenges currently facing the PLM market. Presentations will offer insights into the current economic climate, leading trends, and their effects on the PLM economy. There will be a detailed look at the state and trends of current and future PLM markets, and the eagerly awaited first public release of CIMdata's 2018 PLM market analysis results.

The theme for 2019 is "Augmented Intelligence: Applications Across the Product Lifecycle." CIMdata subscribes to the view that machine intelligence will not replace humans but will serve to augment them, something that will enhance the ability of humans to quickly make the best possible decisions. CIMdata believes that the work to date barely scratches the surface of what is possible. The 2019 PLM Market & Industry Forum events will be used as a platform to kickstart the conversation on engineering intelligent systems that can serve our needs and extend our capabilities.

CIMdata's Vice President and Head of Research, Stan Przybylinski, stated, "Artificial intelligence (AI) has been the "next big thing" for decades. The benefits of Moore's Law and advances in AI and machine learning have increasingly made that promise a reality. For 2019, CIMdata's global PLM Market & Industry Forum series will focus on applications of these technologies in PLM and adjacent enterprise software markets that are augmenting human skills, bringing data and advanced analytics to the point of work to make humans, and the processes they deploy, more effective."

Presentations will be made on the following topics:

- The current state of PLM.
- PLM global market analysis for the 2018 calendar year.
- The application of state-of-the-art artificial intelligence to leverage PLM-related data.
- How technologies such as Generative Design, Simulation & Analysis, Big Data Analytics, Advanced Materials, and Robust Design will converge to an augmented intelligence environment.
- Ways that field data can be used to improve products, customer relationships, sales, and margins.
- Advanced variant configuration management.
- Key trends in Model-Based Systems Engineering.

For more information on the presentations please visit: https://www.cimdata.com/en/education/plm-

market-industry-forums/north-american-plm-market-industry-forum-agenda.

Participants at the Forums will gain a solid understanding of the current and emerging PLM market, of the dynamics impacting it, and of the expectations for its continued evolution. Attendees will also learn more about opportunities and approaches they can use to navigate the PLM economy in the year to come.

For more information and to register for a 2019 PLM Market & Industry Forum event, please go to: https://cimdata.com/en/education/plm-market-industry-forums

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.

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CIMdata Publishes "Evolving from Digital Prototypes to Physics-Based Digital Twins"

11 December 2018

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces the publication of a whitepaper titled "Evolving from Digital Prototype to Physics-based Digital Twins."

While the concept of a digital twin has been around for several decades, since the early days of NASA, it has gained a great deal of attention within industrial manufacturing companies over the last several years with the emergence of the Industrial Internet of Things (IIoT) in the context of Industry 4.0. While the use of physics-based digital prototyping methods and their associated performance simulation technologies such as FEA and CFD have grown exponentially over the past 40+ years, their use has been largely limited to new product design and development activities, including final verification and validation of designs prior to release to manufacturing. With the deployment of IIoT technology, "smart systems" containing sophisticated electronics and many types of sensors, products are now generating vast amounts of information on the performance of systems as they are being used, in real time. This operating data can then be used in conjunction with a digital model (i.e., a digital twin) to simulate the performance of the system in predicting and preventing in-service failures and optimizing operating

behaviors as system performance requirements change. Digital twins can also be applied within the domains of advanced manufacturing processes, plant design and operations, and to simulate human interactions with cyber-physical systems operating in their varied environments (e.g. autonomous vehicles).

The whitepaper introduces the key concepts of the physics-based digital twin, potential application domains, and the promised business benefits. It includes a discussion of the practical realities of successfully implementing a closed-loop, lifecycle digital twin strategy and highlights the digital twin solutions provided by Siemens PLM Software illuminated by several customer applications.

According to Mr. Peter Bilello, CIMdata President, "Given the rapid rise of smart, connected systems in our world and today's rapidly advancing digital twin technologies, companies must understand and embrace the business impact they will have on the entire product lifecycle." Mr. Don Tolle, CIMdata Executive Consultant, notes "Digital twin technology is in the early phases of adoption in most industries and it is critical to understand the practical technical and process change realities of implementing digital twin technologies to achieve measurable business benefits. Siemens PLM Software's digital twin technology portfolio combined with their implementation experience positions them well to support industrial customers in meeting this digital transformation challenge."

To find out more and to download the whitepaper on "Evolving from Digital Prototypes to Physics-Based Digital Twins", visit www.CIMdata.com.

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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.

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Acquisitions

ConnectWise Announces Acquisition of Sienna Group

5 December 2018

ConnectWise announced today that it has acquired Sienna Group, a leading managed security services provider (MSSP), as the company's first major step to lead managed service providers (MSPs) into the world of cybersecurity.

"The acquisition of Sienna Group will enable us to form the Cybersecurity Center of Excellence to educate MSPs on best practices of every aspect of cybersecurity," said Arnie Bellini, CEO of ConnectWise. "The Sienna Group has more than 130 years of combined cybersecurity experience and understands how to provide those services to small- to medium-sized businesses (SMBs). Our mission is to leverage this expertise to educate, support and consult MSPs in the delivery of cybersecurity services because we want every MSP to learn how to safeguard its clients' systems and critical data."

According to Cybersecurity Ventures, cybercrime has risen to $6 trillion annually, or 7 percent of the world's economy. And the frequency and intensity of cyberattacks continues to grow. MSPs are frequently held liable for client breaches – even when the MSP is not responsible for that client's cybersecurity services.

The capabilities and expertise that Sienna Group offers will provide a means for ConnectWise partners to assess their own business' cyber vulnerabilities and to learn how to better protect themselves from liability when their customers are targeted by cybercriminals. The acquisition also supports ConnectWise's strategy to provide an ecosystem of security solutions that are accessible and affordable, especially for its SMB partners who are looking for new ways to expand their set of offerings at a time when these services represent the next big revenue opportunity for MSPs.

"MSPs already have a trusted relationship with their customers, so they are well-positioned to provide managed security services. At ConnectWise, we will continue to build our set of security offerings – both through acquisitions such as the one announced today and through partnerships with the channel's best security vendors – to make it easier than ever for our partners to take advantage of the revenue opportunity that comes with being able to keep their customers safe from cyberthreats," Bellini said.

He said ConnectWise's holistic approach to security combines tools, education and training. Sienna Group's robust solutions, especially its ability to provide cyberthreat assessments and its deeply experienced team, are fundamental to meeting ConnectWise's goal of providing MSPs with a fully integrated security capability.

John Ford, CEO and founder of Sienna Group, said he and his team are pleased to be part of the ConnectWise family. "We've been working with ConnectWise for years, and we share both a vision and a commitment to ensuring that MSPs have the tools they need to protect themselves and their clients in a time when a disastrous cyberbreach is often just a single click away," he said. "We're looking forward to being part of ConnectWise's journey to provide a robust end-to-end security solution that will benefit the entire industry."

The Tampa-based Sienna Group was founded in 2012 by Ford, a cybersecurity industry veteran who previously served as CISO and CCO of several large healthcare, technology and government organizations. Prior to working at Sienna Group, Ford's team members held leadership positions with federal organizations and global enterprise corporations. Sienna Group's solution portfolio includes managed data security services; governance, risk and compliance assessments; sensitive data discovery and classification; and security awareness training. It was named one of CIOReview's "20 Most Promising Compliance Technology Solution Providers" in 2017.

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Dassault Systèmes Acquires IQMS to Extend the 3DEXPERIENCE Platform to Business Operations for Small and Midsized Manufacturers

11 December 2018

Dassault Systèmes today announced that it has entered into a definitive agreement to acquire IQMS, a leading manufacturing ERP software company, for $425 million. With the acquisition of the California-based IQMS, Dassault Systèmes extends the 3DEXPERIENCE platform to small and midsized manufacturing companies seeking to digitally transform their business operations.

IQMS's software – on premise EnterpriseIQ and software as a service WebIQ – deliver an all-in-one solution to mid-market manufacturers for managing engineering, manufacturing and business ecosystems by digitally connecting order processing, scheduling, production and shipping processes in real time. By integrating IQMS's solutions into the 3DEXPERIENCE platform on the cloud, Dassault Systèmes will provide these manufacturers with an affordable system for operations that improves the collaboration, manufacturing efficiency and business agility needed to serve their customers successfully. The manufacturers – many of them SOLIDWORKS users – also gain the flexibility to rapidly scale up as a business grows.

In parallel, these manufacturers can engage in new business opportunities and create value by supplying their manufacturing know-how and services to a large community of designers and engineers in Dassault Systèmes' 3DEXPERIENCE Marketplace – the world's largest virtual factory.

"We must no longer think of industry as a set of means of production, but as a process of value creation. This applies not only to disruptive startups and established corporations, but also to the hundreds of thousands of mainstream manufacturers that produce parts integral to the development of new consumer experiences," said Bernard Charlès, Vice Chairman and CEO, Dassault Systèmes. "IQMS has cultivated a deep knowledge of manufacturing and manufacturer needs. We welcome IQMS to our team as we create a new category of business solutions that expands our offer for companies similar to those using SOLIDWORKS. They can embrace the platform phenomenon and flourish in today's Industry Renaissance."

Today's manufacturing ERP mid-market is estimated at $5 billion, with a 7 to 8 percent annual growth rate through 2023. In the context of the Industry Renaissance – the convergence of a diverse and powerful collection of digital technologies that is transforming every aspect of industrial business – the world's 250,000 small and midsized manufacturers must adopt and optimize new ways of producing and doing business through digital transformation in order to innovate and accelerate their growth in an increasingly competitive, global marketplace.

"For years, our business has been committed to maximizing our manufacturing customers' success by delivering a comprehensive manufacturing ERP system built specifically for the mid-market manufacturers and backed by extensive support and educational services, which has earned us recognition in a number of industry reports and numerous business awards," said Gary Nemmers, President & CEO, IQMS. "As part of Dassault Systèmes, we can take the next steps in providing customers with new approaches to achieving operational efficiency and effectiveness and doing so with a global reach."

Dassault Systèmes will help IQMS expand its customer base by leveraging the presence in the mid-market space achieved with Dassault Systèmes' SOLIDWORKS applications, which are delivered and

supported by the company's Professional Solutions global partner channel.

"At Westfall Technik, we focus on innovation, design and bringing the best manufacturing practices from around the world to all of our operations," said Brian Jones, Founder, Westfall Technik, Inc. "IQMS joining forces with Dassault Systèmes is exactly the kind of innovation we like to see from our partners. IQMS's strength in manufacturing operations and Dassault Systèmes' strength in design and digital transformation is a great outcome for Westfall Technik. We currently use both IQMS and SOLIDWORKS in multiple locations. We definitely look forward to the new partnership."

IQMS's solutions are used by 1,000 customers based primarily in the U.S. whose 2,000 manufacturing facilities in 20 countries produce for the automotive, industrial equipment, medical device, consumer goods, and consumer packaged goods industries. Customers include Westfall Technik, KKSP Precision Machining, AMA Plastics, Donnelly Custom Manufacturing, FlowBelow Aero Inc., Global Interconnect, Inc., Jabil Packaging Solutions, Schnipke Precision Molding, Steinwall Inc., Scientific, Inc., Sturgis Molded Products, Tribar, and Ventura Manufacturing Inc. IQMS's 2017 revenue was around $56 million.

The purchase price of IQMS will be paid in cash. Completion of the transaction is subject to customary conditions precedent, including antitrust approval in the U.S. Closing of the transaction is expected in early 2019. Dassault Systèmes was advised by Goldman Sachs and Mintz Levin, and IQMS was advised by Harris Williams and Weil Gotshal & Manges.

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Company News

Autodesk Appoints Stephen Milligan to Board of Directors

14 December 2018

Autodesk, Inc. announced the appointment of Stephen Milligan to its Board of Directors, effective December 13, 2018. Milligan has more than 30 years of executive operational and financial leadership experience and currently serves as chief executive officer of Western Digital Corporation.

"Steve brings incredible expertise in technology, operations and finance, so I'm delighted to welcome him to the board," said Stacy Smith, chairman of the board of Autodesk. "I'm confident his presence will benefit Autodeskand its shareholders as we drive sustainable growth and returns."

"Steve is an excellent addition to the Autodesk board," said Andrew Anagnost, Autodesk president and CEO. "He brings a wealth of experience in transforming companies and driving growth that will be invaluable as we continue our journey to become a SaaS driven Design and Make solutions provider."

Prior to Western Digital, Milligan was president and chief executive officer of Hitachi Global Storage Technologies (Hitachi GST). During his tenure, Milligan led Hitachi GST through a financial and operational turnaround.

Before joining Hitachi GST in 2007, Milligan was Western Digital's senior vice president and chief financial officer. He originally joined Western Digital in 2002 as vice president, Finance. Previously, he spent five years with Dell in senior finance roles after starting his career with Price Waterhouse.

Milligan serves on the board of directors for Western Digital and Ross Stores, Inc. and holds a bachelor's degree in accounting from The Ohio State University.

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CBX Software Receives 2018 Supply & Demand Chain Executive Green Supply Chain Award

11 December 2018

Supply & Demand Chain Executive has selected CBX Software, a leading provider of Retail Product Lifecycle Management (retail PLM), global sourcing software and extended supply chain software, as a recipient of an SDCE Green Supply Chain Award for 2018.

The Green Supply Chain Award recognizes companies making green or sustainability a core part of their supply chain strategy, and are working to achieve measurable sustainability goals within their own operations and supply chains. The awards also recognizes providers of supply chain solutions and services assisting their customers in achieving measurable sustainability goals.

"This year's award recipients place a critical emphasis on green initiatives within their companies and supply chains," says John R. Yuva, editor for Supply & Demand Chain Executive. "Entries provide examples of innovative approaches and impressive metrics of sustainability programs.

"We congratulate this year's honorees for their commitment to sustainability and recognize their tremendous achievements," Yuva adds. "Our honorees serve as role models for supply chains globally to expand their reach and impact of green leadership."

Today's retailers and their suppliers often have mismatched processes and information causing inefficiencies, product issues, and bottlenecks resulting in delays in delivery. These inefficiencies can lead to a great deal of waste. "Our clients are able to achieve their sustainable supply chain goals through newly developed sourcing software technologies designed to help retailers reduce their carbon footprint in the supply chain process," says Michael Hung, CEO of CBX Software. "Through our innovative, end-to-end, CBX Cloud platform, retailers are able to address their unique supply chain challenges all while eliminating the use of paper and reducing the number of physical samples used by automating their product lifecycle management process and digitizing their sampling process."

CBX Software compresses the supply chain, helping Retailers and Brands expand assortments, accelerate new products to market all while efficiently managing the supplier relationship, which eliminates redundancies in the supply chain. CBX does all this while delivering products to market ahead of consumer expectations. Through innovative Global Sourcing Management, Product Life-cycle Management (Retail PLM), Supplier Relationship Management, and Production & Order Management technology solutions, CBX empowers the supply chain network by driving collaboration between Retailers, Brands and their Supplier and factory partners.

By doing this, CBX Software allows companies to achieve their sustainability and green supply chain goals. CBX hopes to leave a lasting green footprint on the companies that source through the CBX Cloud platform and is committed to helping create sustainable tools that win.

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Flexera and MachineShop Announce Alliance for Better Management and Monetization of IoT Offerings and Edge Devices

12 December 2018

Flexera's taking its Software Monetization technology to the edge and recently launched FlexNet Edge™. The smart edge server enables entitlement-driven software and firmware updates for Internet connected and disconnected software and devices. Flexera's enhanced offering empowers IoT companies and intelligent device manufacturers to implement their digital business models, making automated updates and better control of edge devices part of their IoT management and monetization processes.

As part of Flexera's strategy to further enable IoT monetization and management, the company announced a technology alliance with MachineShop. Flexera will leverage MachineShop's extensive knowledge and industry experience related to smart edge computing.

MachineShop's Device Relationship Management™ software offering helps organizations with the complete lifecycle management of connected, smart products – onboarding, configuring, monitoring, management, decommissioning. A key element of the solution is a rich orchestration capability. "MachineShop is honored to partner with Flexera, who's helping product vendors create and monetize the value of smart services," said Michael Campbell, President and CEO at MachineShop. "The relationship reinforces our strategy of supporting clear market leaders that deliver solutions to large market challenges."

"Flexera's committed to delivering complete solutions for IoT monetization and management to its customers with technology that extends from computing at the edge of the enterprise to the cloud," said Matthew Dunkley, Senior Director of Product Management at Flexera. "We're happy to be working with an innovator such as MachineShop to improve our approach to edge device management and deliver Software Monetization technology to some of the world's most important OEMs."

According to Harbor Research, while most "product-centric" businesses are now embracing the concept of growth creating services, many aren't developing new business models or investing in new digital systems to realize true strategic potential and value. As organizations embrace the value of connected products and smart services, they must invest in balanced and distributed computing architectures – with capabilities at the edge and the cloud. In many cases, powerful business logic and domain expertise is delivered via cloud platforms that now can reach devices at the very edge of the enterprise. These hybrid solutions allow businesses, employees, customers and partners to deliver and monetize extraordinary value that wasn't possible before.

To learn more about Flexera's Software Monetization offering, please contact Flexera, or reach out to MachineShop at engage(at)machineshop(dot)io.

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HashCash Plans to Bring Blockchain to the Korean Shipbuilding Industry

10 December 2018

The cash-strapped shipbuilding and shipping industries in South Korea found a new lease of life in October 2016 when their government announced plans to provide support to the industry. The scheme to

achieve this will involve software development providers actively participate in making the shipbuilding companies technologically robust. In its wake, California-based blockchain company HashCash Consultants plans to confirm a tie-up with a leading shipbuilding company to give its infrastructure a blockchain remake.

The government's aim is to attract 250 or more orders of vessels by the end of 2020 in a bid to give succor to local shipbuilders suffering the consequences of faltering global demand. This would mean revenue worth some US$9.5 billion. The industry is also expected to receive five to six billion dollars of aid designated to take forward efforts for achieving greater efficiency and high value-added services. As a result of these constructive steps, the shipbuilding order volume in South Korea reached six million CGT, which is a four million dollar leap from its previous year.

The capital and the R&D assistance provided by the government (as per announcements of new measures made in November 2018) has put industry players in a position to collaborate with software development companies. HashCash Consultants is in talks to develop a state-of-the-art blockchain platform for a prominent Korean shipbuilder, and integrate its current technological infrastructure with the blockchain platform. The primary purpose of this is to enable effective resource management and product lifecycle management system. The preliminary stage of the project is speculated to commence in 2019.

A blockchain is basically a decentralized, distributed ledger in which every data is marked with a unique hash code and stored in interconnected nodes. This also renders it impossible to make unauthorized alterations in the data cache, endowing reliability and transparency to supply chains based on this technology. A blockchain also utilizes smart contracts to validate and record transactions transpiring within its network. Smart contracts, simply put, are computer protocols that function on predetermined conditions. Since these are completely automated, there are no possibilities for it to be biased toward any particular party.

A ship is constructed by assembling several separate components such as the propeller, engines, and electronic systems needed for navigation. Large shipbuilding companies utilize a wide range of products that allow them to construct vessels that meet the specific requirements of their clients. These could be LNG carriers, LPG carriers, drillships, tankers, full container ships, and other special purpose ships. These components may be manufactured by the same company or sourced from other manufacturers. Either way, it is crucial to maintain a transparent supply chain to ensure quality and efficiency.

The incorporation of blockchain will also have the added benefit of reducing paper trail as a majority of the operations that were traditionally done on paper will be executed electronically in a blockchain network. Since operations on blockchain (such as real-time reconciliation across nodes) take a fraction of the time normally taken by other systems, it also saves energy.

The South Korean government has prioritized its responsibility toward the environment while not compromising with its goal to strengthen its economy and bring about a paradigm shift in the shipbuilding industry. It has aimed to place orders for 140 Liquefied Natural Gas or LNG-powered ship from small and medium-sized shipbuilders by 2025. Not only are LNG-powered carriers in high demand across the globe, but it also has a low carbon footprint and low fuel costs.

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Materials Solutions Grand Opening of Extended Facility in Worcester, UK

12 December 2018

The re-opening of new state-of-the-art factory provides a milestone towards industrialization of Additive Manufacturing. The digitalised production facility offers R&D, production and post-processing, everything under one 4.500 sqm roof. The manufacturing capacity will be extended to more than 50 printers arranged in a future proof flexible AM cell approach.

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Mimaki Announces Participation in "ADAPT" Consortium Launched by Massachusetts Institute of Technology (MIT)

7 December 2018

Mimaki Engineering Co., Ltd. (Mimaki), headquartered in Nagano Prefecture, Tomi City; President, Kazuaki IKEDA, has announced Mimaki's participation in the "ADAPT (Additive and Digital Advanced Production Technologies)" consortium launched by Massachusetts Institute of Technology (hereinafter called MIT) as one of the founding members.

"ADAPT" is a consortium directed by MIT professor John Hart, who leads MIT's Laboratory for Manufacturing and Productivity. With the aim of supporting the advanced additive manufacturing industry, ADAPT will promote research and education for next-generation manufacturing technology based on AM processes, including 3D printing.

"We've been given an opportunity to install our UV flatbed inkjet printer [UJF-7151 plus] and 3D printer [3DUJ-553] at MIT to support AM-related classes and research activities. Working towards ADAPT's vision of amalgamation and evolution of AM technology and digital production sought by MIT professor John Hart, Mimaki will continue to contribute to ADAPT activities through our inkjet technology and mass customization printing solution. And, we will feed back synergy effects gained through ADAPT activities to future product development. In this sense, it is indeed an honor that Mimaki was selected as one of the founding members of MIT's ADAPT," comments Yasuhiro Haba, Executive General Manager of Sales Division, Mimaki Engineering Co., Ltd.

The "ADAPT" founding members held a kick-off meeting at the international trade fair for additive manufacturing and industrial production – "formnext" – held in Frankfurt, Germany in November and are scheduled to have their next meeting at MIT in Spring, 2019.

ADAPT founding members:
ArcelorMittal/Autodesk/BigRep GmbH/Dentsply-Sirona/Electro-Optical Systems Inc./Formlabs, Inc./General Motors/Mimaki Engineering/Proto Labs, Inc./Robert Bosch GmbH/Volkswagen AG

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OriginTrail Becomes Oracle's Partner for Blockchain Technology

3 December 2018

OriginTrail and Oracle have entered into a technology partnership that will result in an integration

between the Oracle Blockchain Cloud Service and the OriginTrail network. The partnership spans across the region, as it involves several Oracle offices in Southeast Europe.

OriginTrail's blockchain protocol aims to become the global language of supply chains, enabling companies to speak the same language with integrity. The Oracle Blockchain Platform securely extends business processes and applications while enabling the faster processing of business transactions.

OriginTrail and Oracle are working on an integration between Oracle products and the OriginTrail network that enables trusted data sharing based on distributed ledger technologies. Because of tight integration efforts, the enterprise software built by Oracle, namely ERP systems and cloud services, can be seamlessly connected with the OriginTrail network, and therefore other enterprise systems, by utilizing benefits of different legacy as well as novel DLT technologies, based on industry standards.

This partnership enables companies that are already using Oracle products and services to easily use OriginTrail's solutions. It also allows for the easier integration of Oracle systems with various blockchains.

The OriginTrail protocol is a bridge that brings interoperability between Oracle's and other blockchain solutions, and, as such, brings adoption of the blockchain closer to global supply chains.

The blockchain has the power to fundamentally transform how every industry does business by making interactions more secure, transparent, efficient, and cost-effective. The Oracle Blockchain Cloud Service provides customers with a development platform to build their own networks, and to quickly integrate with Oracle SaaS and third-party applications they already use, as well as other blockchain networks and Oracle PaaS services. The Oracle Blockchain Platform is based on Hyperledger Fabric.

Oracle Slovenia's country manager, Rajko Novak, said: "Oracle offers businesses an easy way to adopt blockchain and transform enterprises with the comprehensive and enterprise-grade blockchain platform. Integration with the OriginTrail network enables easier data sharing between companies along the supply chains, all based on distributed ledger technologies. Partnership with OriginTrail brings Oracle's enterprise-grade technology closer to specific supply chain purposes. This enables to extract more value out of data being exchanged in the multi-organizational environment."

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Philippe Augras Has Joined Eurostep France to Become Managing Director

12 December 2018

On January 1st 2019 Mr Augras will become the Managing Director of Eurostep SARL.

Mr Augras has extensive experience in industries like aerospace and defence, automotive, AEC, etc. delivering a broad range of services, from architecture services to implementation projects. Previous to joining Eurostep Mr Augras was leading the PLM practice of Capgemini Paris.

"We are very pleased to announce this," says Håkan Kårdén, CEO Eurostep Group. "Mr Augras's knowledge in PLM solutions from vendors like Siemens and Dassault Systemes will bring valuable experience to Eurostep as we are increasing our base of ShareAspace clients and delivering mission critical collaboration solutions," ends Mr Kårdén.

"Joining Eurostep is an opportunity for me to deliver services and solutions for architecture governance,

helping clients to address the challenges of distributed engineering and heterogenous IS landscapes," says Mr Augras. "With ShareAspace, it becomes more easy to run continuous business processes within the engineering supply chain across PLM, ERP and MRO disciplines," ends Mr Augras.

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PROSTEP's supervisory board appoints Dr. Karsten Theis to the executive board

13 December 2018

PROSTEP AG has embarked on the task of bringing a new generation into the company's management. At its last meeting in November, the company's supervisory board appointed Dr. Karsten Theis to the executive board. Theis, who has been with the company for over 15 years and has held a number of different management positions, will be responsible for PROSTEP products, marketing, sales (excluding the automotive OEM sector) and US business in his new function as deputy chairman of the executive board.

Born in 1969 in Wuppertal, Theis studied electrical engineering at the University of Dortmund, where he did his doctorate in the field of automation technology and robotics. He joined PROSTEP in 2002. Among other things, he headed up the PLM Strategies & Processes business unit for several years, making a significant contribution to expanding PLM strategy consulting, which is now a core component of PROSTEP's service offering. Prior to his appointment to the executive board, he was a member of the management board and responsible for sales. As a member of the executive board, his tasks will include expanding the sales network and acquiring new customers at SMEs that are facing challenges similar to those of the leading carmakers with regard to digitalizing their business processes and models.

"The digital transformation is also a challenge for us. When it comes to PLM, we need to think forward and offer our customers new solutions for the end-to-end digitization of their development, manufacturing and service processes," said Dr. Bernd Pätzold, CEO of PROSTEP AG, commenting on the expansion of the executive board. "In recent years, Karsten Theis has shown that he is capable of providing fresh impetus for the development of new areas of business and the acquisition of new customers outside our usual customer base."

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Protolabs Joins MIT's Additive Manufacturing Consortium to Advance Next-Gen Manufacturing Technology

6 December 2018

Digital manufacturing company Protolabs announced today that it has become a founding member of MIT's newly formed Center for Additive and Digital Advanced Production Technologies (ADAPT) — a consortium focused on scaling new manufacturing technology through research, education, actionable insights, and an MIT-based ecosystem that pairs industry and academia.

"We've experienced firsthand the tremendous progress that additive manufacturing has made over the past decade, and we're quickly approaching another important milestone in 3D printing's rapid ascent

into industrial manufacturing space. My hope is that ADAPT will not only evolve additive manufacturing as a viable digital manufacturing solution for prototyping, but also end-use production. We are thrilled to be a founding member of ADAPT to help make that a reality," said Vicki Holt, President and CEO at Protolabs, which provides industrial 3D printing along with injection molding, sheet metal fabrication, and CNC machining services.

Joining Protolabs as founding members of ADAPT are Autodesk, General Motors, and Volkswagen, to name a few. Helming the ADAPT consortium is MIT professor John Hart, who also leads the university's Laboratory for Manufacturing and Productivity and oversees the design and manufacturing facilities in the Department of Mechanical Engineering.

"AM [additive manufacturing] — and the path toward a responsive, digital manufacturing infrastructure both within and between organizations — requires multidisciplinary expertise at the cutting edge of mechanical engineering, computer science, materials, and other fields," explained Hart. "I am thrilled to launch ADAPT to accelerate MIT's efforts toward enabling a next generation of production technologies, wherein AM is a cornerstone."

Among the initial efforts of ADAPT are seeding exploratory research projects with faculty and graduate students, and accelerating the establishment of a new, advanced additive manufacturing laboratory at MIT. ADAPT activities also complement MIT's leading AM education programs like Additive Manufacturing for Innovative Design and Production, an online certificate program offered by MITxPRO with manufacturing and engineering support from Protolabs.

For more information on ADAPT, visit adapt.mit.edu or contact the initiative's program manager Haden Quinlan at hquinlan@mit.edu or 910-690-9074.

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SGK's Michael Fox Presents "From SmartLabel To SmartERLabel" In Live Webinar

6 December 2018

SGK announced today that Michael Fox will present From SmartLabel to SmartERLabel in a live webinar on December 13, 2018, 1:00 P.M. (ET).

The SmartLabel® initiative is gaining global notoriety as it increases transparency and helps brands connect better to their customers. Most major U.S. consumer packaged goods (CPGs) are closely monitoring how SmartLabel is received as a transparency platform and as a regulatory disclosure platform, but SmartLabel has even more to offer. It can also improve transparency by providing better access to that information via a connected experience – the physical packaging directly links to the web with a scannable code.

In SGK's BrandSquare webinar From SmartLabel to SmartERLabel, Michael Fox will share key insights and strategies to leverage the benefits of connected pack technology. Registrations for the December 13th webinar will be accepted up until the 1:00 P.M. (ET) start time at http://www.brandsquare.com.

"U.S. shoppers demand to know more about the grocery products they are buying than what is available from traditional package labels," said Fox. "SmartLabel is a major connected pack initiative that gives consumers a way to digitally access more detailed product information than could ever fit on a label about a wide range of food, beverage, household, pet care and over-the-counter products."

Fox concluded: "SmartLabel is intent on solving for this demand and brand owners can help by improving consumer access to this information with a connected experience."

Michael has spent 14 years effecting organizational change in a large range of business environments, from CPG to military. He has a broad-based technical background in R&D, engineering management, product lifecycle management, project management and operations. Since 2011, Michael has worked with more than 30 of the 100 largest CPGs to evolve their marketing operations practices.

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swatchbook® partners with Vizoo to revolutionize the digitization of materials

12 December 2018

swatchbook, a cloud-platform provider for Material Lifecycle Management (MLM) and Vizoo, a provider of hard- and software solutions for material digitization, today announced their official partnership. The goal of this collaboration is to create a fast, efficient and lean process of scanning, storing and sharing high-quality digital material samples.

“We are excited to deliver a tightly integrated solution to our customers,” says Yazan Malkosh, founder and CEO of swatchbook. “We have been working with the Vizoo team for quite some time. Their hard- and software solutions make it extremely easy to create high-quality 3D swatches from physical material samples, exactly what our customers need in their mission of going digital. With the integration between xTex and swatchbook the process of digitization and managing materials becomes extremely efficient.”

“A lot of our clients are looking for a storage solution for their digital materials”, Martin Semsch, founder and Managing Director of Vizoo, explains. “swatchbook provides exactly that. And our new xTex plugin that will make the whole experience seamless for the user.”

Direct upload of xTex scans to swatchbook

Vizoo is working on a plugin that will allow users to upload their scanned materials directly to swatchbook from within the xTex software. Utilizing swatchbook’s API, the user has direct access to swatchbook’s material creation and upload features.

Availability

The new plugin will be part of xTex version 181, scheduled to be released by the end of this year. All maintenance paying customers will have access to this new functionality when they upgrade to the latest version of xTex.

To learn more about swatchbook’s capabilities, integrations and partners visit www.swatchbook.us. To learn more about Vizoo’s xTex hard- and software scanning solutions please visit www.vizoo3d.com.

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Events News

'Out of the box' inventory software and AI solutions for retailers

11 December 2018

Detego will be showcasing the latest digital in-store solutions on January 13-15 at NRF 2019. Returning as a co-exhibitor on the SAP booth (#3426), Detego will display their RFID-based inventory management software and latest AI applications for retailers.

Detego has been complementing the SAP offering in fashion retail by utilizing IoT technology and providing SAP systems with real time data on item level. Exhibiting at NRF will be the Detego InStore Lean Edition, a new mobile solution for retailers, offering faster and cheaper access to the benefits of digital connectivity via an RFID based system. This solution allows fashion retailers to quickly adopt a "smart" replenishment process and carry out "intelligent" stocktakes, by starting small and scaling across the entire store network. Offered as a SaaS (Software-as-a-Service) model with cloud hosting, retailers benefit from high inventory accuracy and consistent article availability at low cost. Detego's software has already proven to be the most cost-effective and fastest to implement on the market with over 1500 stores running on Detego around the globe.

To complement their core product offering, Detego have also developed AI applications which benefit both retailers and consumers alike. Detego's new digital assistant/chatbot can be used at any time on a customer's smartphone to help provide more pertinent product information or recommendations, based on real-time data on actual availability and customer preferences. The built-in machine-learning and artificial intelligence (AI) capabilities adapt to the ever-changing dynamics of retail, which means that results get better and better over time.

Detego has also found opportunity within AI to help revolutionize the planogram. Since the manual maintenance of the planogram per store can be enormously time-consuming, Detego's self-learning system adapts to possibly changing conditions and continuously optimises the individual planogram per store. "By optimising the sizing profile of individual items for each store and greatly simplifying the in-store refilling process, we provide retailers with tools that make it easier for them to plan and implement optimum product presentation and thereby help them to boost their sales." Says Michael Goller, Detego CTO.

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Implementation Investments

Siemens Expands Technology Partnership with AUTOParkit to Accelerate Growth

13 December 2018

Siemens has been selected as the technology partner for AUTOParkit™, helping to expand the company's significant growth of its fully-automated parking garage systems. Siemens has been working with AUTOParkit since 2016 and will now provide a full-complement of advanced automation hardware, as well as electrification and digital tools.

AUTOParkit, designed and manufactured by Dasher Lawless Automation, is a USA-based OEM of fully-automated parking systems. The company is providing a necessary parking alternative for commercial development, which is being severely impacted by changes in the automotive transportation industry and continued market pressure to reduce space allocated for parking.

AUTOParkit has embraced Siemens technology in its growth model, realizing the benefits of an integrated portfolio, from power distribution and digital factory to building automation. AUTOParkit has calculated that with this technology, the fully-automated systems will achieve a 2:1 space savings at approximately the same cost as a conventional approach, as well as cost efficiencies in construction, and a 40 percent reduction in operational costs. AUTOParkit provides an 80 percent reduction in both energy consumption and carbon emissions and delivers an easy, safe and convenient user experience. It also captures an untapped source of data that links drivers with the fully-automated parking system, capable of connecting directly to their building automation systems.

AUTOParkit is also using Tecnomatix Plant Simulation software from Siemens PLM. Plant Simulation is used for modeling, simulating, analyzing, visualizing and optimizing each parking system. Tecnomatix builds a virtual model to demonstrate the entire process. Each vehicle's movement, simultaneous transfer and complete sequence of operations is created for design verification and performance calculations long before project construction.

"With our Siemens partnership, we have adopted nearly every Siemens product line, from industrial automation to electrification to building automation and digitalization," says Christopher Alan, President and Founder of AUTOParkit. "As we continue to chase an estimated $100 billion market, it is important that our systems offer seamless integration. The Siemens portfolio is helping us realize the pivotal role advanced automation and software will play in shaping the future of commercial development by addressing the megatrends that challenge our cities, including urbanization, population migration, changing vehicle transportation demands and increasing environmental regulations," adds Alan.

An AUTOParkit system is the integration of 12 subsystems, orchestrated together to park and retrieve vehicles. The system architecture is modular and scalable, so each site can be custom-fit with the proper amount of equipment to deliver peak-hour-demand.

Siemens hardware is used throughout the system, including switchgear, breakers, disconnects, contactors, relays and power supplies for managing the electrical load. Siemens industrial automation hardware is used to move vehicles vertically, horizontally and in some cases rotationally. Siemens automation components include Simatic programmable logic controllers (PLCs), Simatic human machine interface (HMI) panels, Simatic variable frequency drives (VFDs), safety PLCs, Safety I/O, wired switches, Profinet networking cabling, Scalance wireless, RFID and SCADA software. In addition to the long list of benefits of the Siemens automation platform, the regenerative braking of the VFDs feed power back into the line, thereby reducing operating costs.

"We are proud of our partnership with AUTOParkit, and this is an excellent example of adapting industrial automation to solve a complex commercial need," says Raj Batra, President, Siemens Digital Factory Division, U.S. "This is a best practice example of how advanced automation and digitalization will be a disruptor in our society, and AUTOParkit is a true innovator in how they challenge the market and existing trends," adds Batra.

AUTOParkit is in final construction of a 282-stall, two-level, subterranean parking garage at INclave, a new live-work-playdevelopment in Marina del Rey, California. The AUTOParkit System will allow residents to park and retrieve automobiles with the additional flexibility to store bicycles, motorcycles,

watersports equipment or even personal storage units. The garage will also feature 19 automated electric vehicle charging stations. By the time the INclave development is completed, expected by early 2019, AUTOParkit will have 4 more developments under construction.

“The challenges facing cities today are immense – but so are the opportunities. Nowhere is that truer than in the U.S., where the average parking space costs $30,000 to construct, and the average parking space is more than 300 ft2 (a ¼ of the size of the average urban home),” says Julia Thayne, who leads Innovation and Technology for Cities at Siemens USA. “With technologies like AUTOParkit, cities can start to release spaces for cars to become spaces for homes and for new developments.”

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Sportswear Brand Anta Leaps Into Action With Centric PLM

11 December 2018

Anta, the largest sportswear company in China, has selected Centric Software to provide its Product Lifecycle Management (PLM) solution.

Anta Sports Products, Ltd. is the largest sports equipment and apparel company in China and the third largest in the world. Founded in 1994, Anta’s main focus is the design, development, manufacture and marketing of its own ANTA brand sports shoes, clothing and accessories for a range of sports including running, football, basketball, cross training and tennis. In 2017, Anta’s market value exceeded 100 billion Hong Kong dollars (12.75 billion USD).

Anta has ambitious plans to develop its position in the Chinese and international markets over the next ten years and an industry-leading PLM solution is critical to realizing Anta’s ‘single-focus, multi-brand, omni-channel’ business strategy.

“The Anta brand is striding out into the world and can be a truly international brand that attracts customers from all over the globe,” says Zheng Jie, Executive Director and President of Anta Group. “The way we manage products is very important because they are the most direct and close connection between brands and consumers. To meet the needs of consumers, we need to have complete control over our products including planning, design, development, manufacturing and quality control. This requires the support of a professional and powerful PLM platform.”

According to Chen Donghai, Senior Director of the Process and Information Management Center at Anta, the lack of a unified standard information platform to manage collaboration between product and supply chain teams resulted in inefficient internal and external coordination and restricted the development of Anta’s business. Selecting a suitable PLM solution was a high-priority project.

“Choosing a suitable PLM system is one of the largest investments Anta will make in its information management project,” he explains. “After a selection process that considered many vendors, Centric was chosen for its rich experience in the footwear and apparel industries.”

“The vision of the PLM project is to create a platform for standardized operations across the full supply chain of goods, digitize product information and achieve effective data integration, structure, reuse and analysis,” Mr. Chen concludes.

“We are very happy to announce that Anta, the largest sporting goods company in China and the third largest in the world, has chosen Centric as their PLM partner,” says Chris Groves, President and CEO of

Centric Software. “We are excited to work with Anta on their digital transformation and their ambitious growth strategy.”

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SuperSonic Imagine Deploys PTC’s ThingWorx for Remote Monitoring and Service of Medical Imaging Devices

6 December 2018

PTC announced that SuperSonic Imagine, a company in breakthrough ultrasound medical imaging devices, has deployed PTC’s ThingWorx® Industrial IoT Platform for the remote monitoring and service of its market-leading patient diagnostic devices.

Founded in 2005 and based in Aix-en-Provence, France, SuperSonic Imagine manufactures the flagship Aixplorer® series, innovative ultrasound platforms, which feature the exclusive UltraFast™ technology. UltraFast™ has given rise to new imaging modes, such as ShearWave®Elastography (SWE), which allows users to view and measure tissue stiffness in real-time on a color map, setting the standards of care for non-invasive characterization of breast, liver, and prostate diseases.

This fall, SuperSonic Imagine unveiled the smart, connected Aixplorer MACH 30, its first product supported by ThingWorx. Using SuperSonic Imagine’s unique technology, the Aixplorer MACH 30 includes a new generation of UltraFast™ imaging, a technology that enables acquisition rates 200 times faster than conventional ultrasound systems with innovative modes to enhance diagnostic performance. Aixplorer MACH 30 also features a new concept in ultrasound, the revolutionary SonicPad™, designed to enhance the user’s intuitive control of the functions needed during an examination, improving both user comfort and exam efficiency. ThingWorx will enable remote monitoring of the Aixplorer MACH 30 devices in the field to maximize uptime, increase the stability of the platform, and avoid patient care disruptions.

“We are renowned as innovators who constantly deliver groundbreaking diagnostic imaging modes,” said Jacques Souquet, director of innovation, SuperSonic Imagine. “Our mission is for SuperSonic Imagine technology to become the industry standard in non-invasive care for breast and liver diseases. With the support of ThingWorx, we first ensure the highest level of security for customer data protection and improve our reactivity to provide better customer service. Our ultrasound platform will now provide remote automated monitoring of our systems in the field for better service to our customers and their patients. Thanks to the rapid development allowed by ThingWorx we will soon be able to provide additional online services to our customers.”

Purpose-built for industrial environments, ThingWorx is a complete, end-to-end technology platform that delivers the functionality, flexibility, and agility needed to develop, deploy, and extend IoT applications and augmented reality (AR) experiences. The award-winning platform contains a broad set of features, including multiple connectivity options, application development tools, analytics, and AR. With ThingWorx, industrial businesses can create scalable and secure solutions that provide high levels of return on investment.

“ThingWorx will enable Supersonic Imagine to significantly improve machine reliability,” said Iain Michel, general manager, Smart Connected Products, PTC. “We look forward to supporting this innovative leader to achieve its goal of becoming the industry-standard supplier of diagnostic

technology and improving the clinical and patient experience."

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Product News

BigLever Launches Next-Gen Enterprise Product Line Engineering Solution, Extends PLE to Advance Digitalization

11 December 2018

BigLever Software today announced its next generation Gears solution – Enterprise Gears. The new solution delivers a web-based interface that makes Gears fully accessible for all users, and a server API that enables the seamless integration of PLE with other tools, processes and enterprise systems. With Enterprise Gears an organization can advance and accelerate its digitalization efforts by implementing a leading-edge Feature-based PLE approach throughout the enterprise and across product lines.

"Organizations face enormous challenges in managing the complexity of product variation across the interconnected engineering and operations lifecycle," said Dr. Charles Krueger, CEO of BigLever Software. "This complexity continues to grow with the Internet of Things (IoT) and other emerging digital technologies. Digitalization is vitally important for companies to remain competitive, yet these efforts can be greatly impeded when a unified, enterprise-wide variant management solution is missing. Enterprise Gears allows organizations to leverage the full power of Feature-based PLE to fill this gap. Now, digitalization initiatives can be expanded and accelerated by using PLE to manage product diversity, not only across the engineering lifecycle, but also throughout the full enterprise lifecycle from portfolio planning and engineering to supply chain, manufacturing, sales and service."

Some of the world's largest forward-thinking organizations are using Feature-based PLE to gain competitive advantage through order-of-magnitude improvements in productivity, time-to-market, portfolio scalability and product quality. BigLever's Enterprise Gears PLE solution offers the only complete, out-of-the-box Feature Content Management (FCM) system, which allows companies to easily capture, share and manage product features across the product line, as well as across tools, processes and organizational functions. With the FCM system provided by Gears, companies can establish a "single source of feature truth" for an entire product family – eliminating the need for multiple feature management techniques across the enterprise. This breaks down organizational silos; improves communication; and dramatically reduces time, effort and errors.

"Digital technologies are creating a new level of complexity, expanding product engineering boundaries into a broader ecosystem," said Michelle Boucher, Tech-Clarity's VP of Research for Engineering Software. "This new ecosystem cuts across disciplines for developing, managing and evolving product lines and requires tight integration with multiple enterprise data sources, systems and tools. BigLever's new server API should help companies connect with enterprise systems and applications for a consolidated view of variant feature options across the product line. The web-based interface should make this variant information available to more groups, including those with non-

technical roles. These new enterprise-level capabilities should support better collaboration and lead to greater efficiency."

New Features
The key new features delivered by Enterprise Gears include:

- A **web-based interface** that provides all users with browser-based, role-specific access to the appropriate view of Gears they need to do their jobs. This makes Gears fully accessible and easy to use for everyone – enabling PLE to be more quickly adopted and implemented across organizational functions.
- The **Gears Server API** which easily connects Enterprise Gears with other existing enterprise systems or custom interfaces for sharing feature content information and generating new views. The API integrates with other sources and digital initiatives, allowing organizations to capture FCM data that can be used, analyzed or manipulated in other applications such as portfolio management, ERP and sales configurator apps.

Supporting Digitalization Initiatives

Enterprise Gears supports IoT and digitalization by automating and simplifying the creation and management of digital twins. A manufacturer uses digital twins – virtual representations of a physical product or object – to remain connected to its products after they leave the factory. When these digital twins have been produced using a feature-based PLE approach, the manufacturer can track, maintain and evolve each product based on the *specific features* that the product contains. This capability is critical in industries such as automotive, which is using IoT to remain digitally connected to 70 million new feature-unique automobile digital twins each year, conducting ongoing and preventative maintenance and product upgrades.

In addition to Enterprise Gears, BigLever will continue to offer the current Gears version for those who need or want the full desktop Gears experience.

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C3D Labs Releases C3D Vision 2019

13 December 2018

C3D Labs announces the release of the C3D Vision 2019 visualization module, a part ofC3D Toolkit for developers of engineering software. C3D Vision operates with polygonal models and is responsible for drawing visual scenes in 3D applications.

The 2019 release of C3D Vision is integrated even more closely with the C3D Modeler geometric kernel. To automatically generate scene graphs based on mathematical models, developers now need call just one function.

The multi-threading support already found in C3D Toolkit is now also implemented in C3D Vision 2019. There is an option to calculate polygonal models for visualization objects (based on mathematical representations of the geometry) in synchronous or multithreading mode. Searching objects and drawing is also performed in either of these two modes.

The new version of the 3D engine aims to quickly and easily create modern 3D design projects.

Together with the C3D Toolkit's other software development modules –the geometric kernel, a parametric solver, and file converters – C3D Vision provides CAD developers with the most complete solution for constructing, editing, displaying, and converting geometry.

Developers Work with C3D Vision 2019

With the 2019 release, the architecture of the Vision engine has undergone great changes, thanks to which customers have the opportunity to create objects, as well as write processes for creating and editing objects.

"We chose an integrated approach for C3D Vision 2019, with various ready-made solutions for CAD developers," explained Edward Maximenko, head of C3D Vision Development. "C3D Vision is more scalable, and so becomes more convenient for developing 3D applications."

One such customer is the Russian Federal Nuclear Center VNIITF of ROSATOM, which uses C3D Vision together with the C3D Modeler's geometric kernel and C3D Converter to develop products for computer-aided engineering and calculations.

The RFNC Zababakhin All-Russia Research Institute of Technical Physics (Snezhinsk) licensed C3D Toolkit in 2016. That was the year that they initiated in-house software development using C3D Toolkit for geometric modeling and import/export of finished geometry through exchange formats.

"We were using our own tools to create and display the graphical data on top of C3D Toolkit," said Igor Pavlov, head of software development at RFNC VNIITF. "However, we began using C3D Vision at the end of 2017 while developing new software. As a result, the quality has improved and the output of the scene elements has increased."

Price and Availability

C3D Vision 2019 is available for free testing as part of the C3D Toolkit, or as a separate module. Learn more about its capabilities at https://c3dlabs.com/en/products/vision/.

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GRANTA MI Version 12—Materials-Enabling the Digital Twin

13 December 2018

Granta Design today announced GRANTA MI™ Version 12, the latest release of its industry-leading materials information management software. Engineering enterprises are increasingly investing in Digital Twin strategies to enable decision-making and support innovation with an accurate virtual representation of the real product. To be meaningful, the Digital Twin must accurately represent the materials from which the product is made.

GRANTA MI Version 12 brings the materials-enabled Digital Twin closer, with new capabilities to manage vital materials data, ensure traceability, and apply it in design and simulation. These are particularly useful for emerging material and process technologies like Additive Manufacturing (AM). This latest release also helps users to assess and ensure regulatory compliance, while enhanced integration with PLM and CAD enables the deployment of accurate materials definitions throughout the product lifecycle.

Materials Engineers can more easily understand processes and represent this insight accurately in digital

form. GRANTA MI captures data generated during testing and development projects, now with improved options to link to large data files such as the CT scans used in AM projects. Correlations between process and materials parameters can be visualized to help understand, and thus optimize, performance. Version 12 includes new plot types in the MI:Mat Analyzer app, plus trend identification and easy export to text and CSV files.

Report quickly on restricted substance regulatory compliance for the products and parts described by both production and legacy BoMs (Bills of Materials). MI:BoM Analyzer 3.0 and the new MI:BoM Store enable enhanced and dynamic analytics, including scenario analyses. Capture and link vital data on materials, specifications, and substances, and connect it to BoM data to identify product risks and track them as legislation changes.

Integration technologies ensure GRANTA MI is the 'gold source' for materials-enabled Digital Twins, spanning multiple design and simulation tools and vendors, and providing consistent materials assignments. Coverage is extended to the 3DEXPERIENCE platform, in addition to Teamcenter and Windchill PLM. Synchronization between different systems is improved, for example, via new Creo-Windchill interoperability for materials.

GRANTA MI Version 12 helps you to enable robust business processes, supported by enhanced workflow capabilities, and backed up by tools to ensure data integrity and quality at the enterprise level. New search features, for example, enable swift access to the data you need, supporting large databases that may contain millions of materials records.

The library of materials reference data available with GRANTA MI has also been updated, with the latest versions of trusted references such as CAMPUS Plastics, MMPDS, and ASM Medical Materials. The up-to-date data modules can be added to GRANTA MI installations, offering access to the Senvol Database™ for additive manufacturing machines and materials; JAHM Curve Data to support simulation; globally-recognized safety and quality guarantee for plastics, UL Yellow Cards; and more.

Watch our webinar on-demand for a closer look at materials-enabling the Digital Twin through GRANTA MI Version 12: www.grantadesign.com/webseminars/2018/digital_twin.htm. More details on the value of materials data management are available in this video overview: www.grantadesign.com/products/mi/video.htm.

"The integration of controlled materials information throughout the enterprise enables decision-making, and is a key component of ensuring Digital Twins are accurate, useful virtual representations of physical assets," commented Rob Davis, Head of Product Management at Granta Design. "With GRANTA MI Version 12, we have new capabilities across workflows, compliance, and analysis that bring the materials-enabled Digital Twin closer than ever before."

For insight into how GRANTA MI Version 12 helps to minimize the risk of REACH and other restricted substance regulations, join our no-cost webinar on January 16, 2019: www.grantadesign.com/webseminars/2019/restricted-substances.htm.

On January 31, 2019, we'll take a closer look at the new capabilities for Additive Manufacturing: www.grantadesign.com/webseminars/2019/additive-manufacture.htm

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International TechneGroup Releases GoToINVENTOR solution for Autodesk customers
8 November 2018

Global interoperability solution leader International TechneGroup Incorporated (ITI) introduces the GoToINVENTOR software solution. GoToINVENTOR offers feature-based translation that enables the transfer of complete design intelligence from major CAD systems to INVENTOR with up to 100% automation and enhanced efficiency.
GoToINVENTOR is based on ITI's Proficiency software technology. By providing fully functional models that retain the original product knowledge in INVENTOR, GoToINVENTOR maximizes CAD data re-use and offers a reliable basis for further product design and development. Users can convert geometry, features, history, sketch relations, manufacturing information, metadata and assembly information from CATIA V5, NX, Creo/Wildfire, Solid Edge and SOLIDWORKS seamlessly to INVENTOR. GoToINVENTOR can also convert associative drawings along with the linked 3D models in one automated procedure.

"At Autodesk interoperability and openness is the heart of our DNA", states Karl Osti, Autodesk Manufacturing Industry Manager. "Together with ITI's extensive know-how, solutions and proven track record, we can offer interoperability that transfers customer assets at an even higher level of data intelligence, in an automated way. This frees up engineering capacity toward new projects, offers better reuse of existing modularization assets, and accelerates corporate harmonization initiatives."

To learn more about GoToINVENTOR visit https://www.iti-global.com/gotoinventor, or stop by ITI's booth D1407 at the Autodesk University (AU) event being held November 13-15 at The Venetian in Las Vegas, NV. For more information on AU North America, visit: https://au.autodesk.com/las-vegas/overview

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IronCAD's 20th Anniversary Edition Released

10 December 2018

IronCAD has officially released its 20th Anniversary Edition (IronCAD Design Collaboration Suite 2019), which continues to strengthen its performance with the large assembly designs and workflows common among machinery manufactures.

This new release extends IronCAD's Shrinkwrap capability to simplify imported and native models and gives users the ability to dynamically load the simplified or full versions based on their preference. Typically, a design team receives files from their partners that they need to leverage in their design. Using the Shrinkwrap tools on imported data to remove unnecessary geometry can drastically reduce the overall design file size and improve graphical and process performance during operations such as during saving and loading, which aids in shortening the design cycle.

Extending this further, IronCAD users have the flexibility to load either the simplified or the full design components in their working file. Using the simplified version allows designers to focus on the design tasks and limit the performance impact of unrelated areas. Whether it is native design data or imported, users can take full advantage of the Shrinkwrap capabilities to optimize their design process by reducing the amount of time typically required to process larger data sets. Users can also employ the Shrinkwrap tools to hide selective parts, non-visible parts, and hole and pocket regions while forcing critical

components to remain. This is essential for sharing downstream when companies need to protect critical intellectual property while offering a reasonable-size model for sharing.

Since its debut in 1998, IronCAD has always focused heavily on assembly design, making it easy to build and modify structures while supporting flexibility in positioning or configuring assemblies. IronCAD's Smart eBehaviorTM allows users to build intelligent connection, position and orientation. Customizable rules, another major focus of the 20th Anniversary Edition, give users more methods for defining connection locations and naming them with alias names to make them easy to identify. Users also have access to mechanism behaviors when connecting components in cases like four-bar linkages.

IronCAD was originally based on the idea of "design for all." The 20th Anniversary Edition includes a number of enhancements in the user interface that continue this democratic tradition. Improvements such as bold edges, updated handle and TriBall® displays, quick sizing behaviors on input, direct input on drop of features, improved dimensional display in sketches, and direct access to the TriBall positioning tool are just a few of the subtle changes that improve the usability of IronCAD.

"We are pleased to be offering our 20th Anniversary Edition to customers in the equipment machinery design and manufacturing space," stated Dr. Tao-Yang Han, president of IronCAD. "The culmination of features and functionality in this release truly reduces the design cycle while providing powerful CAD technology in a user-friendly manner, making it easy for all designers to grasp and become productive. Over 20 years, hundreds of thousands of customers have enjoyed the flexibility and productivity provided by IronCAD."

For a full list of productivity improvements added in this 20th Anniversary Edition, visit www.ironcad.com/whatsnew.

For those who want to try IronCAD's 20th Anniversary Edition, IronCAD now offers a free online trial that doesn't require downloading or installing the product on a desktop PC. Simply run the trial directly in a Web browser on any device. To get started, visit, www.ironcad.com/TryIronCADNow.

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Oracle Arms Developers with the Most Comprehensive Cloud Native Framework

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Oracle today announced the Oracle Cloud Native Framework, providing developers a cloud native solution that spans public cloud, on premises and hybrid cloud deployments. Capitalizing on Oracle Cloud Infrastructure and the recently announced Oracle Linux Cloud Native Environment, the Oracle Cloud Native Framework introduces a rich set of cloud native managed services and on-premises software. The Oracle Cloud Native Framework also introduces Oracle Functions, a new breakthrough serverless cloud service based on the open source Fn Project.

As organizations move to the cloud, they are facing new and difficult challenges addressing cultural change and increased complexity. DevOps and cloud native tooling have left many developers and projects behind the curve. Moreover, organizations eager to use standard open source components and leverage cloud capabilities, but are impeded by the number of complex choices, lack of training and fear of cloud vendor lock-in. By providing cloud native capabilities and offerings regardless of the deployment scenario and leveraging open standards established by the Cloud Native Computing

Foundation (CNCF), Oracle, a platinum member of CNCF, is uniquely providing its customers with choice while meeting the broad deployment needs of developers.

“With the growing popularity of the CNCF as a unifying and organizing force in the cloud native ecosystem and organizations increasingly embracing multi cloud and hybrid cloud models, developers should have the flexibility to build and deploy their applications anywhere they choose without the threat of cloud vendor lock-in. Oracle is making this a reality,” said Don Johnson, executive vice president, product development, Oracle Cloud Infrastructure.

To further enable developers to build and deploy modern applications, Oracle is introducing a rich set of first class Oracle Cloud Infrastructure services built on Oracle’s Gen 2 Cloud IaaS and existing foundational Kubernetes orchestration and management layer, the Oracle Container Engine for Kubernetes (OKE). These new offerings are focused on three critical Oracle Cloud Infrastructure cloud native layers.

With the announcement of Oracle Functions, a new breakthrough serverless solution based on the open source Fn Project, developers can easily deploy and execute function-based applications without the need to manage compute infrastructure. Oracle Functions is Docker container-based and completely pay-per-use, so charges are incurred only when functions are run. The underlying Fn Project, which Oracle Functions offers as a fully-managed service, can run on-premises, in a data center, or on any cloud. The Oracle Cloud Native Framework supports both modern (cloud native) and traditional (WebLogic, Java, and database) applications. The enterprise grade platform can be leveraged for sustainable strategy, managed services, and curated OSS.

"Kubernetes and containers are enabling CERN to improve the deployment of critical Java Applications to reduce maintenance tasks and focus more on developers' needs, including improving their experience with Oracle WebLogic Server. In this context, Oracle has provided us with an open source tool that has helped us decrease considerably the time needed to configure WebLogic. We are also working to take advantage of Oracle Cloud Infrastructure and its Kubernetes offering to replace our disaster recovery solution for our databases and WebLogic," said Antonio Nappi, DevOps Engineer for CERN.

“Our business relies on delivering innovative software solutions to a global market. Oracle Container Engine for Kubernetes on Oracle Cloud Infrastructure has helped us not only converge data centers and add scale, but also significantly improve performance and security as we adopt a microservices architecture. It’s actually been the simplest part of our migration,” said Jason Looney, vice president of Enterprise Architecture, Beeline.

“Sauce is a video collaboration and creation platform for teams, empowering brands to create authentic video content. Oracle Container Engine for Kubernetes on Oracle Cloud Infrastructure has helped us scale our cloud technology, supporting our global growth while increasing reliability and performance, especially in the areas of video transcoding and creation. Getting started on Oracle Container Engine for Kubernetes was a breeze and now our team can develop and deploy faster than ever,” said Jon Girven, co-founder and CTO of Sauce Video.

“Gapsquare is a cloud-based SaaS solution that helps large companies maintain continuous fair pay by closing the gender pay gap, ethnicity pay gap, and any equal pay issues. By moving to the Oracle Cloud completely, we have been able to reduce time spent on DevOps and focus on implementing new features. We found Oracle Container Engine for Kubernetes to be the easiest way to reliably deploy our application on a scalable and distributed environment, while continuing to deliver new automatic features that require no maintenance. This has allowed us to speed time to market for new offerings and

rapidly expand globally," said Zara Nanu, CEO of Gapsquare, and a member of Oracle's global startup program.

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