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CIMdata News

Accelerate Time-to-Value with De-Customization and Standardized Configuration (CIMdata Commentary)
13 February 2018

Key takeaways:

- De-customization and standardized configuration of PLM and MES solutions are gaining momentum
- Leveraging more than 30 years of enterprise PLM and MES experience, DXC Technology is a global leader in de-customization and standardized configuration of enterprise software solutions
- DXC Technology has helped Penske improve the efficiency of its PLM solution while reducing implementation errors and costs, as well as reducing upgrade time
- DXC Technology has supported a global automotive OEM, which produces more than 9 million vehicles annually, to achieve competitive leadership through the smart standardization of its MES systems

Configuration and Customization in the World of Cloud, SaaS, and IoT

CIMdata, along with most of the PLM and MES solution providers and enterprise industry users, has traditionally defined configuration as a way to adjust or define the behavior of an enterprise software solution in a manner that the configured capabilities carry forward to the next-released version of the solution without code changes to the base product. Consequently, configurability is a highly desirable attribute of robust PLM and MES solutions. On the other hand, customization has traditionally been identified as an undesirable tactic, used mainly to compensate for the inability of the enterprise solution to support the specific needs of the lifecycle rules, data, workflows, and integration with other solutions through straightforward configuration. Customized implementations, reaching beyond the configuration capability of the enterprise solution, necessitate re-implementation of customizations with each subsequent upgrade, and for many companies limit the ability to upgrade their PLM and MES solutions. Upgrading customized solutions is usually a costly and time-consuming effort that CIMdata and almost all PLM and MES solution providers recommend be avoided.
The need for innovation and cost-competitiveness in global engineering and manufacturing businesses accelerates the pace of change many times over what was common in the recent past. Companies that want to remain relevant will need to leverage cloud computing, software-as-a-service (SaaS), internet of things (IoT), and artificial intelligence. In this fast-paced environment, the delays and cost-penalties caused by PLM and MES customizations can be very detrimental. PLM or MES solutions that are not nimble and adaptable to the changing circumstances can make competitiveness and even business survival increasingly difficult. Customized legacy PLM and MES implementations can foster local dependencies within an organization creating significant barriers to upgrading to new functionalities, and in turn hampering the business transformation needed to realize visions such as smart connected product systems and Industry 4.0.

**De-Customization and Standardized Configuration**

CIMdata recommends that the industry strive for PLM and MES solutions that can largely be implemented out-of-the-box with some configuration while eliminating customization. Given the fact that customizations and the services associated with them could account for 40 to 50% of PLM and MES costs, avoiding customization not only has a significant impact on the agility of future business transformation but also on controlling solution costs. In other words, de-customization (i.e., the systematic elimination of custom code introduced during earlier implementations) of PLM and MES solutions is a crucial element needed for future enterprise infrastructure improvements that will fully leverage the latest technologies for product and process innovations. At the next lower level of criticality, is the operational excellence of global companies across the network of their plants, through greater standardization of the management of their shop-floor systems.

Most large industrial companies use a variety of shop-floor solutions from different providers, as well as custom solutions developed in-house, resulting in an environment in which the individual plants all operate differently. Sharing knowledge, benchmarking operations, performance improvements, and cutting costs across such a disconnected landscape of manufacturing plants becomes very difficult. Standardization of MES configurations, guided by standard processes and solutions across plants, helps attain a more comprehensive solution landscape and achieve better control for making decisions that optimize manufacturing across an organization’s plant network. In particular, when it comes time to adapt to changes driven by new technology, new strategy, or the integration of newly acquired plants, the costs and schedules can be better predicted and controlled.

**DXC's Deep PLM and MES Expertise with De-Customization and Configuration**

DXC has a deeply deserved reputation for its global processes and methods applied to business transformation, value management, technology architecture, change management, and migration of heterogeneous and complex information technology (IT) landscapes supported by governance at the strategic initiative level involving C-level management, as well as program and project governance at the tactical execution level. In over 30 years of implementing, maintaining, managing, operating, and supporting complex and heterogeneous PLM solution landscapes, DXC has developed highly-effective frameworks for standardized introduction of PLM by leveraging its alliances with major PLM solution providers. Certified to provide infrastructure as a service (IaaS) and software as a service (SaaS) cloud PLM environments, including bundling of hardware, applications, and support services, DXC has proved to be an invaluable partner to PLM solution providers in private and virtual private cloud based implementations.

DXC is a global leader for providing services specific to the needs of manufacturing transformation, MES architecture, plant operations, regulatory compliance, manufacturing IT optimization, as well as
manufacturing intelligence for decision support. DXC has nearly two decades of experience in modernization and rationalization of manufacturing, in predicting and achieving financial benefits derived from manufacturing process improvements, and in developing manufacturing IT roadmaps that speed up realization of business benefits while optimizing costs. DXC's highly-differentiated Factory as a Service (FaaS) offering provides comprehensive services for the complete Bill of IT needs in the factory while supporting commercial-off-the-shelf (COTS) or custom MES solutions. The most value to manufacturers from DXC's FaaS offering, however, is derived from the standardized MES solution configuration based on plant capability and production requirement categories, mainly due to considerable savings in time and costs during upgrades.

When it comes to configuration and customization covering data models, workflows, enhanced functionality, SOA, database queries, and import/export functionality in PLM and MES, DXC is recognized as a world leader by many businesses in the automotive, aerospace, high-tech, CPG, oil and gas, and energy industrial verticals. DXC has decades of experience in accurately predicting and delivering on the financial benefits of PLM and MES de-customization and standardized configuration, both of which are imperative for the industry to benefit from the latest developments in enterprise software solutions while remaining nimble for adapting to the latest technological changes in the industry.

**Case Study: Accelerating Penske’s Business Results through De-Customization**

DXC helped Penske improve the efficiency of its PLM solution while reducing implementation errors and costs. Additionally, DXC helped Penske reduce the time it took to upgrade its PLM environment, through consolidation and de-customization. All existing customization was progressively eliminated by DXC over the Windchill 10.x incremental upgrades and when it came time to migrate to Windchill11, it was a purely out-of-the-box upgrade.

DXC has helped Penske reduce engineering time by 30% with 10-20% of time returned to design tasks rather than IT administration and overhead. Previously, 65% of their time was spent moving MS Excel files from one place to another and 35% was spent on other tasks, including designing parts, getting parts to the cars and to the track, and getting the cars to the track. If the team hoped to continue its remarkable record of accomplishment—more than 400 major race wins, 16 Indy 500 wins, and 29 National Championships—they needed to spend less time on management and more time engineering faster cars.

DXC used a transformation experience framework to look systematically at all the relevant areas where Penske needed help, e.g., delivery model transformation, organizational transformation, service management transformation, application transformation, infrastructure transformation, governance, facilities transformation, and program management.

DXC began the de-customization work at Penske, in their NASCAR group, followed by the introduction of the IndyCar data into the PTC Windchill environment. The de-customization work required CAD data cleansing, involving exporting the as-is CAD data, followed by data correction, revising naming and revisioning for each CAD document. All CAD files, all versions, including family table data were exported along with each version’s contents in all the products and libraries as-is. Next, the structure information of all assemblies was exported. Finally, all CAD parts were imported back into a new library as the master reference, along with the contents from the folder and the structure information.

The consolidation, streamlining, and de-customization performed by DXC for Penske resulted in reduced costs, improved productivity, and reduced errors in product development, enabling early
Case Study: Smart Standardization for MES Transformation in the Automotive Industry

DXC helped a global automotive Original Equipment Manufacturer (OEM), producing more than 9 million vehicles annually, to maintain leadership through the smart standardization of its MES solutions. The direct result was a significant reduction in the OEM’s structural cost, optimizing its manufacturing footprint and improving its flexibility, which resulted in their ability to balance production capacity to suit regional demands.

The automotive OEM had a complex and varied IT environment with 176 plants in 34 countries, and more than 100 data centers, 10,000 network devices, and 500,000 network nodes. There were more than 3,500 servers and 60,000 clients in the plant offices and on the factory floor. The OEM had more than 200,000 employees building 400 different vehicle systems and components and more than 2,500 IT professionals supporting 8,000 changes each month on more than 500 applications. This complexity was such that the MES transformation necessary to make the company competitive was very difficult. The IT operations were not globally standardized. The aging and inconsistent infrastructure not only posed a risk to manufacturing operations, it also inhibited the mitigation of production issues and the introduction of lean manufacturing.

One of the main issues facing DXC was that the MES solution optimized for component plants could not meet the assembly plants’ requirements while the solution optimized for the assembly plants overwhelmed the component plants while still lacking required functionality. Two solution models were used, one for the components plants and the other for the assembly plants but the two models were hierarchical, with the component plant model leveraging the attributes of the assembly plant model wherever needed and practicable.

The MES transformation journey for the OEM involved establishing the MES transformation program, defining the applications and the infrastructure architecture strategy, modeling the business architecture, detailing and optimizing the modernization plans, and finally, modernizing the applications and the infrastructure to achieve the transformed business processes.

The scope of the transformation strategy was very wide, ranging from the IT fundamentals to the capabilities for enabling business processes. Consequently, the strategy not only needed to address what they defined as their critical gaps but also needed to guide the transformation at all levels.

At the lowest level, the IT operating model was targeted for delivering consistent, efficient plant IT operations across the globe. A common approach to plant operations was needed to maximize the effectiveness of leveraging the expertise including knowledge of standards from local “in-country” resources and subject matter experts.

At the next higher level, fixing the plant IT operations was targeted to enable automated software distribution, automated threat and vulnerability management, enterprise network and system management, and standardized work based on global common processes.

Next, fixing the tactical infrastructure was targeted to improve reliability and security of plant IT infrastructure by improving access control, plant floor controls network, improved network and system reliability, and replacing aging hardware to support improved system recovery. Finally, the business transformation accelerated the global management system across all plants with common application architecture, common data architecture, common business processes, and application rationalization.

The transformation enabled unprecedented flexibility in and across regions, reducing sustainment costs,
and improving operational uptime. The system was reconfigured without plant disruptions and the launches were accelerated, enabling rapid business process deployment for scaling the systems to accommodate plant volumes.

The transformation improved the availability and increased the production capacity while increasing worker productivity and reducing downtime. It also enabled faster ECO and program launch, faster plant launch and M&A alignment, and quicker adoption of Agile manufacturing.

**Summary**

Global competition necessitates that businesses involving engineering and manufacturing leverage cloud computing, SaaS, internet of things, and artificial intelligence to remain innovative and cost-competitive. Satisfying changing customer expectations while leveraging quickly evolving technology requires the PLM and MES solutions in the engineering and manufacturing businesses to be easy and time-efficient to configure, implement, and upgrade. CIMdata observes that industrial businesses that have adopted the strategy of de-customization and standardized configuration solution implementation have fared much better in global competition. In fact, most PLM and MES solution providers recommend that customization be entirely avoided and that configuration be minimized as much as possible.

In CIMdata’s observation, DXC with more than 30 years of experience implementing, maintaining, managing, operating, and supporting complex and heterogeneous PLM and MES solutions is an acknowledged leader, with deep real world experiences in de-customization and implementing standardized configurations. DXC has helped OEMs and suppliers in several industry verticals to consolidate, de-customize, automate, and standardize the configuration of their PLM and MES solutions to improve their multi-site multi-region engineering and manufacturing capabilities.

DXC's expertise in de-customization and smart standardization of PLM and MES solution implementations applied to global engineering and manufacturing businesses is invaluable for such organizations to become nimble and modern, to improve their speed of innovation, and balance their production capacity to suit regional demands while reducing structural costs and optimizing their manufacturing footprint.

**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-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](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.

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**Agenda Topics Announced for CIMdata’s PLM Road Map™ North America 2018 Conference**

15 February 2018

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces
the agenda topics for its PLM Road Map™ 2018 North America conference (PLM Road Map NA) which will be held in collaboration with PDT North America. Both events will take place May 15-17 at the Marriott Hotel, Tysons Corner, VA which is near Washington D.C. The theme for this year's event is “Charting the Course to PLM Value Together: Expanding the Value Footprint of PLM and Tackling PLM’s Persistent Pain Points.”

Using a format that will offer a series of plenary and breakout sessions designed to facilitate conversations between conference speakers and conference participants, PLM Road Map NA will bring together the perspectives of leading thinkers from aerospace & defense, automotive, and other industries who are expanding the value footprint of PLM and who are tackling the pain points that erode PLM’s value potential.

Over the course of the two-days, presentations will be made on the following critical topics:

The State of the PLM Industry: Why the C-Suite is Not Happy
What is Needed to Achieve Value from PLM? New Value Potential from Synergies of Digitalization and PLM
Creating Value When PLM and ERP Work Together
Multiple Views into the Bill of Information
Model-based Definition and Minimum Digital Thread
Industrialization of Additive Manufacturing: From Novelties to Production Parts
Rip & Replace or Embrace & Extend to Enable a PLM Platform?
Global Collaboration within the Design Chain
Industry 4.0 Architecture from Edge Devices through Application Layers to Enterprise Applications
Blockchain & PLM
What is Needed to Achieve Value from PLM? Influencing Standards for Data Storage and Exchange
Generative Design: The Changing Nature of Product Development
Augmented Reality & Virtual Reality: Have They Crossed the Chasm?
The State of PLM on the Cloud
System of Systems Approach to Product Design
PLM Technology Obsolescence Management
Model Lifecycle Management: Enabling the Digital Thread
MBSE: The Next Generation of Systems Engineering
Multi-view Bill of Material (BOM) Dictionary - eBOM to mBOM Accountability
Physics-based Digital Twins: Beyond Data Analytics
PLM’s Future: Where are we going?
“CIMdata is committed to delivering high client value with our PLM Road Map conferences and we are excited to offer this program in conjunction with PDT North America,” stated Ms. Cheryl Peck, CIMdata’s Director of Marketing and PLM Road Map Conference Director. “The agenda topics we have put together reflect the findings of our research and experience. In recent years, we have found that industry adoption of many leading-edge PLM technologies, such as analytics and big data, the internet of things, cloud computing, augmented reality, and additive manufacturing has matured from investigation and planning to implementation and operational use.”

PLM Road Map NA, in collaboration with PDT NA, 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.

In addition to the events to be held in May, CIMdata and Eurostep will collaborate to co-host PLM Road Map Europe and PDT Europe in Stuttgart, Germany on October 24 & 25, 2018.


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, www.CIMdata.com; follow us on Twitter at 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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Service Lifecycle Management: Leveraging IoT/IIoT to Deliver New Capabilities and Business Models (CIMdata Blog)

16 February 2018

CIMdata’s Executive Consultant, Ken Amann, recently shared his views on service lifecycle management. In this blog post, Ken discusses how smart, connected products, interacting over the Internet are dramatically changing the products and systems we use and the way in which service is
delivered.

Learn more by reading the full blog post at: https://www.cimdata.com/en/resources/cimdata-blog/item/9669-service-lifecycle-management-leveraging-iot-iiot-to-deliver-new-capabilities-and-business-models

CIMdata will delve into this topic at the upcoming PLM Market & Industry Forum events which will take place in this coming April. The theme for 2018 is "Industry 4.0 - Its Global Impact & Status."

For more information visit our PLM Market & Industry Forum web pages at http://www.cimdata.com/en/education/plm-market-industry-forums

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**Software Industry Veteran, David Ford, Joins CIMdata as Chief Operating Officer**

13 February 2018

CIMdata, Inc., the leading global product lifecycle management (PLM) strategic management consulting and research firm, announces the hiring of Mr. David Ford. Mr. Ford joins CIMdata as its Chief Operating Officer reporting to CIMdata’s President, Mr. Peter Bilello.

Over his 30-year career, Mr. Ford has served in various roles at Automatic Data Processing (ADP), Mentor Graphics, and Autodesk. He’s developed world-class CAD software, acquired and integrated technology and service companies, and created strategic partnerships with companies such as Apple, Dell, Lenovo, and Alcoa.

Mr. Bilello stated, “David brings depth and experience in defining strategy, operations, and knowledge in Manufacturing, AEC, and Media/Entertainment industries. I am excited to announce this strategic addition to the CIMdata management team and envision that David will start contributing immediately.”

Mr. Ford served as Engineering Director for Autodesk Inventor, opened the company’s first remote R&D office in Shanghai, China, while managing product development teams around the globe. In addition to product experience, Mr. Ford managed Business Development for Autodesk’s Manufacturing Division, drove strategic planning, communications and operations, and created key partnerships.

Mr. Ford commented, “I’m thrilled to join the CIMdata team as we take the company to the next level. CIMdata’s successful history and sterling reputation as an independent voice and leader in PLM sets us apart. It uniquely positions us to help our customers navigate the rapid change happening with advanced manufacturing, AI, and IoT.”

For more information visit http://www.CIMdata.com.

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CIMdata PLM Industry Summary

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Acquisitions

Google announces intent to acquire Xively
15 February 2018
Announced on the Google blog:
Today, Google has announced that it has entered into an agreement to acquire Xively, a division of LogMeIn, Inc.

By 2020, it’s estimated that about 20 billion connected things will come online, and analytics and data storage in the cloud are now the cornerstone of any successful IoT solution. This acquisition, subject to closing conditions, will complement Google Cloud's effort to provide a fully managed IoT service that easily and securely connects, manages, and ingests data from globally dispersed devices. With the addition of Xively’s robust, enterprise-ready IoT platform, we can accelerate our customers’ timeline from IoT vision to product, as they look to build their connected business.

Through this acquisition, Cloud IoT Core will gain deep IoT technology and engineering expertise, including Xively’s advanced device management, messaging, and dashboard capabilities. Our customers will benefit from Xively’s extensive feature set and flexible device management platform, paired with the security and scale of Google Cloud. With Google Cloud’s deep leadership in data analytics and machine learning, our customers will also be uniquely positioned to build turnkey IoT solutions and focus on business value creation.

OpenText Acquires Hightail
14 February 2018
OpenText™ today announced that it has acquired Hightail, Inc. (“Hightail”), formerly known as YouSendIt, a leading cloud service for file sharing and creative collaboration with approximately 5.5 million customers globally spanning enterprise accounts, paid subscribers, and individual consumers.
“The acquisition of Hightail underscores our commitment to delivering differentiated content solutions in the cloud that enable marketers and creative professionals to share, produce, and securely collaborate on digital content,” said Mark J. Barrenechea, OpenText Vice Chairman, CEO and CTO. “We are pleased to welcome Hightail customers and employees to OpenText today.”

Barrenechea further added, “I am excited about expanding Hightail capabilities as well as integrating Hightail into OpenText Content Suite, Documentum, Core, and Media Management, allowing our customers to seamlessly and securely collaborate with external trading partners and vendors.”

Hightail is not expected to contribute significant revenue to OpenText's results for the fiscal third quarter ending March 31, 2018.

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**Oracle Buys Zenedge**

15 February 2018

Oracle today announced that it has signed an agreement to acquire Zenedge, which helps secure critical IT systems deployed via cloud, on-premise or hybrid hosting environments.

Customers leverage Zenedge’s Web Application Firewall (WAF) and Distributed Denial of Service (DDoS) mitigation products to secure their applications, networks, databases and APIs from malicious Internet traffic. Powered by artificial intelligence (AI), Zenedge’s products and 24/7 virtual Security Operations Center (SOC) defend over 800,000 web properties and networks globally.

Oracle delivers a comprehensive set of subscription-based cloud infrastructure services that enables businesses to run any workload in an enterprise-grade cloud managed, hosted and supported by Oracle. Zenedge expands Oracle Cloud Infrastructure and Oracle’s Domain Name System (DNS) capabilities, adding innovative application and network protection that augments existing Oracle security services and partnerships. Together, Oracle and Zenedge will allow enterprises to adopt cloud services without compromising performance, cost, control or security through an expanded Oracle Cloud Infrastructure platform.

“Customers demand enterprise-grade infrastructure to run their critical business systems in the cloud,” said Don Johnson, Senior Vice President of Product Development, Oracle. “Oracle Cloud Infrastructure as a Service delivers leading cloud services to address those needs. The combination with Zenedge equips Oracle Cloud Infrastructure with integrated, next-generation network and infrastructure security, to address modern security threats.”

“Customers achieve tremendous results with Zenedge’s innovative WAF and DDoS mitigation products, from a 99% reduction in illicit website traffic to a 99.75% improvement in page load times,” said Yuri Frayman, CEO of Zenedge. “We could not be more enthusiastic about joining forces with the leader in enterprise-grade cloud infrastructure, and delivering similar results to even more customers at scale.”

More information about this announcement is available at [www.oracle.com/zenedge](http://www.oracle.com/zenedge).

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Accenture Expands Industry X.0 Innovation Network with Opening of IIoT Innovation Center in Modena, Italy

8 February 2018

Accenture is expanding its Industry X.0 Innovation Network in Europe with the opening of an industrial internet of things (IIoT) Innovation Center in Modena. The center will offer clients a way to explore, test and scale IIoT solutions and take advantage of the latest disruptive technologies to achieve new levels of efficiency and sources of growth through improvements in product development, engineering, manufacturing, customer experiences and cybersecurity.

The new facility is part of an extensive US$1.4 billion investment program by Accenture to expand its Industry X.0 business. Industry X.0 is how Accenture describes the profound shift of industrial manufacturing to digital products and services that will increasingly require new manufacturing methods and processes to produce and deliver them as well as support them in the field.

The IIoT Innovation Center in Modena is being established in collaboration with HPE COXA, a Modena-based company specializing in engineering activities for the automotive, motorsport and automation solutions sector; HPE COXA collaborates with key players from these industries, both locally and worldwide. The company specializes in mechanical metalworking technologies and recently established a new research center for additional metal technologies; more than two-thirds of the company’s 250 employees are engineers.

Accenture’s expanded innovation network is bolstering the company’s industry digitization capabilities and strengthening its presence in the world’s leading manufacturing markets. The network includes an innovation center in Garching, Germany, with a new center to open in North America this year. Clients who use the Modena location will be given access to a range of capabilities, including innovation workshops for industrial design thinking; IIoT experience areas for tech showcases; and regional ecosystems that connect clients with key technology partners, research firms and industrial start-ups.

“At the new Innovation Center in Modena, clients will be given direct access to fully working examples of the latest in manufacturing techniques for digitized products,” said Aidan Quilligan, a managing director at Accenture and global lead of its Industry X.0 practice. “In the new Innovation Center, we showcase technologies that can help companies develop solutions to meet their business challenges and gain a competitive advantage. Working with our experts at the center, clients can experience a hands-on, systematic approach to innovating that can help them accelerate their efforts, reduce costs, and gain greater insight into growth opportunities in today’s digital-first marketplace.”

Fabio Benasso, president and CEO of Accenture Italy, said, "One Accenture focus in Italy is to invest in capabilities that reward clients’ ability to innovate in what is the second-largest manufacturing country of the EU. The Modena location will be a key element in our continuing efforts to support companies as they accelerate their digital transformation agendas, enabling them to experiment with and develop solutions that can significantly influence the evolution of business models, products and customer
Clients visiting the center will be able to explore key IoT technologies and processes to digitize their business for greater efficiency and growth. Among these are:

- Applying manufacturing analytics and predictive maintenance, and analyzing data produced by IoT sensors via cloud and big data;
- IIoT- and software-enabled management of connected businesses, plants, machinery and equipment;
- “Connected Industrial Worker” solutions to enhance operational safety, effectiveness and efficiency;
- “Industrial Consumerism” and how to digitize the industrial customer experience in a business-to-business environment;
- Innovating new products, services, solutions and business models using customer-insight-driven approaches and design thinking;
- Digital engineering and industrial product development, and how to better integrate product- and application-lifecycle-management [capabilities]; and
- Transformational ideas for loading operations through real-time analytics

A global evaluation of 11 digital technologies across eight leading industries by Accenture has revealed that the optimum combination of new technologies could generate an average potential increase in market capitalization of US$6.07 billion if businesses invest wisely, using an Industry X.0 approach.

From this global data, Accenture developed, "Industry X.0 – The digital reinvention of Italian industry," a national report that indicates that companies in Italy recognize the importance of adopting this new industrial model, which can enable them to develop products and innovative services through the use of new technologies. Proof of this is provided by the approximately US$4 billion that Italian companies invested in IoT technologies in 2017, ranking Italy second in Europe, after Germany, according to research firm IDC1.

The Accenture study shows that, although Italian executives consider the development of innovative products and services a strategic priority, less than a third of the companies surveyed expect that an investment in digital technologies will lead to an increase in the number of customers. At the same time, more than half of large companies and around half of small and medium-sized enterprises fear that a delay in innovation will put their survival at risk in the future. Italian managers are engaged in the process of rethinking their strategic priorities, a key part of which involves experimenting with transformational operating and business models capable of generating incremental value.

“Thanks to our location in the heart of the Motor Valley and surrounded by automation solutions providers, we have been able to develop special relationships with the key players in the area, as well as with major global manufacturers in these industries,” said Andrea Bozzoli, CEO of HPE COXA. “The company’s agility and our fully integrated approach to product development, within a highly complex technological environment, make our company the perfect testbed for innovative solutions that, once
validated, can be transferred to larger-scale applications. The Machining Innovation Lab, the Metal Additive Research Center and the Engine Testing Center are tangible evidence of this approach. Inclusion in Accenture’s IOT Innovation Network represents an important step along this path.”

**Autodesk Opens Technology Centre in Birmingham, UK to Shape the Future of Making Things**

15 February 2018

Announced on the Autodesk blog:

The Fourth Industrial Revolution (4IR) has transformed the way we work.

It’s brought with it products that are increasingly personalised and intelligent, which require a combined approach to design and manufacture, through the use of advanced manufacturing techniques.

To support manufacturers in this new era, Autodesk has opened an Advanced Manufacturing Facility (AMF) in the UK’s second largest city, Birmingham.

The first of its kind in Europe, it houses advanced manufacturing tools and is a space for Autodesk to collaborate with customers; helping them bring their visions to life, solve some of their biggest challenges and push the boundaries of fabrication techniques. The Birmingham AMF is one node in a network of six technology centres around the world that bring Autodesk together with our customers and partners to reimagine the relationships between software and hardware, machines and materials.

Autodesk’s President and CEO, Andrew Anagnost, said: “The convergence of automation technologies like robotics and machine learning is shaking up traditional manufacturing and building processes. Coupling these with cloud computing enables more people to access their power at much lower costs. While clearly a challenge to established practices, these technologies offer huge opportunities for existing manufacturers and builders to do more, do it better, and do it with less negative impact on the world. With today’s opening, we hope to fuel excitement and prepare businesses in all industries for the future of making things.”

**Spearheading the future of making things**

Autodesk has already invested millions in the Birmingham area, following the acquisition of Delcam in November of 2013 and, with it, a portfolio of leading-edge CAM solutions. Building on this capability, the new multi-million-pound facility has been kitted out with high-tech machines including those from DMG Mori, Hermle, Steifelmeyer and Hamuel, as well as robots from ABB and KUKA Robotics.

From hybrid manufacturing to human-robotic collaboration, and clay milling, customers and partners, both large and small, can explore a range of techniques to see how they can benefit from the future of making things. In short, it’s the factory of the future made real now.

The tech centre also houses a lab to ensure data is at the heart of projects. Engineers will be able to view data collected from smart machines; better connecting design and manufacturing processes, so that decisions are more informed, and projects are delivered more efficiently. At the opening this week, visitors saw how Autodesk’s just-released cloud-based Fusion Production software can monitor, analyse and manage data produced from live fabrication process on mobile devices.

BMW and GKN Additive are just some of the companies that are working with Autodesk engineers at...
the Birmingham centre. With AD9100D certification, the team is also able to take on specialist aerospace projects too.

**Investing in future engineers**

As well as working with customers, the centre will be made available to the local education community, to highlight how manufacturing has been transformed by new technologies and inspire the next generation of engineers and product designers.

Through Autodesk’s work with the [STEM Ambassador Network](https://www.autodesk.co.uk/), members of the Birmingham team will also work with a range of academic institutions, including all local universities and research facilities, such as the MTC in Coventry. This will include involvement with specific projects and student competitions, such as World Skills, F1 in Schools and VEX Robotics. Additionally, the STEM ambassadors will be on hand to help teach students skills such as coding, offer mentorship for career opportunities, and judge events and competitions.

**Championing British manufacturing**

This launch is also part of Autodesk’s aim to help Britain reclaim its place as a global industrial powerhouse. It founded the Future of British Manufacturing Initiative (FOBMI) in 2016, alongside partners, to help the industry take a hands-on approach to 4IR. It also recently launched a new manufacturing manifesto – *Enabling the Art of the Impossible: How Britain can lead the 4th Industrial Revolution* – which outlines steps to provide more support for Britain’s smaller manufacturers.

More details can be found here: [https://www.autodesk.co.uk/futureofbritishmanufacturing](https://www.autodesk.co.uk/futureofbritishmanufacturing)

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**Australian “Factory of the Future” Hub Opens for Business**

12 February 2018

Located in the Tonsley Innovation Precinct in Adelaide’s southern suburbs (the former site of Mitsubishi’s automotive manufacturing in Australia), the Tonsley Manufacturing Innovation Hub (TMI) is a catalyst for the growth of advanced manufacturing and adoption of the Industry 4.0 agenda in South Australia.

Working closely with the Innovative Manufacturing Co-operative Research Centre, the South Australian and Commonwealth Governments and industry, the TMI is working with companies to accelerate the uptake and diffusion of digital and automation technologies in manufacturing across a broad range of sectors.

Uniquely, it pursues this in tandem with the adoption of high performance business systems.

“The TMI Hub will further cement the State’s Tonsley Innovation District reputation as global centre of excellence for industry and research collaboration, with modern facilities to train people for future careers in advanced manufacturing.” -South Australian Minister for Manufacturing and Innovation, Hon Kyam Maher MLC, 2018.

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Bestseller Improves Business Intelligence and Innovation with Centric Software

14 February 2018

Centric Software is delighted to announce the release of a success story video about its customer, Bestseller.

“Before using Centric, teams maintained data in separate places,” explains Dan Friis, CEO at Bestseller Fashion Group China (BFGC). BFGC markets clothing and accessories in more than 6,000 stores in China, under five Bestseller brands (Only, Jack & Jones, Vero Moda, Selected and Name It) as well as the independent J. Lindeberg brand.

“Data consistency was a big issue for us. After using Centric for a couple of seasons, things have completely changed. Communication across teams became a lot smoother. People can rely on the information they get and really focus their energy on being efficient and creative.”

“The best part we like best about Centric is its configurability. This creates huge value for us by cutting development costs and reducing speed to market,” explains Liu Ming, Executive Assistant to CEO, Project Owner at Bestseller. “We also like the fact that it is a cloud-based solution. This means that the platform is accessible anytime, anywhere from around the globe without degradation in performance.”

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Boston Engineering Named IoT ThingWorx Partner and PTC Platinum Partner

15 February 2018

Boston Engineering today announced that PTC has elevated the company to Platinum Solutions Partner and has formally named it an Internet of Things (IoT) ThingWorx® Solutions Partner. The news reflects pressing business requirements to develop and manage smart, connected products across Boston Engineering’s commercial, government, and medical clients.

IoT initiatives typically falter because organizations can't align the "Internet" (data and connectivity) with the "Things" (physical products) to improve service and other operations. Boston Engineering bridges this gap by combining new product development consulting with PLM solutions that provide the product development tools, managed services, and strategy to enable powerful IoT and augmented reality (AR) capabilities.

"IoT and augmented reality advancements are providing organizations with unprecedented opportunities to gain deeper business insights, to plan with added confidence, and to roll out new programs quickly," said Bob Treiber, president and co-founder of Boston Engineering. "Boston Engineering is uniquely positioned to develop innovative products and to align smart product capabilities with your business requirements today and in the future."

"Boston Engineering has been a valued PTC partner for more than a decade, and we look forward to added collaboration as we help organizations use IoT to improve performance and competitiveness," said Kerry Grimes, divisional vice president, PTC Partner Network.

Boston Engineering began more than 20 years ago as a product design and development firm. When asked to join PTC's partner network in 2006, Boston Engineering formally expanded its offerings to include Product Development Systems Services (PDSS) and PTC software reseller services. Today,
Boston Engineering is largest PTC reseller in the Northeast, and has longstanding clients nationally.

ThingWorx is the industry-leading industrial innovation platform that is designed to deliver IoT applications and AR experiences that unlock the value of the converged digital and physical worlds.

Deloitte and BOXARR announce alliance to help organisations tackle complexity

16 February 2018

BOXARR and Deloitte have formed an alliance to provide businesses and organisations with solutions to analyse and optimise their complex technical, operational, and organisational systems.

Through the alliance, Deloitte will utilise BOXARR’s analysis software to help clients map out the complexity of their business systems, such as supply chains and operating models; providing them with greater visibility of their enterprise and the inter-dependency of their systems. Through this, organisations will have a greater understanding of the consequences of potential business decisions and scenarios, as well as the time, resources, and costs associated with these.

"Deloitte is always looking for new ways to solve problems and has created a number of software alliances to speed up the innovation process both within the firm and when working with clients. We are proud to announce our latest alliance with BOXARR", says John Buckley, Director at Deloitte.

"Deloitte’s vision is to leverage the BOXARR platform to offer clients a greater visibility of their current business systems and bring to life the relationships and inter-dependencies within them. Additionally, it has the potential to provide greater foresight for future business decisions and the ability to devise new services to manage their operations in the future. As we develop joint-solutions with BOXARR, we look forward to creating fresh uses for the technology as we solve new types of problems with a wide variety of organisations.”

The companies have already begun collaborating on client engagements across the UK, USA, and Australia, and will continue to develop their solutions across new domains and global markets.

"Complexity is the new elephant in the room," says Fraser Hamilton, BOXARR’s Vice President for Global Alliances, "And organisations are quickly realising that effectively managing inter-dependency is a crucial aspect to achieving successful and sustainable outcomes.”

“As organisations grow and evolve, so does their complexity. And with complexity comes hidden risks, which can have potentially critical impacts to their operational performance. Likewise, complexity can also bring opportunity - but only if it can be identified and leveraged in an effective and timely manner. Crunching big-data is one thing but making complexity human-readable is another."

BOXARR enables people across organisations to quickly and collaboratively stitch together disparate information systems, processes, and human expertise into a tapestry of inter-dependencies; producing a digital twin of a specific challenge or scaling up to reflect their holistic organisational operations. These models can then be visualized through a variety of filterable contexts or lenses; interrogated by functional analyses; and used to simulate the propagated effects of planned changes or the impacts of unforeseen events.

"We are delighted to be working with Deloitte, building a global practice in BOXARR-based solutions,“
continues Fraser, "Our capabilities combined with their expertise delivers a powerful and valuable asset to their clients, empowering them to thrive in an increasingly complex environment."

Phil Sandford, Partner at Deloitte, adds, "When I was first introduced to BOXARR I knew it could be a game-changer. Now that I’ve seen how well this approach works in real client situations I am tremendously excited about this alliance."

Gensuite and Verisk 3E Announce Strategic Alliance to Improve Chemical Management and Product Stewardship

14 February 2018

Gensuite and Verisk 3E are pleased to announce a strategic alliance. As a result of the collaboration, joint customers will have access to a robust environmental, health, safety, and sustainability (EHS&S) platform featuring Verisk 3E’s 3E Optimize™ regulatory content. The integrated solution enables customers to more effectively address changing business priorities and comply with the regulations and initiatives that affect their operations. Verisk 3E is a Verisk business.

Gensuite and Verisk 3E have a proven track record of success, having worked closely together for nearly a decade to support mutual customers. The strategic alliance is a natural extension of the companies’ successful and productive collaboration to create robust chemical management and Safety Data Sheet (SDS) programs. Through the formalized alliance, Verisk 3E will continue to provide regulatory insights and content via the Gensuite digital platform to support chemical management programs across industries worldwide.

Verisk 3E is the world’s preeminent provider of global environmental health and safety (EHS) regulatory data and compliance solutions and services. Its 3E Optimize content covers in excess of 2,000 international chemical control laws for more than 500,000 chemical substances in 100-plus countries, providing powerful decision support for manufacturing and marketing chemical products. 3E Optimize content will fuel Gensuite’s Chemical Management and Product Stewardship solutions.

“The collaboration provides extraordinary value and business capability through the combination of Verisk 3E’s regulatory content expertise and Gensuite’s leading EHS&S software platform,” said Donavan Hornsby, vice president and strategic business development executive, Gensuite. “With Verisk 3E and Gensuite’s combined industry experience and breadth of best-in-class offerings, global customers can benefit from a flexible, best practice-based solution that provides real time insights into regulatory exposure and impacts on product inventories and business operations. EHS&S and Product Stewardship teams will be able to simplify and improve their chemical management processes with integrated analytics and reporting capabilities.”

“Verisk 3E is committed to ensuring that companies around the globe have access to value added, compliance related data where, when, and how they need it. No content provider has more experience integrating regulatory data into enterprise resource planning (ERP), product lifecycle management (PLM) and EHS systems,” said Edmund Webecke, president, Verisk 3E. “We are excited to continue our collaboration with Gensuite and look forward to working with them to help clients quickly and effectively respond to the demands of customers, consumers, and regulatory agencies.”
Gerber Strengthens Management Team, Scott Schinlever Joins as Chief Operating Officer

13 February 2018

To build upon its legacy of leadership in providing technology solutions to help its customers address market challenges and opportunities to achieve optimum results, Gerber Technology announced today the hiring of Scott Schinlever, as president and chief operating officer leading the Automation Solutions business.

"Scott brings a great track record of driving significant growth across multiple industries and end markets," stated Mohit Uberoi, president and CEO, Gerber Technology. "His leadership and strategic planning skills, combined with his deep knowledge of production workflows and digital printing, will help us advance our integrated Digital Solutions and intensify our customer focus."

Many of Gerber's customers are exploring technology options that can help them to address key trends like industry 4.0 and on-demand manufacturing to improve their efficiencies and productivity. The addition of Schinlever increases the company's focus on driving product innovation and continued leadership in its automation solutions portfolio to meet these needs with its hardware and software solutions.

Schinlever joins Gerber from EFI, where he was senior vice president and general manager of EFI's inkjet business, which offers production digital printing systems, inks and services to the display graphics/signage, textiles, ceramics, and packaging/corrugated markets. Scott joined EFI in 2005 with their strategic acquisition of VUTEk, where he had been vice president of marketing since 2001. At EFI, he was increasingly given additional general management responsibilities, culminating in taking over all of EFI's inkjet business in 2011. Under Scott's leadership, EFI's inkjet business grew from $207 to $570 million in revenue. Scott was vice president of strategic marketing for Xerox Corporation's Office Systems division from 1999 to 2001, prior to which he held positions of increasing responsibility in product marketing and strategic planning at Xerox. He holds a Bachelor of Science degree in managerial economics from the University of California at Davis and a Master of Business Administration from Duke University's Fuqua School of Business.

Granta Shares Details of Additive Manufacturing Schema

15 February 2018

Granta Design today announced that it has released to the Additive Manufacturing (AM) community key details of the 'Schema' (the underlying data structures) behind its AM data management solution. The GRANTA MI:Additive Manufacturing Package is the industry-leading software for managing data within AM development projects. In publishing the Schema information, Granta aims to encourage projects to systematically manage AM data and to support development of Standards. The information is available in an “Additive Manufacturing Schema Summary Document”, available for download from the Granta website.
GRANTA MI: Additive Manufacturing has been under development since 2010, when AM technology itself was more commonly known as “rapid prototyping”. At this early stage, Granta identified this complex materials domain as a prime technology area where robust, pedigreed, and version-controlled data would be required to support design and manufacturing. Since then, Granta has built tools to support the optimization of AM processes and the robust data management needed to enable part qualification and certification. This has been a collaborative process: working within industry projects such as the European Union’s AMAZE, with members of the Material Data Management Consortium (MDMC), and with the leading engineering enterprises who now use Granta software for this purpose. Granta also actively engages in standardization activities, for example, through SAE and ASTM.

Publication of the Schema Summary Document aims to broaden this collaborative approach. The Document identifies many of the attributes needed to describe AM processes, and proposes best practice for organizing these attributes in a database. This information can help in planning AM projects and in the discussion of Standards. Its publication will increase awareness of the need for these important activities, and support their adoption. Organizations engaged in AM data management and/or Standards definition can request a copy of the Summary Document by completing a form on the Granta website. In return, Granta asks that they engage in collaborative discussions on the topic and provide feedback on the Schema.

“In talking to organizations that are planning AM projects, we often find that they understand the importance of capturing, sharing, and analyzing the right property and process data, but don’t know where to begin in planning this activity,” said Najib Baig, Product Manager, Material Innovation at Granta Design. “Sharing some key aspects of our Schema will help AM project managers and Standards groups to think through what data they may need to manage, and how.”

Incorporating Variability in Simulation Models with RAMDO via the Altair Partner Alliance

2 February 2018

Altair Engineering Inc. is pleased to announce the addition of RAMDO, software developed by RAMDO Solutions, to the Altair Partner Alliance (APA). RAMDO is an Uncertainty Quantification (UQ), reliability analysis, and Reliability-based Design Optimization (RBDO) software platform. As a complementary CAE software when used in conjunction with a design simulation package, RAMDO provides a more reliable product design. It allows the designer to take into account the variability of design inputs (materials, loads, operating conditions, etc.) and create an optimized solution. RAMDO uniquely performs this analysis with efficient use of computer resources, a user-friendly interface, and at a cost-effective license subscription.

“We are excited to be joining the Altair Partner Alliance,” said Nicholas Gaul, COO and Lead Developer at RAMDO Solutions. “RAMDO can be a great tool for HyperWorks users to explore design reliability improvements by the formal inclusion of variability (materials, loads, manufacturing, operational conditions, etc.) into simulations. Our software increases the reliability and robustness of designs at reduced total product lifecycle costs, thus ultimately creating better products and happier end customers.”
Companies using design simulation software can benefit from adding RAMDO to their workflows. In the aerospace industry, RAMDO can be of particular interest in the design of wings, engines, and interiors by taking into account the variability of materials, aerodynamic loads, electrical resistance, manufacturing, and operating conditions. In the architecture, engineering, & construction industry, RAMDO can help structural designers take into account variability of structural & wind loads, material properties for steel, concrete, soil, and fluid flows for thermal distribution and solar loading. The primary goal of this product is twofold. First, it provides users with a tool to help them understand how variability affects their application. Second, it guides designers into improving the reliability of their design for products and systems. An intermediate benefit of this tool is also a reduction of computational times for UQ, reliability analysis, and RBDO. The result for end consumers is a product that usually includes reduced weight, lower costs, less frequent maintenance, as well as improved safety.

“Structural optimization is used as part of many standard design processes to create better-performing products at lower costs. However, it is important to note that an optimized design could be at the edge of feasibility when considering potential variations due to manufacturing, operational environment, etc.,” explains Fatma Kocer, Altair’s VP of Business Development - Design Exploration. “When this risk is significant, a safety factors approach can be employed, but this approach can lead to overdesigned products. We are happy to have RAMDO in the APA program with solutions for complex problems of reliability and robustness-based design optimization.”

An introductory webinar for RAMDO will be held on February 15 at 10 a.m. EST. For more information about the software, please visit the product page for RAMDO.

Linetek System Ltd appointed as an Authorised MagiCAD Reseller in South Korea

13 February 2018

MagiCAD is pleased to announce reseller cooperation with Linetek System in South Korea. As an Authorised MagiCAD Reseller, Linetek System will be responsible for MagiCAD sales and training in South Korea.

With 28 years of experience as a solutions and services provider for the Manufacturing, Architecture, Engineering and Construction industries, Linetek System is committed to helping their customers to build better and more efficiently.

“We believe that MagiCAD’s productivity-enhancing Building Information Modelling tools for Mechanical, Electrical and Plumbing (MEP) design can help bridge the gap between engineers and drafters and improve efficiency in building projects”, comments Rok Kim, Localisation Director at Linetek System in Seoul.

“Over the years, MagiCAD has introduced many important advances to the Nordic MEP industry through improved design technologies, processes and engineering. We are very excited about the new opportunities and capabilities that MagiCAD can offer to our customers here in South Korea.”
New VP to Lead Altair’s Virtual Wind Tunnel Solutions

13 February 2018

Dr. Paul Stewart has joined Altair as VP, Automotive Aerodynamics Modeling and Visualization. He will lead Altair’s Virtual Wind Tunnel solutions operations, focusing on fluid dynamics for ground transportation vehicle design. Dr. Stewart was most recently at Exa Corporation, acquired by Dassault Systemes in 2017, where he was Senior Director, Design and Visualization.

During his 30+ year career developing design technologies, Dr. Stewart has pioneered the application of shape morphing to automotive aerodynamic design. He holds a Ph.D. in Naval Architecture and Marine Engineering from the University of Michigan, where his doctoral research on the mathematics of faired curves and surfaces for vehicle design was sponsored by Chrysler. Industry positions have included 15 years at Exa and 11 years at Ford Research. Professional accomplishments of note include a process-driven meshing and parametric shape modification tool, ground-breaking work using statistical analysis and response surfaces to understand and optimize the aerodynamic performance of styling surfaces parameterized with free-form character features, and technologies to better visualize and understand complex three-dimensional fluid flow including immersive virtual 3D visualization.

“While working on the deep mathematics underlying advanced computational fluid dynamics (CFD), it has always been a priority to support the design studio”, said Dr. Stewart. “Successfully applying interdisciplinary simulation can help designers in their mission to capture the OEM’s brand and the vehicle buyer’s imagination.”

With the unprecedented capabilities of CFD software enabled by High-Performance Computing, simulation-driven design for market-leading aerodynamic performance is achievable with great savings in time and cost versus physical testing. In his new role Dr. Stewart will help broaden Altair’s footprint within vehicle development processes from up-stream design interaction and functionality to downstream integration with Altair’s solvers in the HyperWorks suite for vehicle dynamics and structural optimization.

James Dagg, CTO, Modeling and Visualization at Altair, states that, “Bringing Paul on board underscores Altair’s commitment and continued investment in the rapidly growing CFD market. Building on the commercial release of Altair’s GPU based Lattice Boltzmann Method (LBM) technology platform for CFD, which offers unprecedented turn-around-time and accuracy at a fraction of the cost of other LBM and Navier-Stokes based CFD technologies, Paul will help guide further optimization of Altair’s process tools.”

Panaya Expands Footprint in Enterprise Agile Delivery Market

15 February 2018

Panaya announced today that Panaya has expanded its footprint in the Enterprise Agile Delivery market. Since RDX’s (Release Dynamix) release last May, Panaya’s cloud-based application lifecycle management solution has been adopted by over 70 customers including global names such as Repsol,
Ralph Lauren, L’Oreal, Mercedes, and BioMarin. In efforts to keep pace with digital transformation, enterprises are increasingly trying to implement agile and DevOps into their delivery cycle to ensure quality, frequent releases. RDX significantly shortens Enterprise IT release cycles, on average from several months to a few weeks by bringing together the fragmented delivery toolchain into one platform.

With visibility into release scope and quality from development until ready for production, organizations have actionable insights to better assess and manage risk. By moving from reactive to proactive decision making, IT is poised to deliver fast, predictable, quality releases to enhance overall business agility.

Other milestones in 2017 for Panaya include:

- Release of Panaya RDx for Salesforce providing rapid, high-quality change delivery by accelerating and validating all phases of development from scope through delivery for Salesforce solutions.
- Release of Autonomous TestingSM for SAP for zero-touch test case creation and maintenance eliminating the pain associated with creating and maintaining manually engineered test scripts.
- Opening of four new offices in Singapore, Beijing, Shenzhen, and Shanghai to meet the 150% growth in demand for Panaya’s Enterprise Agile Delivery solutions in the APAC region.
- Winner of TEST Magazine’s 20 Leading Testing Providers of 2017 Award.
- Finalist for European Software Testing Award judged by a panel of industry peers based on customer success.

PTC Gains Competitive Momentum with New Creo CAD Software Customers

14 February 2018

PTC today announced that companies around the world continue to select its Creo® suite of computer-aided design (CAD) software, in place of competitive solutions time and again. These leading companies, representing a wide range of industries, chose PTC’s CAD software to improve their product design and development processes, as well as position themselves for the requirements of a new generation of products.

Creo delivers a scalable range of 3D CAD product development packages and tools, helping customers complete complex engineering projects faster. Innovative companies across industries can now design smart, connected products, while capitalizing on new technologies like additive manufacturing, augmented reality (AR), and the Internet of Things (IoT).

A sample of the companies that have recently switched to PTC Creo include:

- CAL International, a concept to production engineering company that supports life safety, oil and gas, automotive and commercial vehicle, civil engineering and construction industries.
- Cobham, a leading global technology and services innovator that solves challenging problems in
commercial, defense and security markets

- **LR Pure Systems GmbH**, a partner in manufacturing and installation of components, assemblies and complete systems in the field of media supply
- **Menci Group**, a national leader in industrial transportation that develops both steel and light aluminum alloy for semi-trailers and bulk feed tanks
- **Vossloh**, a leading global rail technology company that offers integrated solutions from a single source

“No matter their industry, companies who select the Creo suite of CAD software from PTC will be able to create and design more efficient, cost effective, and innovative products more easily,” said Brian Thompson, SVP and general manager, CAD, PTC. “These companies are all uniquely impressive and innovative, and PTC looks forward to seeing them progress following their decision to switch to Creo.”

To learn more about the Creo suite of offerings and other ways PTC’s CAD software can help your organization, be sure to visit the [PTC CAD Software page](#).

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**Sandvik Coromant Canada continues support of Saskatchewan Polytechnic**

12 February 2018

Cutting tool and tooling systems provider Sandvik Coromant, Mississauga, Ont., is continuing its support of Saskatchewan Polytechnic’s Innovative Manufacturing program at its Regina campus.

The Innovative Manufacturing program, which opened in September 2017, is a two-year diploma program designed to provide students with manufacturing knowledge that includes mechanical and CAD/CAM engineering technologies, welding and machining disciplines, project management, industrial design, and quality control/quality assurance strategies. During the program, students practice skills and complete projects using industry-standard tools and equipment.

“Education and training is imperative for increased competency in modern manufacturing. Sandvik Coromant is proud to help schools like Sask Polytech actively work towards closing the skills gap in Canada,” said Randy Bossie, Sandvik Coromant Canada general manager. “The donation from Sandvik Coromant directly helps students by ensuring that the program has the necessary resources to optimally run the labs and the program. We also provide advanced training and support for faculty and alumni.”

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**Wipro Named as a 2018 World’s Most Ethical Company by the Ethisphere Institute® for the 7th Successive Year**

15 February 2018

Wipro Limited today announced that it has been recognized by the Ethisphere Institute® as a World's Most Ethical Company®.
The Ethisphere® Institute, a global leader in defining and advancing the standards of ethical business practices, has announced the 135 companies spanning 23 countries across 57 industries who have been named to the 2018 World’s Most Ethical Companies® list.

The World's Most Ethical Companies designation recognizes organizations that have had a material impact on the way business is conducted by fostering a culture of ethics and transparency at every level of the company. It emphasizes Wipro’s commitment to value led leadership.

Being a 7th consecutive year honoree underscores Wipro's commitment to leading ethical business standards and practices that also ensure long-term value to key stakeholders including customers, employees, suppliers, regulators and investors.

Abidali Z. Neemuchwala, Chief Executive Officer and Executive Director, Wipro Limited said, “It is an honor to be recognized as a 2018 World’s Most Ethical Company by the Ethisphere Institute for the 7th successive year. Unflinching commitment to values is the bedrock of our philosophy of doing business. Our values --The Spirit of Wipro-- is at our core and is our moral compass. Businesses are sustainable only if built on a foundation of ethics and responsibility.”

Events News

**Altair to Showcase Simulation-Driven Design Methods and Tools at JEC World 2018**

14 February 2018

Altair will present its comprehensive technology and expertise for the design, optimization, and simulation of composite structures and materials at this year's JEC World, the largest international composites industry show, March 6-8 in Paris.

The Altair-hosted opening day conference session for “Simulation-driven Design for Composites" will feature presentations from companies including Airbus, CETIM, Gordon Murray Design Limited, and Pronal demonstrating how Altair helped them create innovative products and improve their development processes for composites.

The Altair session will also feature a presentation by Atanas Zhelev, Chief Architect at DigitalArchitects, on modern organic architectural designs using innovative composite materials. Complementing his presentation is one of this year's highlighted products at Altair's booth (N90/hall 5A), the "Sella Chair" by Mr. Zhelev and Mariya Korolova, made of a high-performance wood-carbon composite material. It was developed to evaluate the performance of this design and manufacturing method on a larger scale, and considers architectural construction requirements in addition to product functionality.

“JEC World in Paris is the go-to event for the composite industry, and Altair is delighted to present our
solutions for simulation, design, and optimization,” said Jeffrey Wollschlager, Senior Director - Composite Technologies at Altair. "With the constant addition of new technology into HyperWorks and the Altair Partner Alliance (APA), including our 2017 ESAComp acquisition, our software for composite design is more powerful than ever. The Sella Chair provides an excellent example of how simulation can be used to develop innovative and high-quality composite products.”

Further information about Altair, its solutions, and the APA may be found at Altair’s JEC World booth N90 in hall 5A and at: www.altair.com. The Altair conference session will take place on March 6, 2018 at 1:30pm in JEC AGORA, Hall 5. To check out the agenda and to register for your free pass to JEC World and the Altair session please visit: http://web2.altairhyperworks.com/jec-world-2018.

Aras ACE 2018

14 February 2018

ACE 2018 is a great place to meet other users, hear what people are doing, see the latest solutions and find out what Aras has in store for the future.

Tuesday, March 20, 2018 - Thursday, March 22, 2018
7:00 AM - 12:00 PM
Eastern Time

Westin Indianapolis
241 W Washington St.
Indianapolis, Indiana 46204
USA

To view the agenda, please visit: http://www.cvent.com/events/ace-us-2018/agenda-6ca99083e67d4ea2a98f75c97c00a2c7.aspx

COMSOL Days 2018 Hits the Road in Paris this Spring

16 February 2018

COMSOL is excited to announce the COMSOL Days 2018 schedule of events for the worldwide tour. COMSOL Days offer a full day program with technical presentations and breakout sessions focusing on major application areas of multiphysics simulation. COMSOL Days are free-of-charge, welcoming engineers and researchers to connect with COMSOL software users, get inspired by invited speakers, and meet with COMSOL technical staff. The events begin with an overview of the COMSOL Multiphysics® software and how apps can be used to spread simulation throughout an organization. The program offers different tracks and learning opportunities for new and experienced simulation users on a variety of topics and disciplines. Attendees at a COMSOL Day event will leave with the knowledge of how to use simulation to boost productivity and optimize design and research methods.

“COMSOL Days is an investment we make into building the user community” says Jeff Hiller, VP of
Sales, COMSOL, Inc. “We are able to bring together technical specialists within our organization and partner them with current and prospective customers across the globe. Here they get to share best practices in multiphysics simulation and app development and deployment.”

The COMSOL Days worldwide cities include:

- Paris, France, March 6
- Edinburgh, UK, March 8
- Grenoble, France, March 13
- Bethesda, MD, US, April 5
- Munich, Germany, April 12
- Stockholm, Sweden, April 12
- Houston, TX, US, April 19
- Montreal, Quebec, May 2
- Brescia, Italy, May 9
- Detroit, MI, US, May 10
- San Jose, CA, US, May 16
- Orange County, CA, US, May 17
- Goteborg, Sweden, May 22
- Rio de Janeiro, Brazil, May 24
- Gottingen, Germany, May 29
- Rome, Italy, June 5
- Stuttgart, Germany, June 14
- Columbus, OH, US, June 21
- Lund, Sweden, September 25
- Boston, MA, US, TBD
- Eindhoven, Netherlands, TBD
- Saint Petersburg, Russia, TBD

For more details about COMSOL Days and to register, visit: [www.comsol.com/comsol-days](http://www.comsol.com/comsol-days).

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PTC today announced the initial agenda for the award-winning LiveWorx® digital transformation conference, which will be held in Boston from June 17-20, 2018. The annual event expects to feature more than 230 sessions covering a host of trending technology topics, including AR/VR, IoT, Industrie 4.0, product design & business process, robotics, AI, data, security, blockchain, and more.

LiveWorx expects to feature 12 content tracks covering industries and themes that will explore trending digital transformation topics and disruptive technologies. Industrial thought leaders will share their insights on the framework to undergo successful digital transformation.

This year's event will feature the following confirmed track keynote speakers:

- **Bernard Marr**, best-selling business author, keynote speaker, and consultant in strategic performance, analytics, KPIs, and big data
- **Jaron Lanier**, computer scientist, musician, artist, and author of Who Owns the Future?
- **Kevin Ashton**, coined the term "Internet of Things," creator of the WeMo home automation platform, co-founder and CEO of leading clean-tech startup Zensi
- **Shel Israel**, co-founder and CEO of the Transformation Group
- **Tom Kelley**, general manager of IDEO and author of the best-seller, Creative Confidence

The content-rich agenda also plans to feature speakers from leading industry organizations, such as Bell and Howell, Brigham Young University, City of Boston, Decker Brands, Hirotec, NASA, Pfizer, Philips Healthcare, Raytheon, U.S. Air Force, Vodafone, and Whirlpool.

With a wide variety of sessions to choose from, attendees will be able to build customized agendas based on role, industry, or preferred product family to find the right mix of sessions, demos, exhibitors, and more.

Additional content will be added leading up to the event. Please visit [www.liveworx.com](http://www.liveworx.com) for the latest agenda and event information.


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**Financial News**

*Hewlett Packard Enterprise to Present Live Audio Webcast of First Quarter Earnings Conference Call*

8 February 2018

Hewlett Packard Enterprise (HPE) will conduct a live audio webcast of its conference call to review its financial results for the first fiscal quarter, which ended January 31, 2018.

The call is scheduled for Thursday, February 22 at 4:30 p.m. ET / 1:30 p.m. PT, and the webcast will be available at [www.hpe.com/investor/2018Q1Webcast](http://www.hpe.com/investor/2018Q1Webcast).

A replay of the audio webcast will be available at the same website shortly after the call and will remain available for approximately one year.
**LECTRA: Record revenues and earnings in 2017**

12 February 2018

Today, Lectra's Board of Directors, chaired by Daniel Harari, reviewed the consolidated financial statements for the fiscal year 2017. Audit procedures have been performed by the Statutory Auditors. The certification report will be issued at the end of the Board of Director's meeting of February 27, 2018.

(Comparisons between 2017 and 2016 are like-for-like, unless stated otherwise).

Q4 2017: Strong growth in income from operations, on a like-for-like basis - particularly high free cash flow

Q4 orders for new systems (€32.9 million) were 3% lower (-€0.9 million) than those booked in Q4 2016. Orders in previous quarters were €32.3 million, €32 million and €26.5 million respectively in Q1, Q2 and Q3 2017. In Q4 2016, orders for new systems were €35.2 million, the Company's highest ever quarter for new systems orders.

Revenues (€71.5 million) were up 7% (+3% at actual exchange rates).

Income from operations (€10.2 million) was up 13% like-for-like (-4% at actual exchange rates). The operating margin (14.3%) was up 0.8 percentage points like-for-like but down 1.1 percentage points at actual exchange rates.

Currency changes mechanically decreased revenues by €3.1 million (-4%) and income from operations by €1.9 million (-16%) at actual exchange rates compared to like-for-like figures.

Net income (€9.2 million) was up €1.3 million (+16%) at actual exchange rates.

Free cash flow amounted to €14 million (€7.6 million in Q4 2016). This includes receipt of €6.3 million relating to the balance of the 2013 French research tax credit (in 2016, the balance of the 2012 French research tax credit was received in Q3).

2017: Earnings in line with the Company's objectives

Revenues totaled €277.2 million, up 8% relative to 2016 and income from operations reached €39.3 million, up 10%.

These results fall within the range of the objectives for revenues and income from operations communicated on February 9, 2017. They are a new historic record.

Strong growth in orders for CAD/CAM equipment and software

Orders for new systems (€123.7 million) were up 8% relative to 2016. Orders for new CAD/CAM and PLM software licenses increased by 14%, orders for CAD/CAM equipment and accompanying software by 9%, and orders for training and consulting decreased by 2%. Excluding FocusQuantum, orders for new systems increased by 15%.

At the same time, in 2017 the Company proceeded with its first sales of software with a Software-as-a-Service (SaaS) model, to a deliberately limited number of customers, in selected test countries. These sales correspond to total annual subscriptions of €0.3 million. If they had been made in the form of
perpetual licenses, they would have represented an additional €0.6 million in orders for CAD/CAM and PLM software licenses.

Orders increased in all regions: by 14% in the Americas, 11% in Europe, 2% in Asia-Pacific, and 20% in the rest of the world.

Orders increased by 15% in the fashion and apparel market; they decreased by 1% in the automotive market; and increased by 19% in the furniture market and by 1% in other industries.

The Company considers it has strengthened its competitive position in most of its market sectors and geographic markets.

Revenues and earnings up sharply

Revenues were up 8% like-for-like and 7% at actual exchange rates. Revenues from new systems sales (€123.1 million) increased by 10% and recurring revenues (€154.1 million) increased by 6%.

Income from operations increased by 10% (+5% at actual exchange rates). The operating margin was 14.2%, up 0.3 percentage points but down 0.1 percentage points at actual exchange rates.

Net income amounted to €29.3 million, up €2.6 million (+10%) at actual exchange rates, and free cash flow amounted to €33.2 million, up €9.4 million.

A zero-debt Company, a particularly robust balance sheet

At December 31, 2017, consolidated shareholders' equity amounted to €151.2 million (€132.6 million at December 31, 2016), the highest level ever.

The Company has been debt free since March 31, 2015. Cash and cash equivalents, and the net cash position, totaled €98.1 million, up sharply compared to December 31, 2016 (€75.7 million). This is also a record level, which will enable the Company to self-finance its internal and external development.


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**Trimble Reports Fourth Quarter and Full Year 2017 Results**

8 February 2018

Trimble Inc. today announced financial results for the fourth quarter and fiscal year end 2017 results.

**Fourth Quarter 2017 Financial Summary**

Fourth quarter 2017 revenue of $708.4 million was up 21 percent as compared to the fourth quarter of 2016. Buildings and Infrastructure revenue was $209.6 million, up 18 percent. Geospatial revenue was $176.4 million, up 11 percent. Resources and Utilities revenue was $131.6 million, up 38 percent. Transportation revenue was $190.8 million, up 24 percent.

GAAP operating income was $62.8 million, up 14 percent as compared to the fourth quarter of 2016. GAAP operating margin was 8.9 percent of revenue as compared to 9.4 percent of revenue in the fourth quarter of 2016.
The U.S. Tax Cuts and Jobs Act was enacted on December 22, 2017 and resulted in a provisional tax expense impact of $85 million in the fourth quarter of 2017 primarily due to the one-time transition tax on accumulated foreign subsidiary earnings and deferred tax impacts.

GAAP net loss was $35.0 million, down 193 percent as compared to the fourth quarter of 2016. Diluted GAAP loss per share was $(0.14) as compared to diluted GAAP earnings per share of $0.15 in the fourth quarter of 2016.

Non-GAAP operating income of $126.3 million was up 18 percent as compared to the fourth quarter of 2016. Non-GAAP operating margin was 17.8 percent of revenue as compared to 18.3 percent of revenue in the fourth quarter of 2016.

Non-GAAP net income of $98.7 million was up 24 percent as compared to the fourth quarter of 2016. Diluted non-GAAP earnings per share were $0.39 as compared to diluted non-GAAP earnings per share of $0.31 in the fourth quarter of 2016.

The GAAP tax rate for the quarter was 162 percent as compared to 34 percent in the fourth quarter of 2016, and the non-GAAP tax rate was 23 percent as compared to 24 percent in the fourth quarter of 2016.

During the fourth quarter, Trimble repurchased approximately 4.3 million shares of its common stock for $177 million.

"The quarter's strong results capped a year of significant improvement in which every segment and every region grew," said Steven W. Berglund, Trimble's president and chief executive officer. "We enter 2018 with continuing momentum and anticipate further growth and improved operating margins."

**Fiscal 2017 Financial Summary**

Fiscal 2017 revenue of $2.7 billion was up 12 percent as compared to fiscal 2016. Buildings and Infrastructure revenue was $834.9 million, up 12 percent. Geospatial revenue was $661.2 million, up 4 percent. Resources and Utilities revenue was $476.9 million, up 21 percent. Transportation revenue was $681.2 million, up 16 percent.

GAAP operating income was $246.0 million, up 36 percent as compared to fiscal 2016. GAAP operating margin was 9.3 percent of revenue as compared to 7.7 percent of revenue in fiscal 2016.

GAAP net income was $121.1 million, down 9 percent as compared to fiscal 2016. Diluted GAAP earnings per share were $0.47 as compared to diluted GAAP earnings per share of $0.52 in fiscal 2016.

Non-GAAP operating income of $480.3 million was up 18 percent as compared to fiscal 2016. Non-GAAP operating margin was 18.1 percent of revenue as compared to 17.2 percent of revenue in fiscal 2016.

Non-GAAP net income of $379.6 million was up 26 percent as compared to fiscal 2016. Diluted non-GAAP earnings per share were $1.48 as compared to diluted non-GAAP earnings per share of $1.19 in fiscal 2016.

The GAAP tax rate for the year was 53 percent as compared to 25 percent in fiscal 2016, and the non-GAAP tax rate was 23 percent as compared to 24 percent in fiscal 2016.

Operating cash flow for fiscal 2017 was $411.9 million, flat as compared to fiscal 2016. Deferred revenue for fiscal 2017 was $313.4 million, up 10 percent as compared to fiscal 2016.

In November 2017, the Board of Directors approved a stock repurchase program authorizing Trimble to
repurchase up to $600 million of Trimble’s common stock. During fiscal 2017, Trimble repurchased approximately 7.4 million shares for $288 million. Approximately $442 million remains under the current share repurchase authorization as of the end of the fourth quarter.

Implementation Investments

AECC CAE Shanghai Selects Granta MI for its Materials Information Management

16 February 2018

Granta Design today announced that AECC Commercial Aircraft Engines (AECC CAE) has selected the GRANTA MI™ software to meet its materials information management requirements. Headquartered in Shanghai, China, AECC CAE is engaged in the lifecycle development of the commercial aircraft engine, including research, design, manufacturing, testing, delivery, and maintenance, repair and operations (MRO).

Since 2009, AECC CAE has focused on the development of high-bypass-ratio turbofan jet engines and related technologies. In keeping with its commitment to using state-of-the-art tools and processes, the global OEM (original equipment manufacturer) will now use GRANTA MI to manage its test data, from both external and internal sources, through to simulation and design. The organization’s proprietary materials knowledge will be managed alongside comprehensive materials reference information, and appropriate data will be made accessible through its Computer-Aided Design (CAD), Computer-Aided Engineering (CAE), and Product Lifecycle Management (PLM) systems, aiding traceability, data integrity, and quality.

Granta is the leading global provider of materials information management software to engineering enterprises in sectors including Aerospace, Automotive, Electronics, and General Manufacturing. Within Aerospace, Granta works with most of the world’s leading aero engine manufacturers, and many other OEMs and suppliers. The GRANTA MI software enables such organizations to create a system in which they can capture all of their vital corporate materials information and make it available in a controlled manner to authorized users around the enterprise. To have a single, central source of high-quality materials data, and make it available to designers, is critical as it ensures full traceability and security of the data for use in certification, when required.

Richard Painter, Vice President, Business Development at Granta Design, added: “We are very happy to welcome AECC CAE to our community of user organizations. By selecting GRANTA MI, AECC CAE will have access to the leading system for enterprise materials information management. Our software and associated resources enable organizations to ‘digitalize’ their materials information, ensuring accuracy and consistency, driving innovation, and reducing risk, time, and cost. We look forward to supporting AECC CAE in their mission to be a world-leader within the commercial aircraft industry.”
KPIT Announces Go-Live Implementation of SAP Suite on HANA for Elantas Beck India

12 February 2018

KPIT Technologies today announced the successful go-live implementation of SAP Business Suite on HANA (SoH) for ELANTAS Beck India Ltd. The specialist for insulating materials for the electrical and electronics industry is part of the ALTANA group and is one of the leading providers in the liquid insulation market in India. The objective of implementing the SAP project at ELANTAS Beck India was to integrate business processes across its operations to create functional alignment and generate efficiency benefits in addition to laying the foundation for digitalization in the company. It is the first ERP-project in the ALTANA group, which is using the SAP Business Suite on HANA with the aim to drive business in real-time.

Through this partnership, KPIT supported ELANTAS Beck India through the entire implementation process of the integrated ERP systems. KPIT rolled out the ELANTAS Europe SAP template with India specific legal and statutory changes, on the in-memory data platform of SAP, which will help to harmonize existing business processes, enable innovation opportunities and improve governance/compliance protocols. The project scope included implementing the SAP Business Suite on HANA for functions such as Materials Management, Finance & Controlling, Production Costing and COPA, Sales & Distribution, Transportation (SD), Production Planning for Process, and Quality Management, Environment Health & Safety (EH&S), and Global Label Management (GLM). It will result in improved efficiency, transparency, and end-to-end traceability of all the critical business functions using real-time analytics, prediction, and simulations to instantly respond to demand changes.

KPIT also built interfaces with third-party software to help consolidate the various systems/software in the ecosystem.

Sanjay Kulkarni, Chief Financial Officer & Vice President Material & IT, ELANTAS Beck India, said, “The robust system deployed by KPIT will help us re-invent our business into a real-time data driven enterprise. It will strengthen our business processes end-to-end and subsequently provide the best value to our customers. We partnered with KPIT for its consultative approach, critical leadership support and competence in project governance, scope management and on-time delivery. We see the potential to engage with KPIT for analytics and improving user-experience of the applications.”

Sahil Dhawan, AVP – SAP Business Unit, KPIT, said “The speed and innovation with which businesses leverage technology for their mission-critical processes are fundamental to their growth. ELANTAS Beck India was looking for a partner to support its fast-growing operations by replacing its systems with a technology platform that allows real-time decision management. KPIT was chosen for its strong expertise in SAP and the ability to execute with speed in the local environment.”

Product News

ANSYS Discovery Live Enables Real-Time Digital Exploration for Every Engineer

13 February 2018
ANSYS is revolutionizing product engineering by enabling engineers to create smarter designs faster and more efficiently with today's commercial release of ANSYS® Discovery Live™. Discovery Live will empower millions of engineers around the world to confidently simulate designs in real time quickly and more economically.

The demand for smarter, faster, smaller and less-expensive products is growing, while at the same time making products more complex. Trends like the Internet of Things, smart connected products and additive manufacturing are merging the physical and digital worlds — creating extraordinary product innovation as well as exponentially increasing cost and design complexity across the entire product lifecycle.

Discovery Live is expanding Pervasive Engineering Simulation™ — empowering engineers to pose what-if questions upfront in the design process where most of the product costs are locked in, to rapidly explore thousands of design options and to receive immediate feedback. Discovery Live's instant simulation tightly coupled with direct geometry modeling in a real-time and intuitive design environment delivers interactive exploration and rapid product innovation. Now, every engineer can immediately examine the impact of their design changes, instead of waiting weeks or months to set up, run and analyze prototypes.

"We had the opportunity to preview ANSYS Discovery Live, and it's obvious this technology is a game changer in providing instantaneous simulation to enable interactive design exploration," said Craig Skinner, chief aerodynamicist, Aston Martin Red Bull Racing.

ANSYS unveiled Discovery Live's capabilities for instantaneous solving of major physics during a five-month technology preview — the most successful customer preview in ANSYS history. Today's product launch expands on the types of inputs and displays users have at their disposal, increasing fluids, structural and thermal capabilities.

"ANSYS Discovery Live empowers us to run different design scenarios in real time and speeds our development process considerably," said Matt Carlson, vice president business development, Wibotic. "Discovery Live provides us with a sense of confidence before manufacturing and significant time and monetary savings — enabling us to drastically reduce prototyping fees and spend more time perfecting usability and aesthetic design."

ANSYS brings Discovery Live together with ANSYS AIM® and ANSYS SpaceClaim® into one product family geared toward design engineers. From rapid initial concept exploration and 3-D design to more detailed and comprehensive validation, the Discovery product family enables engineers at every stage. It also empowers design engineers to collaborate with simulation experts using ANSYS flagship products, for even more comprehensive and detailed simulation of the world's most complex phenomena.

"From students to startups to Formula One racing teams, thousands of users downloaded Discovery Live during the technology preview," said Mark Hindsbo, vice president and general manager, ANSYS. "It has been very rewarding to see users tackling the design of almost every type and complexity of product and validating the need for rapid simulation in the early concept development phase. The introduction of the Discovery product family is a milestone in our commitment to Pervasive Engineering Simulation and enabling every engineer to benefit from incorporating high-fidelity insight into their design."

Discovery Live is powered by NVIDIA graphics processing units (GPUs) and CUDA parallel computing that provide supercomputing capabilities to deliver results thousands of times faster than more traditional methods. The real-time design environment revolutionizes the way innovative products
are designed and created.

"Discovery Live's real-time simultaneous visualization and simulation powered by NVIDIA professional GPUs and CUDA will transform the way engineers work," said Bob Pette, vice president and general manager, professional visualization business unit, NVIDIA. "We're working with ANSYS on further breakthroughs to improve workflows and enhance creativity so designers and engineers around the world can bring better products to market faster."

Through real-time digital exploration, Discovery Live provides cost and time savings because it eliminates costly physical prototyping during the development process. Engineers have the flexibility to experiment with and creatively solve design challenges without risking a product delay or setback.

"For 18 years Rossignol has used ANSYS during the design and development process to produce skis and bindings that are used in major world racing events. Performance and reliability of the ski's equipment coupled with short time-to-market challenges require technology that speeds the development process without compromise — ANSYS simulation meets these demands," said Nicolas Puget, research & innovation manager, Rossignol. "We had the opportunity to preview Discovery Live and saw firsthand the new benefits for our project teams, including engineers, technicians, designers and marketing product managers. This exciting new technology for real-time simulation will be used for future equipment design, engineering and manufacturing."

Discovery Live and the entire Discovery product family is available for commercial use today. To learn more, register for a trial or explore bundle subscriptions visit ANSYS.com/Discovery.

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**Delphix Brings Powerful New Data Security Capabilities to SAP**

12 February 2018

Delphix today announced new enhancements to the Delphix Dynamic Data Platform that deliver advanced algorithms specifically tuned for SAP data with the ability to mask full volumes of SAP data with an unmatched level of speed, simplicity, and accuracy. With the upcoming GDPR (General Data Protection Regulation) deadline and other regulatory demands, these enhancements accelerate the time it takes enterprises to meet compliance requirements.

The Delphix Dynamic Data Platform removes the constraints on businesses and eliminates the need for expensive and lengthy service engagements to mask sensitive data. Companies can now benefit from a modern approach and accelerate their release speed and application quality.

The Delphix Dynamic Data Platform now provides SAP customers the ability to:

- Automatically identify sensitive data within SAP – that is subject to GDPR – in minutes;
- Apply masking to sensitive data with high performance;
- Enable teams to mask SAP data once, then effortlessly delivery multiple copies to on-premise or cloud SAP environments.

**Just in Time for GDPR…**

This new capability is highly relevant within the context of the EU GDPR which compels businesses to
adopt privacy by design to safeguard the personal information of EU citizens. As the digital backbone of many modern businesses, SAP applications typically capture sensitive information, such as customer records, intellectual property and financial data. The Delphix platform gives these global businesses a comprehensive solution to define and enforce GDPR compliance policies within complex SAP environments.

“GDPR is the most substantial privacy regulation hitting enterprises in the last 30 years,” added Holger Mueller, VP and Principal Analyst for Constellation Research. “As such, CxOs struggle to ensure that massive – and rising – amounts of data are ready to comply with GDPR. The clock is ticking and any solution that helps CxOs quickly navigate the process for GDPR compliance on SAP data is highly attractive.”

Secure More SAP Data, More Quickly

Businesses can leverage these unique capabilities to accelerate application time-to-market and ensure compliance, across both SAP and non-SAP environments. Here’s how it works:

1. First, the Delphix platform intelligently profiles the many database tables in SAP applications to pinpoint sensitive data.
2. Next, it masks the fields with sensitive data in a consistent fashion by masking algorithms which can be applied to both SAP and non-SAP apps so that interfaces and referential integrity is consistent across testing landscapes whether SAP only or hybrid.
3. Finally, with advanced data virtualization technology, Delphix instantly delivers masked data copies to non-production environments and gives SAP teams dynamic data controls.
4. Teams using the Delphix platform have the ability to bookmark and rewind secure data to accelerate testing cycles and maintain high-quality data in SAP environments.

For more information on Data Masking for SAP, check out: https://www.delphix.com/data-sheet/data-masking-sap

Materialise and PTC Extend Integrated 3D Printing Capabilities to Manufacturers

12 February 2018

Materialise NV and PTC have partnered to increase the 3D printing capabilities of PTC’s Creo suite of computer-aided design (CAD) software. This collaboration will expand access to 3D Printing and allow manufacturers to more easily integrate 3D printing capabilities into their manufacturing process, signaling another milestone in the increasing adoption of 3D Printing in the manufacturing industry.

3D Printing is positioning itself as a valuable complimentary manufacturing technology. Especially with recent advancements in metal 3D Printing, additive manufacturing is increasingly adopted when solving specific manufacturing challenges and creating customized, complex end-use products. As the manufacturing industry continues to discover its potential, the need to integrate advanced 3D Printing as part of a product lifecycle management system will continue to increase.
“Our collaboration with PTC will bring improved 3D Printing capabilities to PTC’s CAD software and makes it easier for manufacturers to integrate 3D Printing into their operations,” said Stefaan Motte, Vice President and General Manager, Materialise Software. “This collaboration with PTC will expand access to 3D Printing and help engineers and designers think in terms of additive, rather than traditional manufacturing for rapid product design and development.”

Powered by Materialise’s Build Processor, the solution will offer manufacturers a seamless connection between PTC’s software and 3D printing machines equipped with a Materialise Build Processor. It will also support metal 3D Printing and include Materialise’s support generation technology, which gives designers more control over the design and creation of metal support structures, a time and effort consuming part of the 3D printing process.

“As 3D Printing becomes a more prominent part of the manufacturing toolkit, we are working with Materialise to create robust support for the technology in Creo,” said Brian Thompson, senior vice president and general manager, CAD segment at PTC. “Together with Materialise, we will bridge the gap between CAD design software and the 3D printing machines.”

Mentor announces HyperLynx solution with industry-first automated and intelligent channel extraction for SerDes interfaces

13 February 2018

Mentor, a Siemens business, today announced its new HyperLynx® printed circuit board (PCB) simulation technology for high-performance designs, now providing the industry’s first end-to-end fully automated serializer/deserializer (SerDes) channel validation solution. Today’s advanced electronics products require intelligent high-speed design tools to ensure that designs perform as intended. With signaling rates of 50 Gbps becoming commonplace, and protocols like Ethernet, pushing 400 Gbps bandwidth, traditional methods are insufficient. This is crucial for industries that demand superior high-speed performance such as automotive, networking, data centers, telecom, and IoT/cloud-based products.

SerDes refers to the interfaces like PCI Express (PCIe) that are used anywhere high-bandwidth is required. However, today’s hardware engineers lack time to fully understand the detailed signal integrity requirements of these interface protocols and may have limited access to signal integrity (SI) and 3D EM experts for counsel. Mentor’s new HyperLynx release provides tool-embedded protocol-specific channel compliance— the industry’s first fully automatic validation tool for PCB SerDes interfaces. This includes a 3D explorer feature for design and layout optimization of non-uniform structures like breakouts and vias.

Mentor customer Sintecs, an electronic design service (EDS) company based in The Netherlands, specializes in complex board design and analyses. They developed the European-funded multi-board dReDBox, a completely new concept for a “data center in a box,” with disaggregate processing and memory resources connected with high-speed links (www.dredbox.eu). Using the HyperLynx DDR Wizard and new SerDes Compliance Wizard, Sintecs could quickly explore the available design space to converge on a physical implementation that met industry standard compliance metrics for their product’s DDR4 (running at 2666 MT/s) and many PCIe3 interfaces. The new HyperLynx intelligent channel extraction tool helped compress the SerDes interface design schedule by automating the entire
channel decomposition and modeling design task. Automated channel extraction was substantially faster than Sintecs’ previous manual method that required time from a 3D full-wave solver expert to model each channel discontinuity.

“We've successfully used HyperLynx to achieve the ‘first-time-right’ implementation of our high-speed DDR4 and PCIe SerDes interfaces for the dReDBox project,” stated Hans Klos, managing director of Sintecs B.V. “We’ve changed our way of working, and now our hardware designers and SI engineers use the SerDes Compliance Wizard to quickly iterate during interface design optimization, and final interface compliance verification.”

Protocol-specific Channel Compliance
Using the new HyperLynx release, hardware engineers can easily perform protocol-specific compliance checks. The tool provides embedded protocol expertise for PCIe Gen3/4, USB 3.1, and COM-based technology for Ethernet and Optical Implementers Forum (OIF). Engineers can easily perform equalization optimization (CTLE, FFE, DFE) based on protocol architecture and constraints.

“As data rates in high speed serial links increase, designing channels with acceptable bit error ratios, limited by equalization settings within a protocol’s range, requires a higher level of expertise. The new automated channel analyzer from Mentor is like having an expert on your shoulder. Running the analysis of a design before sign-off will catch many materials, vias and transmission line problems before they sneak into the final design,” said Eric Bogatin, dean of the Signal Integrity Academy and director of the Teledyne LeCroy Front Range Signal Integrity Lab. “And, for the final channel, the new compliance analyzer will recommend the optimized equalization settings to meet the protocol’s constraints. These innovations will help all hardware engineers sleep better at night.”

HyperLynx 3D Explorer
The 3D Explorer feature provides channel structure design and pre-layout optimization. Template-based 3D structure synthesis can be used for differential pair, BGA breakouts, via configurations, series-blocking capacitors, and more.

Product availability
The new HyperLynx release with automated SerDes channel validation will ship at the end of February 2018. For additional product information, visit the website: https://www.mentor.com/hyperlynx-serdes

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PixelFLEX™ and Vectorworks, Inc. Partnership Brings Latest LED Display Technology to CAD and BIM Designers
12 February 2018
In an effort to better provide ready-to-use LED video solutions for your entertainment, architectural and commercial designs, PixelFLEX™ is proud to announce that it has joined the Vectorworks, Inc. software content community. Used by over 650,000 designers worldwide, the design symbols, images and specifications for the PixelFLEX FLEXTour, FLEXLite Plus and FLEXCurtain HD video solutions, including accessories, will be available for download in all Vectorworks CAD and BIM design programs beginning in March.

"As we have continued to expand our LED video solutions into a multitude of different markets, it has become imperative that we provide designers with the tools necessary to quickly complete their
designs," said Jon Chavez, technical director at PixelFLEX. "We have been very fortunate to have many talented professionals incorporate our solutions into their design portfolios, and our partnership with Vectorworks will only allow them to further their creativity."

A Nashville-based LED provider, PixelFLEX offers creative solutions and dependable service for their award-winning LED video display technologies. Working with architects, designers, engineers and consultants, PixelFLEX LED video solutions can create a one-of-a-kind design for any tour, live event or permanent installation, and can be downloaded through the latest updates of the Vectorworks design software.

Vectorworks is a global design and BIM software developer serving professionals in the architecture, landscape and entertainment industries. With their 2D/3D cross-platform software, designers can build data-rich, visual models without sacrificing the design process, while collaborating efficiently throughout a project life-cycle.

"LED video walls are arguably the fastest growing part of the live event world," said Chris Baccala, content development manager at Vectorworks. "This partnership with PixelFLEX will give Vectorworks users a massive advantage in accuracy, speed and flexibility in designing events and installs, as well as retail and hospitality projects."

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**Renesas Synergy Platform Boosts IoT Performance with IAR Systems Advanced Compiler Technology**

14 February 2018

Renesas Electronics Corporation today announced an enhancement to its e² studio integrated development environment (IDE) tool for the Renesas Synergy™ Platform. Through its ongoing partnership with IAR Systems®, the leading embedded development tools supplier, Renesas Synergy customers can now enjoy significant performance benefits by integrating IAR Systems’ advanced IAR C/C++ Compiler™ into the Eclipse-based e² studio IDE.

Through its optimization technology, the IAR C/C++ Compiler can significantly reduce the application code, allowing developers to add more features to their Synergy microcontrollers (MCUs). The compiler’s industry-best execution speed for generated code is clearly documented in established speed benchmarks such as EEMBC® Coremark. Faster code execution speed enables an MCU to spend more time in low power modes to conserve battery life. Networked Internet of Things (IoT) devices use Synergy MCUs to monitor and/or control the surrounding environment and system components in home/building/industrial automation systems, home appliances, energy management systems, and healthcare and medical equipment.

Previously, e² studio users would build their applications using the standard GCC GNU compiler. This new collaboration with IAR Systems adds the option to use the IAR C/C++ Compiler directly from within e² studio, while keeping the existing option to use the proprietary IAR Embedded Workbench® for Renesas Synergy IDE. System developers can access instructions for integrating the compiler into the e² studio by downloading the latest version of the e² studio tool. Providing the IAR C/C++ Compiler as an option ensures the full potential of the Synergy Platform is unlocked regardless of IDE preference.

“Synergy Platform customers can choose from two professional software development tools – e² studio
or IAR Embedded Workbench – with no license or maintenance fees and no limitation on the number of user seats,” said Mark Rootz, Marketing Director, Synergy Platform Business Division, Renesas Electronics Corporation. “Enabling our e² studio users to access the IAR C/C++ Compiler demonstrates our commitment to increase the value and capabilities of the Synergy Platform by helping developers get through their design process faster than ever before.”

“Adding support for our advanced compiler technology to the e² studio tool gives developers additional options for optimizing their IoT applications,” said Anders Lundgren, Product Manager, IAR Systems. “Our close collaboration with Renesas Electronics provides Synergy Platform customers with the tools they need to speed their product innovations to market.”

SimScale integrates Parasolid and HOOPS Exchange for more powerful 3D CAD handling

15 February 2018

SimScale GmbH (“SimScale”) today announced a collaboration with Siemens PLM Software and Tech Soft 3D to optimize the simulation workflow through better CAD model handling. SimScale will bring the benefits of Siemens’ Parasolid® software and HOOPS Exchange to a browser-based CAE.

The latest release of SimScale, available shortly, will integrate Parasolid and HOOPS Exchange to enable a more convenient and seamless simulation workflow, while at the same time further increasing simulation result accuracy—both in FEA and CFD.

“Our vision at SimScale is to enable every designer and engineer to take full advantage of engineering simulation—indeed, independent of budget, hardware and know-how. This includes seamless interoperability with the customer’s CAD system as well as fast, robust and accurate preparation of CAD data to achieve reliable simulation results quickly. Integrating Parasolid and HOOPS Exchange will help us achieve just that,” said David Heiny, CEO and co-founder of SimScale.

Parasolid is the industry-leading 3D geometric modeling component for computer-aided design, manufacturing and engineering analysis (CAD/CAM/CAE) solutions, while HOOPS Exchange is the leading CAD translation software development kit (SDK). The suppliers of both solutions are continuously innovating in the field of 3d modeling, in order to meet constantly evolving industry trends. This includes building best-in-class solutions for the growing number of cloud-based applications.

“This latest implementation of Parasolid in a cloud-based application will enable engineers to simulate, test and modify 3D models using only a web browser,” says Jim Rusk, chief technology officer, Siemens PLM Software. “In selecting Parasolid, Simscale also obtains translation-free interoperability with hundreds of other applications that integrate Parasolid to design, edit and exchange high-precision 3D models based on the Parasolid XT data format.”

“With the rapid pace of technology advancement, our partners continue to push the boundaries of what’s possible for engineering software development in web technology—our mission is to help them create the best engineering applications in the quickest, easiest way possible,” said Gavin Bridgeman, chief technology officer at Tech Soft 3D. “We are excited about the partnership with SimScale and in particular enabling their customers to bring their CAD data, be it Parasolid-based or otherwise, effortlessly and accurately to the SimScale platform.”
Since the official launch in 2013, SimScale is challenging the “status quo” of the traditional computer-aided engineering (CAE) software market by offering a fully cloud-based engineering simulation solution with zero hardware and software footprint, available at the fraction of the price of its competitors.

“SimScale users have the benefit of a fully collaborative, professional-grade CAE tool covering multiple simulation types powered by unlimited computing power—all via a standard web browser.” said Jon Stevenson, Board Member of SimScale. “The fact that SimScale runs in the cloud enables a broad range of advantages such as multi-user access, collaboration, easy scaling of computing resources, and automated maintenance.”

SimScale offers a Community plan which is free to all users willing to share their projects publicly. The Professional plan can be tested via a free 14-day trial. Getting started with the trial version only takes a few minutes and requires just a standard web browser.

To learn more about the SimScale pricing plans, visit: https://www.simscale.com/product/pricing/

Note: Parasolid is a trademark or registered trademark of Siemens Product Lifecycle Management Software Inc. or its subsidiaries in the United States and in other countries.

Striker 2018 CAD/CAM and Nesting Software Released

15 February 2018

The latest STRIKER CAD/CAM & nesting software is out. The 2018 version includes a comprehensive programming and nesting solution that addresses the unique requirements of CNC punching. STRIKER 2018’s objective is to provide complete punch programming automation.

“Automating CNC punch programming can be much more difficult than automating laser programming,” states Mike Boggs, Striker Systems’ VP of Sales. “With a multitude of tooling, tool placement, and machine options, the biggest challenge to automation can be optimum tool selection and fit.” Special tools, tool sequencing, micro-joint placement, drop door support, and sheet repositioning must also be taken into consideration. STRIKER CAD/CAM has always included advanced automatic punching algorithms as well as flexible tool substitution capability. Release 2018 further refines this technology to minimize or eliminate user intervention in the tooling process.

“The level of programming automation that can ultimately be achieved is dependent on many factors,” says Boggs, “but it all hinges on a properly tooled part.” STRIKER CAD/CAM provides extensive configuration options that adapt to particular punching techniques and can also remember punching preferences over time to become increasingly automated. The result is a reduction in programming time and increased throughput in CNC punching operations.