

# **PLM Industry Summary**

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### CIMdata News

#### Intelligence for Product Lifecycle Management (CIMdata Blog)

22 February 2019

- "An augmented intelligence capability should be developed for PLM as part of the enterprise digital transformation journey."
- Dr. Venki Agaram, CIMdata, Inc.

Dr. Venki Agaram, Director, Quality & Reliability Engineering Consulting Practice at CIMdata, shares his thoughts on this topic and more in a recent blog posting which is available at <a href="https://www.cimdata.com/en/resources/cimdata-blog/item/11359-digitalization-and-mbse-market-trends-challenges-opportunities">https://www.cimdata.com/en/resources/cimdata-blog/item/11359-digitalization-and-mbse-market-trends-challenges-opportunities</a>

CIMdata will look into this topic in more detail at the upcoming PLM Market & Industry Forum events which will take place in Ann Arbor MI; Frankfurt Germany; Pune, India; Beijing, China; and Tokyo, Japan this coming April. The theme for 2019 is "Augmented Intelligence: Applications Across the Product Lifecycle."

To read the blog posting in full visit: <a href="https://www.cimdata.com/en/resources/cimdata-blog/item/11484-intelligence-for-product-lifecycle-management">https://www.cimdata.com/en/resources/cimdata-blog/item/11484-intelligence-for-product-lifecycle-management</a>

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

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#### Read last week's Top Ten Stories

18 February 2019

Each Monday, CIMdata brings you the top ten trending PLM news stories of the past week: https://www.cimdata.com/en/trending/top-ten

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#### SOLIDWORKS World 2019: Expanding the 3DEXPERIENCE Platform (CIMdata Commentary)

21 February 2019

*Key takeaways:* 

- Dassault Systèmes continues to extend their **3D**EXPERIENCE Platform with new coverage of MES and ERP.
- *3DEXPERIENCE.Works* represents a continuation of Dassault Systèmes' platform enablement journey, as well as its long-term commitment to the SOLIDWORKS community.
- SOLIDWORKS World 2019 grows on its success and is positioned for more growth as it becomes **3D**EXPERIENCE World 2020.

CIMdata attended SOLIDWORKS World 2019, which took place from 10 to 13 February in Dallas, Texas. The event continues to grow, with over 6,000 physical attendees and many others attending by remote connection. Dassault Systèmes clearly stated that it intends to expand the event further, both in technological scope and number of attendees. Hence, they announced that next year's event will be called 3DEXPERIENCE World 2020. While some in the community will potentially question Dassault Systèmes' expanding the focus beyond SOLIDWORKS, but those who have been attending for years will note that this is a natural step for the event. This step will better reinforce what Dassault Systèmes has been communicating for some time, that is, the need to expand and extend Dassault Systèmes' full solution suite and platform into the SOLIDWORKS community—to deliver more capabilities and more value to that community.

This year's overall theme was "Where Possibility Takes Form." The inspiring keynote speakers echoed the theme by describing how they have used SOLIDWORKS to help enable their teams to collaborate to develop new product concepts. Ms. Tracy B. Wilson, actor, writer, photographer, and this year's general session host kicked off the 21st SOLIDWORKS World 2019 event by welcoming the crowd and introducing Mr. Gian Paolo Bassi, CEO, Dassault Systèmes SOLIDWORKS Corporation. Mr. Bassi gave an update on the state of the business and its over six million SOLIDWORKS users worldwide. He described how Dassault Systèmes' **3D**EXPERIENCE Platform is allowing people to "harmonize products, nature, and life" to "create a sustainable future for us and everyone that comes after us." Finally, he previewed the following four main announcements made during SOLIDWORKS World 2019:

- **3D**EXPERIENCE.WORKS, a new portfolio of applications on the **3D**EXPERIENCE platform that are tailored to the needs of SOLIDWORKS customers and small and midsized companies.
- The newly acquired IQMS (January 2019) is being branded DELMIA Works making its ERP and MES capabilities more readily available to the SOLIDWORKS community.
- The introduction of xShape, a Cloud-based surface design solution tailored for the SOLIDWORKS community that can be used to design organic shapes. This new solution will be available this summer.
- Next year's event will be called "3DEXPERIENCE World" in recognition of the expanding

capabilities being provided by Dassault Systèmes' to the SOLIDWORKS community.

These announcements illustrate a strong commitment to providing better and more feature rich access to Dassault Systèmes' **3D**EXPERIENCE platform.

Mr. Bernard Charles, Dassault Systèmes CEO, talked about how the "virtual world extends and improves the real world" and is having a greater impact on how we mitigate real-world issues through virtualization and analysis. He announced the IQMS acquisition and rebranding as DELMIA Works (see below). He also talked about why "we are not in a product economy anymore—we are in an experience economy" and how Dassault Systèmes' strategies and products (including SOLIDWORKS) are critical to supporting the new economy.

Mr. Jim McKelvey, founder of Square, Inc., provided the story of how the Square credit card reader and processing service came to life. He extoled the need for new levels of creativity and collaboration that lead people to solve real problems rapidly and in a timely manner given tools that remove the "need" to "ask permission" to access information and be innovative.

On a much more inspirational note, Mr. Leland Melvin, a former NASA astronaut, painted a vibrant picture of his journey from a small town, as a minority, battling adversity and injury in athletics and astronaut training to achieving his dream of working on the space station with a diverse international crew. Mr. Melvin is using his experience to support various causes, including being the Official Spokesperson for \$1M+ Base 11 Space Challenge. This challenge has 32 university teams registered for the competition, with inaugural sponsors including Dassault Systèmes, Blue Origin, SpaceX, and Firefly Aerospace. According to an official Base 11 press announcement (https://www.base11.com/melvin-spacechallenge/), "Melvin will focus on fostering greater diversity in science, technology, engineering and math (STEM) fields, and in aerospace in particular." Base 11 is a nonprofit workforce development accelerator focused on solving the STEM talent pipeline crisis being fueled by the underrepresentation of women and minorities. CIMdata applauds Dassault Systèmes for sponsoring such an ambitious program.

#### MES and ERP Join the Platform

As witnessed by many announcements during the event, Dassault Systèmes continues to expand and extend the **3D**EXPERIENCE Platform to support the diverse and particular needs of the SOLIDWORKS user community. Arguably, the most important announcement was that Dassault Systèmes has acquired IQMS, which brings Dassault Systèmes fully into the enterprise platform arena, especially for those small and midsize companies who use SOLIDWORKS. IQMS' product suite spans ERP and MES capabilities marketed to small and mid-sized manufacturing companies. According to Dassault Systèmes, sixty percent of IQMS' existing customer base are also SOLIDWORKS customers.

A related message is that IQMS will be rebranded as DELMIA Works, which clearly articulates Dassault Systèmes' intention and future direction with the solution as part of the **3D**EXPERIENCE Platform and how it wants to employ it to enable SOLIDWORKS companies. This is consistent with Dassault Systèmes' movement in the past to other manufacturing related solutions, e.g., Apriso, under the DELMIA brand.

One of the keys to Dassault Systèmes' successful business integration of IQMS will be its channel's ability to understand and sell an enterprise platform. Many others in the software industry have tried to move from applications to solutions, and now to enterprise platforms, only to find that this is very difficult to do with an existing VAR channel. Education and patience will be required, as well as the integration of the existing IQMS channel with SOLIDWORKS.

#### **Expanding the Platform for SOLIDWORKS Users**

The announcement of **3D**EXPERIENCE. Works represents a continuation of Dassault Systèmes' platform enablement journey, as well as its long-term commitment to the SOLIDWORKS community. With the introduction of xShape, complementing the previously introduced xDesign, Dassault Systèmes' commitment to delivering cloud-based design capabilities is clear. These solutions provide SOLIDWORKS desktop users with additional capabilities that leverage Dassault Systèmes' broader 3DEXERPEINCE Platform strategy and enable cloud-based and remote collaboration working models.

Another interesting announcement was that Dassault Systèmes has made an equity investment (among other investors) in RIZE—a provider of a 3D printing solution. RIZE states that they want to "make 3D printing inclusive." To this aim, they claim that their 3D printers are able to operate in an office environment without the need for specially trained operators and without any carcinogenic impact on the environment, while being capable of producing production parts. The machines, which will now be shipped with a seat of SOLIDWORKS, can print in several materials and embed color into the printed items. This partnership is an interesting departure into the hardware world for Dassault Systèmes; one that has the potential of significant positive returns.

Dassault Systèmes' **3D**EXPERIENCE Marketplace continues to grow and a new service focused on finding engineering services is being launched. No doubt due to the success of the maker focused marketplace.

SOLIDWORKS' commitment to education continues to expand and strengthen. Hundreds of students attended the event and there were special educational activities in the Partner Pavillion. CIMdata applauds Dassault Systèmes for their continued involvement in Fab Labs, Base 11, and other STEAM initiatives.

This year's Partner Pavilion appeared to be one of the biggest in recent years. It was filled with energy and a significant number of partners focused on future technologies, especially in the areas of XR (augmented and virtual reality) and 3D printing. The Pavilion included a multifaceted manufacturing facility showcased SOLIDWORKS' and partners' manufacturing solutions including producing items using both subtractive, as well as additive techniques.

Overall, SOLIDWORKS WORLD 2019 was an informative, well attended event, at which Dassault Systèmes provide insights into the future of SOLIDWORKS and the continued development and value of the **3D**EXPERIENCE Platform for the SOLIDWORKS community.

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

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## Acquisitions

Zix Closes Acquisition of AppRiver, Creating Leading Cloud-based Cybersecurity Solutions Provider 20 February 2019

Zix has closed its previously announced acquisition of AppRiver, a leading provider of cloud-based cybersecurity solutions, for \$275 million in cash, subject to a customary working capital adjustment and reduction for outstanding AppRiver indebtedness, certain accrued items and transaction expenses.

"Today is a significant day for Zix and AppRiver employees, customers, partners, and shareholders, as we complete the acquisition of AppRiver and create one of the leading email and security solutions providers, particularly for the small and mid-size business market," said David Wagner, Zix's Chief Executive Officer. "Over the last three years we aligned our business with the growth drivers that are propelling our industry, especially our customers' migration to the cloud, which is still in its early innings. This acquisition further strengthens that alignment by bolstering our security offerings, expanding our go-to-market channels, and providing a stronger cloud platform to drive even more value for our customers and partners. We're excited to enter this new chapter of our value creation journey. We will focus on integrating the two businesses, accelerating our growth through channel partners and cross-selling, and increasing our profitability through cost synergies and improved attach rates."

As previously announced, concurrent with the close of the acquisition, Zix entered into a credit agreement with a syndicate of financial institutions and SunTrust Bank, as administrative agent, for a new five-year \$175 million term loan, a \$10 million delayed draw term loan facility and a \$25 million revolving credit facility. The company also secured a new \$100 million convertible preferred equity investment from True Wind Capital. In connection with True Wind's convertible preferred equity investment, Zix expanded its board of directors to eight members and appointed True Wind Founding Partner James H. Greene, Jr. and True Wind Principal Brandon Van Buren as directors.

As previously disclosed, the Annual Recurring Revenue (ARR) of the combined company (representing the projected future revenue to be generated over the ensuing 12-month period) is approximately \$180 million at the time of closing. Zix is targeting ARR of approximately \$200 million to \$207 million for 2019, which represents an organic growth rate of approximately 11% to 15% year-over-year. Zix management is also expecting revenue of approximately \$47 million to \$50 million with a 24% adjusted EBITDA margin in the fourth quarter of 2019.

The company will provide more complete guidance on its fourth quarter and full year 2018 earnings call, scheduled for February 28, 2019.

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### Company News

AMC Bridge Named to IAOP's 2019 Best of The Global Outsourcing 100 20 February 2019

AMC Bridge has been included on the jubilee Best of The Global Outsourcing 100® list.

Celebrating ten years of showcasing the top outsourcing companies worldwide, IAOP® has announced a very special 'Best of The GO 100' program. The lists include companies from around the world that provide the full spectrum of outsourcing services — not just information technology and business process outsourcing, but also facility services, real estate and capital asset management, manufacturing and logistics. They include not only today's leaders, but tomorrow's rising stars.

The IAOP's program will feature the world's best outsourcing advisors and service providers based on the past GO 100 lists. AMC Bridge has been recognized among the other forward-thinking companies, contributing to the evolution and development of the industry.

'It's a great honor for us to be recognized by the IAOP as one of the best companies in the industry. Internally we know what a great deal of work and effort has been put in accomplishing our objectives and getting into this stage of our company development. Thanks to The Global Outsourcing 100, we can broadcast it on a global scale", said Igor Tsinman, the President of AMC Bridge.

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#### Capgemini Presents Airbus with the Global Leadership Award for Innovation

21 February 2019

Capgemini today announced Airbus as the winner of the NASSCOM-Capgemini Global Leadership Award for Innovation at the NASSCOM Technology & Leadership Forum 2019, held at Grand Hyatt, Mumbai.

The award was presented to Luc Hennekens, CIO, Airbus by Shri Ravi Shankar Prasad, Union Minister for Law and Justice and Electronics and Information Technology, Government of India, during the Global Leadership Awards on February 20, 2019. Several members from Capgemini Group leadership including Thierry Delaporte, Chief Operating Officer and member of the Group Executive Board, Capgemini; Ashwin Yardi, CEO, Capgemini in India and member of the Group Executive Committee, and Patrice Roy, Global Account Executive for the Airbus account at Capgemini, attended the awards evening.

The NASSCOM-Capgemini Global Leadership Award for Innovation honours the spirit of innovation exhibited by individual organizations that leverage the power of technology to transform their businesses.

"At Capgemini, we are driven by our focus on enabling our clients' sustained growth through innovation and we understand the challenges businesses face while undertaking their digital transformation journey. It is with great pride that we collaborate with Airbus and support the digital transformation journey of the company," said Thierry Delaporte, Capgemini.

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#### Business-Critical Cloud Adoption Growing yet Security Gaps Persist, Report Says

20 February 2019

Companies continue to move business critical workloads and their most sensitive data to the cloud, yet security challenges remain, according to the second annual <u>Oracle and KPMG Cloud Threat Report 2019</u> released today. The report found that 72 percent of respondents feel the public cloud is more secure than what they can deliver in their own data center and are moving data to the cloud, but visibility gaps remain that can make it hard for businesses to understand where and how their critical data is handled in the cloud.

The survey also found a projected 3.5 times increase in the number of organizations with more than half of their data in the cloud from 2018 to 2020, and 71 percent of organizations indicated that a majority of this cloud data is sensitive, up from 50 percent last year. However, the vast majority (92 percent) noted they are concerned about employees following cloud policies designed to protect this data.

The report found that the mission-critical nature of cloud services has made cloud security a strategic imperative. Cloud services are no longer nice-to-have tertiary elements of IT—they serve core functions essential to all aspects of business operations. The 2019 report identified several key areas where the use of cloud service can present security challenges for many organizations.

- Confusion about the shared responsibility security model has resulted in cybersecurity incidents. Eighty-two percent of cloud users have experienced security events due to confusion over the shared responsibility model. While 91 percent have formal methodologies for cloud usage, 71 percent are confident these policies are being violated by employees, leading to instances of malware and data compromise.
- CISOs are too often on the cloud security sidelines. Ninety percent of CISOs surveyed are
  confused about their role in securing a Software as a Service (SaaS) versus the cloud service
  provider environment.
- Visibility remains the top security challenge. The top security challenge identified in the survey is detecting and reacting to security incidents in the cloud, with 38 percent of respondents naming it as their top challenge today. Thirty percent cited the inability of existing network security controls to provide visibility into cloud-resident server workloads as a security challenge.
- Rogue cloud application use and lack of security controls put data at risk. Ninety-three percent of respondents indicated they are still dealing with "shadow IT"—in which employees use unsanctioned personal devices and storage or file share software for corporate data. Half of organizations cited lack of security controls and misconfigurations as common reasons for fraud and data exposures. Twenty-six percent of organizations cited unauthorized use of cloud services as their biggest cybersecurity challenge today.

"The world's most important workloads are moving to the cloud, heightening the need for a coordinated, integrated and layered security strategy," said Kyle York, vice president of product strategy, Oracle Cloud Infrastructure. "Starting with a cloud platform built for security and applying AI to safeguard data while also removing the burden of administrative tasks and patching removes complexity and helps organizations safeguard their most critical asset—their data."

"As organizations continue to transition their cyber security thinking from strictly risk management to

more of a focus on business innovation and growth, it is important that enterprise leaders align their business and cyber security strategies," said Tony Buffomante, U.S. Leader of KPMG LLP's Cyber Security Services. "With cloud services becoming an integral part of business operations, there is an intensified need to improve the security of the cloud and to integrate cloud security into the organization's broader strategic risk mitigation plans."

#### **Additional Key Findings**

- Automation may improve chronic patching problems: Fifty-one percent surveyed report patching has delayed IT projects and 89 percent of organizations want to employ an automatic patching strategy.
- Machine learningmay help decrease threats: Fifty-three percent are using machine learning to
  decrease overall cyber security threats, while 48 percent are using a Multi-factor Authentication
  (MFA) solution to automatically trigger a second factor of authentication upon detecting
  anomalous user behavior.
- **Supply chain risk**: Business-critical services must be contained as supply chain compromise has led to the introduction of malware in 49 percent of cases, followed by unauthorized access of data in 46 percent of cases.
- Security events continue to increase while shared responsibility confusion expands: Only 1 in 10 organizations can analyze more than 75 percent of their security event data and 82 percent of cloud users have experienced security events due to confusion over cloud shared responsibility models.
- Cloud adoption has expanded the core-to-edge threat model: An increasingly mobile workforce accessing both on premise and cloud-delivered applications and data dramatically complicates how cybersecurity professionals must think about their risk and exposure. In 2018, the number one area of investment was training, but this year, training slipped to number two and was replaced by edge-based security controls (e.g., WAF, CASB, Botnet/DDoS Mitigation controls).

To find out more about the Oracle and KPMG Cloud Threat Report 2019, visit Oracle at the RSA Conference, March 4-8 in San Francisco. (Booth #1559 – Moscone South).

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# Creaform Engineering Expands its GD&T Service Offer with New Dimensional Management Services

19 February 2019

Creaform announced that it is extending its dimensional management services to its entire global audience. Dimensional management is an engineering methodology used for preventative quality assurance, which ensures the functionality, producibility, repeatability and performance of any given product according to specific requirements. This proven methodology allows manufacturers to guarantee quality while mitigating production waste and costs as well as product returns.

"The shift in today's global economy towards the delocalization of R&D centers and production means that — in order to hit time-to-market, commercial, quality and performance targets — manufacturers must increasingly rely on dimensional management throughout the entire manufacturing process," said Denis Daigle, Director at Creaform Engineering. "By providing all our clients with integrated dimensional management services and training, we are leveraging the tremendous potential of metrology to them by bridging the gap between design, production and quality assurance teams. Dimensional management is a complete game changer when it comes to worldwide manufacturing."

Additionally, Creaform Engineering's unique approach consists of applying dimensional management best practices right from the start of a project in order to mitigate errors during assembly, which can increase costs, impact time-to-market and cause significant product recalls.

The company's enhanced dimensional management services help clients address critical manufacturing challenges, including:

- Identifying assembly functional elements and critical dimensions
- Analyzing variations and distribute tolerances according to manufacturing processes
- Applying functional tolerances (GD&T) according to ASME Y14.5
- Solving assembly problems related to dimensional management issues

Dimensional management services can be offered in conjunction with the engineering team's wide range of services for a complete, turnkey solution. Moreover, Creaform Engineering has a proven track record in helping clients in many different industries benefit from its advanced expertise in dimensional management. Ultimately, this improves quality and decreases costs by evaluating designs through the entire product development process — from the initial concept to series-production readiness.

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# Digital Catapult collaborates with Siemens, BT and PTC on next generation network infrastructure 21 February 2019

Digital Catapult has partnered with Siemens, BT, PTC, IBM, ServiceNow, Semtech and Texas Instruments to launch the UK's newest dedicated facility for leading edge network technologies: the Future Networks Lab.

The Future Networks Lab provides a place for startups, corporations and network platform providers to collaborate through access to technical expertise, innovation support and advanced digital infrastructure facilities including all leading LPWAN technologies (including LoRaWAN, SigFox, NB-IoT and LTE-M), and a 5G node that builds on the success of Digital Catapult's Brighton 5G testbed launched in September 2018.

Digital Catapult and its partners will use the Future Networks Lab to demonstrate the practical application of their own IoT solutions and products, showcasing how organisations of all sizes can fully exploit the potential of these technologies at scale.

To help solve these challenges and provide more opportunities to create network connectivity solutions proven in the field, the Future Networks Lab has been designed to support UK businesses of all sizes to research, develop and adopt the latest network solutions and prototypes in a dedicated space for open

innovation.

Jeremy Silver, CEO, Digital Catapult, said: "Today's companies need modern, efficient and resilient technological infrastructure. Digital Catapult's new Future Networks Lab will provide some of the key building blocks to help unlock that developing infrastructure and the new services which will run on it. We're excited to launch this new facility alongside some of Britain's leading players. Together, we are helping companies of all sizes access the latest IoT enabling technologies, developing collaboration opportunities and running programmes which will bring all sorts of experts together in an inspiring space."

Margot James, Minister for Digital, said: "We want the UK to be a world leader in 5G and our groundbreaking testbeds and trials set up across the country will make that possible. The Future Networks Lab will help drive innovative and ongoing collaboration between industry and business, so that we can realise the revolutionary benefits of 5G and Internet of Things technology."

Juergen Maier CBE, CEO, Siemens UK, said: "The Future Networks Lab can play a vital role in the fourth industrial revolution where practical experimentation can show the potential of new digital technologies. We're delighted to partner with the Digital Catapult in making our Made Smarter digital revolution a reality for businesses across the capital and beyond."

Gerry McQuade, CEO of BT's Enterprise business, said: "BT aims to be a leader in delivering 5G and IoT networks and services to UK businesses and the public sector. We've already conducted the UK's first live trials of 5G with services set to launch across 16 cities initially this year. And we're actively helping customers across the transport, logistics, utilities and retail sectors transform their operations through intelligent IoT solutions, for example, Stobart Group's Rail & Civils Division. Collaboration with an ecosystem of partners and tech start-ups is key to success in this space. So we're pleased to be underpinning Digital Catapult's Things Connected Network in London and extending our partnership through the new Future Networks Lab to encourage further innovation in 5G and IoT."

Paul Haimes, VP Pre-Sales, PTC, said: "PTC has a long history of working with UK's Catapult Centres with over a decade of successful collaboration at the AMRC High Value Manufacturing Catapult. We're excited about our new partnership with Digital Catapult and specifically the Future Networks Lab which will allow organisations to blueprint and validate the value of their digital use-cases in a single location using industry leading technologies."

Marc Pegulu, Vice President, Semtech's Wireless and Sensing Products Group, said: "The Future Networks Lab will provide multiple industries access to real-world expertise and advanced test equipment for LoRa®-based solutions. This open innovation will reduce the time to market for using data-based concepts for Internet of Things (IoT) solutions as Semtech's LoRa Technology is the DNA (Devices, Networks, Applications) of IoT targeted to businesses and consumers that need a proven, flexible and easy-to-implement platform."

Future networks technologies such as LPWAN and 5G have the potential to radically transform industrial processes but their application does not need to be limited. Industries across the public and private sectors could see huge benefits by embracing advanced digital technologies which help build connectivity, streamline process and iron out inefficiencies in quality control, asset tracking and management.

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#### Elysium Presents Gold Partner Award to Honlitech

20 February 2019

In January, the Elysium European Summit took place in Lyon, France with attendees throughout the Elysium network, partners and customers, to discuss past success but also to design the future together.

It was the perfect occasion to present the Gold Partner Award to Honli Technology Company (Honlitech hereunder) in Shanghai, China in recognition of more than a decade of strong partnership and being the most professional engineering quality solution provider in China.

Honlitech has specialized in Elysium products such as CADdoctor, ASFALIS, and InfiPoints and is not only a strong Partner to Elysium, but also to their customers ranging in various industries such as automotive, aerospace, heavy industry, electronics, and many more.

Kentaro Fukuta, general manager of global business at Elysium presented the award to James Yeh, CEO & founder of Honlitech who accepted it gladly. "We appreciate that Elysium recognized Honlitech's effort for the past 10 years in China. During this endeavor, the PDQ (product data quality) concept has been more widely accepted by high-end Chinese manufacturing corporations. I hope the partnership will last forever going, and in addition, our customers can benefit more from Elysium's new technology."

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#### Elysium Presents Platinum Partner Award to CAMTEX

20 February 2019

In January, the Elysium European Summit took place in Lyon, France where attendees from the Elysium network, partners and customers came together to discuss past success but also to design the future.

It was the perfect setting to present the Platinum Partner Award to CAMTEX GmbH (CAMTEX hereunder) in recognition of a long year partnership and being a strong proponent of Elysium Technology in Germany.

Kensuke Tashiro, managing director of Elysium Europe presented the award to Steffen Volkmar, managing director of CAMTEX. "We are proud of this award since it shows that our way of specific advising to every customer and giving them a software solution that exactly meets their requirements, is the right way. Direct contact from customers is the most important; hence we can find the ideal solution for every customer. That is what our team is working hand in hand for," said Volkmar.

CAMTEX specializes in Elysium products such as CADdoctor and ASFALIS.

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#### Maplesoft and Sigmetrix Announce Direct Operations in China

20 February 2019

Maplesoft and Sigmetrix announced that they have started direct operations in China. The two Cybernet Group companies now have an office in Shanghai that is staffed by local experts to provide high-quality products and solutions to their customers within all of China. Henry Jiang, Country Manager, will

oversee operations in China for both Maplesoft and Sigmetrix.

"Maplesoft and Sigmetrix have long-standing partnerships in China and we are excited to enhance our presence in this market," Jiang said. "We look forward to working directly with customers, utilizing our local experience to enhance relationships, and working effectively to meet the needs of our academic and professional customers."

This development will help increase presence in the region for both companies, whose products were formerly sold in China through distributors. The Maplesoft product suite includes Maple<sup>TM</sup>, the technical computing and documentation environment, and MapleSim<sup>TM</sup>, the high-performance, multi-domain modeling and simulation tool for physical systems. Sigmetrix offers CETOL 6σ, a fully-integrated 3D tolerance analysis solution, EZtol, a 1D analysis tool, and GD&T Advisor, an interactive tool that provides expert guidance on the correct application of GD&T (Geometric Dimensioning & Tolerancing) / GPS (Geometrical Product Specifications).

"We are excited to take this important step in offering Maplesoft's solutions directly to our customers in China," said Dr. Laurent Bernardin, President and CEO, Maplesoft. "China is a vast market and we see great potential for growth. We look forward to building on our current relationships, and fostering new partnerships that will enhance STEM education and engineering innovation in the region."

"This announcement further enforces our commitment to offer the best mechanical variation solutions to systems, mechanical, and manufacturing engineers, not only in China, but worldwide," said James Stoddard, President, Sigmetrix. "Combining resources with Maplesoft allows Sigmetrix to enhance our local support of customers in China, helping more engineering teams achieve robust designs through tolerance analysis and the correct application of GD&T / GPS. This allows products to get to market faster while shortening development time and improving quality."

The office in China is an addition to Maplesoft's growing footprint which covers offices in North America, the UK, Germany and France. In addition, Maplesoft currently operates in over 90 countries worldwide through a large reseller distributor network. The new China office will augment the existing reseller network Sigmetrix has been utilizing throughout Europe and Asia. Both companies work with leading corporations and academic institutions in Asia, delivering technology tools and solutions covering various industries.

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# Signalysis and Vaughn Associates Partnership Brings Product Quality Solutions to Manufacturers and Suppliers

18 February 2019

Signalysis, Inc. announces a sales representative partnership with Vaughn Associates, Inc. Under the agreement Vaughn Associates will work with manufacturers throughout Alabama, Arkansas, Georgia, Florida, Louisiana, Mississippi, North and South Carolina and Tennessee to enhance product quality with Signalysis solutions.

Signalysis test systems help ensure quality throughout the product lifecycle. Signalysis replaces subjective testing with objective testing to quantify customer complaints and other objectionable noises to help deliver defect-free products.

Tom Cooney, Vaughn Associates, President & Sales Manager comments: "In today's competitive manufacturing landscape, product quality issues have a direct and measurable impact on the bottom line. Excessive warranty claims, lost contracts, and decreased market share can have unrecoverable consequences. As a result, quality remains an overriding concern for most manufacturers today. We are excited for the opportunity to provide manufacturers in our area with the proven solutions of Signalysis."

Neil Coleman, Signalysis President comments: "Vaughn Associates has a well-established reputation throughout the region and among its growing customer base. Service is at the top of our list; from Signalysis and those who represent us. We have to be confident that a partner reflects our core values and commitment to responsiveness. We are pleased to be working with Vaughn and look forward to providing quality solutions and service to manufacturers and suppliers throughout the region."

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# SMS\_ThinkTank<sup>TM</sup> announces the publication of the paper "Digital Twin - Its Role and Structure within a Modern Systems Engineering Approach"

20 February 2019

The complexity of systems is rapidly increasing across all industries. Embedded systems and interactive environments account for an increasing share of the product features and the total product cost. At the same time, the need to develop and maintain innovate new products and "products as a service" is critical for corporate success and, in some cases, even for enterprise survival. Companies must ensure a cost effective and reliable product is introduced to the market in a timely manner while also addressing the challenges relating to in-service product updates and on-going maintenance. The Digital Twin in the context of virtual engineering and digital transformation is becoming a critical player in such highly innovative and competitive environment.

To properly utilize virtual engineering, companies must be able to adopt methods and processes that enable technologies such as the Internet-of-Things (IoT), Digital Twin, etc. Systems Engineering thinking and the enablement and deployment of the latest best practices and solutions in this space are crucial for the successful development of complex systems that have become part of most products in today's world.

Modern Systems Engineering thinking doesn't stop at the fence of an organization or company. Especially in our modern, connected and interactive world products begin another life once they get into service. They become part of an "Experience Ecosystem". The Digital Twin plays a central role in such an ecosystem. With so much hype about this subject, it is time to put this better into the perspective of the overall MBSE thinking to understand what it is and how it can help address engineering challenges companies are facing in our modern world.

In this paper we discuss and define the Digital Twin, explain the various application streams and its life cycle, its connection to innovation and business analytics platforms, and how it changes the thinking of the traditional engineering "V". Furthermore, we discuss how deploying Digital Twin technology can improve the engineering maturity of companies and, thus, make those more competitive and disruptive. Based on the mentioned "Hype" about the Digital Twin it is also important to understand where the market stands realizing the Digital Twin.

To request the paper please visit https://www.smsthinktank.com/news.html

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#### TCS and Nanoheal to Provide Digital Workspace Automation for End-user Devices

19 February 2019

Tata Consultancy Services (TCS) announced a partnership with Nanoheal, a predictive workspace automation platform provider, to offer enterprises cognitive, self-healing end-user device management solutions.

In today's digital-first landscape, companies are increasingly relying on intelligent technology to streamline processes and automate tasks. TCS and Nanoheal will partner to deliver solutions that combine TCS' expertise in managing workspaces with deep delivery capabilities, across leading organization-wide transformations, with Nanoheal's automated, proactive, self-healing device platform to ensure a seamless, error-free enterprise workspace.

"Enterprises today are looking to use digital technologies to deliver exceptional experiences, not just for their customers but also for their employees," said Raman Venkatraman, Vice President and Global Head, Alliances and Technology Unit, TCS. "We're happy to partner with Nanoheal to provide our customers with automated solutions that free up their resources from mundane trouble-shooting tasks to focus on forward-thinking initiatives that help them thrive as Business 4.0<sup>TM</sup> enterprises."

The Nanoheal platform provides smart, simple, hands-off tools to automate nearly 90 percent of workspace management operations, drastically reduce resolution time, monitor device performance, and enforce policy and compliance. Corporate end-users will benefit from smarter, more streamlined customer experience from beginning to end.

"Nanoheal is an all-in-one proactive and predictive workspace automation platform dedicated to continually improving end-user experience and simplifying the delivery of IT services," explained Sridhar Santhanam, CEO, Nanoheal. "We are thrilled to partner with TCS, as their impressive global reach and proven track record of helping customers navigate the ever-evolving tech landscape will enable us to deliver our collective expertise and capabilities across the corporate marketplace."

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#### Third Wave Systems Begins German Tech Support

20 February 2019

Third Wave Systems (TWS) is pleased to announce the addition of German technical support. This announcement was made today to a group of customers and partners at the company's annual European Users Conference, in Augsburg, Germany; a two-day technical event featuring presentations, workshops and product forums, and networking.

"We're confident that this will dramatically improve technical support and response times for AdvantEdge and Production Module users," Kerry Marusich, TWS President said. "The German market is growing for TWS, and we need to grow along with it. Adding of German support is an important step

in this direction."

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#### Xometry Deepens Partnership with Roush Yates Manufacturing Solutions

15 February 2019

Xometry announced a strategic partnership today with Roush Yates Manufacturing Solutions, a division of Roush Yates Engines. This partnership ensures RYMS will dedicate manufacturing capacity for Xometry jobs. RYMS is a precision CNC parts manufacturer for Roush Yates Engines, the exclusive engine builder to Ford Performance's NASCAR (MENCS & Xfinity), IMSA, and FIA World Endurance Championship racing teams. Roush Yates Manufacturing Solutions is ISO 9001/AS9100 REV D certified, ITAR registered and one of over 2,500 members of Xometry's Manufacturing Partner Network.

"We're thrilled to deepen our relationship with Roush Yates Manufacturing Solutions," said Bill Cronin, Chief Revenue Officer at Xometry. "Roush Yates Manufacturing Solutions has been a great partner and shares the same focus of bringing cutting edge technologies to our customers. Roush Yates Manufacturing Solutions' experience and expertise strengthens our ability to serve our customers across all major industries from automotive to aerospace."

"We're excited to expand our partnership with Xometry," said Bob Ucman, Vice President, at Roush Yates Manufacturing Solutions. "Xometry's high tech approach to manufacturing will streamline our operations and increase our ability to scale production. We look forward to growing and diversifying our work through Xometry's while reaching across multiple industries across the country."

Xometry's U.S.-based Manufacturing Partners form the backbone of its cutting-edge Manufacturing On Demand platform. Xometry's technology allows customers to easily quote and order custom manufactured parts online across a multitude of manufacturing processes, including CNC Machining, 3D Printing, Sheet Metal Fabrication and Injection Molding.

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### **Events News**

### Altair Named Official Simulation-Driven Innovation Partner of CWIEME Berlin 2019

19 February 2019

Altair and the organizers of CWIEME Berlin, the world's largest electric motor and transformer manufacturing event, have signed an agreement establishing Altair as this year's CWIEME Berlin's official Simulation-Driven Innovation<sup>TM</sup> partner. Altair will host a series of keynote and technical sessions on "Simulation-Driven Innovation" at the event, featuring customer rich presentations, with contributions of expertise in simulation-driven design, electromagnetics, thermal and structural simulation, and innovative product development during the May 21 - 23 event. Altair's participation will also include a booth in the show's newly added e-mobility hall. Focusing on e-mobility, electric motor, power generation equipment design, multiphysics and system simulation, Altair will also contribute with

educational and joint public relation activities prior to, during, and following the event.

"The development of the next generation of electric machines can only meet the performance, efficiency and levels of sustainability required in response to market demand by leveraging the full potential of state-of-the-art digital tools and methods," said Chloe Theobald, senior global content manager, CWIEME. "Using a holistic development approach based on simulation-driven design and multi-physics optimization is a key success factor in achieving these goals. This is something that we are excited to be exploring with our Simulation-Driven Innovation partner Altair, across a range of special talks and case studies at CWIEME Berlin this year."

Electric machines have achieved significant performance gains within the last few years, with a tremendous increase in the overall complexity of electronic and mechatronic systems. The use of simulation methods has become mandatory for the inclusion of all needed functionalities and to meet customer expectations and regulatory requirements. Solutions such as Altair Flux<sup>TM</sup>, and multidisciplinary design and system simulation approaches using integrative platforms like Altair HyperWorks<sup>TM</sup> help to design innovative products and optimize their performance for efficiency, weight, noise, costs, and other attributes of devices such as electric motors or power transformers.

"We have participated at CWIEME Berlin presenting our Altair Flux products for many years," said Dr. Pietro Cervellera, senior vice president EMEA operations, Altair. "As of last year, we have extended our participation from being an exhibitor, to becoming the event's Simulation-Driven Innovation partner, contributing our expertise in simulation-driven design and multiphysics optimization, enhanced via a specialized session in the CWIEME central theater, and with presentations on the EV Momentum stage. The trade show has always been an excellent platform for us to present our solutions for the development of e-motors, electric rotating machines, transformers, and other devices. Now, due to the show's targeted growth into e-mobility and electrification in general, it is even more important for us to show the huge potential simulation offers."

The Altair hosted events and keynotes will include contributions from renown companies such as: Porsche, ELAPHE, Moving Magnet Technologies, Vortex, and others.

Visit CWIEME Berlin and the Altair hosted event at the CWIEME Central Theatre, Messe Berlin. Altair can be found in hall 3.1 at booth 31D10. The agenda of Altair conference session, taking place on Tuesday May 21 at 2pm, will soon be announced at: <a href="https://web.altair.com/electric motors">https://web.altair.com/electric motors</a>.

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# The ASSESS Initiative Announces that Onscale will be an ASSESS 2019 Congress Platinum Sponsor 20 February 2019

ASSESS Initiative is proud to announce that Onscale will be a Platinum Sponsor for the upcoming ASSESS 2019 CONGRESS, to be held at Chateau Elan Winery & Resort, Oct 27th -29th, 2019.

"We believe that engineering simulation is the future of engineering R&D and manufacturing," said Masha Petrova, VP of Marketing at OnScale, developer of Multiphysics CAE tools in the cloud. "This is why we are very excited to be a proud sponsor of the ASSESS Congress and to be actively involved in

the ASSESS efforts of bringing together thought leaders in engineering software from industry, academia and government organizations."

The ASSESS 2019 Congress is the 4th annual congress for ASSESS organized to "enable" both strategies and relationships related to significantly increasing the use and benefit of Engineering Simulation. Key business drivers are forcing a "simulation revolution" to overcome the issue of required expertise which is limiting the expansion of Engineering Simulation usage. The theme of the ASSESS 2019 Congress is "Advancing the Engineering Simulation Revolution."

Registration for the ASSESS 2019 Congress is by invitation only and is limited to 110 attendees. Registration will close either when all available seats are taken but no later than October 24, 2019.

"We appreciate the support from Onscale and their participation at our annual congress," says Joe Walsh, CEO and Co-Founder of the ASSESS Initiative.

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

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

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#### Influential Global Industry Trailblazers to Share Expertise at LiveWorx

21 February 2019

PTC today announced that its <u>LiveWorx</u>®digital transformation conference will feature speakers and new content offerings on artificial intelligence, augmented and virtual reality, product design, and more at the June 10-13 event. Driven by this year's theme, Augmented Workforce: Taking Human Capabilities to New Heights, several industry visionaries have been selected to discuss how these emerging technologies enable users to unlock new levels of productivity, insight, and efficiency in the digital enterprise. The event will be held in Boston's Seaport Innovation District, and registration is open at <a href="https://www.liveworx.com/register">www.liveworx.com/register</a>.

LiveWorx is a global digital transformation conference and marketplace for solutions engineered for the new era of industrial innovation. The four-day event features hundreds of breakout sessions, Track Spotlight presentations, and powerful Keynote speakers set in an immersive, interactive technology playground. This year's theme places a strong focus on providing the expected 6,000+ attendees with a personalized, connected journey that shows how people are complemented by technology rather than replaced by it.

#### Innovators Take the Stage at LiveWorx

LiveWorx will showcase influential technology trailblazers, bestselling authors, and futurists. Automated processes and emerging technologies that will be showcased at the conference can be used to

- Pattie Maes, a professor in MIT's Program in Media Arts and Sciences, runs the Media Lab's Fluid Interfaces research group, which aims to radically reinvent the human-machine experience. Her interest is in cognitive enhancement, or how immersive and wearable systems can actively assist people with memory, attention, learning, decision making, communication, and well-being. She has received numerous awards, and her 2009 TED talk, "Meet the SixthSense Interaction," is among the most-watched TED talks ever with more than ten million views. Pattie Maes will be a Keynote presenter on Thursday, June 13.
- <u>Cathy Hackl</u> is an Emmy-nominated communicator turned VR and AR global speaker, producer, and futurist. LinkedIn recently named her the #4 Top Voice in Technology globally on its platform in 2018, and NBC News named her as one of the top women working in virtual reality. She is a global advisor for the VR/AR Association and a leading voice in the VR/AR marketing space. Hackl is the author of "Marketing New Realities: An Introduction to VR & AR Marketing, Branding & Communications." Cathy Hackl will be a featured Track Spotlight presenter for the AR/MR/VR content track on Tuesday, June 11.
- <u>Kat Holmes</u>, named one of Fast Company's "Most Creative People in Business" in 2017, is the founder of mismatch.design, a firm dedicated to inclusive design resources and education. Her award-winning toolkit was inducted into the Smithsonian Institution's Cooper Hewitt Design Museum. In 2018, Holmes joined Google and continues to advance inclusive development for some of the most influential technologies in the world. She is the author of "Mismatch: How Inclusion Shapes Design." Kat Holmes will be a featured Track Spotlight presenter for the Digital Engineering content track on Tuesday, June 11.

#### **Agenda Packed with Industry Leaders and Trending Topics**

LiveWorx attendees will have access to an unprecedented selection of digital transformation content through more than 240 educational sessions, including interactive presentations, real-life use cases, deep-dive technical lectures, small work groups, expert panel discussions, and trainings. With 12 content tracks, including AR/MR/VR, Digital Engineering, IIoT, Industry 4.0, and AI & Robotics, attendees will be able to search for sessions based on their role, industry, or preferred product family to find the ideal mix of sessions, presenters, topics, and more.

The carefully curated agenda is packed with hundreds of speakers sharing their own transformations in how products are designed, factories are run, and the next generation of digitally empowered workers are created. Some of the industry-leading organizations represented will include Airbus, Bell and Howell, BMW, Boston Children's Hospital, Caterpillar, Ericsson, HPE, Johns Hopkins Applied Physics Lab, Johnson & Johnson, Lockheed Martin, Raytheon, Robert Bosch Tool Corp, Southwest Airlines, Stryker, Toshiba, Vestas, and Weatherford.

Visit <u>www.liveworx.com</u> and join the conversation <u>@LiveWorx</u> on Twitter for up-to-the-minute agenda and event information.

Don't Miss Out: Register Now

Register for LiveWorx and co-located events at <a href="www.liveworx.com/register">www.liveworx.com/register</a>. <a href="In-depth software">In-depth software</a> <a href="trainings">trainings</a> for CAD, PLM, Industrial Automation, IoT, and AR are also available at an additional cost.

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#### Zuken USA Announces Digital Transformation Keynote

14 February 2019

Zuken is pleased to announce Stephen Collins, Chief Executive Officer at Anark Corporation, as Keynote speaker for Zuken Innovation World (ZIW) Americas 2019. ZIW is part of our series of annual conferences taking place around the globe. These conferences bring together our customers, partners and industry professionals for networking, learning, and sharing of innovative ideas.

Stephen Collins will speak on "Digital Transformation and the Digital Thread", explaining the benefits of a connected, collaborative, information-rich digital thread spanning the product life cycle, along with the challenges associated with its implementation. Collins will illustrate how digitalization of different phases of the product life cycle can offer new efficiencies not available in a document-based development process.

Collins is a 25+ year IT industry veteran and entrepreneur with an extensive background in 3D visualization, Model Based Enterprise, and PLM software and solutions. He is an experienced operator with a strong sales process, marketing, business development, technology licensing, and equity financing experience.

During his tenure at Anark, Stephen helped guide Anark through its evolution from innovative 3D web visualization and digital media technology developer to emerge as a fast-growing, leading provider of automated technical enterprise content management, visual collaboration, and digital thread solutions that enable leading global manufacturers to communicate and collaborate more effectively and securely throughout engineering, supply chain, manufacturing, and field service operations.

#### **Education and Innovation**

The ZIW conference combines education, networking and innovative ideas offering a fun and interactive experience for our participants. Zuken is broadening the agenda by adding an E/E digital engineering track covering topics focused on Model-Based Systems Engineering (MBSE), digital thread, digital twin, artificial intelligence and more. Participants will hear case studies from customers and partners on current challenges and experiences they are facing and how they address them with Zuken's solutions. Embedded within the two-day agenda, participants can attend Zuken University classes focused on upcoming software releases and advancing product knowledge and skills. The popular Expert Bar will return offering 1:1 access to Zuken's technical experts and a hands-on look at the latest product releases.

#### **Event Highlights**

Expanded customer and partner participation including Ansys, Applied Materials, Intel, Anark, Continental, Vitech, Keysight, Komax, PTC, SiliconExpert, and others

Two-day agenda with 40 technical classes and a new E/E digital engineering track

Zuken University classes focused on Zuken software release plans, highlights, how-to instruction and more

Technology Showcase featuring our partner solutions and the Zuken Expert Bar

Zuken 360, an open Q&A with the Zuken leadership team

d

Zuken Innovation World

April 15-17, 2019

Hilton Head, South Carolina, USA

For more information, or to register for the event, see www.zuken.com/ziw-us.

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### **Financial News**

Altair to Announce Fourth Quarter and Full Year 2018 Financial Results on February 28, 2019

21 February 2019

Altair will release its financial results for the fourth quarter and full year of 2018, ended December 31, 2018, after the market close on Thursday, February 28, 2019. On that day, management will hold a conference call and webcast at 4:30 p.m. ET (1:30 p.m. PT) to review and discuss the Company's results for the fourth quarter and full year. A recorded version of this webcast will be available after the call and accessible at <a href="http://investor.altair.com">http://investor.altair.com</a>

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### Implementation Investments

#### Diehl Aviation Selects Altair as Preferred Strategic CAE Supplier

21 February 2019

Altair and Diehl Aviation have signed a multiyear agreement establishing Altair as Diehl Aviation's preferred strategic computer-aided engineering (CAE) supplier. In accordance with the agreement, Altair OptiStruct<sup>TM</sup> will serve as the primary solver for structural justification and certification, Altair AcuSolve as the preferred solver for CFD, and the Altair HyperWorks<sup>TM</sup> suite as the standard for modeling & visualization.

"We are very happy that Altair has been selected as preferred strategic CAE supplier and we look forward to helping Diehl Aviation meet their engineering challenges over the next 3 years and beyond," said Anthony Mc Loughlin, Sales Director for Aerospace, Altair Engineering. "In particular, this decision demonstrates the accelerating momentum of OptiStruct becoming the next generation solver standard for structural certification in aerospace. Standing out with its integrated analysis & optimization approach, OptiStruct is helping aerospace engineers move to the next level by performing reliable structural justification faster while at the same time producing better and more robust designs."

The overall goal of the agreement is to comply with Diehl Aviation's CAE single strategic provider consolidation strategy, while meeting current and next-generation requirements for their growing CAE

user base with Altair solutions, technologies and expertise in aerospace.

"With our decision for OptiStruct as our primary structural solver for justification and verification we aim to meet the current and future needs of our growing CAE user base, while at the same time aligning with our single CAE supplier consolidation strategy," said Veit Thomas Head of Stress / Weight / Simulation, Diehl Aviation. "Altair has a proven standing in the aerospace industry, and its modeling and visualization tools are industry standard. With Altair's expertise and next-generation solver solutions, we are confident that going forward with Altair as our primary strategic CAE partner is the right choice."

Learn more about Altair's aerospace solutions, visit Altair from April 2-4, 2019 at AIX in Hamburg, Germany (booth 6E80), and read more at: altairhyperworks.com/industry/Aerospace.

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#### Leading Apparel Exporter Brandix Goes 'Live' with Centric PLM Solution

19 February 2019

Brandix, a leading apparel exporter in Sri Lanka, has successfully implemented Centric Software's Product Lifecycle Management (PLM) solution. Brandix is a provider of end-to-end solutions in Sri Lanka's apparel sector and a preferred supplier to some of the leading retail brands in the US and Europe. The company has a presence in Sri Lanka, India, Bangladesh, Cambodia, Haiti and the UK with a total of over 45,000 employees. Further, the company was awarded 'Globally Operated Highest Foreign Exchange Earner' by the Sri Lanka Export Development Board for 2017/2018.

In 2017, Brandix began the hunt for a PLM solution to improve data flows and communication. Citing Centric's apparel expertise, intuitive PLM interface and out-of-the-box capabilities, Brandix selected Centric 8 PLM, after which the company successfully went live on schedule.

"Considering the size of our organization and the complexity of our requirements, going live on time is a testament to the capabilities of Centric's solution. We sincerely appreciate the level of professionalism, skill and passion demonstrated by the team from Centric that enabled us to successfully collaborate and complete the task at hand. We are poised to step into the future with plans to aggressively grow our business, and Centric PLM supports us with a robust and unified development process across the entire organization. We look forward to continuing to have a positive experience via the PLM solution," said Surendra Karunakaran, CIO of Brandix Lanka Limited.

"We are very pleased that Brandix has successfully implemented Centric 8 PLM," says Chris Groves, President and CEO of Centric Software. "Brandix is a highly strategic company with a strong vision for growth and we are proud to continue to partner with them as they experience even greater success."

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### Mubitek Selects C3D Toolkit for ÇİZEN Die Design Software

18 February 2019

Mubitek, the leading research and development company in Turkey and recognized die design expert, has chosen C3D Toolkit from C3D Labs to improve the 3D modeling capabilities of its ÇİZEN software, the first fully Turkish 3D design application.

The company licensed the full C3D Toolkit, consisting of C3D Modeler for geometric modeling, C3D Solver for constraint solving, C3D Vision for the rendering engine, and C3D Converter for data exchange.

These components from C3D Labs replace the open-source Open CASCADE development platform and the D-Cubed constraint solver from Siemens PLM Software, which Mubitek previously used.

Mubitek is using its deep expertise in industry to develop ÇİZEN for smart die design. The software features parametric 3D modeling, a 3D standard parts library, specific 3D CAD modules, and import and export operations for IGES, STP, and STL files.

C3D Toolkit brings core 3D funcionality to ÇİZEN's robust solid modeling module. The components from C3D Labs provide Mubitek the ability to reuse design components, modify models easily, create multiple versions of models, and to exchange data with other design packages.

"The 3D components we first choose were mostly blind choices," said Mustafa BİNTAŞ, General Manager of Mubitek. "This time, however, we evaluated several kernels and tested them to make sure they met our requirements, such as our need for a viewing module, geometric naming feature, and the learning curve. C3D Toolkit satisfied us on these issues."

"With Mubitek as our newest customer, we especially appreciated their feedback on C3D Vision, our newest and most quickly developing module of C3D Toolkit," said Oleg Zykov, CEO of C3D Labs. "Recently released C3D Vision 2019 has added new functions requested by Mubitek's developers, whose level of professionalism allowed them to rapidly implement our components into ÇİZEN CAD software."

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# Quality Worldwide Selects NGC's Andromeda Cloud Platform to Provide an End-to-End Solution for Its Growing Business

21 February 2019

New Generation Computing, Inc. ("NGC") today announced that Quality Worldwide, a full-service apparel design and manufacturing company, is implementing the Andromeda Cloud Platform® from NGC Software®.

Quality Worldwide selected the Andromeda Cloud Platform, including PLM, SCM and Quality Control, as well as NGC's ERP solution, to deliver an even higher level of service and support for its customers, who include many of the retail and fashion industry's best-known brands. Previously, the company relied on a combination of spreadsheets and other applications to manage its business. In order to live up to its name, Quality Worldwide needed to invest in a solution that would support its continued growth and improve operating efficiencies, turnaround time and accuracy.

"Our business is growing rapidly, and we needed an end-to-end solution that would support our global operations and dramatically improve efficiencies," said Donavon Dartez, VP, operations and business development, Quality Worldwide.

After a thorough review of solution providers, Quality Worldwide selected NGC for its easy-to-use end-to-end solutions. The collaboration tools embedded in the Andromeda PLM were key selling features, as well as the ability to provide real-time updates on any aspect of Quality Worldwide's operations.

"From a manager perspective, one of the top benefits of implementing NGC's solutions are the ability to create a dashboard that lets me see an ongoing, up-to-minute view of how the business is doing, with all the information I need at my fingertips to ensure products are on time for our customers," said Dave Williams, VP, production and sourcing, Quality Worldwide. "Our experience with NGC has been wonderful."

"It's exciting to help Quality Worldwide transform its rapidly growing business with NGC's solutions," said Mark Burstein, president, NGC. "We look forward to working with them to increase speed to market and efficiency."

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### **Product News**

## ANSYS Expands Materials Teaching Support with New CES EduPack 2019 from Granta

20 February 2019

Through its recent acquisition of Granta Design, ANSYS is supporting educators in teaching vital topics relating to materials to the next generation of students with the newly released CES EduPack<sup>TM</sup> 2019. Now extended to support a range of teaching approaches, this groundbreaking set of materials education resources supports materials teaching for engineering, design, science and sustainable development courses from pre-university to the advanced graduate level at more than 1,000 universities and colleges worldwide.

Among other enhancements, the 2019 release introduces a new Materials Science & Engineering (MS&E) Edition, which addresses key challenges of teaching introductory materials courses — large class sizes, students with different interests and backgrounds, and the need to communicate fundamental knowledge. The MS&E Edition offers interactive tools, like the Phase Diagram Tool, that promote active discovery and enable students to visually explore the vital relationships between materials processing, structures, and properties. These tools complement existing CES EduPack resources to support the full range of design-led and science-led teaching approaches. CES EduPack is now an ideal companion to all leading materials textbooks, including those authored by Callister, Ashby, or Shackelford.

"The Phase Diagram Tool is an extremely valuable interactive simulation that effectively demonstrates to users the interpretation of phase diagrams and how this information may be applied to understanding the development of microstructure," said Bill Callister, professor, University of Utah.

With the acquisition of Granta, ANSYS also empowers educational institutions to lead Eco Design and Sustainable Development programs.

"CES Edupack 2019 supports educators that are using the UN Sustainable Development Goals as a starting point for project work around social equality, justice and technological developments," said Mike Ashby, professor and co-founder of Granta. "Through regular updates to sustainable development

data and the addition of new topics such as additive manufacturing and biocomposites to link materials use to real-world production and manufacturing, CES Edupack 2019 empowers students to make stronger design decisions."

Additional CES EduPack 2019 enhancements include Spanish and German versions and enhanced accessibility enabling users to navigate using keyboard shortcuts. High contrast home pages, informative tool tips and improved font size settings improve the experience for all users, including those with visual impairments and those who use screen readers.

To learn more about CES EduPack 2019, please join a live webinar on Feb.

26: https://www.grantadesign.com/event/education/webinar-education/whats-new-to-support-materials-teaching-in-2019/

To learn more about MS&E, please join a live webinar featuring Professor Mike Ashby on Mar. 7: https://www.grantadesign.com/event/education/webinar-education/bringing-mse-to-life-the-new-materials-science-and-engineering-edition/

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#### CCE Releases EnSuite 2019 packed with new features

19 February 2019

CCE has announced the release of the latest version of its flagship viewer and translator software, EnSuite. EnSuite provides users the ability to view, analyze and translate data from all major CAD formats.

Some of the key enhancements in EnSuite 2019 include:

#### **CAD Version Upgrades:**

EnSuite can now view and translate SOLIDWORKS 2019, Solid Edge 2019 and Parasolid 31 files. It was also enhanced to write tessellation data to CATIA V5 files. EnSuite also allows viewing of SOLIDWORKS and Creo drawing files.

#### **Productivity Tools:**

- Batch translation application now leverages parallel processing capabilities and can simultaneously translate multiple parts from CATIA V5, Autodesk Inventor, Unigraphics (NX) and Solid Edge to IGES, STEP, Parasolid, VDA, STL, SOLIDWORKS, CATIA V5 or NX thereby significantly reducing overall translation time.
- Move component feature allows users to interactively move assembly components in any user specified direction. This makes it very useful for conducting walk throughs of assembly files during design review meetings, especially to reach hard-to-access components in a large assembly.
- Multibody parts can now be saved as assemblies in EnSuite.
- Wall Thickness Analyzer tool helps the user measure and analyze the thickness of a part. This is
  especially useful for plastic parts and castings since it provides visual cues to identify potential
  failure regions or design flaws.

"This is a great start to the new year. We are very excited about the updates in EnSuite 2019. What makes this release particularly significant is that almost all these enhancements were driven by user requests that we were able to turn around and deliver in very short order. We can't wait to hear what our customers think about these new features", says Debankan Chattopadhyay, Manager of Business Development at CCE.

EnSuite is a standalone software used to view and translate 3D CAD data and provides quick access to critical engineering information residing in CAD files, no matter which CAD system was used to author the data. EnSuite is completely CAD-independent and can be used across the extended enterprise without incurring costs associated with expensive CAD licenses. The software works with all major 3D CAD formats, including CATIA V4, CATIA V5, CATIA V6, NX, Creo, SOLIDWORKS, Autodesk Inventor, Solid Edge, Parasolid, JT, ACIS, CGR, STL, 3D PDF, IGES, and STEP.

Customers with an active subscription can get free access to these new EnSuite updates.

For additional information, please visit EnSuite on our website.

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#### FELIX Printers Releases Pro 3 for Industrial Additive Manufacturing

18 February 2019

Recently we introduced the FELIX Pro 3, an evolution in terms of quality and reliability. Based on the success of the Pro 2, there are many improvements made to create the finest 3D printer for professional users. So what has changed?

#### **Building** quality

There has been a complete redesign of the extruder assembly which improves the overall building quality. Some key changes:

- Quicker heat up times with a new hot-end design.
- Increased reliability with a better fixation of probe mechanism.
- Increased stability with a new way of swiveling back non-used extruder with less moving parts.
- Finer detail printing with a dual blower for up to 3 times more powerful cooling.
- Easier to maintain with the hot-end design which makes changing hot-ends easier than ever before. Allowing quick service or using a different hot-end for each material type.

#### Print speed and removing objects

The Pro 3 has been designed and manufactured to offer the highest possible price / performance ratio in its class with dedicated features that ensure minimal downtime and optimal performance. The automated calibration has been improved with more reliable building quality.

Next to that, the Pro 3 comes with a flex plate, designed with performance in mind. This is a removable building plate which makes it easy and quick to remove (large) printed objects safely and without possible damage.

Touchscreen and camera monitoring

The optional touchscreen is now easily added to your order. If you want the full Pro 3 experience, you need this.

It enables remote monitoring and control of your printer in a local network via ethernet or WIFI via any web-enabled device. Integration of a camera is very easy. This provides visual remote monitoring and the ability to create timelapse videos of your prints.

Building a 3D printer farm

Last but not least, the new touchscreen with embedded print server is so powerful that it can control up to 10 different printers to create a print farm.

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#### Kisters 3DViewStation version 2019 released

14 February 2019

3DViewStation version 2019 has released. New features assist users in repurposing CAD data, and enhancements significantly increase the rendering speed of ultra large assemblies.

The needs of technical documentation often pose a challenge to CAD data. Templates for online manuals or parts catalogs typically require the information to be reworked into compliant illustrations, images, or interactive 3D geometry.

KISTERS takes a customer-centric approach to development. "After reviewing our customers' most important specifications for technical documentation processes, we created interactive and automatic BOM ID generation," Robert Collins, 3DViewStation Sales Manager, explained enhancements to Bill of Materials (BOM).

"BOM IDs will be reused to interactively and automatically generate balloon callouts in an exploded view of the assembly. In the new version, users have multiple options to configure the arrangement of balloons. For further ease-of-use, we added the option to continuously recalculate the best possible layout, while rotating the 3D model."

Another focus of development was increasing value for mold or die casting customers. The new splitting function is the perfect complement to the existing draft angle analysis tool. Now 3DViewStation users can easily determine the complexity of a tool, what will be required to produce a part, and extract the face for the mold.

Collins observed that toolmakers will also enjoy the new feature recognition functions such as the drill hole recognition tool.

Known for its intuitive interface, advanced analysis and integration capabilities into leading systems, the CAD visualization software also provides import dialog quick settings for users of any version -- Windows desktop, web via any HTML5 browser, or virtual reality (VR) edition.

V2019 upgrades include the following:

• New and updated file formats for 2D or 3D import/export

- Neutral axis calculation with tesselated data
- BOM IDs and ballooning
- Performance optimization
- Options for filtering as well as license borrowing

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#### Hewlett Packard Enterprise Launches Platform to Unleash Real-Time Data Processing

19 February 2019

Hewlett Packard Enterprise (HPE) today announced the HPE Edgeline EL8000 Converged Edge System to help communication service providers (CSP) capitalize on data-intensive, low-latency services for media delivery, connected mobility, and smart cities. The new system enables CSPs to process vast amounts of data in real time directly at the edge, based on open standards to boost flexibility and reduce costs. HPE also announced collaborations with Samsung and Tech Mahindra to accelerate CSPs 5G adoption, leveraging the HPE Edgeline EL8000 Converged Edge System to deploy the next generation of edge-centric virtual 5G applications.

IDC forecasts that more than 150 billion devices will be connected across the globe by 2025, most of which will be creating data in real time. As a result, IDC predicts real-time data to represent nearly 30 percent of the Global Datasphere by 2025. Estimated to be 33 zettabytes in 2018, IDC forecasts the Global Datasphere to grow to 175 zettabytes by 2025. [1]

To deliver new services that tap into this massive growth of real-time data, CSPs must transform their telecommunications network edge towards standard IT systems and software-defined architectures, such as virtual radio access networks (vRAN) and virtual cable modem termination systems (vCMTS). The open-standards based HPE Edgeline EL8000 Converged Edge System was therefore developed as a cost effective replacement for CSPs' current proprietary edge systems, with enhanced performance and versatility for data-intensive real-time digital services. Additionally, the HPE Edgeline EL8000 Converged Edge System's unique design delivers high performance and ultra-low latency for the most demanding use cases, including media streaming, IoT, artificial intelligence, and video analytics, in a compact and ruggedized form factor, equipped with edge-optimized serviceability and remote systems management.

"CSPs have come a long way in virtualizing their networks. As this continues, the distribution of converged communications and compute capacity throughout the network will accelerate lower costs and improve service," said Dr. Tom Bradicich, Vice President and General Manager, Converged Servers, Edge and IoT Systems, HPE. "The HPE Edgeline EL8000 Converged Edge System delivers the capabilities of closed proprietary systems and more, but on an open-standards platform, combined with proven data-center class IT."

Designed for the real-life challenges of the telecommunications network edge

The massive growth of data volumes requires that CSPs deploy high-performance edge systems in their cell sites, often in remote and harsh environments. Moreover, this infrastructure must support many workload and quality-of-service requirements for which tailored slices of the network are employed. The HPE Edgeline EL8000 Converged Edge System delivers an unprecedented combination of capabilities

to meet these challenges, including:

Compact and ruggedized design optimized for harsh cell-site locations – Exceeding the requirements of industry standards NEBS and ASHRAE class 3 and 4, the system is resistant against hazardous environmental influences like heat, shock and vibration, as well as failover, supporting continuous operation between 0 and 55 degrees Celsius. The system can run rack mounted or stand-alone in any space available, with either a front-to-back and back-to-front cooling design. Low-latency, highperformance system design powers data-intensive applications at the edge – The single-socket design, equipped with high-end Intel ® Xeon ® Scalable Processors, reduces latency and energy consumption. System components can be combined, scaled and hot-swapped to meet changing demands, supporting, among others, NVIDIA ® Tesla ® GPUs, FPGAs from Intel and Xilinx, NICs from Intel or Mellanox, up to 1.5TB of memory and 16TB of storage. Modular blade and chassis options for use-case flexibility - With a range of depth and width options for blades and chassis, the system can be flexibly configured and scaled to meet new or changing use-case requirements. The flexible design allows CSPs to extend small- and micro-cell deployments, ensuring that cellular coverage can keep pace with increasing numbers of connected devices. One-click provisioning and remote systems management ensures continuous availability and performance in far-flung cell-sites – HPE's proven HPE iLO 5 technology and the newly developed chassis manager software enable remote provisioning, ongoing system health monitoring, updates, and management of HPE Edgeline EL8000 Converged Edge Systems across thousands of cell sites, from cell towers to oil rigs, without needing IT expertise on site.

"Collaboration between HPE and Intel has resulted in this versatile platform for network transformation at the edge," said Sandra L. Rivera, Senior Vice President and General Manager, Network Platforms Group, Intel. "Powered by Intel Xeon Scalable processors and based on open standards, the HPE Edgeline EL8000 Converged Edge System will enable high performance, flexible and intelligent networks that are required to deliver high bandwidth and low latency for edge and 5G services."

HPE collaborates with Samsung and Tech Mahindra to drive transformation of the network edge

To help CSPs accelerate their 5G transformation, HPE and Samsung Electronics Corporation (SEC) are collaborating to provide a joint edge-to-core vRAN commercial solution based on Samsung's radio network technologies and system integration services, and the HPE Edgeline EL8000 Converged Edge System.

"Samsung and HPE combine their strengths in radio networks, edge systems, and telecommunications infrastructure to drive the change towards a standard-IT based and software-defined network edge," said Wonil Roh, Vice President, Head of Technology Strategy at Samsung Network Business. "The HPE Edgeline EL8000 Converged Edge System will play a key role in Samsung's challenge to evolve our customers' networks with 5G vRAN demanding intense low-latency."

While some CSPs aim to deploy 5G from 2020 onwards, others may not be able to do so for a few years, potentially leaving entire regions without 5G coverage. As part of this interim process CSPs are turning to multi-access edge computing (MEC) software, which delivers many of the benefits of 5G, but using 4G LTE infrastructure. For this reason, HPE is collaborating with Tech Mahindra, a global leader in MEC software, to deliver MEC solutions based on the HPE Edgeline EL8000 Converged Edge System.

Our collaboration with HPE and the introduction of the HPE Edgeline EL8000 Converged Edge System is a major step for driving a fast and smooth transformation towards open standards at the edge in the Telco and Comms marketplace," said Karthikeyan Natarajan, Global Head, Engineering, IoT & Enterprise Mobility, Tech Mahindra. "As a leader in Telco and Comms software and services, Tech

Mahindra sees HPE as ideally positioned to help us deliver significantly improved user experiences, particularly through the often-uneven transformation from 4G to 5G."

The HPE Edgeline EL8000 Converged Edge System will be showcased at Mobile World Congress in Barcelona, February 25-28, 2019, and will be on display at both HPE's and Samsung's booths.

Availability

The HPE Edgeline EL8000 Converged Edge System will be available worldwide from June 2019.

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#### Introducing Assembly Configurations in Onshape

14 February 2019

Announced on the Onshape blog:

"This week we released a very important update to Onshape that included **Assembly Configurations**. This was one of our most highly requested features, and in true Onshape fashion, we have taken the opportunity to build a unique approach to configurations that is easy to use, but also tremendously powerful.

You may recall that last year we added Part Studio Configurations to Onshape. This unique approach to configurations allowed for multiple independent inputs instead of the usual approach of one large table listing every possible permutation for your design.

With this week's update, this same approach to building configurations is now available in the assembly. To get started creating assembly configurations in Onshape, click the Configuration panel flyout on the far right of your assembly.

Then choose the type of input that you want for your configuration. Much like configuring a Part Studio, you have three input options: List, Checkbox, and Configuration Variable.

Configuration variables are great if you want to allow a wide range of values. This allows the person configuring the model to type in any accepted value within the range defined in the variable.

You also have a checkbox input. This is a simple boolean and is great if you have a variation of your assembly that is either on or off. With this one checkbox input, you could edit configurations or suppress/unsuppress a number of parts, mates, features, and more.

Finally, you have the list input. Here you can create a list of possible options to choose from. This is a great input to choose if you want to limit the options available to a select few.

Once you have inputs defined, you can begin configuring assembly features. This can be done by clicking "Configure assembly features" in the Configuration panel and double-clicking whatever it is you want to control with that input.

If you are setting a Configuration variable, simply right-click anywhere you would normally type a value, and you will see the option to "Set to" your variable.

Once you have defined your inputs and assigned them to the appropriate parts, mates, patterns, and more, you can edit assembly configuration inputs by changing the values just above the instance list in your assembly.

So that's just a simple introduction into this exciting new functionality." To view the entire post with images, please visit: https://www.onshape.com/cad-blog/introducing-assembly-configurations-in-onshape

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# Renesas Electronics and Miromico Collaboration Brings to Market Enhanced LoRa® Module Based on Renesas Synergy<sup>TM</sup> Platform

18 February 2019

Renesas Electronics Corporation and Miromico AG today announced their collaboration has produced the compact and low-power FMLR-61-x-RSS3 module based on LoRa® devices and wireless radio frequency technology. The new Miromico module enables customers to connect easily to LoRaWAN-based networks that are mushrooming across Europe. The new module employs the innovative Renesas Synergy<sup>TM</sup> Platform, giving customers access to microcontrollers (MCUs) and a large production-grade software package. Engineers can use the S3A6 MCU on the LoRa-based module to handle various tasks, while seamlessly streaming data across a LoRaWAN-based network to the cloud. The LoRaWAN<sup>TM</sup> protocol is quickly becoming the de facto standard to connect the "Things" of the Internet of Things (IoT) across long distances (up to 50km), flexibly and securely, while keeping batteries alive for years. Both Renesas and Miromico are LoRa Alliance<sup>TM</sup> members.

The FMLR-61-x-RSS3 module is only 14.2mm x 19.5mm in size. Its operating voltage is 1.8V to 3.3V, and the module's power consumption ranges from just 1.4uA in sleep mode to 25.5mA (typical) in TX mode (14dBm). Receiver sensitivity is -148dBm in LoRa mode SF12@10.4 kHz, and the module's operating temperature range is -40 to 85°C. A highlight of the module is the use of the new licensed LoRaWAN stack with Firmware-Over-The-Air (FOTA) capabilities. Designed to meet all relevant certifications, the module can be used as a mass-produced LoRa solution in the field. In particular, the module's exceptional specifications make it ideal for urban as well as rural sensing applications such as metering, asset tracking, building automation, security, wearables, predictive maintenance and more.

The FMLR-61-x-RSS3 module employs the S3A6 MCU with integrated 48 MHz Arm® Cortex®-M4 core, and features 256 KB code flash memory, 8 KB data flash, and 32 KB SRAM, which is enough memory to allow engineers to add a variety of their own functions. Most MCU signals are available at the module level to make them externally accessible. Manufactured in a low- power process, the S3A6 peripheral set includes analog features such as a 14-bit SAR analog- to-digital converter (ADC), 12-bit digital-to-analog converter (DAC), op amps, and comparators. Various timer channels and serial ports, USB function, CAN, DMA, and powerful safety and security hardware makes the S3A6 an ideal MCU for a wide range of battery-operated applications. In addition, the S3A6 is part of a large Renesas Synergy MCU portfolio, making it easy to scale up to more functionality or scale down for cost optimization.

The Renesas Synergy Platform features the Synergy Software Package (SSP), which comprises a large selection of production-grade software. SSP includes the ThreadX® RTOS and lots of associated middleware such as a file system, USB stack, graphical user interface (GUI) software, application frameworks and functional libraries that can be used for encryption and DSP functions. This unique and powerful combination of hardware and software helps customers significantly accelerate their product development schedule.

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# Siemens launches new enterprise class embedded Linux solution for embedded systems development 21 February 2019

With the growth of internet of things (IoT) and other smart devices, it is becoming increasingly complex and expensive for manufacturers to develop embedded distributions and applications for these devices based on the Linux® operating system. Siemens PLM Software today announced a new enterprise Mentor® Embedded Linux® (MEL) solution that provides electronics manufacturers secure, scalable and configurable distributions for industrial, medical, aerospace and defense applications. This new MEL technology is a configurable distribution that provides a robust operating system platform for embedded systems development and is a result of the continued integration of the recently acquired embedded systems design capabilities from Mentor Graphics. The solution is based on Debian, a broadly utilized, enterprise class, open source Linux operating system.

The new Siemens enterprise technology provides the stability, full features, and ease-of-use benefits of an enterprise solution, and the performance, customizability and footprint of an embedded operating system. An internal team of embedded Linux experts originally developed this robust solution for use on critical Siemens automation equipment. Now commercially available, embedded developers can utilize this proven solution and thereby mitigate the costs and risks of moving to Linux.

"As more engineering organizations recognize the value of open source solutions, next generation embedded systems are also redefining software development needs," said Chris Rommel, executive vice president of VDC Research. "Although many developers have gained experience with enterprise Linux, those traditional solutions cannot meet the performance requirements of most embedded systems. The new Mentor Embedded Linux addresses this issue, providing an enterprise-class solution for those developers looking for a Linux development experience beyond that for the platforms based on Yocto commonly used in the embedded market."

The large number of pre-built and fully-tested binary packages integrated in the Siemens enterprise MEL solution provide all of the general features and parameters in the software platform so a large number of users can install it and use it with ease. This can make standard implementation across organizations much easier and more efficient. The Siemens binary MEL solution also includes a stable kernel, a robust toolchain, both with broad community support. This community support, combined with the commercial support and development power of Siemens, allows for increased development productivity and agility.

"By combining the capabilities of an embedded Linux distribution with those from the Debian binary desktop Linux distribution, today's developers – many of whom have honed their skills in the Linux desktop development – can easily extend those same skills into fully featured embedded systems," said Simon George, director of system software and SoC Solution Marketing, Xilinx. "We expect that Mentor's binary Linux solution will simplify many tasks for those who are developing with advanced SoCs such as Xilinx Zynq UltraScale+ MPSoC devices."

Embedded developers can stay up to date with available security patches and product updates, enabling enterprise-class standardization and maintenance. The new Linux solution enables support for secure field updates, and application isolation. Customers can thereby realize the cost efficiencies related to remotely maintaining and updating their devices. This solution is also multicore-enabled to consolidate

multiple heterogeneous runtime environments using today's most advanced processor architectures, leveraging the Mentor® Embedded Multicore Framework. This helps enable embedded developers to quickly build systems that integrate the Siemens binary Linux, and the Nucleus®real-time operating system (RTOS) on complex system-on-chip (SoC) processors.

"Siemens is excited about the operating system that our Mentor colleagues have designed for us. It's the first of its kind for the embedded market, providing the robustness and ease of use benefits of an enterprise operating system, with the footprint, security, real-time behavior, and development tools needed for embedded applications – a new compelling option for embedded developers," says Steffen Peschmann, SIMATIC IPC Product Manager. "At Siemens, we are currently working on some new products made possible only with this unique operating system. This flexible embedded operating system will open up completely new possibilities for us."

The enterprise-class MEL is cloud-enabled, supporting industry-standard cloud and IoT technologies such as XMPP, MQTT, AMQP, CoAP, and RESTful API support. Development and analysis tools are included for configuration and optimization of the operating system (OS) so customers can analyze the state and operation of the embedded platform. The industry-proven Sourcery<sup>TM</sup> Analyzer technology can generate time-series data for OS/platform diagnostics and device profiling. In addition, Siemens' embedded team of experts can provide support, training, and professional services, from basic support and updates/upgrades to critical security defects patches, platform extensions and customized training.

#### **Product Details and Availability**

The binary solution based on Debian supports multiple leading hardware architectures and will ship in Q2, and will be showcased at Embedded World 2019, February 25-28, 2019 in Nuremberg, Germany (Mentor booth, Hall 4, #4-643). A MEL version based on the Yocto® Project is also available. For additional product information, visit the website: https://www.mentor.com/embedded-software/linux/based-on-debian/.

Siemens PLM Software, a business unit of the Siemens Digital Factory Division, is a leading global provider of software solutions to drive the digital transformation of industry, creating new opportunities for manufacturers to realize innovation. With headquarters in Plano, Texas, and over 140,000 customers worldwide, Siemens PLM Software works with companies of all sizes to transform the way ideas come to life, the way products are realized, and the way products and assets in operation are used and understood. For more information on Siemens PLM Software products and services, visit www.siemens.com/plm.

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# Siemens updates NX Software with Artificial Intelligence and Machine Learning to increase productivity

18 February 2019

Siemens announced today an expansion of the Digital Innovation Platform with the introduction of the latest version of NX<sup>TM</sup> software, which has been enhanced with machine learning (ML) and artificial intelligence (AI) capabilities. These new features can predict next steps and update the user interface to help users more efficiently use software to increase productivity. The ability to automatically adapt the user interface to meet the needs of different types of users across multiple departments can result in

higher adoption rates, leading to a higher-quality computer-aided technology (CAx) system and the creation of a more robust digital twin.

"NX continues to innovate. NX is the first CAD product to deliver capabilities based on artificial intelligence and machine learning. I see value in the new NX Adaptive User Interface for our causal user, to help them with discoverability and improved productivity," said Mr. HyunMin Kim, principal engineer, Samsung Electronics Co., LTD."

Machine learning is increasingly being leveraged in the product design process to provide a competitive advantage. ML can be used to deliver valuable business insights more quickly and efficiently, and it has the power to process, analyze, and learn from large volumes of data. AI and ML can also be used to monitor the actions of the user, and their success and failures, to dynamically determine how to serve up the right NX commands and or modify the interface and leverage learned UI usage knowledge for CAx environment personalization.

"There's always been a capability-usability tradeoff with CAD applications. The more expansive it gets, the more difficult it is to use and master," said Chad Jackson, Chief Analyst at Lifecycle Insights. "The Adaptive UI in NX, however, circumvents that issue. It guides users, new and old, to the right functionality at the right time. Many will benefit."

The Siemens Digital Innovation Platform is continually expanding to enable customers to create the most comprehensive digital twin of the product, the production environment and of the performance of the product. Integrating ML and AI into NX software offers the benefits of speed, power, efficiency and intelligence through learning, without having to explicitly program these characteristics. This offers many opportunities for customers to enhance design process improvement and ultimately their product offerings and reduced time to market. The NX Command Prediction module is the first introduction of the machine learning-enabled NX adaptive user interface architecture to the market, and will be the basis for, and lead to, additional machine learning-driven UI solutions.

"Although extensive research conducted in the field of human-computer interaction has resulted in an excellent static interface, we still lack the perfectly-tailored dynamic interface that can suit all users," said Bob Haubrock, Senior Vice President, Product Engineering Software at Siemens PLM Software. "The latest version of NX uses machine learning and artificial intelligence to monitor the actions of the user, and their successes and failures, so now we can dynamically determine how to serve the right NX commands or modify the interface to make the individual user more productive. Leveraging this learned-user interface knowledge for CAx environment personalization can help our customers improve overall usage and adoption rates, ultimately leading to a more efficient product development processes."

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#### Updates Available for CMS IntelliCAD 9.0

15 February 2019

Following up the CMS IntelliCAD 9.0 August 2018 release, CAD-MANUFACTURING SOLUTIONS, INC. announces the release of the new CMS IntelliCAD 9.0 Premium Edition (PE and PE Plus) Update.

This CMS IntelliCAD 9.0 update also includes several new features: add blocks to tool palettes for quick re-use, set the cursor to a gun sight crosshairs, toggle cursor colors and types on the fly, and chamfer and fillet edges of 3D solids.

Other improvements and fixes are found in performance, working with files, drawing and editing, printing, and customization.

"We heard from ITC members and users that IntelliCAD version 9.0, released summer 2018, was the most stable release of IntelliCAD, ever," commented David Lorenzo, ITC President.

Additionally, CMS IntelliCAD 9.0 is also now including the option to digitally sign .dwg files. Vitor Neves, CMS President said, "We're always listening to our users. Worldwide. We're keen and focus to provide features with high increased value. Getting digital signatures feature available it's a must for regions where .dwg digital signing is a mandatory legal requirement".

The new CMS IntelliCAD 9.0 update is currently available for download at https://intellicadms.com

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#### Verisurf Software Announces its NIMS Precision Part Inspection Solution

21 February 2019

Verisurf Software announced its NIMS Precision Part Inspection (PPI) Solution, a turn-key quality inspection and reporting solution in support of the National Institute of Metalworking Skills (NIMS), certification testing process. The measurement, inspection and reporting solution allows instructors to check students test parts right in the classroom, lab or shop in minutes, and includes all software, hardware and programming needed to be up and running quickly.

"Verisurf is a leader in quality inspection and measurement software for manufacturing; we feel we have a responsibility to help close the skills cap for advanced manufacturing," said Ernie Husted, President and CEO of Verisurf. "By developing educational programs, curriculum, and instructor productivity solutions we are connecting teaching institutions and students with practical technology being used in industry, today."

The new Verisurf solution is the result of a nationwide pilot program conducted in 2018 designed to develop and validate a process and toolset to improve the ability of NIMS Certified instructors to inspect and report on NIMS Level 1 (L1) Mill and Lathe testing parts. The pilot program proved to reduce the time required to verify machined test parts submitted by students as part of their NIMS Certification process, from weeks or even months to minutes.

The Verisurf NIMS PPI Solution is based on the concept of keeping the quality verification of machined test parts within the class room and in the control of NIMS Certified instructors, which also supports overall traceability. The Verisurf Solution also takes into consideration deployment in an education environment, ideal measurement performance matched to the NIMS part tolerances, safety, small footprint, reliability, single phase power and no need for compressed air. "We realized from the beginning that to achieve practical and consistent implementation, the inspection and reporting solution needed to be comprehensive, easy to learn and easy to use,"said Ray Elledge, Education Program Manager for Verisurf. The Verisurf NIMS PPI Solution includes comprehensive online training hosted by Immerse2Learn, a platform widely used by educators and industrial trainers alike to develop skilled workers in fields such as engineering, manufacturing, and automation.

Until now, schools offering NIMS Certification training were required to send out all their student's machined test parts to be inspected and evaluated by a NIMS sanctioned Met-Tec review committee. The individual Met-Tec reviewers are working professionals and volunteer their time, so depending on workloads the process often takes one month or more, holding up the students final NIMS Certification.

Lincoln Tech with 20 campuses spread out across the United States has NIMS Certified thousands of students using the Verisurf Solution; reducing the average time-to-certification per student by 27-days. "The added efficiency and control we realized through the program has truly helped us get students through the program, NIMS Certified, and out into the workforce, quicker," said Clinton Smith, Lead Instructor at Lincoln Tech.

"The results of the testing and feedback from NIMS Certified instructors has been very positive," said Montez King, Director of Education at NIMS. "Instructors now have more control over the process of testing and evaluation of student parts while better managing the expectations of students regarding timing to receive NIMS Certification."

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#### Wipro Launches QuMiC to Accelerate Migration to Oracle Cloud

18 February 2019

Wipro Limited announced the launch of QuMiC (Quick Migration to Cloud), a comprehensive platform designed to transform the way organizations migrate to Oracle Cloud. Using QuMiC, Wipro and Oracle aim to simplify and accelerate the journey to Oracle Cloud for their customers. Wipro is a Platinum level member of Oracle PartnerNetwork (OPN).

Wipro's QuMiC is a unique platform that migrates all aspects required for a cloud implementation, i.e. process definitions, configurations, data, and code to Oracle Cloud for a wide variety of software environments. Irrespective of whether an organization's original assets are in an on-premise platform such as Oracle E-Business Suite, a version management tool, or another cloud software-as-a-service (SaaS) environment, QuMiC can automate and thereby, seamlessly accelerate the migration process. The platform reduces the risk of manual errors and ensures a secure migration to Oracle Cloud.

QuMiC combines automation, pre-built integrations with Oracle ERP systems, and an easy-to-use interface, reducing the number of resources needed for deployment. Enterprises can expect to save nearly 30 percent in overall cloud implementation costs and time by leveraging Wipro's QuMiC platform. The time taken to design ERP processes, analyze and setup the configurations for each environment during the migration process i.e., testing, production and development will be reduced by up to 60 percent.

According to Ravi Purohit, Vice President and Global Head- Oracle Service Line, Modern Application Services, Wipro Limited, "Wipro's QuMiC demonstrates our expertise with Oracle Cloud and is an example of our continued investments in Oracle Cloud development. Extending the use of Wipro's 'Cloud Studio', QuMiC complements the Oracle Cloud and will help customers significantly simplify,

accelerate, and improve the time to value from their cloud implementations."

"Wipro's innovative QuMiC platform helps organizations move cost-effectively to Oracle Cloud with greater speed and reliability," said Camillo Speroni, Vice President, Worldwide Strategic Alliances, Oracle. "The combination of QuMiC's automated capabilities and ease-of-use ensures organizations seeking to accelerate their Oracle Cloud migration are successful in their transformation. Once on the Oracle Cloud, customers can continue to work with Wipro to seek competitive advantage enabled by the innovation Oracle brings on a 90-days cycle."

QuMiC enables enterprises to achieve migration quickly and reliably by aligning the organization's business processes with its data, and then performing data validation and reconciliation. With QuMiC, Wipro can rapidly define end state business processes, download, add, modify, and upload configurations to the Oracle Cloud environments for its clients at the click of a button.

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#### ZWCAD 2019 SP2 is Officially Released

15 February 2019

<u>ZWCAD 2019 SP2</u> is here now! Compared with ZWCAD 2019 SP1, which is called "the fastest release ever", the efficiency of SP2 has been further enhanced, and the stability ties up with SP1. Let's see what's new in this release:

#### PDF Import: from PDF to CAD entities

The elements in PDF such as geometric objects, hatch objects, raster images and TrueType text can now be imported to the current drawing as CAD entities by PDFIMPORT. What's more, except for importing the PDF files directly, you can as well transform the existing PDF Underlays into editable CAD entities.

Through turning the elements in PDF into CAD entities, you can get and edit what you want from PDF files with ease.

#### **Digital Signature on DWG Files**

Digital Signature can now be attached to DWG2004, DWG2010, DWG2013 and DWG2018. You can attach digital signature to the current drawing by DIGITALSIGN command, and also to a batch of drawings by selecting Attach Digital Signature in the Start menu.

In addition, through command SIGVALIDATE, digital signature can be verified to check whether it is contained in the current drawing.

#### **3DORBIT: More Easy-to-use**

Previously, there are only three options in the right-click menu of 3DORBIT – Exit, Pan and Zoom. Now, more options have been added to it, such as Virtual Aids, Shade Mode, Zoom Windows/Extents/Previous, Reset/Preset/Named View, etc. Moreover, functions like Constrain Orbit, Continuous Orbit and Adjust Distance are also available, making 3DORBIT easier and handier to use.

Except for the above important new features, there are also <u>numerous improvements</u>, which together bring you a more fluent and pleasant user experience.

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