

PLM Industry Summary

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CIMdata News

Costing Across Global Value Chains: SAP Product Lifecycle Costing (CIMdata Commentary)
Key takeaways:

- Global value chains are a fact of life in most industries today, and developing accurate cost estimates across global value chains often requires melding incompatible spreadsheets and costing processes.
- Working with leading customers, SAP developed the SAP Product Lifecycle Costing solution to provide globally available, managed capabilities to help address these issues.
- Their early successes in discrete industries are promising, and recent wins are from new industries such as consumer products, food, and fashion.

Global markets almost always demand globally sourced solutions today. This is a huge change from previous experience, one that causes struggles for many companies. Historically companies were more vertically integrated, designing and manufacturing products using significant in-house content. As a result, firms possessed a great deal of manufacturing and manufacturability knowledge. They knew how much parts and assemblies cost to make, so when they did start to outsource they still had the knowledge to drive hard (and sometimes fair) bargains with their suppliers. As their portfolios expanded with variants or even new products targeted to new markets, they were forced to use suppliers that had unfamiliar processes. But still they could identify possible suppliers for a given component or assembly, get ten estimates, and pick the one with the best cost. Over time, this shifted cost knowledge to those suppliers, who could be located anywhere in the world. Building product cost models can be extremely difficult. Most costing today is done using Microsoft Excel, with value chain participants building incompatible models that must be painfully reconciled. This is getting harder and harder to do as companies lose their manufacturing experts to retirement.

Prior to the downturn in 2009, traditional supplier relationships involved a 3- to 5-year contract, where the supplier agrees to lower the initial price over the contract life. Today, companies at the top of the supply chain (i.e., OEMs) are asking, can you give me the year-four cost at the outset? That year-four cost is typically the result of supply and manufacturing learning over time at the supplier, valuable time suppliers are asked to forfeit to win the deal. Many suppliers go out of business by taking that risk without knowing their true costs or how long the downturn might last. OEMs are negotiating on what they think are facts related to price and cost, but they lack the requisite knowledge within their four walls to understand their accuracy.

Boeing provides a useful example. While they build their aircraft in few locations, this is mostly just assembly. Their global customer base demands a global supply base, sometimes literally due to government negotiations to ensure local participation in Boeing's supply chain. This makes for very complex supply chains, in some cases providing finished parts, but most often shipping parts to locations where subassemblies are created and then reshipped for final assembly. This results in a complex, multi-variate supply problem, one that can shift by customer or assembly location. As discussed above, this makes accurate costing much more difficult. Boeing needs to understand early in any aircraft program how to orchestrate these processes to manufacture and assemble efficiently. Cost is a big part of their decision-making process when considering supply chain options.

The SAP Product Lifecycle Costing Solution

To help customers address this complexity, SAP worked with their leading customers to develop a new solution, SAP Product Lifecycle Costing. Over thirty companies participated, including global OEMs, leading automotive suppliers, consumer goods companies, and industrial machinery and high-tech companies. SAP focused on helping customers develop, deploy, and manage consistent enterprise costing processes that could best leverage existing legacy and Excel information, while bringing much needed rigor, data management, and analytics to their desktops. While the solution would leverage a range of SAP offerings, openness was an important design criteria, recognizing that their customers also rely on a range of authoring, analytics, and other solutions as part of their costing process.

The resulting offering, SAP Product Lifecycle Costing, integrates with the SAP solution suite and other enterprise systems, as well as Microsoft Excel, as shown in Figure 1. This makes it easy to leverage existing document structures, bills of materials (BOMs), and associated routings from SAP's on premise solutions to create new calculations. For example, there is an add-in framework to create direct integrations with the SAP Engineering Control Center, their standard integration solution for authoring tools like mechanical computer-aided design (MCAD) and electronic design automation (EDA) which often help generate the BOMs that must be costed. Integrations with Microsoft Excel and legacy systems can also help bring in necessary source data.

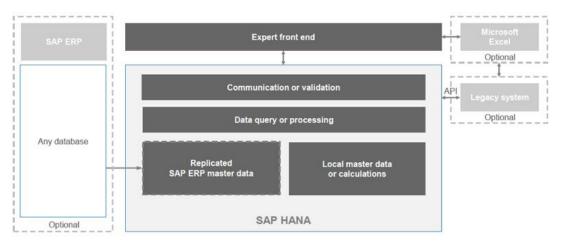


Figure 1—The SAP Product Lifecycle Costing Solution

Collectively the customer group helped SAP hone their focus on specific industries, such as automotive, industrial machinery, high tech, aerospace and defense, and consumer goods/pharmaceuticals/chemicals. It is clear this list is heavy on discrete manufacturing, a deliberate choice by SAP. With their thousands of manufacturing customers, SAP wanted to get the core right for discrete. Part of building such

solutions is developing cost models for different types of manufacturing processes. Working with these lead customers SAP developed a technology database of standard processes to support costing analysis.

Some companies want to keep Microsoft Excel as part of their solution, but want to make it part of a more consistent managed processes. SAP BusinessObjects Analysis for MS Office, a part of the SAP suite can be used as a self-service analytics tool. Users can set up and run their own analyses, with their Excel live sitting on SAP HANA. They can also use SAP Lumira which is part of the SAP on-premise analytics suite that provides advanced visualization and reporting features in a similar way. All SAP analytical components run on the same database, leveraging the SAP HANA backend system, and bringing live enterprise data to the user for representation and analysis. Management can access live insights using SAP's Cloud for Analytics solution. At the same time, SAP Product Lifecycle Costing enables customers to use their existing analytics solutions, such as Tableau.

The SAP Product Lifecycle Costing solution has a readily extensible data model. If a company needs multiple fields that are not part of standard SAP they can just add them, and they are handled like any other attribute. This is important because customers often have their own unique attribute sets for cost calculations. CIMdata agrees that data model flexibility is an important attribute for costing, given the wide variation in approaches, legacy systems, and data needs.

SAP's solution is also extendable from within the user interface. SAP provides an "add-in" framework, built on .NET and SAP extensions, that supports "side-panel add-ins and ribbon enhancements" within the application UI. This makes it easy to enhance UI ribbons, add side bars, and to support process automation. For instance, it is easy to include real-time 3D files from SAP 3D Visual Enterprise, SAP's visualization solution, which can be a huge timesaver for discrete manufacturing users. There is also an integration possible with SAP S/4HANA Cloud for Intelligent Product Design, a new collaboration solution, which enables collaboration in which activities are associatively captured and managed. CIMdata believes social features can provide a good way to capture and leverage knowledge across multiple iterations of a process. Finally, SAP can integrate with any offering that can be accessed using data services or a URL.

The current SAP Product Lifecycle Costing solution is available on-premise running on SAP HANA, but SAP is working on a cloud version. Their current plan is to have the cloud-based solution generally available (GA) by June 2018.

Customer Successes to Date

The SAP Product Lifecycle Costing solution went into GA status in April 2016. Since then SAP has had some market success, with over 30 customers, mainly in discrete manufacturing, like automotive OEMs and suppliers, industrial machinery and components companies, and high-tech firms. AGCO Corporation (AGCO) offers a useful example. Headquartered in Duluth, Georgia, USA, AGCO is a global provider of agricultural solutions, including tractors, harvesters, and other equipment. With global 2016 revenues of \$7.4 billion, their 20,000+ employees oversee a wide-ranging business with over 75% of their operations outside of North America. Like many companies, they have many different brands that have unique costing processes and use enterprise resource planning (ERP) systems. With engineering operations at 15 locations, the company turned to SAP for a global solution. SAP Services and an SAP partner, MHP, implemented an integrated cost management capability at five sites in the first seven months, with four others soon to come on line. The solution pulls data from a legacy product lifecycle management (PLM) solution, as well as multiple ERP systems. The company now has one standard process, with the corporate group providing "reference calculations" for key processes as one value add. The results? Integrating their engineering and business systems to support costing provided a

solid baseline for their costing efforts. Collaboration by global users reduced time and effort, and helped improve target costing and its achievement. Mr. Nils Franzen, Director Global Product Costing, AGCO Corporation commented that "With SAP Product Lifecycle Costing in place, I really believe we have a best-in class product costing solution that will give us a big advantage going forward."

Given their initial focus on discrete manufacturing, it is not surprising that most of SAP's early customers were discrete. This is beginning to change, according to SAP, with consumer products companies starting to adopt the solution. Large customers from other than discrete industries such as consumer products, chemicals, and food producing companies have also decided to use SAP Product Lifecycle Costing.

Looking Forward

The big move forward is to offer SAP Product Lifecycle Costing on the cloud in 2018. As this solution will run standalone on the SAP Cloud Platform, it will not be part of the core SAP S/4HANA cloud offering. It will also be priced separately.

Large costing problems are collaborative in the extreme, with participants spanning time zones, cultures, and languages. Recognizing this need, SAP is developing a new product that they claim will enable "intelligent product design in the cloud," and add requirements management and collaboration features to the offering. Engineers will be able to more formally document "should cost" using requirements management features, driving group efforts, all captured by this new product.

The focus to date is on making physical things using a range of manufacturing processes. But how do you cost software? What about applications of the Internet of Things (IoT)? SAP was approached by a large automotive and electronics support company asking that exact question: how do you calculate the price for a subscription-based model of a new IoT-enabled service? Traditional costing is hierarchical and often bottom up. If you know the parts' costs and the costs of processes that result in the end product, you can determine a cost estimate. These new product categories are not hierarchical and need a new way to estimate cost. This is just one of the advanced topics that SAP is considering. Other topics include blockchain and machine learning, a nice synergy with their broader SAP Leonardo initiative, a topic of a recent CIMdata commentary. As products evolve, costing problems will get even more complex, and solution providers like SAP must be ready.

Conclusion

In the best of circumstances product costing is difficult. Companies are less and less vertically integrated, and have to rely on far-flung supply chains and manufacturing operations to meet global customer requirements. Many are conglomerates with multiple (mostly) independent brands and disparate processes supported by different enterprise software. The resulting disjointed processes and associated Excel sheets can defy harmonization. The SAP Product Lifecycle Costing solution was designed with SAP lead customers' input to address this problem. It can leverage enterprise data no matter where it sits, and add it to the vast data and resources from SAP HANA. SAP have over 30 customers using the current on-premise solution, and plan a cloud-based offering in 2018. As they expand out from their beachhead in discrete manufacturing, they will need to add costing support for more and more manufacturing processes, including the many variants of additive manufacturing and composites applications. CIMdata is impressed with their early customer successes, and look forward to learning more about their solutions for new industries as they evolve. While smart connected products

¹ https://www.cimdata.com/en/resources/complimentary-reports-research/commentaries/item/9222-navigating-a-new-renaissance-leonardo-and-sap-commentary

are taking over most industrial markets, CIMdata is glad to see solutions like SAP Product Lifecycle Costing helping smart people connect to price them.

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 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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Gerard Litjens, CIMdata's Vice President EMEA, to be Featured in an upcoming Webinar on PLM in the Cloud

8 December 2017

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces that Gerard Litjens, Vice President EMEA, will take part in a webinar to discuss the current trends, challenges, and benefits of PLM in the cloud.

In this webcast, "PLM in the Cloud," Mr. Litjens will share the findings from CIMdata's recent study on PLM in the Cloud. Attendees will gain an understanding of what their peers regard as being the most critical areas and main challenges of cloud PLM adoption.

The webinar, which is hosted by PTC, will take place on Thursday, 14 December 2017 at 14:00 CEST. To register, visit https://www.cimdata.com/en/events/cimdata-supported-events/event/367-webinar-plm-in-der-cloud.

About CIMdata

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

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

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

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Siemens PLM Software and Bentley Systems Team to Realize the Digital Twin (CIMdata Commentary)

6 December 2017

Key takeaways:

- Siemens PLM Software and Bentley Systems team to deliver a closed-loop digital solution to resolve factory floor issues.
- Siemens IoT system, MindSphere, and Bentley Systems' AssetWise solutions monitor intelligent devices and assets to identify production issues and trigger corrective actions.
- Siemens NX with Convergent Modeling and Bentley Systems' ContextCapture support a union of mesh and precise geometry product modeling to define real world assets.

Product engineers have long understood that CAD product models represent physical products in a virtual world. They author the shape and function of the virtual models, simulate and analyze their performance in a virtual environment, and plan and replicate the manufacturing processes of those products in a virtual factory. This virtual/real concept has now advanced into a more encompassing concept of the digital twin. Siemens defines digital twin as a cross-domain digital model that accurately represents a product, production process, or performance of a product or production system in operation. The digital twin of a product evolves and continuously updates to mirror any change to its physical counterpart throughout the product's lifecycle. Now, Siemens has teamed with Bentley Systems to deliver a solution that allows product engineers to complete the loop from design through to operation and monitoring performance on the factory floor. If an issue is identified, the product and its digital twin can be updated, with updated parts produced and installed. CIMdata applauds Siemens and Bentley for demonstrating the effectiveness of the digital twin and encourages them to continue the evolution of the concept to provide improved manufacturing, better quality, and cost performance for their users.

Walking the Loop from Production Error to Solution

Machine failures and performance slowdowns are common occurrences on the factory floor. The joint demonstration walks the observer through the closed loop of identification of systems that will lead to a machine failure, logging the issue in the digital twin, modifying the machine design, and analyzing its performance, followed by 3D printing the newly designed modules and installing them so that performance monitoring can be resumed.

In essence, the software solution is not just capable of monitoring a problem, but with a feedback loop into PLM, the problem can be fixed. The demonstration shows how in a smart factory a problem or future problem is first identified by capturing real-time diagnostic information, and then taking actions based on insight gained from the performance of the digital twin. The combined Siemens and Bentley software solution can optimize product and plant performance based on insights by leveraging the digital twin.

The flow of the demonstration is captured in Figure 1.

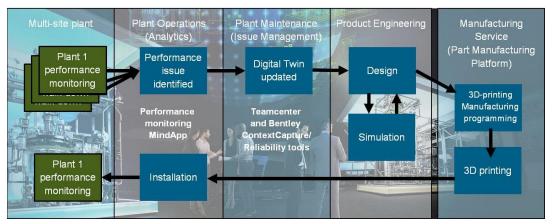


Figure 1—Digital Twin Demonstration Flow (Courtesy of Siemens PLM Software)

CIMdata commends the two companies for building a real life scenario of an entire value chain rather than a string of disjoint examples of their products' functional capabilities. The walkthrough lends credence to the full suite of solutions the companies can leverage to solve real problems in the design and manufacturing world.

The demonstration is staged using the Siemens' MindSphere environment as a backdrop. MindSphere is the cloud-based Internet of Things (IoT) operating system from Siemens that lets users connect their machines and physical infrastructure to the digital world. "Fleet Manager for Machine Tools" is a new Siemens app for MindSphere that facilitates the monitoring of machine tools worldwide whether at small or large production sites. Using these solutions a manufacturing company can observe large volumes of data from intelligent devices on the factory floor. Bentley Systems provides the ability to analyze and control relevant asset information using their AssetWise suite of tools for decision support. In effect, users can automate the exploration of asset performance data to trigger actionable resolution of problems on the factory floor.

The demonstration continues with a supposition that a manufacturing machine has failed (or is in danger of failing soon) and that not all its component pieces were modeled in NX, Siemens flagship CAD solution. Bentley Systems' ContextCapture solution, from their reality modeling software, can generate 3D mesh models from simple photographs of the target object. That mesh of planar triangles can then be imported into NX and married with precise geometry using Siemens new Convergent Modeling capabilities. A design improvement can then be modeled and analyzed with Siemens Simcenter suite of CAE solutions. Finally, the demonstration moves into manufacturing of the revised machine parts with 3D printing—the overall design and production process being managed by the Teamcenter platform.

CIMdata appreciates the completeness of the demonstration where at each step in the issue discovery and follow on redesign and manufacturing corrective process, a Siemens or Bentley Systems software solution falls precisely into place. Product developers will benefit from the expertise of the Siemens and Bentley Systems solution partnership and their eyes will be opened to the future of orchestrating product monitoring, design, and manufacturing.

About CIMdata

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Acquisitions

VistaVu Solutions Acquires BPBD and their SAP Business ByDesign Company

5 December 2017

VistaVu Solutions, Ltd. is pleased to announce that they have acquired BPBD, LLC a SAP Business ByDesign systems integration and management consulting company based in the United States.

The acquisition of BPBD includes professional staff, and existing accounts. This transaction represents the second acquisition this year for VistaVu. These acquisitions support VistaVu's plans for growth and confirms a commitment to become one of the leading software companies in North America. As both entities are privately held, financial details of the transaction will not be disclosed.

"We are excited about this acquisition. BPBD has a reputation within the Business ByDesign community as being a great service organization. They bring an established customer base and a team of experienced and knowledgeable Business ByDesign experts, and this expertise will help to extend and enhance our product and service offerings," states Jory Lamb, Founder and CEO of VistaVu Solutions.

BPBD's CEO Hans Hansen also stated, "We are pleased to join forces with a company as highly regarded as VistaVu. This acquisition will dramatically strengthen our global Business ByDesign practice and deliver greater resources to our customers and prospects."

The integration of BPBD into the VistaVu Solutions team will take place over the next several weeks. During this time, customers from both organizations will continue to receive the same high-quality service and support they have come to expect from BPBD and VistaVu Solutions.

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Company News

ANSYS Simulation Technology Enables Ferrari to Race Past the Competition

5 December 2017

With <u>ANSYS</u> engineering simulation technology behind the steering wheel, Ferrari raced past the competition to win the Manufacturers' and Drivers' World Championship titles and the Team's Trophy in the FIA World Endurance Championship (WEC).

Securing its fifth WEC constructor's title and twenty-fourth overall, Ferrari uses ANSYS computational fluid dynamics (CFD) solutions to maintain best-in-class endurance-oriented aerodynamic performance. With ANSYS, the engineers can maximize downforce, minimize tire degradation and optimize airflow around the car to keep critical components within the ideal temperature operating ranges — essential elements for outpacing competitors.

"With race times lasting anywhere from six to 24 hours, speed and reliability are critical factors for cars competing in the WEC to achieve success and see the checkered flag," said Ferdinando Cannizzo, Ferrari Competizioni GT technical coordinator. "ANSYS enables our team to quickly test multiple configurations between each lap and provides accurate insight — empowering our team to improve our speed and reliability in real time."

"Our team has worked with Ferrari for more than 20 years and we continue to be inspired by their drive for innovation and excellence," said Sandeep Sovani, director, industry marketing at ANSYS. "ANSYS simulation technology combined with Ferrari's world-class products and drivers create an unstoppable force on the track, we look forward to many more trips around the track together."

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Capgemini Opens Global Delivery Center in Columbia, SC's BullStreet District

6 December 2017

Capgemini today announced it has opened a new delivery center at The BullStreet District in Columbia, SC, known as the largest urban redevelopment project east of the Mississippi River. Capgemini will service its insurance clients interested in implementations of Duck Creek Technologies1 software but will also provide services on other insurance and cross-industry implementations. The new Columbia delivery center is Capgemini's first location in the state of South Carolina with 125 employees already assigned to the center.

The new delivery center is designed to operate in the new world of DevOps and the distributed Agile model. With the objective of fostering collaboration through technology and workplace design, it is a future-forward model for digital delivery.

Sam McGuckin, Executive Vice President and Head of Capgemini's Columbia Delivery Center, said, "Capgemini selected The BullStreet District in Columbia as the site of its latest delivery center partly because of its acquisition of Columbia-based TCube Solutions. BullStreet is the state's first urban gigabit community in a city that has a growing reputation as an IT hub. We are excited about being a part of the dynamic BullStreet District."

Capgemini acquired Columbia-based TCube Solutions in February 2017 due to its focus on Property and Casualty (P&C) insurance software and services to complement its alliance partnership with Duck Creek Technologies. TCube Solutions employees have been folded into Capgemini and as the delivery center's work expands, it is expected that additional IT resources will be hired.

"It is a bright day for Columbia and The BullStreet District as we add Capgemini's Delivery Center as

another company choosing our city to open up new operations," said Steve Benjamin, Mayor of Columbia. "Capgemini is a large global company who works with many leading companies around the world on IT implementations and business transformation. Choosing Columbia and the BullStreet District means that our IT skills are on the global stage."

Capgemini also selected Columbia for its proximity to the University of South Carolina, who will provide potential new IT resources as well as innovation. "The University thrives when innovative tech companies like Capgemini are our neighbors," said USC President Harris Pastides. "Maintaining strong relationships with local private sector companies opens up research and employment opportunities for our students and graduates in high-demand fields."

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Electronic® PLM by Minerva helps Racal Acoustics reduce file management time by 600%

5 December 2017

By implementing the industry-specific Electronic® PLM solution by Minerva and Aras, the technology company saw a dramatic reduction in time spend on managing electronic drawings.

Racal Acoustics produces in-the-ear headsets, press-to-talk devices, field telephones and handsets, all specifically tailored to military, paramilitary, and first responder markets.

Operating in an industry driven by innovation requires a high level of efficiency of processes and responsiveness to the new technologies in the niche. Thus, it was of high importance for the Racal Acoustics' team to eliminate all ineffective procedures that doesn't add value and increase the time to market of their products.

With the growth of their portfolio, they increased the volume of data and files they had to work with. Rather often, assembly information was lost due to splitting the information into different files. Therefore, the need for CAD management - along with PLM - for configuration management was greater than ever.

"Information was often lost because it was not linked to the initial CAD, and CAD itself became corrupted because we had to separate files into individual part numbers, so some assembly information was lost," says Chris Moore, Head of Product Development at Racal Acoustics. He continues: "It was taking 4 to 6 weeks to release the product because of the process. We looked at that process and we found that we had up to 26 steps in the process, of which 18 did not add value. But we had to do it because of the way we handled our files."

The solution was found

Part of the Esterline Corporation, Racal Acoustics serves a global customer base with unique needs in various changing markets. Therefore, the company needed a solution to improve their efficiency of controlling engineering drawings and improving their time-to-market time.

After a lengthy research phase, Racal Acoustics chose the Aras Innovator. The Electronic® PLM solution was chosen on top of the Aras platform because it covers 95% of their requirements.

"The company had run several feasibility studies between 2006 and 2014 of which all stated that we need to move towards PLM to improve our efficiency of controlling engineering drawings. All of those

feasibility studies pointed to the use of Aras as being the most cost-effective product for a company of our size," says Chris Moore.

"The improvement is even higher than 600%"

As he previously concluded in his research, the implementation of the Electronic® PLM and Aras will lead to significant efficiency improvements in managing electronic drawings as well as in producing data pack's.

"I predicted about a 600% efficiency saving in the management of electronic drawings and I believe I have achieved something like that. If I am pulling a product from the past and trying to do modification on it, the improvement is even higher than 600%," says Chris Moore. He continues: "I have also improved the production of the data pack by taking the manufacturing data from the PLM system and producing a single ZIP file that I can send to the manufacturer. I did that by using Aras and Excel. The efficiency of producing data packs increased by over a thousand percent because now, we have it at the press of a single button."

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Evolution of fashion professions at heart of Lectra's 8th education congress

5 December 2017

Lectra recently welcomed partners from the world of education to the company's Bordeaux-Cestas campus for its eighth education congress. The event was dedicated to the mega trends shaping the fashion industry and impacting professions from design to production.

Over fifty representatives from among the most important fashion schools in Germany, Canada, China, USA, France, Hong Kong, Italy, The Netherlands, Poland, United Kingdom, Switzerland and Sweden, participated in this biannual meeting between industry experts and teaching professionals.

Fashion professions are evolving as companies make their first steps towards Industry 4.0, adopting 3D and rationalizing the lifecycle management for their collections thanks to PLM. Lectra's congress enabled schools to discuss the developing role of designers and patternmakers, and the new elements to be integrated into training programs.

Lectra illustrated future changes through presentations on design, patternmaking, 3D prototyping, and PLM.

"It is fundamental to bring innovation experts in the industry together with fashion schools, because students will drive the evolution of this industry," stated Pascal Denizart, Managing Director of the Centre européen des textiles innovants (CETI).

Working with schools to design courses which meet the needs of fashion companies has always been at the heart of Lectra's education program. During the event, the company presented collaborative experiences between partner schools and fashion brands, such as the competitions organised by Lectra with Missoni, Balenciaga, and Armani in Italy, as well as Peacebird in China and JC Penney in the

United States.

In the United Kingdom, Lectra collaborated with COS (H&M group) and the Arts University Bournemouth (AUB) for a competition centred on the design of a collection with zero waste.

"The process was totally digital, from design to the creation of a virtual prototype in 3D. Our students learnt to optimize each stage of the process. By leveraging the use of Kaledo®, Modaris® and Diamino®, the collaborative work between AUB, COS and Lectra is exactly the type of project that enormously motivates our students. Live briefs developed with leading fashion brands and Lectra offer excellent opportunities which directly inform industry currency and student employability," explained Penny Norman, a lecturer at AUB.

The event also shone the spotlight on China and its major role in the evolution of the fashion industry. Li Min, Vice-Dean of the fashion and design faculty at Donghua university in Shanghai spoke of the event, organized by Lectra, which brought together major Chinese companies, experts, and representatives from the biggest schools in China.

"Exchanges on the impact of the Made in China 2025 plan on the fashion industry can better prepare students for tomorrow's professions, where digital and automation will occupy a far more central position than today," testified Li Min.

"The fashion industry is evolving so fast that sharing insights and best practices with experts and other fashion schools has become vital to ensure we offer the best learning experience and technology tools to our students," said Dr. Trevor J. Little, Professor of Textile and Apparel, Technology and Management in the College of Textiles at NC State University.

"Lectra's eighth education congress confirms the company's commitment to our partner schools. We shared our analysis of the market, the digitalization of the eco-system, and how Industry 4.0 principles can be applied to the fashion industry. We also discussed mass customization and the role of PLM. While these are key subjects for our customers, many schools are only now approaching them. We are preparing tomorrow, today: Lectra is supporting our customers, and schools to play an essential role," concludes Céline Choussy Bedouet, Chief Marketing and Communications Officer, Lectra.

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FACTON User Group Launches New Communications at North America Conference

7 December 2017

FACTON held its semi-annual North America User Conference in Royal Oak, Michigan, on November 9, 2017. The conference was attended by nearly 60 customers and partners, with presentations by FACTON customers: TI Automotive, TE Connectivity and P3, with a display by Mobsteel/Detroit Steel Wheel Co. (see photo).

FACTON Chief Executive Officer Alexander M. Swoboda said, "Our user conference has become one of the premier gatherings of cost estimators, financial managers, sales executives, and procurement experts who focus on the impact of costing on their business profitability and success. We look to

continue growing the attendance and the impact of these conferences as we make plans for 2018 and beyond."

Also at the conference, North America FACTON User Group President Brent Streeter, Sr. Finance Manager of TE Connectivity, presented the new FACTON North America User Group Newsletter, LinkedIn group for collaboration and FACTON Product Management methods for easier customer collaboration. Streeter said, "These newly introduced communication and collaboration methods will provide a means for users to share advice on best practices, as well as a forum for information on functionality and future direction of the enterprise product costing solutions."

The next FACTON user conference is scheduled for May of 2018.

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HCL and Siemens Partner on Industry 4.0 Solutions

5 December 2017

HCL Technologies (HCL) has entered into a strategic partnership with Siemens on Industry 4.0 solutions, with a strategic collaboration on the Siemens Industry Software Suite. The global partnership with Siemens on Mindsphere, a cloud–based open Internet of Things (IoT) operating system, comprises technology, application development, connectivity solutions, system integration and go–to–market strategy.

"We are seeing traction in Industry 4.0 initiatives as our Manufacturing customers leverage automation, cyber–physical systems and IoT technologies to create 'smart' ecosystems. This collaboration comes as a proof of our leadership in the segment and lends further credibility to our market positioning in the Industry 4.0 space," said G.H Rao, President, Engineering and R&D Services, HCL Technologies.

"We believe HCL is a strong partner, who brings scalability and a global footprint to the table. The HCL offerings seamlessly fit into our industrial products and platform range, making HCL a strategic and natural partner of the digital product and solution organisation of Siemens," said Paul Kaeley, Senior Vice President, Global Partner Eco-system, Siemens PLM Software.

HCL can now take Siemens' MindSphere solutions to their customers across multiple sectors. Together with Siemens, HCL will work on the development and innovation on this platform, strengthening its positioning in the market. During key industrial and IT events, several joint collaboration activities with Siemens will be conducted.

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Infosys appoints Salil S. Parekh as CEO and Managing Director

2 December 2017

Infosys announced that its Board of Directors has appointed Salil S. Parekh as Chief Executive Officer and Managing Director (CEO & MD) of the Company effective January 2, 2018.

Commenting on the appointment of Mr. Parekh, Mr. Nandan Nilekani, Chairman of the Board said, "We are delighted to have Salil joining as the CEO & MD of Infosys. He has nearly three decades of global experience in the IT services industry. He has a strong track record of executing business turnarounds and managing very successful acquisitions. The Board believes that he is the right person to lead Infosys at this transformative time in our industry. The Board is also grateful to Pravin for his leadership during this period of transition."

Ms. Kiran Mazumdar-Shaw, Chairperson of the Nomination & Remuneration Committee, stated, "After a comprehensive global search effort, we are pleased to appoint Salil as the CEO & MD. He was the top choice from a pool of highly qualified candidates. With his strong track record and extensive experience, we believe, we have the right person to lead Infosys."

Mr. Parekh joins Infosys from Capgemini where he was a member of the Group Executive Board. He has Master of Engineering degrees in Computer Science and Mechanical Engineering from Cornell University, and a Bachelor of Technology degree in Aeronautical Engineering from the Indian Institute of Technology, Bombay.

Mr. U B Pravin Rao will step down as the interim CEO and Managing Director effective January 2, 2018 and will continue as Chief Operating Officer and a whole-time Director of the Company.

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JDA and KPMG Align to Rapidly Accelerate Digital Supply Chain Transformations

6 December 2017

JDA Software Group, Inc. and KPMG LLP today announced a strategic alliance to empower manufacturers and wholesale distributors to help accelerate their supply chain strategies and harness digital transformation initiatives. JDA and KPMG have recently collaborated on a number of successful joint customer deployments, including Mattel and newly signed customer, Adient.

"This announcement signifies our formal alliance with KPMG to deliver a more responsive and dynamic supply chain to our customers. Together, we provide improved visibility and shared insights into supply and demand information, while improving profits," said Cary VandenAvond, regional vice president, manufacturing, distribution and 3PL, JDA. "With KPMG, we are delivering transformative supply chain management projects that take advantage of the latest in digitalization technologies, including big data, predictive analytics, mobility and the Internet of Things (IoT)."

Today's sophisticated and demanding customer expects transparency, low costs and high levels of service, all while realizing new levels of efficiency across their supply chain. To help address these issues, the alliance combines KPMG's leading design, change management and testing capabilities with JDA's advanced demand-driven, integrated manufacturing supply chain technology. The transformational improvements and real-time information help manufacturers reduce costs, increase asset productivity, and improve cross-functional planning and execution across their agile supply chains.

"The challenge for today's enterprise is deciding which transformative path to take and where to start, while considering the entire value chain as part of an assessment and change initiative," said Brian Higgins, U.S. supply chain practice leader, KPMG. "Our alliance with JDA is a powerful combination to help our clients formulate a strategy, define requirements and execute a cohesive plan to meet this

challenge."

The KPMG and JDA alliance provides customers with the following potential benefits:

- Sustained competitive advantage by providing customers with better value, and enhancing their purchase and delivery experience
- Improved visibility and insight into supply and demand so customers can best manage planning and fulfillment
- Better financial results—including profits—through streamlined supply chain management
- Rapid ROI with cost savings up to 10 percent during the first year, and reductions in planning cycle time by up to 50 percent, while efficiently fulfilling demand
- Improvements on the perfect order rate by up to 15 percent, with associated reductions in rework

Adient, the global leader in automotive seating, recently selected KPMG and JDA® Enterprise Supply Planning, JDA® Sales & Operations Planning and JDA® Inventory Optimization for business process, technical design, configuration, change management and testing as it overhauls its processes for a transformative, digitalized supply chain.

"We opted for KPMG and JDA to drive our supply chain transformation initiative at Adient, as they provided a powerful combination of strong automotive experience, deep manufacturing industry knowledge and best-in-class supply chain planning solutions," said David Dorgan, vice president of global supply chain, Adient. "KPMG's broad project and operations experience, and JDA's technology solution, will help us shift from reactive to proactive planning and execution as we develop a revitalized, agile and responsive end-to-end supply chain planning solution."

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New CONTACT white paper: understanding data science

5 December 2017

Modern analytics is a decisive success factor for service-oriented business models in the Internet of Things (IoT) and for Industry 4.0. A new white paper from CONTACT Software explains the state of data science and shows what the latest methods can achieve in practice.

In recent years, interest in analytical methods for data exploration has increased enormously. Drivers of this development are huge data collections (big data), breakthroughs in algorithmic research, the general availability of large storage and computing capacities at sharply decreasing costs, and currently the increasing number of devices connected with the Internet of Things (IoT).

These factors have contributed to the fact that the new term "data science" has emerged as an independent science alongside the classical curriculum of statistics. "It is becoming more and more important for companies to understand the current analytical hype and take appropriate measures," says Dr. Udo Göbel, author of the new white paper and member of the board at CONTACT Software. Here, the manager sees above all a challenge for the technology leaders in their respective markets, as they are particularly exposed to the driving megatrends.

Analytics is a complex field of expertise with many facets. Information seekers are therefore at risk of

getting lost in details due to the large number of publications. CONTACT's new white paper provides a good overview to the topic. "We concentrate on describing the most important factors influencing the past, present and future development of this area so that the reader can assess the significance of the topic and, if necessary, delve deeper into it," explains Göbel.

The free white paper can be <u>downloaded</u> from the CONTACT homepage.

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OpenText Expands Operations in India

4 December 2017

OpenText™ announced that it would seek to grow its employee base in India, hiring computer and software engineers in both Hyderabad and Bengaluru. OpenText has also announced the opening of a new 140,000 square foot office in Bengaluru.

With offices in Hyderabad, Bengaluru, Pune, Delhi, and Mumbai, OpenText has a total workforce in excess of 2,200 employees in India working on next generation technology across Information Management, Business Networks, IOT, Security, and AI. OpenText supports a range of customers including six of India's largest life science companies, leading banking and financial services organizations, global manufacturers, as well as telecom, utilities, and government and public sector organizations.

With a decade of experience, OpenText's India workforce are skilled software engineers and professional services experts, working on core product innovations across OpenText's EIM portfolio.

"India is hugely important to OpenText and core to the operations and success of our global business," said Mark J. Barrenechea, vice chairman, CEO and CTO, OpenText. "We are privileged to have access to such a talented workforce in Hyderabad, Bengaluru, and in other cities, helping OpenText to build software that will drive the future of digital. I am honored to be in India this week with our employees, customers, and partners."

"The world is changing at an incredible pace, and the opportunities for Indian businesses to grow, differentiate, and compete have never been more dramatic than they are today," continued Barrenechea. "By combining enterprise information with the Internet of Things, artificial intelligence, extreme automation, and hyper-connectivity, OpenText is helping our customers to drive strategic business transformation by harnessing the power of their information."

OpenText employees in India work closely with engineers, computer scientists, product, and professional services experts across the company's global offices including OpenText's Headquarters in Waterloo, Ontario, Canada; San Mateo, California, USA; and Munich, Germany.

Isaac Rajkumar, Managing Director, OpenText India commented, "Across all OpenText business units, from our core technologies of enterprise content management, customer experience management, and business process management (BPM) to OpenText's latest innovation in artificial intelligence, low-code development and business networks, our engineers, professional services, and customer support teams in India have been instrumental in the success of OpenText and our customers."

"OpenText is recognized as a global leader in Enterprise Information Management, and we are delighted to partner with them not only in India, but around the world," commented Krishnan Ramanujam,

President, business & technology services, Tata Consultancy Services (TCS). "OpenText's commitment to the Indian market, and its impressive talent across engineering, professional services, and customer support, will enable OpenText and TCS to develop and deliver innovative solutions that allow our shared customers to realize their digital ambitions."

In addition to the company's world-leading engineering and professional services capabilities in India, OpenText has an established commercial operation with offices in Delhi and Mumbai. OpenText is helping leading Indian organizations such as Wockhardt Ltd., Glenmark Pharmaceuticals, Cipla Limited, The Tata Power Company Limited, Tata Power-Delhi Distribution Ltd., and DHFL Pramerica to define and drive their digital transformation strategies.

Innovative insurance provider DHFL Pramerica Life Insurance has been working with OpenText in India on a large-scale digital transformation project that has digitized key business processes, customer, and partner experience and service delivery. Anoop Pabby, Managing Director & CEO of DHFL Pramerica Life Insurance commented, "DHFL Pramerica's close partnership with OpenText has enabled the company to realize our strategic ambitions and drive the process of digital transformation across the organization. Our customers are demanding a dynamic digital experience, and working with OpenText is key to shifting our operations to a digital-first approach and helping DHFL Pramerica to manage our rapid growth."

India is also home to OpenText's Professional Services Center of Excellence, a vital element in ensuring successful deployment of customer solutions worldwide.

"OpenText's rapidly growing Professional Services Center of Excellence in India employs over 500 consultants and engineers, solely focused on solving the complex digital transformation challenges facing our customers," commented Manoj Nagpal, Vice President, professional services, OpenText India. "Our rapidly growing team provides a range of expert services that cover the full software and services lifecycle, including project management; consulting and implementation; managed services; custom development and quality assurance."

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TCS and Cornell Tech Inaugurate the Tata Innovation Center, Partnership on Campus to Promote Joint Academic and Industry Research

4 December 2017

Tata Consultancy Services, a global IT services, consulting and business solutions organization, announced a new partnership with Cornell Tech, the first university campus designed for the digital age, to collaborate on technology research and expand K-12 digital literacy programs in New York City.

As part of the new partnership, Cornell Tech has today inaugurated the Tata Innovation Center on its campus following a \$50 million investment in the University from TCS. The center, formerly known as The Bridge, brings academia and industry together under one roof to share ideas and research on next-generation digital technologies and how to commercialize new areas of collaboration.

"Tata group and TCS have a long and celebrated history of investments in education and institution building in the communities in which we operate," said **Natarajan Chandrasekaran**, **Chairman**, **Tata Group**. "The Tata Innovation Center will drive applied research and collaboration between Cornell, industry and the startup ecosystem in emerging areas including human machine interaction, and cyber

security, benefitting both US business and local communities."

"The Tata Innovation Center will become a hub for New York's tech sector and a global icon for how academia and industry can collaborate to leverage technology for the greater good," said **Martha E. Pollack, Cornell University President**. "Cornell Trustee Ratan Tata '59, BArch '62 and the Tata family of companies have long supported innovation at Cornell; our new partnership with Tata Consultancy Services will drive innovation at Cornell Tech and help the campus reach its full potential for education, research and societal impact."

"New York City has been proudly partnering with TCS for years, including their sponsorship of the TCS New York City Marathon, work with local schools, and so much more. TCS' new partnership with Cornell Tech will help drive New York's economic competitiveness and advance digital literacy programs to reach even more schools across the city. Through this critical engagement, Computer Science for All, the Tech Talent Pipeline, and more, we are working to keep New York City a leader in the 21st century economy and ensure that everyone has the opportunity to share in the growth and success of the tech industry," added **Bill de Blasio, New York City Mayor.**

Tata Innovation Center

TCS will become one of the tenants in the Tata Innovation Center, a first-of-its-kind building where an extraordinary mix of cutting-edge companies from diverse industries have the opportunity to work alongside groundbreaking Cornell academic teams. They include recent Cornell Tech graduates seeking to commercialize new ideas and work with start-ups and established companies developing leading edge technologies and products. The building features meeting areas on each level, including a light-filled, multi-level Tech Gallery and a rooftop terrace sheltered by a solar trellis. The building was developed by Forest City New York and designed by WEISS/MANFREDI.

The new Cornell Tech campus on Roosevelt Island opened in September 2017, designed to combine the potential of academia and industry to create pioneering leaders and transformational new research, products, companies, and social ventures.

"TCS has operated in New York City for more than 40 years and invested in many long standing customer relationships and local community partnerships," said **Rajesh Gopinathan**, **CEO and Managing Director**, **TCS**. "Our joint research with Cornell Tech is designed to fully leverage their campus ecosystem and TCS' industry leading technical expertise to develop solutions that empower notable transformation and talent development across industries in an era of Business 4.0."

"Cornell Tech serves as a model for the campus and community of the future," added **Congresswoman Carolyn B. Maloney**. "Already, young people are receiving a world class education in computer science and cutting edge training in how to become entrepreneurs. I am delighted that the Tata Innovation Center will stand as a reminder to our community for generations to come of the extraordinary generosity of the Tata Group and TCS, which enables new joint research and K-12 literacy programs, which I know will help lead us into the future."

"The Tata family and TCS have long been drivers of innovation as one of the world's leading IT services organizations, and we are thrilled to have their name grace the building and be a tenant," said **MaryAnne Gilmartin, President and CEO of Forest City New York**. "The Tata Innovation Center breaks down all barriers to innovation and collaboration, with a diverse group of tenants working alongside groundbreaking Cornell Tech academic teams. The building is a key component of the mission of Cornell Tech and driving economic growth for New York."

Cutting-Edge Collaborative Research

Cornell Tech's academic environment encourages tight integration across disciplines, couples fundamental research with practice, and supports societal and commercial ventures alongside education.

A distinguishing characteristic of Cornell Tech's research is that it engages deeply with external communities, organizations and industry to address real-world problems. TCS will collaborate with Cornell Tech's world-class faculty on cutting-edge research in **human-computer interaction** (the convergence of technologies such as Mixed Reality and IoT in everyday human activities) and **cyber security** (improving cloud computing security and privacy aspects for a wider Blockchain adoption).

"Cornell Tech stands apart because of our focus on academic excellence, coupled with real-world impact, and this new partnership with TCS will dramatically improve our ability to make a difference, from commercializing research to engaging with public school students across New York City," said **Dan Huttenlocher, Dean of Cornell Tech**. "TCS shares our vision of ensuring all students and teachers have meaningful engagements with computer science in the classroom, and with their help we will reach even more schools."

Commitment to K-12 Education

To empower NYC youth to participate and thrive in an increasingly digital world, TCS and Cornell Tech have joined forces to promote the integration of computational expertise in K-12 public education, starting with engagement in NYC School Districts 2 and 30. This multi-year community engagement effort aims to build digital fluency and computational acumen among students, educators and schools in the nation's largest public school system, with a special focus on girls, minorities and the underserved.

TCS will leverage Cornell Tech's academic expertise to design education programs that introduce students to new digital technologies such as Artificial Intelligence (AI), Blockchain and Cybersecurity. Cornell Tech will leverage TCS' industry expertise and host their Ignite My Future in School program for educators across all five boroughs, starting with two New York City school districts in January 2018. Additionally, TCS will also offer its award winning flagship education program, goIT, to students and schools served by Cornell Tech's K-12 initiative.

"Cornell Tech and TCS are to be commended on their unique collaboration, particularly in relation to the planned enhancement of computational skills for New York City public school students. Such skills are highly applicable to the digital world in the workplace and in contemporary knowledge transmittal as well as creation. Today's announcement is indeed momentous," said **Assembly member Rebecca Seawright.**

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Events News

Okuma Winter Showcase Highlights GibbsCAM and Other Industry Leading Technologies

1 December 2017

At this year's Okuma Winter Showcase, GibbsCAM by 3D Systems will join with Okuma, and partners in THINC, Canon Engineering, Edge Technologies, Memex, SMW Autoblok, Velocity Su-Matic, and Praemo to collaboratively show the entire manufacturing process starting from raw material to a finished

part.

Those attending the Okuma Winter Showcase will witness the intuitive GibbsCAM user interface and see how our factory post processors create accurate, error free code. When programming the Okuma LB3000 EX, GibbsCAM advanced Machine Simulation technology ensured the tool motions were safe and efficient through the entire run of the part. GibbsCAM fixture avoidance provided confidence when moving from the main to the rear spindle for additional machining. GibbsCAM makes programming the utility operations on the Okuma LB3000 EX like the bar feeder fast and easy.

GibbsCAM has been an industry leader in CAM for over 30 years with a scalable system providing the tools to program parts faster and reduce machine time with innovative toolpath strategies for both milling and turning. With a huge library of over 13,000 error-free post processors for Okuma and other machine tools, GibbsCAM enables you to have confidence in what you are sending to the machine.

Make plans to see GibbsCAM in collaboration with Okuma and other partners in THINC during the Okuma Winter Showcase December 5 and 6 at Okuma America and Partners in THINC headquartered in Charlotte, NC.

Click here to learn more about the Okuma Winter Showcase and to register.

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Financial News

Infor to Hold Investor Conference Call to Discuss Q2 Fiscal Year 2018 Results on Tuesday, December 12, 2017

6 December 2017

<u>Infor</u> today announced that it will host an investor conference call to discuss Q2 fiscal year 2018 results for current holders of Infor securities and other interested parties on Tuesday, December 12, at 11 a.m. Eastern time. Materials and dial-in details will be available at http://www.infor.com/company/infor-investors-relations/ after 9 a.m. Eastern time on Tuesday, December 12.

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Oracle Sets the Date for its Second Quarter Fiscal Year 2018 Earnings Announcement

7 December 2017

Oracle Corporation today announced that its Second quarter fiscal year 2018 results will be released on Thursday, December 14th, after the close of the market. Oracle will host a conference call and live webcast at 2:00 p.m. Pacific Time to discuss the financial results. The live webcast will be available on the Oracle Investor Relations website at www.oracle.com/investor.

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Implementation Investments

6 River Systems Selects Omnify Software for Seamless Communication with Contract Manufacturing Partner

5 December 2017

Omnify Software announces that 6 River Systems (6RS), a warehouse robotics startup, has selected and implemented the Empower PLM solution in order to replace paper-based processes for the development of their next generation warehouse robotic platform.

6RS was ramping up a new Contract Manufacturer (CM) while developing the next generation of their robotic platform. They were using spreadsheets and shared file folders, making it difficult to share product information across internal and external teams. They needed a new system to document and control all product lifecycle information and ensure clear communication of information. The system also had to provide complete and detailed Bill of Materials (BOMs) and Engineering Change Orders (ECOs) to their CM.

"We participated in demonstrations of several Product Lifecycle Management systems and Omnify's interface was significantly more intuitive than the other solutions," stated Tim Higgins, Director of Hardware for 6 River Systems. "We were also impressed with the speed and security of the web hosted option."

Omnify Empower is an easy to use, scalable, and configurable solution that is ideal for companies like 6RS. The system can be deployed on-premises or in the cloud. 6RS was able to get up and running quickly with a hosted deployment. Their CM has secure access to the Empower PLM system and the intuitive user interface made it easy for the CM to understand the system and review BOMs and ECOs.

"We are seeing an increase in growing robotic companies like 6 River Systems adopting our technology to either replace paper-processes and systems that they are outgrowing or who want to start off with an electronic system to ensure best practices from the beginning," stated Dave Solimini, Vice President of Sales for Omnify Software. "Either way, these customers reap the benefits of a centralized product record with automated processes early on and can be confident they have a PLM solution that will scale with them as they grow and provide the features they need for design and development of today's complex products."

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Future Group Successfully Deploys End-to-End Merchandise Lifecycle Management Solution from TXT Retail, an Aptos Company

8 December 2017

TXT Retail, an Aptos Company, today announced that Future Group, one of India's leading business conglomerates, has successfully deployed TXT Retail's End-to-End Merchandise Lifecycle Management solution across its Big Bazaar chain, India's most popular hypermarkets, and its fbb fashion retail stores in 220 Indian cities.

Future Group now manages, with TXT Retail, the complete spectrum of its merchandising processes: merchandise financial planning, assortment planning, open-to-buy, allocation and replenishment for

more than 45,000 product options. The project, which involves 100 users across the organization, has been a joint delivery with Ptex, TXT Retail's implementation partner in India.

Future Group is home to some of the leading consumer businesses in India. It owns and markets over 100 brands in the food, FMCG, fashion and homeware segments that cater to almost every category and consumer segment in the country. The group also operates in over 17 million square feet of retail space, which includes the country's most popular retail chains including Big Bazaar, EasyDay, Heritage, Nilgiris, FBB, Central, Brand Factory, eZone and Home Town, among others that collectively attract over 400 million customer visits annually. Big Bazaar is ranked 14th among the Most Trusted Brands in the country, as adjudged by Nielsen-The Economic Times surveys.

"The successful go live at Big Bazaar and synergies between our companies prove that partnering with TXT Retail to support our growth has been the right choice," comments Rakesh Biyani, Joint Managing Director at Future Group. "With the extensive socio-economic changes that India has undergone in the last decade, consumers' needs and requirements are evolving fast. TXT Retail's end-to-end planning capabilities help translate the deep understanding of the Indian society that our group has developed into precise merchandising decisions and tailored assortments to our customers."

TXT Retail supports Future Group to set its global collection targets and to derive the best buying and assortment plans to meet demand. Additionally, TXT Retail's forecasting, allocation and replenishment capabilities provide the tools to optimize in-season merchandise management and inventory levels across products and locations.

With the go live at Big Bazaar, the deployment of TXT Retail is now being extended to Future Group's complete retail portfolio, including Central department stores and Brand Factory — India's largest fashion discount store chain. "A big benefit of the project is the standardization and orchestration of the end-to-end merchandising process. It is a model that we will replicate throughout our business," notes Biyani.

"We are excited about the success at Big Bazaar and proud to support the long-term vision and transformational journey of a smart, committed retailer such as Future Group," states Zaki Hassan, Regional Vice President Asia, at TXT Retail, an Aptos Company. "This go live marks another important milestone as we keep expanding our customer base and investments in the Asia-Pacific region, and reinforces that sound merchandise lifecycle management practices are critical to global and regional retailers."

Future Group leveraged the TXT AgileFit deployment methodology which accelerates deployment and time to benefit thanks to reference processes and a pre-configured optimized solution framework honed through TXT Retail's experience with hundreds of customers globally.

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KTM Meets Company Growth Challenges by Expanding PTC CAD and PLM Environment, Deploying ThingWorx Navigate, and Embracing the PTC Subscription Model

7 December 2017

PTC today announced that KTM has significantly increased its use of Creo® software and Windchill® software. KTM also selected ThingWorx® NavigateTM role-based apps for company-wide data management and fast and easy departmental access to relevant Windchill data. The extended

portfolio enables KTM to increase productivity to achieve its continued growth targets. Additionally, KTM has switched to PTC's subscription licensing model to facilitate cost and planning flexibility.

KTM, the leading manufacturer of sport motorcycles in Europe, exceeded €1 billion in revenue for the first time in 2015 and plans to continue its strong growth pattern into the future. Under the philosophy "READY TO RACE," the company designs both its KTM and Husqvarna Motorcycle models entirely with PTC solutions. Compared to other manufacturers, a key design differentiator for KTM lies in its comprehensive internal development; engine, chassis, suspension components, and many other parts are developed in-house. Additionally, KTM is the only manufacturer that uses the same CAD system for engine and chassis design. This tight control over development promotes the optimization of each part with a focus on maximum performance. Since 2001, KTM has repeatedly won the grueling Dakar Rally, which further evidences the success of its strategy.

"KTM always pursues innovation and proximity to customers in order to improve our models with each new series," said Philipp Habsburg, director development, KTM. "Product development has to keep up with the times. For example, we have to transfer parts or technologies that have been proven in our racing series into our serial models within a very short timeframe. This requires software solutions that are both flexible and powerful, but also make the work simpler at the same time. ThingWorx Navigate is the additional tool we needed, as it provides the exact information required by each department and reduces the complexity of the PLM system, enabling our teams to be more productive. And, thanks to the subscription model, we can respond faster and with more flexibility as our company continues to expand."

"Facing the challenges of fast and strong growth is a good problem for KTM to have," said Kevin Wrenn, divisional general manager, PLM Segment, PTC. "Extending its use of Creo and Windchill, and introducing ThingWorx Navigate, will enable KTM to streamline and accelerate product development. Access to the most up-to-date product information will enable stakeholders across the organization to make better, faster decisions for both KTM and their customer base."

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PROS Expands Relationship with Siemens Building Technologies

5 December 2017

PROS® today announced an expanded relationship with the Siemens Building Technologies Division, with plans to implement PROS Smart CPQ in 15 countries in the Division's European region.

Building Technologies (BT) is a leading developer and provider of products, system solutions and services for building automation, energy efficiency and safety. BT's innovative building-technology solutions are keeping pace with on-going digitalization of all processes in buildings. This creates perfect places for the people who live and work in these buildings.

"In today's market, our customers are looking for speed and transparency when they come to us for quotes. That places increased pressure on our sales teams to respond far more quickly and with greater accuracy," said Sebastien Bey, Senior Vice President and Head of Information Technology at Siemens Building Technologies. "PROS Smart CPQ is a strategic differentiator that enables us to respond faster to customers across our markets. With the help of PROS Smart CPQ and our collaboration with PROS, we're able to provide our sales teams with a flexible quotation structure, personalized texts and

predefined templates in a web-enabled user interface. With PROS Smart CPQ, sales teams can deliver high-quality, fast quote returns to meet the demands of these fast-changing markets."

PROS Smart CPQ automates and simplifies configuration, pricing and quoting processes for sales teams, empowering them to instantly create accurate, personalized solutions for each customer to deliver the most profitable and compelling offers. Using artificial intelligence and machine learning, PROS dynamic pricing science provides prescriptive insights into willingness-to-pay at the individual customer level, giving sales teams the ability to offer the right product at the right price in real-time for every customer.

"The pace of change in the digital era requires companies to respond to customers across all of their channels with far greater speed and accuracy using a modern commerce strategy," said PROS Vice President, Professional Services, Sebastian Mamro. "PROS Smart CPQ leverages advanced machine learning and AI technology, enabling our customers to create personalized and frictionless buying experiences, which is today's standard for competing and winning. Siemens Building Technologies is a leading company for innovative building technology. Our customers rely on our partnership approach, which helps drive their success. We appreciate their confidence in selecting PROS for this strategic project."

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Product News

Arena Solutions Partners with BrightReps to Connect Customer Feedback to Product Development and Quality Processes

5 December 2017

Arena Solutions today announced a partnership with BrightReps that enables customer support teams to build, organize, and use process flows with powerful integrations through their app, SidekickTM.

BrightReps Sidekick streamlines communication between customers, support, and product teams to deliver innovative solutions and proactive service and is available through the Salesforce AppExchange® and Zendesk Apps Marketplace. Providing an intuitive user experience for customer support teams that allows them to instantly share information with Arena product and quality processes, Sidekick addresses customer needs throughout the product lifecycle. Sitting inside CRM applications such as Zendesk and Salesforce, it runs seamlessly alongside the support record screen.

"This integration with Arena makes it easy for customer support to initiate quality issue reviews and stay updated on the current status," said Mike Moone, Chief Executive Officer of BrightReps. "Sidekick helps ensure that quality professionals and engineers have the necessary information within Arena to drive immediate resolution."

With this integration, support and product development teams can work together more efficiently. Support, engineering, manufacturing, supply chain partners, and quality teams can collaborate in Arena to understand, reproduce, and resolve support issues.

"Leveraging the BrightReps integration to Arena, we've been able to streamline the processes that alert product teams, improving our efficiency," said Jason Howard, Director of Customer Happiness at Kinsa,

a joint Arena and BrightReps customer that makes smart thermometers. "As a result, we're able to provide even higher quality products in a much faster time to our customers."

This collaboration drives faster resolution to the customer. Further, all escalated issues are collected and stored directly in reference to affected products in Arena so they can be easily leveraged as improvements for the next design iteration. In a virtuous cycle, the resolution of these issues will be incorporated into future designs to improve product quality and reduce the number of cases for support to manage.

"The development process doesn't end after products are shipped to customers," said Steve Chalgren, EVP, Product Management / Chief Strategy Officer at Arena. "It's critical to provide design and development support throughout the product lifecycle that translates into higher quality products and improved customer satisfaction. Together, Arena and BrightReps ensure that issues are captured accurately, acted upon, and resolved quickly."

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Cadence Allegro Pulse Extends Team Collaboration, Reducing Costs and Enabling Shorter, More Predictable Electronic Design Cycles

6 December 2017

Cadence Design Systems, Inc. today announced Cadence® Allegro® Pulse, the PCB industry's first solution to enable extended team collaboration by providing near-real-time insights into the complexities of the electronic design process. Allegro Pulse connects management, engineering, procurement and other business stakeholders to up-to-date work-in-progress design data in a single, unified web-based platform, enabling design teams to identify critical issues sooner, better evaluate readiness and predict and mitigate risk. As a result, companies can significantly reduce end-product cost, shorten design cycles, enable IP reuse and avoid costly fixes later in the design cycle. For more information, visit www.cadence.com/go/allegropulse.

Faster time-to-market demands have placed tremendous pressure upon today's electronic design process. Multiple business stakeholders require up-to-date insights into work in progress to ensure the success of customer projects, yet gathering and analyzing these insights about a design project can be a very tedious manual process. Traditional approaches often deliver insights too late in the design cycle, when companies are forced to make an undesirable tradeoff between schedule and lower costs. If the extended team could manage the parts list earlier in the design cycle, companies could achieve significant savings by reducing end-product cost.

Allegro Pulse addresses these challenges, enabling customers to gather near-real-time metrics automatically and directly from the design database. Multiple stakeholders ranging from executives optimizing the business to engineers creating the innovation now have true engineering decision support. Allegro Pulse provides executives and business owners self-service dashboards that offer visibility into technical domains, a capability previously only afforded by CRM and ERP business intelligence solutions. Prebuilt, custom analytics allow real-time understanding of supply-chain spend, product schedule risks and resource allocation. Customizable views enable at-a-glance interpretation, putting the most important metrics at executives' fingertips.

Decision makers and innovators across the organization now have detailed visibility into more than 50

standard out-of-the-box project metrics, as well as custom metrics. With its web-based collaboration and analytics environment, Allegro Pulse enables customers to optimize parts lists across multiple designs, whether they are in the same end product, or across multiple projects or products in a business unit. Users can verify, monitor and compare parts assigned to projects with strategic parts lists and bills of materials, and pre-assign parts to projects using the tool's strategic parts list functionality. As a result, the extended team is aware of selected parts early in the design cycle, which significantly reduces end product costs for multiple products.

In addition, Allegro Pulse allows customers to collect all documents, discussions, issues and other project-related IP in a single, searchable reusable IP store, potentially saving 70 percent of the time previously spent using traditional methods such as daily or weekly status reports, online meetings and design reviews.

"Through a single, unified browser, Allegro Pulse provides extended team members from different business functions with access to accurate, up-to-date data on all projects in progress," said David Heafey, director, engineering applications at Mercury Systems. "With Allegro Pulse, we can retire our manual process for data collection and report generation while reducing end-product cost and improving the likelihood of first-pass success."

"Cadence is committed to enabling our customers to bring high-quality systems to market faster," said Tom Beckley, senior vice president and general manager, Custom IC & PCB Group at Cadence. "With Allegro Pulse, we've achieved another PCB industry first by enabling extended product teams to perform work-in-progress team collaboration. Our customers can now gain visibility into designs within a business unit, across a business unit, or across an entire company, enabling shorter, more predictable design cycles and lower end-product costs."

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Centric Software Transforms Sell-In Process

5 December 2017

From its development center in Silicon Valley, Centric Software is pleased to announce the availability of a new Showroom solution suite for retail sell-in and collection management. Centric Software provides the most innovative enterprise solutions to fashion, retail, footwear, outdoor, luxury and consumer goods companies to achieve strategic and operational digital transformation goals.

Centric's new Showroom mobile app, along with Centric's Collection Book mobile app, digitally transform the sell-in process by preparing curated collections for B2B buyers and preparing preorders. Centric Showroom is for streamlined, paperless order taking in a showroom or market week environment. Collection Book is used for the onsite presentation of channel or buyer-specific linesheets and product catalogs. Sales staff can also take orders and view available inventory and delivery dates.

Centric's Showroom mobile app solution allows marketing, merchandising and sales professionals to present channel-specific, curated collections in a seamless, digital environment. All information is drawn from Centric PLM in real-time, reflecting the latest adds or drops to the master collection and product availability via ERP systems. Order taking can be done on the spot from personalized product catalogs.

Centric's Showroom and Collection Book apps, which work both on and offline, are designed to help

brands and retailers speed the sales cycle and reduce the order error rate by making the showroom and collection presentation process real-time. Teams can present collections, create linesheets with live information and update or send orders from a shared or individual iPad.

Humberto Roa, VP of Innovation at Centric Software explains, "With the Showroom app, we are drastically reducing the amount of preparation time needed ahead of market week or a sell-in campaign. Sales teams can keep up with collection orders by drilling down by distribution channel/store, market, collection, style, color, size and more. It is the perfect complement to our Collection Book app which targets onsite collection presentations with individual buyers."

"Centric Software is the acknowledged innovator in mobile apps for PLM introducing unprecedented agility while helping capture information that lies outside of the boundaries of traditional systems," said Chris Groves, Centric CEO. "We create powerful new ways of working to enable brands and retailers to develop market-right collections and enhance end customer experience and satisfaction."

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Cloudify launches Cloudify 4.2

7 December 2017

Cloudify 4.2 continues the journey that started with 4.0 toward becoming an even stronger cloud management and orchestration solution, based on our <u>guiding tenets</u>, and further enhances interoperability through advanced integrations with leading technologies. It adds advanced features in the areas of security, isolation and fine-grained control, and introduces new features that provide insights and analytics on resource usage cost management.

Please read the full announcement on the Cloudify blog.

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Designer - Vero's New Direct Modelling CAD System

7 December 2017

Vero Software has launched a powerful new direct modelling system to fill the gap between CAD and CAM, focusing on the specific needs of machinist programmers.

As a stand-alone, optional application for its CAM portfolio, the newly-available Designer enables users to create new designs or modify existing geometry from third party CAD systems.

John Buehler, from Vero Software, says Designer represents the CAD framework that will become the core modelling engine for all CAM applications. "It's not dependent on having a series of parameters that drive it, or a feature tree. It provides a very quick, dynamic editing and modelling environment, where users simply sketch, drag, hold, push or twist, to create and modify models."

He says having this single and unified solution for solids-based designs gives Vero users the flexibility of receiving a CAD file from any source, for review or modification.

"Some modellers do not maintain adequate tolerances, so the models will often require a degree of

repair – or if they've only been roughly modelled there may be gaps in the geometry. Designer allows users to read the native CAD data...clean up any poor geometry, close the gaps, stitch it into a solid, and then make modifications that are important to the CAM process, such as the suppression of features, or the modification of draft angles.

"Generally, those modifications do not impact on a part's design or performance, but will make it more manufacturable."

While Designer operates separately from the CAM system, there are triggers within it which will launch CAM, and there is full associativity between the two. "From fixture design to quick and easy part modification, Designer is truly the right CAD for CAM, by providing a full set of tools to fill the gap between the two."

Major Designer Features

Direct Modelling. This frees the user from the constraints of a parametric modelling system. Rather than modifying a lengthy series of parameters to make a design change, desired shapes can be obtained by simply pushing, pulling and dragging the geometry. "These changes can be completely freeform, or driven by numeric increments and measurements taken from existing geometry," says John Buehler. "It's no longer necessary to know how the original model was constructed, and design changes aren't constrained to the original methods of creation."

Import Model Healing. Small gaps between surfaces on imported models can be automatically healed, preventing the time-consuming need to rebuild very small surface patches. Where surfaces are corrupt or missing, Designer automatically creates the edge curve geometry, making it easy to rebuild new faces. "And closing a surface model to produce a solid body eliminates construction problems later in the process."

Feature Suppression. "Incoming CAD data often includes geometry features that aren't necessary for CAM, or won't be created by the machining process." John Buehler says while many post-machining processes are frequently represented on the model, and are important for CAD design as they will ultimately be needed in the final component, they can hinder CAM programming. "Designer simply removes them and can save them for later operations if required, with just a mouse click."

Model Simplification. As well as feature suppression, the geometry can also be simplified at various stages of the machining process. Removing portions of the model, such as intersecting features, speeds up machining and provides better results.

Powerful Sketching. Designer's sketch capabilities make it easy to create 2D shapes using freeform input, which interacts with surrounding geometry.

Geometry for Machining. Designer's many geometry creation techniques are essential to the machinist for model preparation. "Hole capping is a good example of this," he says. "It can be used to cap anything from a simple drilled hole, to a complex open cavity, with just a few mouse clicks. And an extensive range of curve creation routines vastly improves boundary formation.

Working with 2D Data. After importing DXF and DXG files, existing 2D data can be transformed into a 3D model by reusing profiles from the original data, automatically creating sketch profile regions.

Extensive Range of CAD Interfaces. Designer works with data from almost any CAD supplier. Skipping corrupt records while importing provides a strong platform to manage inconsistent data. "Very large files can be handled with ease, and companies working with complex designs will benefit from the simplicity with which their customer's CAD data can be manipulated."

John Buehler concludes by saying that while many modelling systems try to do everything for everyone, Designer focuses on the needs of machinist programmers, providing specific CAD for CAM.

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Fujitsu Develops World's Smallest Sensor Device Supporting LPWA Communication, Eliminates Need for Battery Replacement

4 December 2017

Fujitsu Laboratories Ltd. today announced the development of the world's smallest sensor that eliminates the need to replace batteries. The new sensor supports Low Power Wide Area (LPWA) wireless transmission technology that can reach a broad area with low power.

As the spread of IoT systems gains momentum, expectations are rising for sensor devices that support LPWA technology, which can wirelessly transmit sensor information directly to the cloud. In order to create systems that employ this technology, there has been a demand for the development of easy-to-install miniature devices using solar cells to achieve both convenience and low cost, which dispense with the need to replace batteries.

Fujitsu Laboratories previously developed power control technology(1) that can operate a beacon with the power provided just by a solar cell. Conventionally, power output variation of solar cells due to temperature had been tolerated by enlarging the size of energy storage elements.

Now, however, Fujitsu Laboratories has developed technology that achieves high power efficiency by controlling signal transmission timing based on the temperature variation measured by a temperature sensor, which makes it possible to reduce the required energy storage elements for signal transmission by half. This has enabled Fujitsu Laboratories to successfully miniaturize the device to a size of 82x24x6 mm, creating the world's smallest sensor device supporting LPWA that does not need replacement batteries.

In a test of the sensor device using this technology, Fujitsu Laboratories confirmed that the collected temperature and humidity data can be transmitted to a Sigfox(2) base station over a distance of about 7 km. Since it is now possible to acquire measured data even from locations where it is difficult to secure power and install power cables just by placing these sensor devices, the maintenance-free deployment and management of IoT systems have become a reality, accelerating the process of on-site digitalization.

Development Background

The spread of IoT systems has progressed in recent years, and it is predicted that by 2020, several tens of billions of IoT devices will be connected to the cloud through networks. In IoT systems, information collected from multiple sensors installed in the field, need to be transmitted to and analyzed on the cloud, and LPWA has been gaining attention as a wireless technology that can directly transmit data to the cloud with low power consumption across a wide area. From a convenience and cost standpoint, there are high hopes for miniaturization, which not only meets the LPWA standards, while utilizing solar cells that eliminate the need for replacement.

Issues

Fujitsu Laboratories has previously developed power control technology using miniature circuits that can transmit data over short distances wirelessly using Bluetooth Low Energy (BLE). This technology

realizes sensor devices that support BLE without the need to exchange batteries, providing power to solar cells, and reliably activating a wireless circuit by monitoring and adjusting the balance between power generation and consumption.

Sensor devices using this previous technology, however, could not support LPWA. That's because the time required for transmission with LPWA is significantly longer than with BLE. LPWA transmits small amounts of data slowly in order to ensure signal quality over long distances. In effect, this means that a single transmission can require significant power usage of up to about 1,500 times of BLE.

About the Newly Developed Technology

Now, Fujitsu Laboratories has developed new power control technology to ensure transmission power while minimizing circuit size. This technology's advantages are as follows.

- 1. Power control technology that permits power variations with temperature Fujitsu Laboratories has developed power control technology that can control the timing of LPWA signal transmissions in real time, based on temperature data collected from a temperature sensor. With this technology signal transmissions are only carried out at the time when the activation voltage, which varies with temperature, is maximized in order to prevent it from falling below the minimum operating voltage for LPWA module. By using power efficiently in this way, it is possible to tolerate variation in power consumed by the wireless circuit or power generated by solar cells due to temperature. This eliminates the need for the excess energy storage elements that were previously necessary to respond to power fluctuations, enabling miniaturization of the sensor device with the smallest power storage elements required.
- 2. Power monitoring technology that reliably activates the temperature sensor In order for the power control technology to operate reliably, the device must be able to continually and reliably activate the temperature sensor with a small amount of power. To resolve this challenge, Fujitsu Laboratories has developed power monitoring technology that analyzes voltage changes in the power source, and accurately judges whether or not sufficient power has been stored to operate the temperature sensor. This technology can prevent unnecessary shutdowns of the temperature sensor by using the minimum amount of power based on the temperature.

Effects

This technology was implemented using Sigfox, an LPWA standard, creating the world's smallest sensor device (82x24x6 mm) supporting LPWA communications without the need to replace batteries. Fujitsu Laboratories verified that temperature and humidity data could be transmitted once every ten minutes, over seven days directly to a base station about 7 km away, in an environment with the illumination of 4,000 lux.

Fujitsu Laboratories also verified that the data could be visualized through the Fujitsu Cloud ServiceK5 IoT Platform, Fujitsu Limited's IoT data utilization platform service, which has received Sigfox Ready Program for IoT PaaS certification as an IoT platform that connects to the Sigfox cloud.

This means that sensor data can easily be acquired in the cloud just by setting sensor devices, even in places where it is difficult to secure power or install power cables. This will enable maintenance-free installation and management of IoT systems, accelerating the process of digitalization in the field.

Future Plans

Fujitsu Laboratories will continue to conduct field trials aimed at the real-world use of these sensor

devices, incorporating this technology into the Fujitsu Cloud Service K5 IoT Platform and Fujitsu Frontech Limited's sensor solutions as connected devices, with the goal of commercialization in fiscal 2018. Furthermore, we will continue to develop technologies to miniaturize sensor devices.

Comment from Yoshihito Kurose, President, Kyocera Communication Systems Co., Ltd. (KCCS):

"As the utilization of IoT is expected to continually increase, KCCS predicts that solutions utilizing the low power consumption feature of the Sigfox network will be developed in a variety of industries."

KCCS believes that Fujitsu Laboratories Ltd.'s development of a sensor device, which does not require battery charging by the way that device operation is enabled by a solar battery, will promote the use of Sigfox not only in Japan but around the world.

As the Sigfox Operator in Japan, KCCS is working with Fujitsu Laboratories Ltd. and other partners to enable everything to be connected to the Sigfox network and is contributing to the creation of a safe and pleasant society.

- Developed power control technology
 Fujitsu Develops Industry's First Flexible IoT-Supporting Beacon That Needs No Battery
 Replacement (press release, March 25, 2015)
- Sigfox
 A global IoT network using LPWA provided by Sigfox, a company established in France in 2009. KYOCERA Communication Systems Co., Ltd. is the sole network service provider in Japan.

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Granta MI Version 11 – Accelerating the Digitalization of Materials Knowledge

4 December 2017

Granta Design announced GRANTA MITM Version 11, the latest release of its leading materials information management software. More engineering enterprises than ever are rolling out programs to digitalize their materials information; GRANTA MI Version 11 accelerates this process, with new features for deploying materials knowledge enterprise-wide, while ensuring consistency, accuracy, and complete traceability. There are enhanced tools for visualization and analysis of test data, managing product risk, and ensuring robust data management workflows.

GRANTA MI enables companies to create a single corporate materials information system, managing their own proprietary materials knowledge alongside comprehensive materials reference information. GRANTA MI apps enable users to explore, integrate, and apply this data. Many of these apps have been updated.

Making it easy for users across the enterprise to access and apply the materials data that they need is MI:Explore, an intuitive web app that can be configured for specific user groups and applications. The latest version is much easier to configure, via a simple admin interface, and offers faster loading and support for larger datasets. With MI:Explore, organizations can deliver an outstanding user experience, tailored to the exact requirements of their user community, helping to ensure better quality materials decisions.

The latest version of the MI:Mat Analyzer app, which provides graphing and visualization capabilities to GRANTA MI users, has been enhanced with capabilities supporting statistical analysis of test data. With the MI:Scripting Toolkit, materials engineers can also integrate their own analysis methods. It's easier than ever to generate data for design, or CAE cards for simulation, ensuring that they are traceable to their source.

As announced earlier this quarter, Version 11 features updates of MI:Enterprise Connect and MI:Materials Gateway – key software components that integrate material intelligence with Product Lifecycle Management (PLM) systems, and that support Computer-Aided Design (CAD) and Computer-Aided Engineering (CAE).

To avoid regulatory issues, such as non-compliance with REACH for restricted substances, MI:Restricted Substances provides a fast, efficient system for identifying and avoiding risks in company materials and specifications. New features such as batch reports, local tabular data searching, and Excelto-MI:Viewer copy-and-paste make it easier to generate reports and enable more powerful and flexible queries of the critical data.

GRANTA MI is not just about managing materials data – it helps engineering enterprises to improve and control the processes by which this data is generated, analyzed, managed, and used. In Version 11, an enhanced MI:Workflow app ensures robust, auditable materials information processes. With the MI:Remote Import web app it's now easier for authorized users to get data into the system.

Finally, the library of materials reference data available with GRANTA MI has also been updated with the latest versions of trusted references such as CAMPUS Plastics and Stahldat SX steels. JAHM Curve Data supports simulation and provides high temperature data. UL Yellow Cards are a globally-recognized safety and quality guarantee for plastics.

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Innovative New Mould Design Tool Launched In VISI 2018 R1

6 December 2017

The latest release of VISI, from Vero Software, provides a wide variety of new and enhanced items of functionality for both CAD and CAM, specifically for the mould and die market.

VISI 2018 R1 introduces a new Mould Tool module based on VISI's Assembly-Ng technology. This redeveloped module provides greater flexibility when constructing supplier and non-standard tool configurations. Customisable templates, including the management of blank and predrilled plates, allow for easy tool layout creation and enhanced editing at any stage of the design process.

Marco Cafasso, VISI Product Manager, says: "The new Mould Tool provides a greater level of flexibility for both tool creation and advanced editing. This allows for adjustments to be made at any stage of a tool designs development. All assembly components are automatically updated when plate adjustments are made including component cavity manufacturing data."

The ability to create project design and manufacturing technical reports have been included within the systems snapshot manager using data captured throughout the CAD and CAM project stages.

Further enhancements have been made within the plastic Flow warpage prediction module to improve result accuracy for complex technical polymers. These improvements have been achieved by a complete

revision of the algorithms for the Holding phase. Pressure and flow rate calculation adjustments combined with the new shape solver, significantly improve the performance by reducing the calculation time up to 40 per cent.

Sheet metal developments in the progress strip development area and blank prediction include the ability to manage constraints of specific faces of a blanked component. It is also possible to define the face constraint in X or Y, or in both directions, which is particularly useful for designers who want to blank only specific area's of a model for step by step stage unfolding. In addition, the process of managing strip layouts using double component geometry has been enhanced to reduce the development time of a 3D strip design.

CAM developments include faster geometry preparation, and an enhanced 2.5-axis chamfering strategy which provides many quality updates including intelligent approach and retract points, advanced obstacle management, and significant speed improvements.

For 3D waterline milling, new adaptive stepdown capabilities can now manage variable Z steps for each independent area within the same piece being machined.

User interface improvements to the CAM navigator will see the build process status on the operation itself allowing the process manager to be switched off if required. Tool sheet reports have been updated where the user can benefit from the enhancements to the snapshot manager. In addition, or anyone requiring hole information generated from the feature recognition, there is also the added benefit of exporting the data to csv files for external use.

Finally, sharing process knowledge is key to tracking the digital thread throughout the entire manufacturing process. A new VISI-to-PC-DMIS interface enables PC-DMIS to read the native VISI CAD file directly with annotation and points previously defined in VISI loaded automatically into PC-DMIS to be used for quality control purposes.

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Kasten Emerges to Reinvent Data Management for Enterprises

5 December 2017

Today at KubeCon + CloudNativeCon, <u>Kasten</u>, the cloud-native data management company, emerged from stealth and released its K10 platform. K10 uses a novel application-centric approach to enable enterprises to meet business continuity and compliance requirements around stateful container based applications running at scale on public and private Kubernetes deployments. Additionally, the company announced an open source project called Kanister - an extensible framework for application-level data management. Kasten K10 and Kanister are used by enterprises, including a top 10 retailer in Europe and a leading global telecommunications provider.

The company is backed by well-known Silicon Valley angels and executives from Google, Amazon and Facebook. These include Amarjit Gill, who has more than \$2 billion in exists as a serial founder plus multiple large exists as an investor, as well as Amit Singh, founder of Osmeta which Facebook acquired, and Dan Dobberpuhl, who is a serial entrepreneur and microprocessor luminary.

Amarjit Gill said: "Containerization of the enterprise is occurring at more accelerated pace than any other infrastructure change, including the transition to virtual machines. With this shift, enterprise-grade

data management for cloud-native environments has emerged as a key area for IT organizations. I am honored to once again support this experienced enterprise-focused leadership team, and I believe that they are well positioned to capitalize on this massive opportunity."

Kasten was founded by Niraj Tolia (CEO) and Vaibhav Kamra (VP of Engineering), who bring deep technical expertise in the areas of containers, Kubernetes, storage and distributed systems. Previously they held senior leadership positions and delivered multiple enterprise-ready solutions at companies like Maginatics (acquired by EMC), Dell EMC, HPE and Microsoft.

"Kasten was founded to solve the data management pain we experienced firsthand in working with stateful applications in containerized environments," said Niraj Tolia, Kasten co-founder and CEO. "Kasten's mission is to eliminate the friction and adoption roadblocks observed with enterprises when working with persistent state in container orchestration platforms such as Kubernetes. Our application-centric K10 platform has been purpose built to bridge both the tools and DevOps gap and reinvent cloud-native data management for the enterprise."

Data management is the real hurdle for stateful workloads

Enterprises have derived tremendous business value from the agility, resiliency and portability that cloud-native platforms have unlocked. While running stateless application in this fashion has become commonplace, IT organizations are still struggling with the transition for stateful workloads which make up a significant portion of the traditional enterprise applications in production today. Having largely overcome the initial hurdles around storage provisioning in containerized environments, enterprises experience pain points related to ongoing data management and satisfying business continuity and compliance requirements which are inevitable with persistent data.

While the challenges partly stem from the fact that existing data management tools are very infrastructure and VM-focused and do not effectively translate to a cloud-native world, the primary issue is that proper data lifecycle management is at odds with most implementations of the DevOps model in the enterprise. Operators do not have the visibility and tools to do data management at scale, while relying on developers to address these requirements with sufficient depth is sub-optimal and insufficient. The result is ad-hoc and error prone processes without clear ownership which inevitably crumble at scale, impede business agility and often lead to severe production issues including data loss.

Kasten K10 is ops focused and dev friendly

Kasten addresses these challenges by introducing a unique application-centric data management platform. Starting with the application but also deeply integrating with the infrastructure, the solution balances the needs of both operators and developers. Operators control data protection and mobility for the entire application stack via dynamic policies and have global visibility into business requirements compliance. Developers can choose the most appropriate data store and remain focused on core application logic but are able to extend the platform to meet custom requirements using Kanister when needed. As a result, enterprises are finally free to fully adopt and reap the benefits of cloud-native platforms regardless of the type of workload.

"There has been a tremendous developer adoption of containers and cloud-native infrastructure over the last two years. However, to gain full production acceptance in the enterprise, containers need to work just as well for the needs of IT operations since a lot of the traditional IT requirements still apply, just in a much more dynamic and granular way," said Torsten Volk, EMA, Managing Director. "Kasten K10 is a product that balances developer and operator focus and helps address the tools and skills gap that has emerged in this ecosystem."

Key Capabilities

- Policy-driven Automation In a cloud-native environment, applications come and go rapidly and scale dynamically. Even though IT operators may not be involved in some of these transitions, Kasten K10 makes it possible to proactively define policies and data management workflows that will be triggered automatically for both existing and future applications.
- Compliance Monitoring Kasten K10 provides a unified view of data management operations across applications in a cloud-native environment. More specifically, it enables operators to monitor the compliance metrics they are responsible for and easily identify applications that need attention.
- Data Protection Kasten K10 offers facilities for robust application-centric data protection. The platform captures and orchestrates life cycle management operations for both application configuration and persistent data. The Kanister framework allows for deep integration with specific applications.
- Data Mobility and Manipulation To truly harness the power of cloud-native environments, stateful applications need to be fully portable, including the persistent data component. Kasten K10 delivers foundational mechanisms for moving data sets and performing customer-defined transformations.

Use Cases

- Test/Dev Workflows The ability to provide developers with a high-fidelity replica of their production environment is key for identifying and correcting problems early. Kasten K10 simplifies the process of re-creating dev and test environments, while providing enterprise grade features like data masking and access controls.
- Backup and Recovery While modern applications often utilize redundant highly-available data stores that are not susceptible to single point of failure, Kasten K10 layers the ability to protect and recover data in cases of accidental or malicious data loss, a key requirement for enterprises. Further, K10 enables the modernization of traditional applications by removing data protection operational roadblocks.
- Cloud Migration For a number of reasons, including but not limited to achieving additional agility and resiliency or unlocking savings potential, enterprises are looking for workload portability. Kasten K10 makes it possible to move an entire application stack, including the data, within different regions of the same cloud and across public or private clouds.
- Disaster Recovery Providing business continuity in the case of catastrophic failure remains a table stakes requirement for enterprises. Kasten K10 dramatically simplifies the ability to recover from outages by enabling policy based replication of data and application state between clusters for fast orchestrated recovery.

Availability

Kasten K10 is available starting today.

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Oracle Financial Services Unveils FLEXCUBE V14

4 December 2017

Oracle announced general availability of the newest release of its flagship core banking application, Oracle FLEXCUBE V14.

Oracle FLEXCUBE V14 marks a significant milestone in Oracle's componentization strategy. Banks now have the choice of either deploying a pre-configured offering for a comprehensive solution or embarking on a progressive transformation journey, one line of business at a time. Oracle now offers banks more choices than ever before to seamlessly integrate best-in-class functionality to their pre-existing architecture with specialized components for originations, collections, pricing, liquidity management, lending and payments.

As banks look to further enhance customer relationships by bringing seamless integration between business and financial lifecycles, FLEXCUBE V14 provides the advantage of more than 1,000 API's to jump start initiatives. Banks using FLEXCUBE V14 have a head start in exploring innovative collaborative options to integrate with corporates, third party service providers, vendors, other banks and networks.

"In today's connected world, banks need to seamlessly embed banking services across the lifecycle of a business as well as in the daily activities of the consumer. Banks need to transform their core banking applications to be able to bring in the intrinsic nimbleness of a modern application necessary to respond to this new paradigm," said Oracle Financial Services Senior Vice President Chet Kamat. "Oracle FLEXCUBE V14 is mission critical for any bank embarking on the path of digital transformation"

This release of Oracle FLEXCUBE also features new machine learning and blockchain adapters. The new machine learning adapter unlocks intelligence ingrained in the enterprise to drive process optimization, better decisioning and deliver operational and cost benefits. Separately, seamless connectivity between Oracle FLEXCUBE and other banks is made possible through FLEXCUBE V14's blockchain adapter, which enables more fluid straight-through processing and high fidelity information exchange.

For the past 40 years, Oracle has connected people and businesses to information with the expressed intent of re-imagining what is possible. FLEXCUBE V14 will continue Oracle's journey toward providing financial institutions across the globe an opportunity to expand their digital capabilities, rethink ways of doing business and modernize their technology in a considered, efficient manner.

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Solace Launches Messaging as a Service Offering for IoT and Hybrid Cloud Deployments

5 December 2017

Solace today announced a new managed messaging service called Solace Cloud. Solace Cloud lets developers building cloud-based applications easily tap into the power of Solace's enterprise-grade messaging without the burden of installing, maintaining and upgrading messaging software.

"With Solace Cloud, we are able to spin up message brokers with just a few clicks," said Zac Kwan, technical lead, ChatQ. "We find it so easy to use that our developers can focus on building core features instead of getting entangled setting up messaging infrastructure."

Solace Cloud is a one-stop-shop messaging service for developers who are building microservices, IoT systems, and real-time data streaming or mobile applications. With Solace Cloud, developers no longer need to use multiple messaging technologies to enable their applications to send and receive real-time information. It is also the first messaging service to natively offer hybrid-cloud and multi-cloud connectivity to provide a single real-time messaging fabric that can seamlessly tie together systems running in public clouds, private clouds and on-premises environments.

"The migration of IT systems to the cloud means companies must ensure their applications, IoT devices and microservices can share real-time information no matter where they're located," said Solace CTO Shawn McAllister. "Solace Cloud complements our on-premises and private cloud solutions to form the only solution that can meet all of an enterprise's data movement needs in the age of hybrid- and multi-cloud systems."

"As the industry moves more applications and data to the cloud, the need for a robust messaging infrastructure that can connect systems across hybrid and multi-cloud environments is clear," said Harald Kuck, SVP Core Platform, SAP SE. "SAP Enterprise Messaging already successfully leverages Solace appliances. We are looking forward to further strengthening our cooperation by utilizing additional offerings from Solace."

Solace Cloud supports the most popular standard messaging protocols including AMQP, JMS, MQTT, REST and WebSocket, and open source APIs such as Apache Qpid and Eclipse Paho. This eliminates the risk of organizations being locked in to a cloud environment or messaging product, and facilitates integration with existing systems. Solace Cloud's high performance helps ensure fast delivery even during high-volume periods, and provides unparalleled robustness so that messages always reach their destination, no matter the use case.

Solace Cloud is now available as a public beta in four Amazon Web Services regions (US East, US West, Ireland and Singapore) and will be commercially available in early 2018. The beta is free, and a free package will always be available, along with plans that meet a wide range of performance, scale and availability requirements.

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ZW3D 2018 Now Available as a CAD&CAM Expert with Better User Experience

5 December 2017

ZW3D today announced the global availability of <u>ZW3D 2018</u>, which is positioned as a CAD&CAM expert with enhanced performance and user-friendliness from design to manufacturing.

Enhanced Layer Manager and Part Attribute

As the product design is getting increasingly complex, using layers to classify shapes or components and rapidly setting information with intuitional part attribute forms become important in the design process.

In ZW3D 2018, Layer Manager provides a new "Category" attribute to layers so that users can group layers and have more interactions between Manager and entities inside the graphics area.

The upgraded Part Attribute Form helps manage all part attributes more easily, including standard attributes and user attributes, which can be edited in Excel or shared by Excel file.

PMI Improvements

More tools are provided for 3D annotation, such as chamfer, hole callout and bounding tools. Linear dimension becomes more flexible supporting Auto/Horizontal/Vertical methods.

MISUMI Library Integration

Empowered by MISUMI Mold Ex Press, a 3D CAD library for standard components of press die and plastic mold, users can quickly select and locate the parts from more than 10,000 types of part models, reducing mold design time by 50%.

CAM

5-Axis strategies capability is expanded on 5X Plane, Side and ISO cut operations. End-users now can happily generate multiple layers of tool-path in one shot, particularly 5-Axis roughing in specific cases. Also, customized frame function is supported in Flat Finish operation that further simplifies programming.

"ZW3D 2018 is a complete solution that brings your idea to design and manufacturing easier," said Joh Li, CTO of ZW3D in charge of R&D center. "We keep working on providing streamlined workflows to reduce errors and waste, which helps our customers to output products faster with higher quality and lower cost."

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