

PLM Industry Summary

Sara Vos, Editor

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CIMdata News

Aerospace & Defense PLM Action Group Holds Annual Planning Meeting in Montreal, Canada 25 April 2019

Representatives from eleven major aerospace and defense companies recently held their annual meeting in Montreal, Canada to discuss and review the status and findings of the Aerospace & Defense (A&D) PLM Action Group's working teams and to set priorities for the Group's sixth business year. This year's meeting was co-hosted by Group members, Bombardier and Pratt & Whitney Canada. The A&D PLM Action Group, which is administered by CIMdata, is an industry-specific PLM advocacy group whose mission is to:

- Set the direction for the aerospace & defense industry on PLM-related topics that matter to members
- Promote common industry PLM processes and practices
- Define requirements for common interest PLM-related capabilities
- Communicate with a unified voice to PLM solution providers

• Sponsor collaborative PLM research on member-prioritized industry and technology topics

The Group is currently sponsoring collaborative research on a diverse set of prioritized industry and technology topics, including Model-Based Definition; Multiple View Bill of Materials; PLM Technology Obsolescence Management; Global Collaboration; and Model-Based Systems Engineering. As an outcome of these investments, the Group has developed a series of direction statements and position papers that are freely available for downloading from its website at www.ad-pag.com.

During the meeting, A&D PLM Action Group representatives defined plans for working with various stakeholders in the global PLM ecosystem and, in collaboration with several leading PLM solution providers, reviewed progress being made on the Group's prioritized industry and technology topics.

James Roche, CIMdata A&D Practice Director, stated, "Since its founding in February 2014, the Group's mission has changed little, but the members' goals have matured and evolved year over year. In the first year the focus was on research into common pain points. In year two, members began inviting solution providers, as colleagues, to contribute content and review project work products. This engagement evolved to annual joint sessions to discuss strategic topics such as Digital Thread and protection of intellectual property within the OEMs' supply chains. In year three, the members invited select tier 1 suppliers to participate as full members of project teams, including joint workshops, on topics such as multiple view bill of materials. Beginning this year, the members have opened the Group with an Associate Membership for tier 1 suppliers to facilitate OEM-supplier collaboration on remediation of PLM pain points through separate but mutually supportive agendas."

Consistent with the Group's mission to engage proactively within the PLM ecosystem and advocate for common direction and positions, there will be report outs on several of the Group's projects at the PLM Road Map & PDT North America 2019 conference in Washington D.C. on 29th & 30th of May 2019.

For more information, please contact CIMdata at <u>info@cimdata.com</u>.

About CIMdata

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

CIMdata works with both industrial organizations and suppliers of technologies and services seeking competitive advantage in the global economy. In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia-Pacific. To learn more about CIMdata's services, visit our website at www.CIMdata.com, follow us on Twitter: http://twitter.com/CIMdataPLMNews, or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA. Tel: +1 (734) 668-9922. Fax: +1 (734) 668-1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands. Tel: +31 (0) 495 533 666.

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BAE Systems' Roger Hobley to make a Keynote Presentation at PLM Road MapTM & PDT North America 2019

25 April 2019

CIMdata, Inc. and Eurostep are pleased to announce that Mr. Roger Hobley, Technology Development Manager – Maritime Services IS&S BAE Systems Surface Ships at BAE Systems, will make a keynote presentation at PLM Road Map & PDT North America 2019. This two-day event will take place May 29-30 at the Marriott Hotel, Tysons Corner, VA which is near Washington D.C. The theme for this year's event is "PLM for Professionals—Product Lifecycle Innovation."

The United Kingdom's Royal Navy commissioned the new aircraft carrier HMS Queen Elizabeth in late 2017. An aircraft carrier system is one of the most complex pieces of engineering imaginable and any number associated with the carrier is mind-blowing. In his presentation, "A Flagship Data Integration Project in Support of the Royal Navy's New Carriers," Mr. Hobley will consider the project from a product information management viewpoint, with all its complexity, diversity of stakeholders, and the value of data over time. The presentation will share the challenges and approaches for managing and maintaining data for this flagship project in order to support an operation meeting high standards for performance, availability, and safety.

Roger Hobley is the Technology Development Manager in the Maritime Services IS&S BAE Systems Surface Ships division at BAE Systems. Roger has been with BAE Systems for over 12-years in a variety of roles including the Head of Information Systems for the Tornado Support Program and as Program Manager - Naval Information Systems where he was responsible for the development and delivery of the Enterprise Architecture and WEB based IS solution in support of the availability-based contracting regime in the Naval Sector. Prior to joining BAE Systems Roger spent 10-years at Rolls-Royce, where he was a manager in naval information systems for the Marine Business Group. Roger holds a Master of Science degree in program and project management from UMIST (University of Manchester Institute of Science and Technology).

PLM Road Map NA & PDT NA is a highly relevant event for PLM industry leaders and PLM practitioners globally—providing independent education and a collaborative networking environment where ideas, trends, experiences, and relationships critical to the industry germinate and take root.

In addition to the event to be held in May, CIMdata and Eurostep will collaborate to bring PLM Road Map EMEA and PDT Europe to Paris, France on 13-14 November 2019.

For more detail on the agenda please visit https://www.cimdata.com/en/education/plm-conferences/plm-road-map-2019-pdt-2019/2019-plmrmna-pdt-agenda

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CIMdata works with both industrial organizations and providers of technologies and services seeking competitive advantage in the global economy. In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The

company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia-Pacific. To learn more about CIMdata's services, visit our website, www.CIMdata.com; follow us on Twitter at http://twitter.com/CIMdataPLMNews; or contact CIMdata at: 3909 Research Park Drive, Ann Arbor, MI 48108, USA; Tel: +1 734.668.9922; Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands, Tel: +31 (0) 495.533.666.

About Eurostep Group

Eurostep delivers software and services for product lifecycle management with a particular focus on the exchange and sharing of data within and between enterprises. Services range from pre-studies to the implementation and support of systems. Eurostep has subsidiaries in Sweden, the UK, France, Finland, Germany, and the US, and has blue-chip customers in a variety of industries including automotive, aerospace, defense, energy, high tech, and building & construction.

Eurostep has, for many years, been contributing to the development and promotion of product data standards. Standards promotion, supported by examples, has always been an important part of the PDT conferences.

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CIMdata to present at Phoenix Integration's Model-Based Engineering Workshop

24 April 2019

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces that Dr. Keith Meintjes, a CIMdata Executive Consultant, will deliver the opening presentation at Phoenix Integration's Model-Based Engineering Workshop (MBSE) in Troy, Michigan on April 25.

One of the greatest challenges to enabling Digital Transformation and the lifecycle Digital Thread is integrating the myriad of different engineering models and data silos that exist today in both systems engineering and the physics-based modeling and simulation domains required to enable a robust MBSE process thread.

In his presentation, "Model-Based Systems Engineering meets PLM: Market Trends and Opportunities," Dr. Meintjes will highlight the major changes underway in the integration of these heretofore largely disconnected domains. He will also elaborate on the industry standards and emerging technologies that CIMdata believes will most strongly impact the level of collaboration required to design, develop, validate, manufacture, and operate today's complex cyber-physical systems.

Dr. Meintjes has over 35 years of experience in the development and application of simulation tools to transform product development. His achievements include novel methods for combustion simulation, patents for engine design, and strategic planning for the world's largest commercial HPC facility. Prior to joining CIMdata, he spent nearly 30 years at General Motors and was responsible for the engineering requirements for GM's Global CAE IT infrastructure and was named Senior Technical Fellow.

For more information visit: https://www.cimdata.com/en/events/cimdata-supported-events/event/471-phoenix-integration-s-model-based-engineering-workshop

About CIMdata

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Acquisitions

Hawk Ridge Systems Acquires Parsons Technology, Expanding Midwest Coverage for Manufacturing Solutions

23 April 2019

Hawk Ridge Systems has announced a merger with Parsons Technology, Inc. The acquisition creates one of the largest and most comprehensive North American 3D design and manufacturing reseller networks for SOLIDWORKS, CAMWorks, Predator, Markforged, and HP 3D printers.

Parsons Technology is a leading provider of manufacturing and shop floor solutions in the growing manufacturing states of Nebraska, Kansas, Missouri and Iowa. By adding Parsons Technology to the growing family of acquisitions, Hawk Ridge Systems has created the largest and most experienced team of manufacturing professionals in North America.

Parsons Technology customers will have access to the full 3D design product portfolio offered by Hawk Ridge Systems, including Dassault Systèmes SOLIDWORKS and CATIA, as well as a wide array of productivity software tools, services and training.

"The partnership of Parsons Technology and Hawk Ridge Systems is a perfect combination," says Dale Ford, President and CEO of Hawk Ridge Systems. "Our CAM teams have been working together for years sharing CAM and Post Processing projects, so it is only a natural progression that we would choose to work with Parsons as we expand our footprint in the Midwest. Best of all, we are now in the position to offer more software choices, tools, training and resources to support our new customers in Nebraska, Missouri, Kansas and Iowa."

Parsons Technology President, Bill Parsons agrees: "The way we work with our clients is very similar to the Hawk Ridge Systems approach. Customer satisfaction is our primary goal, and we are both

committed to keeping it that way. By joining the Hawk Ridge Systems team, we now have worldwide access to the best resources in the CAM arena – we can leverage the range of technical and engineering expertise that Hawk Ridge Systems is known for. The edit-free posts that Hawk Ridge Systems provides are the best in the world."

The combined company serves 22,500 customers from 22 offices and has 245 employees.

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Microsoft acquires Express Logic, accelerating IoT development for billions of devices at scale 18 April 2019

Announced on the Microsoft blog:

"IoT sensors are being infused into just about everything, from industrial equipment to consumer devices, and increasingly these devices are connecting to the cloud... In April 2018, we announced we're investing \$5 billion in IoT and the intelligent edge over the next four years. Since then, we've been making a number of investments from product innovation – including Azure Sphere, Azure Digital Twins, Azure IoT Edge, Azure Maps and Azure IoT Central – new partnerships with DJI, SAP, PTC, Qualcomm and Carnegie Mellon University for IoT and edge app development, and programs to help drive the next wave of innovation for our customers.

Today, I am incredibly excited to share we have acquired Express Logic, a leader in real time operating systems (RTOS) for IoT and edge devices powered by microcontroller units (MCUs). Express Logic's ThreadX RTOS has over 6.2 billion deployments, making it one of the most deployed RTOS in the world per VDC Research. This widespread popularity is driven by demand for technology to support resource constrained environments, especially those that require safety and security. Manufacturers building products across a range of categories – from low capacity sensors like lightbulbs and temperature gauges to air conditioners, medical devices, and network appliances – leverage the size, safety and security benefits of Express Logic solutions to achieve faster time to market. Even highly constrained devices (battery powered and having less than 64KB of flash memory) can use Express Logic solutions. Over 9 billion of these MCU-powered devices are built and deployed globally every year, many of which can benefit from Express Logic solutions.

With this acquisition, we will unlock access to billions of new connected endpoints, grow the number of devices that can seamlessly connect to Azure and enable new intelligent capabilities. Express Logic's ThreadX RTOS joins Microsoft's growing support for IoT devices and is complementary with Azure Sphere, our premier security offering in the microcontroller space. Our goal is to make Express Logic's ThreadX RTOS available as an option for real time processing requirements on an Azure Sphere device and also enable ThreadX-powered devices to connect to Azure IoT Edge devices when the IoT solution calls for edge computing capabilities. While we recommend Azure Sphere for customers' most secured connections to the cloud, where Azure Sphere isn't possible in highly constrained devices, we recommend Express Logic's ThreadX RTOS over other RTOS options in the industry because of its additional certifications and out-of-the-box connectivity to Azure IoT Hub.

As we've stated consistently in the past, our primary goal is to simplify IoT – from the cloud all the way down to the smallest MCU based devices. We do this by meeting our customers where they are with the right developer tools, software and intelligent cloud services to manage their solutions at scale. Express

Logic's technology and team will be an incredible addition to Microsoft in our quest to give every customer the ability to transform their businesses, and the world at large, with connected solutions."

To view the original post, please visit https://blogs.microsoft.com/blog/2019/04/18/microsoft-acquires-express-logic-accelerating-iot-development-for-billions-of-devices-at-scale/

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Company News

Accenture Opens Innovation Hub in Shenzhen with Focus on Applied R&D

23 April 2019

Accenture has opened a new Innovation Hub in Shenzhen, its first in China.

The new Accenture Innovation Hub specializes in advanced applied research and development (R&D) activities in artificial intelligence (AI), robotics and Industry X.0 — which is how Accenture defines the digital reinvention of industry — to help enterprise clients in China accelerate their innovations at scale and reimagine their global business models.

As one of a growing number of Accenture Innovation Hubs with world-class applied R&D capabilities and professionals, the Accenture Innovation Hub in Shenzhen will bring the company's latest thinking, capabilities and ability to build prototypes of new solutions to help Chinese companies drive innovation. The Innovation Hub will work closely with Chinese technology companies, start-ups and academic institutions to identify and develop new concepts and propel innovation in the Guangdong-Hong Kong-Macau Greater Bay Area and beyond.

"Innovation is crucial to the sustained growth of all enterprises, and Shenzhen is the epicenter of innovation in the emerging Greater Bay Area," said Wei Zhu, chairman of Accenture Greater China. "The new Accenture Innovation Hub in Shenzhen demonstrates our strong commitment to building a more robust innovation ecosystem for our clients in Greater China and positions us to help clients apply disruptive technologies to accelerate their digital transformation journeys and stay ahead of the game."

The Accenture Innovation Hub in Shenzhen brings together Accenture Research, Accenture Labs, Accenture Ventures and Accenture Liquid Studios — which are integral parts of the Accenture Innovation Architecture — to help clients develop and deliver disruptive innovations by understanding, incubating, prototyping and piloting new solutions and then scaling to capitalize on those new innovations.

Accenture Labs shape the future of business and technology by applying leading-edge technologies, including AI and robotics, to reinvent how businesses operate and grow. The initial focus of the Accenture Lab in Shenzhen will be applying in-depth research related to AI, immersive technologies, robotics to transform the way products are designed, manufactured and experienced by users and to help support the Accenture Industry X.0 global agenda.

"As the newest member of our global Labs network, the Accenture Lab in Shenzhen focuses on applying disruptive technologies in unique ways," said Marc Carrel-Billiard, global senior managing director of Accenture Labs. "The pioneering R&D innovations we are building at the Lab will tap into the tremendous technology innovation and ecosystem in the region and be applied to create new growth for our clients in China."

Full capabilities at the Innovation Hub include:

- Accenture Research, which combines industry knowledge and advanced research technologies to reveal important business trends and insights in the Chinese market.
- Accenture Labs, which helps clients shape the future by incubating new concepts with breakthrough technology capabilities through applied R&D projects.
- Accenture Ventures, which serves as a bridge to the global innovation ecosystem, unlocks growth opportunities for our clients by bringing them together with best-in-class emerging enterprise startups to accelerate their transformation.
- Accenture Liquid Studios, which helps companies transform concepts into business solutions through rapid software application development and prototyping.

"Emerging technologies led by AI and robotics will drive the next wave of technological and industrial transformation," said Jin Jia, managing director, Accenture Greater China Technology Group Lead. "The Accenture Innovation Hub in Shenzhen will take advantage of the vast opportunities created by disruptive technologies and Accenture's world-class R&D capabilities to help companies bring innovation to life and offer better products and services to consumers, employees and clients."

The Innovation Hub also collaborates with a wide range of ecosystem partners in the Greater Bay Area to accelerate joint solutions development. Clients from across industries can experience innovation at scale through customized visits, design thinking sessions and co-innovation workshops in a highly collaborative, immersive environment.

Located in the high-tech industrial park of the Shenzhen Economic Zone, the Shenzhen Innovation Hub joins other Accenture Innovation Hubs in Bengaluru, India; Tokyo; Zurich; Canberra, Australia; Singapore; as well as 11 Innovation Hubs in North America, including in Atlanta; Boston; Chicago; Columbus, Ohio; Detroit; Houston; New York; San Francisco; Seattle; Washington, D.C. and Toronto; as well as The Dock in Dublin.

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Aliznet and Centric Software Sign Strategic Partnership for PLM Integration

24 April 2019

Aliznet has entered a strategic partnership with Centric Software to integrate Centric PLM solutions.

The goal of this collaboration is to accelerate the implementation and deployment of PLM solutions and enhance the integration of PLM technologies into complex customer computing environments. PLM

projects are implemented according to the Agile DeploymentSM methodology developed by Centric Software, adapted to the customer context, and rely on technical know-how, best practices and proven business processes to go live rapidly and improve responsiveness and flexibility.

"Supply chain management is at the heart of the challenges of many brands, and is one of the business projects we regularly face," says Arnaud Naccache, Managing Director at Aliznet. "The strategic alliance between Centric and Aliznet quickly proved to be an effective response to the expectations of our retail, luxury and, of course, fashion customers. Our PLM center of excellence has benefited from the effective support of the Centric team to build on their skills. Aliznet consultants and developers are now working on many projects. We are proud of the work accomplished to date!"

"Centric Software continues its rapid growth in the world of fashion, retail and consumer goods, and we need the best partners with advanced technical expertise and enhanced integration capabilities to better support our customers in their digital transformation projects," explains Bruce Vignon, European Partner Manager at Centric Software.

This agreement seals a lasting partnership between Aliznet and Centric Software in the French market to ensure the success of large-scale digital transformation projects.

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Aras Expands Partnership with MSC Software Corporation for Enhanced Simulation Process and Data Management

23 April 2019

Aras announced an expanded partnership with MSC Software, an Aras ISV Certified partner since 2010. By offering connectors to the MSC Nastran finite element analysis (FEA) solver and Adams, MSC Software's tool for advanced rigid and flexible multibody dynamics simulation, Aras extends its vision for Simulation Process and Data Management (SPDM) across the enterprise.

MSC Software offers multidisciplinary structural analysis software used by engineers to perform static, dynamic, and thermal analysis across the linear and nonlinear domains, complemented with automated structural optimization and award-winning embedded fatigue analysis technologies. Adams, one of the most widely used multibody dynamic simulation software application, helps engineers study the dynamics of moving parts, and how loads and forces are distributed throughout mechanical systems.

Connectors with MSC solvers and other related tools enable users of Aras SPDM to capture simulation best-practices and scale them to more teams throughout the enterprise. Aras SPDM increases the use of multi-physics, multi-fidelity simulation across the product lifecycle to help reduce physical testing, improve requirements verification, and accelerate design space exploration. Aras believes an improved connection to the product's configuration, tool chaining, and data management of simulation processes and results as foundational to enabling the Digital Thread and other strategic initiatives including additive manufacturing, generative design, and Digital Twin simulation.

"MSC Software is pleased to reinforce our partnership with Aras," said John Janevic, Chief Operating Officer of MSC Software. "Connectors for Aras SPDM enable our mutual customers to more efficiently use their software tools and achieve improved ROI."

"MSC's advanced, multi-fidelity simulation capabilities are widely used and trusted to improve the

design and development of complex products across multiple industries," said Malcolm Panthaki, VP of Analysis Solutions at Aras. "With these Connectors, Aras customers can seamlessly incorporate the MSC tools into their simulation processes, so structural analysis data can become an integrated part of the enterprise Digital Thread, available to the global product organization in a timely manner for decision-making."

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Aspen Technology Appoints Georgia Keresty PhD, MPH to Its Board of Directors

18 April 2019

Aspen Technology, Inc. announced that Georgia Keresty has been appointed to the Aspen Technology board of directors.

Keresty brings more than 35 years of experience within the highly regulated pharmaceutical and healthcare industry where she has built a strong reputation as a scientific leader who drives operational excellence and innovation. During a career that includes executive roles at Takeda, Johnson & Johnson, Bristol Myers Squibb and Novartis, Keresty has been responsible for operations in more than 20 countries and led a \$150M R&D affiliate developing novel therapies to treat and prevent Alzheimer's disease.

In addition to the Aspen Technology board of directors, Keresty currently serves as an independent director for Commissioning Agents, Inc. an ESOP global engineering services firm, and has previously served on the board of Janssen Alzheimer Immunotherapy, the board of trustees for Clarkson University, Potsdam, NY and the board of trustees for the NJ Foundation for Aging. Keresty is currently the Takeda R&D chief operating officer.

Keresty holds BSc degrees in Chemical Engineering and Computer Science; an MS degree in Information Systems; an MBA in Operations Management; a PhD in Operations Management; and an MPH in Global Health Leadership.

"I am honored to join the board of directors for Aspen Technology. I look forward to bringing my industry knowledge and passion for operational excellence and quality assurance to the impressive accomplishments and insight of the current board members," commented Georgia Keresty.

"We welcome Georgia Keresty to the Aspen Technology board, where her proven success in managing complex operations within the pharmaceutical industry will complement the expertise of the existing board," commented Antonio Pietri, president, CEO and board member at Aspen Technology.

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Crawford W. Beveridge to Retire from Autodesk Board of Directors

24 April 2019

Autodesk, Inc. announced that Crawford Beveridge will not stand for reelection to the Board at the 2019 Annual Meeting of Stockholders. Beveridge has decided to retire after serving 26 years on the Autodesk Board.

Beveridge is a technology industry veteran with more than 35 years of experience, having worked at Sun Microsystems, Scottish Enterprise, Hewlett-Packard, Digital Equipment Corporation and Analog Devices, Inc.

Beveridge said, "It's been my privilege to serve our shareholders and the company over the past 26 years, which has allowed me to witness the company's growth from a 2D CAD company to a global leader in design for the AEC, manufacturing and media & entertainment industries. Autodesk is well positioned for its next stage of growth, and I look forward to following the company's future success from retirement."

"Crawford has made immeasurable contributions during his tenure on the Autodesk Board and provided critical leadership during pivotal periods in our company's history," said Andrew Anagnost, Autodesk president and CEO. "On behalf of the entire Board, I thank Crawford for his service and wish him well in retirement."

"Crawford has led an exceptional career in the technology industry and his dedication to the Board has contributed substantially to our success," said Stacy Smith, chairman of the board of Autodesk. "We are forever grateful for his years of service as a director and wish him the best in retirement."

The Board currently consists of 10 members. If all the Board's nominees are elected, the Board will consist of nine members immediately following the Annual Meeting and Beveridge's retirement.

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Dassault Systèmes and BHP Engage in a Long-Term Strategic Partnership

24 April 2019

Dassault Systèmes and BHP have engaged in a long-term strategic partnership to leverage the application of digital technologies to mining.

Combining the experience and resources of each company, the ambition is to unlock value by applying technologies proven in other industries to the core mining fundamentals of geoscience and resource engineering. The partnership intends to create a new level of understanding of resource and operational potential, underpinned by both companies' commitment to safety and sustainability.

"BHP and Dassault Systèmes share the same vision and ambition for the mining of the 21st century," said Bernard Charlès, Vice Chairman and CEO, Dassault Systèmes. "By digitalizing all operations from planning to exploitation, our 3DEXPERIENCE platform provides the full 'digital twin experience' of the end to end processes; a unique collaborative innovation environment for holistic optimization. This transformational approach provides market agility, improved predictability, sustainable mining innovation, and significant cost reduction all along the life cycle; a proven track record that has transformed the manufacturing industry to date."

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Device Authority Launches Partnership with Wipro to Deliver Next Generation Identity Access and Security for the Internet of Medical Things (IoMT)

23 April 2019

Device Authority launched their strategic partnership and joint customer with Wipro Limited.

Healthcare providers and organizations are increasingly offering flexible services to patients outside of hospitals and doctor surgeries. We already know that the IoT has played a significant role in uplifting the healthcare industry. Smart medical devices are increasingly part of how specialized treatment is delivered to patients today. These devices are revolutionizing healthcare, making procedures more accessible and enabling physicians to better monitor how patients respond.

Together, Wipro and Device Authority are delivering a joint solution for a large multinational healthcare company who are launching a remote patient monitoring service. With a variety of different medical devices connecting and transmitting data, an extra layer of security is required. KeyScaler provides a hybrid security model for patient safety which includes real-time device authenticity validation and policy-driven device derived crypto for data privacy and compliance with HIPAA and GDPR. KeyScaler has the ability to combine PKI and device derived crypto using its policy-based technology, to provide the extra device and data trust and verification required by Medical use cases.

"Wipro's global presence, deep understanding of Medical/Healthcare market and customers, and strong technical skillsets ensures that our strategic partnership can deliver secure, connected and compliant IoT solutions, as required by the client. We are delighted to be working closely with the Wipro team to help solve security requirements for another medical customer. This provides us with a platform to extend into additional medical opportunities with Wipro, as well as develop the breadth and depth of industries that require secure IoT solutions," said Darron Antill, CEO of Device Authority.

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First Infor Academy Training Center Opens in Wrocław

15 April 2019

Infor announced it has inaugurated its first European Training Center — Infor Academy in Wrocław, Poland.

This training center is the first of this type that Infor has established anywhere in the world. The academy is responsible for training Infor field employees and partners on the most innovative products and technologies in which Infor has invested over \$3 billion in recent years. Effective use of these innovations requires that employees and partners across Europe receive the highest-quality training; this is the task of the European Training Center — Infor Academy. Each year, the academy will host thousands of advisers and implementation consultants. Every new employee and consultant in Europe will visit Wrocław for obligatory training.

"Infor invests significantly and engages in developing innovative technologies. Cloud solutions and artificial intelligence are already present in everyday business. Here, in the European Training Center in Wroclaw, this knowledge will be collected, developed, and shared with employees and partners of our

company, and in next phases, also with students," said Artur Sawicki, manager of the Infor Center of Excellence that has been operating in Wroclaw since 2016.

"We are proud that Wrocław was chosen as the headquarters of the European Training Center," adds Artur Sawicki. "It is a tribute to the dynamic development of Infor in Wrocław. The choice of Wroclaw was determined by the location — in the heart of Europe, with improving flight connections, good hotel infrastructure, and access to great experts already working at Infor in Wroclaw."

The decision on the site selection coincided with the announcement of the title "Best European Destination 2018" for Wrocław.

"Training will be provided by local trainers in Wrocław, as well as by Infor experts from around the world. We will make efforts that the knowledge remains in Wrocław. For this purpose, the presentations will be organized for both employees and external audiences," adds Artur Sawicki. The first open meeting, focused on digital transformation, took place few weeks ago.

Additionally, Katarzyna Bagińska has been appointed as head of the European Training Center. She has been employed at the Wroclaw Center of Excellence for two years. Both units — the European Training Center and the Center of Excellence are located in the Retro Office House complex in the center of Wrocław. The ultra-modern, well-designed office at Retro Office House is more than twice as big as the previous one, and ten times the size of the company's first location in Wrocław. The total area is nearly 6,000 m2.

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IBM's Global Supply Chain Transformation Wins 2019 NextGen Supply Chain Leadership Award for Blockchain and IoT

17 April 2019

IBM announced that its global supply chain transformation has won a 2019 NextGen Supply Chain Leadership Award for the innovative use of blockchain and IoT. The distinction recognizes the world's first enterprise computer hardware partnership using these disruptive technologies to achieve end-to-end supply chain security. Using IBM Blockchain and IoT, IBM's supply chain improved traceability and single source-of-truth to each network partner to improve product authentication and reduce warranty costs.

IBM's supply chain organization manages the critical supply chain operations of engineering, logistics, manufacturing, and sales transaction support. It digitized physical assets such as hard disk drives, while registering asset transactions throughout the product life cycle into an immutable shared ledger using blockchain and IoT as part of this award-winning initiative. One key project began as a Proof-of-Concept in 2018 between IBM and Seagate Technology, which came to a successful conclusion in March 2019. Both companies are now working toward a potential pilot deployment that may be expanded to include more suppliers.

"Industry 4.0 is an end-to-end industrial transformation, in which mastering the 21st century digital supply chain – enabled by blockchain, IoT, and AI technologies – is a critical success factor for enterprises to gain a competitive business advantage," said Ron Castro, VP of Supply Chain, IBM. "With these innovative technologies revolutionizing the entire supply chain by lowering transactional costs and accelerating processes, harnessing their transformative power is imperative for executives to

build transparent, intelligent and predictive supply chains at scale.

IBM's supply chain transformation initiative contained three separate, yet complimentary project use cases to make a positive business impact as blockchain was infused into IBM's supply chain. The three application cases include:

- Parts Provenance The initial impact for this blockchain application in IBM's supply chain included GDPR risk mitigation, improved compliance for data erasure, product authenticity, and reduced part and shipping costs. This encompassed capturing parts data as they proceed through the supply chain from suppliers and system integrator to customer.
- Internet of Things (IoT) The Supply Chain IoT Blockchain project focused on improving products lifecycle traceability in IBM's complex global supply chain. This resulted in an increase in product traceability, while also achieving improvement on cost avoidance for parts provenance. By equipping each inbound and outbound shipment asset with an IoT enabled tracking device to provide near-real-time visibility of assets, IBM's supply chain can predict each asset's behavior to reduce the risk or loss or damage liability.
- Customs Declaration IBM's supply chain group focused on improving efficiencies by
 decreasing compliance risks during import and export processes, while reducing delays and
 stoppages in supply chain logistics with improved data integrity and improved visibility of assets
 within the network. With the shared ledger in IBM's supply chain accessible to each key
 stakeholder involved in the customs declaration process and automated interfacing of data to
 customs' system, time and cost savings were achieved in the logistics and customs process.

"The success of IBM's initiative can enable extremely effective confirmation of provenance and authenticity of assets, while optimizing security and efficiencies by simplifying and accelerating documentation exchanges between supply chain partners, "said John Morris, Vice President and Chief Technology Officer, Seagate Technology. "Additionally, it potentially increases productivity by eliminating redundant processes, while helping to strengthen regulatory compliance and build trust among all key stakeholders."

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L&T Technology Services Launches 'Engineering the Change' Campaign in Europe to Scale Digital Transformation Initiatives

25 April 2019

L&T Technology Services Ltd has launched its flagship 'Engineering the Change' campaign across UK and Central Europe to ramp-up the Company's ER&D products and solutions portfolio. Through the campaign, LTTS aims to discover, engage and present ideas and engineering solutions required for full-scale Industry 4.0 adoption and digital transformation across various industries.

Already among the leading ER&D service providers globally for Product Development, Process Engineering, Industrial IoT, Machine-2-Machine (M2M) Connectivity and Product Lifecycle Management (PLM), LTTS will be furthering its footprints in German and European markets in the areas of Industry 4.0 & Smart Factories. This will further consolidate LTTS' presence in the German, British, French and Swiss markets. Last year, LTTS was rated as a Leader in 6 market categories across

3 industries for the German market in the inaugural edition of Provider Lens™ survey by ISG (Information Services Group). The survey recognized LTTS' strong presence in Germany in Product Engineering, Manufacturing & Plant/Process Engineering and Software Digital & Platform Engineering across Automotive, Chemicals and Oil & Gas, Lifesciences & Consumer Packaged Goods (CPG) sectors.

Under the 'Engineering the Change' campaign, LTTS will organize an innovation-on-wheels drive from Manchester to Munich via Paris and Zurich. The campaign will criss-cross 4 countries and 8 cities including Düsseldorf, Hannover, Hamburg, Frankfurt, Munich and the swiss city Zurich from May 31, 2019 to June 15, 2019. This will be followed by a power-packed 24-hour Hackathon event in Munich in which engineering students, professionals and digital enthusiasts will team up to solve 3 industry challenges provided by LTTS customers.

The hackathon challenges have been designed to test the limits of the ideation and execution prowess of the participants. The contestants will be evaluated by a jury comprising of LTTS leaders, Partners, Customers and other stakeholders. The winners will receive a prize money worth EURO 10,000 and a chance to be a part of LTTS' global fraternity of best-in-breed engineers.

"Europe has always been instrumental in leading the way towards new-age technology adoption. The region's legacy in key sectors such as automotive, aerospace, wind and energy to name a few have served as inspiration for the ecosystem players. On the backdrop of these, through our campaign 'Engineering the Change', we aim to further propagate the business benefits to be derived out from new age concepts such as 5G, Artificial Intelligence, Collaborative Robots, Smart Factory, and Autonomous Transport. Our tour will underpin our leading role in these future technologies and together with our European customers, we will push forward the adoption of Industry 4.0 and Digital Transformation," said Gaurav Gupta, Chief Business Officer of Europe at L&T Technology Services.

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PTC Names Kristian Talvitie Chief Financial Officer

24 April 2019

PTC today announced the appointment of Kristian Talvitie as Executive Vice President and Chief Financial Officer (CFO), effective May 15, 2019.

Talvitie has a broad business background with more than 25 years of finance and sales and marketing experience, including having previously worked at PTC from 2008 to 2016. From 2002 to 2008, Talvitie worked at electronics contract manufacturer Plexus in roles as market sector vice president, leading sales and business development, and vice president of corporate marketing. He joined PTC in 2008 and served in various executive finance roles under PTC CFOs Jeff Glidden and Andy Miller. He left PTC in 2016 to become CFO at SaaS and subscription company Sovos, and in 2018 joined software company Syncsort as CFO.

"Kristian is well-known and highly respected across PTC's management, board of directors, and investor communities," said Jim Heppelmann, president and CEO, PTC. "Kristian joined PTC in 2008 and quickly reshaped our Investor Relations efforts into the award-winning program we have today. Then, as corporate vice president of finance, he led our annual and long-range financial planning efforts during the key time when PTC margins expanded dramatically and growth accelerated as we entered the

IoT market."

When Andy Miller joined PTC as CFO in 2015, Talvitie led the cross-functional team charged with formulating and driving the elements of the company's subscription conversion program.

Added Heppelmann, "Kristian was considered to be a strong candidate when we hired Andy, and with the added experience he gained working for Andy, and then in outside CFO roles at SaaS and software companies Sovos and Syncsort, he emerged as the clear leader in our current CFO search. Kristian is known at PTC as a proven leader with a broad cross-functional operational perspective. He is smart, has high integrity, is results-driven, and always leads with a sense of urgency. He understands our growth strategy, our profit strategy, and our subscription business model – because he helped build them all. He is the ideal CFO who will help PTC push forward without disruption in pursuit of our long-range plans. I am very pleased to welcome Kristian back to PTC as our new CFO."

"I am excited to rejoin PTC," said Talvitie. "I know the company well, and understand how PTC is positioned going forward. I'm energized by the opportunity to work with Jim and the management team to continue to build a world-class, cutting-edge subscription software company."

Talvitie replaces Andrew Miller, who announced in January 2019 his intention to retire by the end of fiscal 2019. Miller will remain at PTC for a transition period following Mr. Talvitie's commencement of employment.

Concluded Heppelmann, "I want to thank Andy Miller for his significant contribution to PTC's success over the past four years. I've learned a lot from Andy, and thanks to the well-managed subscription transition that Andy drove at PTC, the company has emerged as a high-growth, high-profit subscription software company with a promising future. We thank Andy for his commitment to manage a smooth transition of responsibilities to Kristian, and wish him the very best in his retirement."

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Saratech Becomes Triple Platinum Partner of Siemens

24 April 2019

Saratech announced that it is the first Siemens PLM Software partner to reach triple platinum status.

2018 marks the fifth year in a row that Saratech has earned the number one status in sales performance with Siemens PLM Software and the first-ever Triple Platinum partner.

"We are extremely proud of this achievement at Saratech. It signifies the confidence customers have placed on our team to help them solve complex engineering and business challenges," said Michael Allegro, Vice President of Engineering Software Solutions at Saratech. "Being a trusted advisor to our customers is an honor that we take seriously. Our success is directly dependent on our ability to help customers meet their business objectives."

The Saratech team, consisting of seasoned engineers, industry experts, and customer care specialists, was able to help customers in various industries including Aerospace and Defense, Automotive, Consumer Products, and Medical Devices solve numerous business and engineering challenges.

"Saratech has a strong track record as a key partner for Siemens PLM Software," said Craig Radomski, Vice President of the Americas Channel for Siemens PLM Software. "The Saratech team has shown

their commitment to helping customers realize innovation, and this achievement recognizes the hard work on behalf of their customers."

Saratech works closely with customers to drive innovation by integrating people, processes, technologies, and infrastructure into productive and efficient enterprises. By leveraging the end-to-end digital innovation platform from Siemens PLM Software, engineering expertise, and manufacturing experience, our team can help customers achieve significant results.

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SpecPage Appoints Brent Cutler to President and Chief Operating Officer of the Americas

1 April 2019

SpecPage announced the appointment of Brent Cutler as President and Chief Operating Officer of the Americas, effective immediately. With extensive management experience at globally branded organizations, Cutler brings profound accomplishments to the SpecPage executive team during a period of rapid growth. He will be based in the company's US headquarters in Tampa, Florida.

"I'm thrilled to appoint Brent to this important role," said Severin Weiss, SpecPage CEO. "Brent is a seasoned and trusted leader. His experience and impressive track record in domestic and international business development, food safety, and strategic product, process and packaging leadership illustrate that he has the foresight and skillset to expand our business throughout North, Central and South America. I'm confident that Brent and our US team will drive strategic growth and extend our ability to help our customers achieve sustainable success."

"I'm convinced that a smart product lifecycle management solution is the most essential investment for food and beverage manufacturers to eliminate spreadsheet errors and increase productivity," commented Cutler. "SpecPage has unique tools, specifically designed to accelerate time to market, reduce production costs, increase product quality and improve regulatory compliance. In my new role, I'm committed to strengthening our global delivery capacity to support innovation and compliance management. I look forward to working closely with our CEO, Severin Weiss, to guide our growth in the Americas," Cutler said.

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SpecPage Partners with FAPIC as Reseller for Australia and New Zealand

1 April 2019

SpecPage has announced a Value Added Reseller (VAR) agreement with food innovation service provider, FAPIC. The partnership makes SpecPage digital product lifecycle management (PLM) solutions readily available in Australia and New Zealand. FAPIC will support food and beverage manufacturers with local implementation and integration as well as training and support. Designed to accelerate time to market, reduce production costs, increase product quality and improve regulatory compliance, PLM solutions provide cross-functional support for the complex aspects of formula-based product development.

"FAPIC is thrilled to partner with SpecPage and provide our clients with innovative solutions to

optimize and manage their data, from concept to the finished product," said Juraj Durco, FAPIC principal consultant and co-founder.

"We firmly believe in the power of partnerships to work smarter, to help food manufacturers meet challenges and optimize all of their resources," added Tom Stryczek, Business Development Manager at SpecPage.

With its comprehensive partnership program, Switzerland-based SpecPage offers a wide range of services, resources and incentives to associates around the globe, driving new business opportunities, delivering Industry 4.0 solutions and increasing profits for value-added resellers and systems integrators.

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Events News

CACI to Demonstrate Electronic Warfare, Counter-UAS, Deep Learning, and Agile DevSecOps Solutions at 2019 Sea-Air-Space Exposition

24 April 2019

CACI International Inc (CACI) will demonstrate solutions to modernize America's Navy, Marine Corps, Coast Guard, and U.S.-flag Merchant Marine at the 2019 Sea-Air-Space Exposition hosted by the Navy League May 6-8, 2019 at the Gaylord National Convention Center in National Harbor, Md.

CACI will exhibit its suite of innovative electronic warfare and signals intelligence capabilities systems, ranging in size from dismounted to platform-mounted. These software-defined solutions enhance warfighter effectiveness and survivability in today's multi-domain battle.

The company will also showcase its SkyTracker® Technology Suite – an award-winning counter-unmanned aircraft system (C-UAS) solution that accurately detects, identifies, and tracks UAS threats. U.S. government clients use SkyTracker at sensitive facilities across the U.S. and at operational locations overseas.

Additionally, the company will demonstrate how its advanced deep learning and multi-intelligence fusion expertise delivers integrated intelligence capabilities to the warfighter for time-critical targeting.

CACI will also feature its enterprise product lifecycle management tools; scalable, Agile DevSecOps and Model-Driven Design and Implementation methodologies; and a unique Risk Management Framework solution that can help the nation's sea services rapidly modernize and field cyber-secure applications and hardware.

For more information, visit CACI at booth 1629 at the conference or at www.caci.com/SeaAirSpace.

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CONTACT Software shows new ways to optimize intelligent products

25 April 2019

Social and technical changes influence the design, functions and even the creation process of new

products. At the 29th CIRP Design Conference on May 8-10, 2019 researchers will discuss the challenges facing the design and technology of industrial products.

The Chair of Virtual Product Development at the TU Kaiserslautern and CONTACT Software will present new approaches for the optimization of intelligent products and systems in the early development phases at the <u>CIRP Conference</u>. This idea of closed-loop systems engineering combines aspects of model-based systems engineering and product lifecycle management. The products are optimized using data from the product usage phase as well as various advanced methods for verification and validation, including model, twin and system-in-the-loop.

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Gerber Empowers Personalization, Showing Game-Changing, End-to-End Solutions with a Factory of the Future at Texprocess

25 April 2019

From fashion to furniture and transportation interiors to industrial textiles, speed has become the new normal and personalization has become a consumer's expectation. By definition trends are always changing, but today the pace of what's trending is accelerating. In order for companies to excel in this era, they need to transform their processes to create quickly and produce with both agility and scalability. Next month, at Texprocess in Frankfurt in Hall 4.0 - Stand B31, Gerber Technology will showcase their industry-leading, end-to-end solution to support on-demand bespoke design through production as well as mass production. Gerber will also play an integral role in the "Smart Textiles Micro-Factory" exhibit.

"At Gerber we have always put our customers at the center of what we do, providing them with industry-leading, innovative solutions they need to meet today's challenges," said Mohit Uberoi, CEO of Gerber Technology. "We are empowering our customers to create and produce in an instant through our one-of-a-kind, end-to-end solution, allowing them to become a leader in innovation."

Gerber Technology is pioneering the end-to-end process by providing their customers with a full suite of cutting-edge solutions that increase creativity, productivity and efficiency. The 50-year-old industry leader will be showcasing how their end-to-end solutions passed a real world test as they reveal the Waldrip Collection by Gerber. The collection is a collaboration between Gerber and designer Stephanie London. Every piece has been designed, developed, and produced with Gerber's end-to-end solutions. Several garments were produced using Gerber's unique digital print workflow that enables customized garment production with speed and sustainable practices. Other pieces were produced using integrated small batch production workflows, enabling Stephanie to adapt to trends and scale production to accommodate the demands of her consumer.

Gerber will be exhibiting the industry-leading, integrated end-to-end solution on the market that seamlessly takes you from design to print to cut. With an aggressive product launch schedule planned for the year ahead, they will present a number of their latest integrated technologies. These will include the newest releases of YuniquePLM® product lifecycle management software, as well as AccuMark®, the industry-leading pattern design, grading, marker making and production planning software, AccuMark 3D and AccuPlanTM.

All software is seamlessly integrated to the production floor, where Gerber will be showcasing the

world's first fully integrated print-to-cut workflow that will feature a Mimaki direct-to-textile printer and the GERBERcutter® Z1 with ContourVisionTM. These two solutions will be seamlessly connected using Gerber's PrintSync concept.

This Industry 4.0 enabled, automated scan-to-cut system allows manufacturers to scan custom textiles, generate cut files automatically and cut directly from textile rolls. The PrintSync device on the single-ply Z1 integrates the printing and cutting process into a single step, increasing throughput and reducing labor. PrintSync is printer agnostic and can connect with any direct-to-textile printer with in-line drying capability.

In addition to their booth, Gerber will also be a key contributor to the "Smart Textiles Micro-Factory" exhibit, located in the passage between Halls 4.1 and 5.1. The GERBERcutter Z1 will play an integral role in helping produce a smart pillow. The micro-factory was created by RWTH Aachen University in collaboration with partners from the industry.

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Financial News

Cadence Reports First Quarter 2019 Financial Results

22 April 2019

Cadence Design Systems, Inc. announced results for the first quarter of 2019.

Cadence reported first quarter 2019 revenue of \$577 million, compared to revenue of \$517 million reported for the same period in 2018. On a GAAP basis, Cadence achieved operating margin of 22 percent and recognized net income of \$121 million, or \$0.43 per share on a diluted basis, in the first quarter of 2019, compared to operating margin of 17 percent and net income of \$73 million, or \$0.26 per share on a diluted basis, for the same period in 2018.

Using the non-GAAP measure defined below, operating margin for the first quarter of 2019 was 32 percent and net income was \$152 million, or \$0.54 per share on a diluted basis, compared to operating margin of 28 percent and net income of \$113 million, or \$0.40 per share on a diluted basis, for the same period in 2018.

"Cadence achieved excellent operating results for the first quarter delivering 11 percent revenue growth and 32 percent non-GAAP operating margin. Our business is mission critical to silicon development, which is the cornerstone of all design activity," said Lip-Bu Tan, chief executive officer. "We announced ClarityTM 3D Solver, our first product in the System Analysis space, as we introduced the next phase of our System Design Enablement strategy to provide more capabilities and value to customers and expand our TAM."

"I'm pleased with our financial discipline and continued broad-based growth," said John Wall, senior vice president and chief financial officer. "We are raising our outlook for the year as technology trends like AI and 5G continue to drive strong design activity across all lines of our business."

CFO Commentary

Commentary on the first quarter 2019 financial results by John Wall, senior vice president and chief financial officer, is available at www.cadence.com/cadence/investor relations.

Business Outlook

For the second quarter of 2019, the company expects total revenue in the range of \$575 million to \$585 million. Second quarter GAAP operating margin is expected to be in the range of 21 percent to 22 percent and GAAP net income per diluted share is expected to be in the range of \$0.34 to \$0.36. Using the non-GAAP measure defined below, operating margin is expected to be in the range of 31 percent to 32 percent and net income per diluted share is expected to be in the range of \$0.52 to \$0.54.

For 2019, the company expects total revenue in the range of \$2.305 billion to \$2.335 billion. On a GAAP basis, operating margin is expected to be approximately 21 percent and net income per diluted share for 2019 is expected to be in the range of \$1.39 to \$1.47. Using the non-GAAP measure defined below, operating margin for 2019 is expected to be approximately 31 percent and net income per diluted share for 2019 is expected to be in the range of \$2.04 to \$2.12.

A schedule showing a reconciliation of the business outlook from GAAP operating margin, GAAP net income and diluted net income per share to non-GAAP operating margin and non-GAAP net income and diluted net income per share is included in this release.

Audio Webcast Scheduled

Lip-Bu Tan, chief executive officer, and John Wall, senior vice president and chief financial officer, will host the first quarter 2019 financial results audio webcast today, April 22, 2019, at 2 p.m. (Pacific) / 5 p.m. (Eastern). Attendees are asked to register at the website at least 10 minutes prior to the scheduled webcast. An archive of the webcast will be available starting April 22, 2019 at 5 p.m. (Pacific) and ending June 14, 2019 at 5 p.m. (Pacific). Webcast access is available at www.cadence.com/cadence/investor relations.

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Dassault Systèmes Reports First Quarter Revenue and EPS Growth Up Double-digits, Reaffirms 2019 Financial Objectives and Updates for Currency

24 April 2019

Dassault Systèmes announces IFRS unaudited financial results for the first quarter ended March 31, 2019. These results were reviewed by the Company's Board of Directors on April 23, 2019. This press release also includes financial information on a non-IFRS basis with reconciliations included in the Appendix to this communication. All IFRS and non-IFRS figures are presented in compliance with IFRS 15 and IFRS 16 standards.

First Quarter Highlights and Financial Summary

(Unaudited, all revenue growth at constant currency)

On an organic basis, Q1 non-IFRS total revenue, software revenue and recurring software revenue up 8%; licenses & other software up 9%, all at constant currency

3DEXPERIENCE software revenue up 26% at constant currency

Cash flow from operations up 20% to €489 million

Reaffirms FY Objectives & updates for currency: non-IFRS EPS €3.40-3.45, up 9%-11%

Board of Directors proposes 12% increase in annual dividend to €0.65 for the 2018 FY

BHP and Dassault Systèmes sign long-term partnership, with BHP adopting the **3D**EXPERIENCE Platform

To view charts, click here.

*In constant currencies

Bernard Charlès, Dassault Systèmes' Vice Chairman and Chief Executive Officer commented, "With the purpose of imagining sustainable innovations capable of harmonizing product, nature and life, the **3D**EXPERIENCE platform makes us a partner of choice for the world's largest businesses and for small and medium-sized firms in all sectors as they transform themselves in the Industry Renaissance underway.

"BHP, a world leading resources company and the largest mining company in the world, has decided to establish a long-term partnership with Dassault Systèmes to digitally transform the mining industry, a world first in the sector, using the **3D**EXPERIENCE twin to improve sustainability and predictability, and empower the workforce of the future.

"In Life Sciences, the largest pharmaceutical companies in the world as well as small innovative research labs, are adopting our solutions, led by BIOVIA, to transform their industry, and drive improved patient outcomes through end to end innovation.

"For the mainstream market, we introduced **3D**EXPERIENCE.WORKS, a new business applications family that brings the platform advantages to small and mid-sized companies -improved collaboration, manufacturing efficiency, business agility and an empowered workforce. **3D**EXPERIENCE.WORKS will leverage our POWER'BY strategy, which is proving very effective in enabling companies to connect their existing software investments to the **3D**EXPERIENCE platform, and benefit from the platform's full innovation capabilities in terms of business operations and business model."

First Quarter Financial Summary

(Unaudited)

To view charts, click here.

First Quarter 2019 versus 2018 Financial Comparisons

Revenue Review

In constant currencies: Total revenue increased 13% (IFRS and non-IFRS). On an organic basis, non-IFRS total revenue increased 8%.

Total software revenue increased 12% (IFRS and non-IFRS). Licenses and other software revenue increased 15% (IFRS and non-IFRS). Non-IFRS recurring revenue increased 11% reflecting double-digit growth for both support as well as subscription revenue. On an organic basis, total software revenue increased 8% with licenses and other software revenue growing 9% and recurring software revenue higher by 8%. Services revenue increased 20% in total, 9% on an organic basis and represented about 11% of total revenue (IFRS). (All growth rates at constant currencies.)

From an industry perspective and in constant currencies: Non-IFRS software revenue increased double-digits in seven of the Company's eleven industries (regrouped as of January 1, 2019, see Appendix for details): Transportation & Mobility, Aerospace & Defense, Industrial Equipment, Marine & Offshore, High Tech, Life Sciences and Home & Lifestyle.

On a regional basis and at constant currencies: Americas non-IFRS software revenue increased 18%, reflecting the contribution from acquisitions, large deal activity and strong recurring software growth. Europe non-IFRS software revenue increased 10%, on large deal activity in multiple geographies, most notably Central and Southern Europe. Asia non-IFRS software revenue increased 8% led by China and Asia Pacific, and to a lesser extent by India and Japan. On an organic basis, all three regions reported high single-digit software revenue growth.

3DEXPERIENCE software revenue increased 26% at constant currency and represented 23% of related software revenue, led by large **3D**EXPERIENCE transactions, both new and expansions, with clients in Industrial Equipment, Transportation & Mobility, Aerospace & Defense and High Tech, among others.

Operating Review

IFRS operating income increased 21%. Non-IFRS operating income increased 23% to €316.4 million. The non-IFRS operating margin was 32.8% in the first quarter, compared to 31.4% in the year-ago quarter, reflecting underlying organic improvement of 210 basis points, currency favorable effect of 50 basis points and estimated acquisition dilution of 120 basis points.

IFRS effective tax rate was 28.5%, compared to 25.9% in the prior year quarter. On a non-IFRS basis, the first quarter 2019 effective tax rate was 29.7%, compared to 28.8% in the year-ago quarter.

IFRS diluted net income per share increased 17%. Non-IFRS diluted net income per share increased 21% as reported to €0.87 per share, and increased about 13% at constant currency.

CFO Commentary

(In the discussion below figures are on a non-IFRS basis, with revenue growth rates in constant currencies.)

Pascal Daloz, Dassault Systèmes' Executive Vice President, CFO and Corporate Strategy Officer, commented, "We checked a number of boxes in the first quarter, leading to double-digit revenue and earnings per share growth exclusive of any currency benefits.

It was a dynamic quarter with important customers' business decisions, most notably in Transportation & Mobility, High Tech, Industrial Equipment, Life Sciences and Energy & Materials.

We had strong momentum with **3D**EXPERIENCE, where software revenue increased 26%, on core industries large clients' adoption.

Our organic growth continued to strengthen, with recurring software, representing 75% of our total software, up 8% organically.

Finally, cash flow from operations set a strong performance, at €489 million, up 20%.

"We are reaffirming our constant currency non-IFRS revenue growth range of 10% to 11% for 2019. Our growth outlook for software revenue is similar to 2018, and importantly as we stated at the outset of this year, we see a stronger contribution coming from recurring software revenue.

"Based upon this visibility, we are updating our 2019 reported non-IFRS revenue and earnings per share guidance ranges for the better than expected currency upside we saw in the first quarter and updated

second quarter currency rate assumptions, leading us to add \in 35 million at the mid-point to our revenue range, now \in 3.845 billion to \in 3.875 billion and 5 cents per share to our earnings per share range, now \in 3.40 to \in 3.45."

2019 Second Quarter and Full Year Financial Objectives

The Company's second quarter and full year 2019 financial objectives <u>presented</u> are given on an IFRS 15 and IFRS 16, non-IFRS basis and reflect the principal 2019 currency exchange rate assumptions below for the US dollar and Japanese yen as well as the potential impact from additional non-Euro currencies representing about 18% of the Company's total revenue in 2018:

To view charts, click here.

These objectives are prepared and communicated only on a non-IFRS basis and are subject to the cautionary statement set forth below.

The 2019 non-IFRS financial objectives set forth above do not take into account the following accounting elements and are estimated based upon the 2019 principal currency exchange rates above: contract liabilities write-downs estimated at approximately €12 million; share-based compensation expense, including related social charges, estimated at approximately €121 million and amortization of acquired intangibles estimated at approximately €196 million. The above objectives also do not include any impact from other operating income and expense, net principally comprised of acquisition, integration and restructuring expenses, and impairment of goodwill and acquired intangible assets; from one-time items included in financial revenue; from one-time tax effects; and from the income tax effects of these non-IFRS adjustments. Finally, these estimates do not include any new stock option or share grants, or any new acquisitions or restructurings completed after April 24, 2019.

Implementation of IFRS 16 Leases Summary

As of January 1st 2019, Dassault Systèmes adopted the new accounting standard IFRS 16 *Leases*, under the modified retrospective method. Under this method, the transition effect is accounted for within the consolidated equity at the date of initial application, therefore, there is no adjustment to prior year comparative information.

Cash Flow and Other Financial Highlights

Net operating cash flow increased 20% to €488.5 million for the 2019 first quarter compared to €406.9 million in the prior year period principally reflecting growth in net income and working capital improvement.

Dassault Systèmes' net financial position increased to €1.90 billion at March 31, 2019, compared to €1.81 billion at December 31, 2018, with cash, cash equivalents and short-term investments of €2.9 billion and debt related to credit lines of €1.0 billion.

Cash Dividend Recommendation, Annual Shareholders' Meeting Date and Filing of Regulatory Annual Report

The Board of Directors has scheduled the Annual Shareholders' Meeting for May 23, 2019 and is recommending a dividend per share equivalent to €0.65 per share for the fiscal year ended December 31, 2018, representing an increase of approximately 12% compared to the prior year €0.58 per share. Shares will be traded ex-dividend as of May 29, 2019. Dividends will be made payable on May 31, 2019. These recommendations are subject to approval by shareholders at the Annual Shareholders' Meeting. For

further information, see the Company's 2018 *Document de Référence* filed with the French *Autorité des Marchés Financiers (AMF)* on March 26, 2019. The 2018 *Document de Référence* and an English language translation of this document are available on the Company's website.

Summary of Recent Business, Technology and Customer Announcements

BHP and Dassault Systèmes sign long-term partnership, with BHP adopting the 3DEXPERIENCE platform. Dassault Systèmes and BHP have engaged in a long-term strategic partnership to leverage the application of digital technologies to mining. Combining the experience and resources of each company, the ambition is to unlock value by applying technologies proven in other industries to the core mining fundamentals of geoscience and resource engineering. The partnership intends to create a new level of understanding of resource and operational potential, underpinned by both company's commitments to safety and sustainability.

On March 26, 2019, Dassault Systèmes announced that Eurostar has chosen DELMIA Quintiq applications powered by the 3DEXPERIENCE platform to optimize its resource and maintenance planning.

On March 12, 2019, Dassault Systèmes announced that it will supply Alstom with its 3DEXPERIENCE platform to accelerate the delivery of 150 tailored trains to its customer, Trenitalia, the Italian national rail operator and part of Ferrovie dello Stato, introducing a new virtual product experience in the rail industry.

On March 5, 2019, Dassault Systèmes announced that it had acquired the startup Argosim to leverage proven artificial intelligence technology as the backbone of model-based systems engineering and architecture for embedded systems.

On February 28, 2019, ABB and Dassault Systèmes jointly announced a wide spanning global partnership to offer customers in digital industries a unique software solutions portfolio ranging from product life cycle management to asset health solutions. The companies will focus, in a staged approach, on factory automation and robotics, process industry automation, as well as electrification solutions for smart buildings.

On February 11, 2019, Dassault Systèmes announced the signing of a definitive agreement to acquire the elecworks electrical and automation design software product line from Trace Software International. Through the agreement, a team of 21 skilled professionals will join Dassault Systèmes. The acquisition of the elecworks assets will streamline and boost Dassault Systèmes' development of an integrated mechatronics solution on the 3DEXPERIENCE platform to help its SOLIDWORKS customers address electrical design challenges in the development of smart products.

On February 7, 2019, Dassault Systèmes announced that Naval Energies, a leader in marine renewables, is using the 3DEXPERIENCE platform to develop new offshore floating wind turbines and Ocean Thermal Energy Conversion (OTEC) turnkey solutions, and drive its leadership in marine renewable energies.

On February 6, 2019, Airbus and Dassault Systèmes announced the signing of a five-year Memorandum of Agreement to cooperate on the implementation of collaborative 3D design, engineering, manufacturing, simulation and intelligence applications. Under the agreement, Airbus will deploy Dassault Systèmes' 3DEXPERIENCE platform, which delivers digital continuity, from design to operations, in a single data model for a unified user experience, making digital design, manufacturing and services (DDMS) a company-wide reality for all Airbus divisions and product lines.

In February, 2019 Dassault Systèmes unveiled the creation of 3DEXPERIENCE.WORKS, a new portfolio of industry-aware applications on the 3DEXPERIENCE platform that is tailored to the needs of SOLIDWORKS customers and small and midsized companies. 3DEXPERIENCE.WORKS uniquely combines social collaboration with design, simulation and manufacturing ERP capabilities in a single digital environment to help growing businesses become more inventive, efficient and responsive in today's Industry Renaissance.

On January 8, 2019, Dassault Systèmes and Cognata, Ltd. announced that they are partnering to embed Cognata's Autonomous Vehicle Simulation Suite into Dassault Systèmes'
3DEXPERIENCE platform. The partnership will provide a first-of-its-kind solution for autonomous vehicle makers to define, test and experience autonomous driving throughout the development cycle within the 3DEXPERIENCE platform. This will make a fully integrated autonomous vehicle development process resulting in faster, more accurate and safer autonomous vehicles on the road.

Today's Webcast and Conference Call Information

Today, Wednesday, April 24, 2019, Dassault Systèmes will first host from London a webcasted meeting at 8:30 AM London time/9:30 AM Paris Time and will then host a conference call at 9:00 AM New York time/ 3:00 PM Paris time/ 2:00 PM London time. The webcasted meeting and conference call will be available via the Internet by accessing http://www.3ds.com/investors/. Please go to the website at least 15 minutes prior to the webcast or conference call to register, download and install any necessary software.

Additional investor information can be accessed at http://www.3ds.com/investors/ or by calling Dassault Systèmes' Investor Relations at 33.1.61.62.69.24.

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Digital Guardian Raises \$30 Million; Bolsters Leadership Team to Accelerate Growing Global Demand for Data Protection

24 April 2019

Digital Guardian today announced it has received \$30 million in additional financing. LLR Partners, a leading private equity firm and existing investor, was the lead on the round and previous investors also participated. These investors recognize with the onslaught of new data protection regulations like GDPR and the newly passed California Consumer Privacy Act, the global demand for data protection solutions will continue to rise dramatically, positioning Digital Guardian for significant future growth.

"We are seeing increasing demand from organizations around the world for next-generation data protection solutions that secure sensitive information against both insider threats and external attacks,"

said Mordecai Rosen, chief executive officer, Digital Guardian. "With this strategic investment and new leadership at the helm, we will be able to successfully capitalize on the growing demand by accelerating product development and innovation."

"With the advent of new compliance and privacy regulations, there is a tremendous market opportunity for a company that specializes in effective data protection," said David Stienes, partner, LLR Partners. "We value Digital Guardian's mission of protecting the most sensitive data assets for the world's leading organizations and have the highest degree of confidence in Mordecai and his new executive team. We are pleased to support their next phase of growth and development."

Digital Guardian's cloud-delivered Digital Guardian Data Protection Platform now secures more than 4.5 million endpoints across 50 countries worldwide in high-growth verticals, including financial services, manufacturing, healthcare, technology, and professional services.

To satisfy demand for the cloud-delivered Digital Guardian Data Protection Platform, the company expanded its bench with new management team additions for engineering, corporate strategy and product management.

Executive Appointments

- Constance (Connie) Stack, Chief Strategy Officer and Chief Marketing Officer. Connie joined Digital Guardian in 2013 as Chief Marketing Officer and led the efforts to rebrand the company and begin its transformation from a virtual unknown cybersecurity player to an award-winning, Gartner and Forrester recognized market leader in data loss prevention and endpoint detection and response. In her new role, Connie will help set the corporate strategy to ensure Digital Guardian's offerings meet ever-evolving market needs and support the continued growth of the business. In addition to her new responsibilities, Connie will also continue to lead the global marketing team.
- Debra Danielson, Chief Technology Officer and SVP of Engineering. Debra has held technical, strategic, operational, and managerial leadership roles over her 25+ year career. Prior to joining Digital Guardian, Debra was a Distinguished Engineer and SVP, Merger and Acquisition Strategy at CA Technologies, where she was responsible for identifying opportunities within emerging technologies, markets, and products. Debra will be responsible for leading the technical vision while overseeing the day-to-day operations of the engineering function, including product development, quality assurance, and sustaining engineering.
- Ben Cody, Senior Vice President, Product Management. Ben will lead the product strategy for all of Digital Guardian's product and service lines. He will work closely with sales, product marketing and field engineering on go to market strategy and product lifecycle management. Ben's entire 26+ year career has been dedicated to building world class enterprise software products. Prior to joining Digital Guardian, Ben was Vice President of Product Management at McAfee and was responsible for data protection and platform technologies.

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Edison Partners Leads \$8 Million Growth Investment in Suuchi

25 April 2019

Edison Partners today announced an \$8 million growth investment in Suuchi, the next-generation supply chain platform provider for fashion brands and retailers. The company will use the funds to accelerate go-to-market execution and product innovation, as well as continue to expand its network of designers, materials suppliers and factories throughout the United States.

In the \$2 trillion global apparel manufacturing market, the need to shrink the time from concept to consumer is prompting more fashion brands and retailers to seek supply-chain modernization. Suuchi delivers a next-generation approach to apparel supply chains that streamlines the connection of design and sourcing to US-based shop-floor manufacturing and provides complete, real-time transparency throughout the entire process.

"Time is the biggest risk factor for fashion brands and retailers in today's supply chain, and legacy systems and processes continue to hinder time to market, not to mention growth, profits and consumer experience," said Kelly Ford, Partner, Edison Partners, who led the investment and joins the company's board of directors. "Suuchi is changing the game for apparel brands of all sizes, with a network-driven SaaS platform that makes not only speed, but also profitability, possible with 'made in the USA.""

Suuchi's platform is a modern, intuitive SaaS-based application, called Suuchi GRID, powered by a curated network of 200+ freelancers, materials suppliers, and U.S.-based factories with a current available capacity of more than 8M units. Today, more than 200 fashion businesses, from large brands, like Cintas, to mid-tier and emerging brands, like Little Giraffe, are streamlining their supply chain workflows and production on the platform.

"We are reducing fashion supply chain complexity and time to market for brands and retailers by creating a more intelligent bridge between supply and demand; and with our shop-floor subject matter expertise, we are dematerializing the supply chain into a digital, made-local model," said Suuchi Ramesh, founder and CEO of Suuchi. "With this investment, we are poised to provide a scalable answer to one of the world's last trillion-dollar problems yet to be solved. In Edison Partners, and Kelly Ford, we have the perfect trifecta of strategic vision alignment, enterprise solutions experience, and a world-class team of operating experts to guide our fast growth."

Ramesh, an immigrant from India, started the company in 2016 after 10-plus years in successful roles in technology, analytics and sales at two companies that became unicorns in their industries. She was an EY Entrepreneur of the Year for New Jersey in 2018 and named to the ROI-New Jersey Influencers Power List for 2019. Last year, the company was also awarded NJ Grow innovation incentives by the New Jersey Economic Development Authority to further develop its business in the state. The company currently employs 120 people at its North Bergen headquarters and is actively hiring for positions in sales, marketing, software engineering, human resources and finance.

Suuchi Inc. is a next-generation supply chain platform for fashion brands and retailers. Using its product lifecycle management (PLM) application, Suuchi GRID, and its network of carefully curated freelancers, factories and mills, Suuchi designs and produces millions of units at speedy turnarounds. Suuchi is transforming retail, enabled by mega trends of just-in-time production, shop-floor integration, and supply chains created for consumer demand. For more information, visit https://www.suuchi.com/

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IBM Reports 2019 First-Quarter Results

16 April 2019

IBM today announced first-quarter results.

"In the first quarter, our cloud revenue growth accelerated, and we again grew in key, high-value areas in Cloud and Cognitive Software and in consulting," said Ginni Rometty, IBM chairman, president and chief executive officer. "IBM's investments in innovative technologies coupled with our industry expertise and our commitment to trust and security position us well to help clients move to chapter two of their digital reinvention."

"Our results reflect the fundamental changes we have made to our business, allowing us to generate greater operating leverage. In the first quarter, we significantly expanded profit margins, led by our services businesses," said James Kavanaugh, IBM senior vice president and chief financial officer. "Our focus on prioritizing our investments in the emerging high-value segments of our industry has enabled us to drive higher profitability and strong cash generation."

Cash Flow and Balance Sheet

In the first quarter, the company generated net cash from operating activities of \$4.8 billion, or \$2.3 billion, excluding Global Financing receivables. IBM's free cash flow was \$1.7 billion. IBM returned \$2.3 billion to shareholders through \$1.4 billion in dividends and \$0.9 billion in gross share repurchases. At the end of March 2019, IBM had \$2.4 billion remaining in the current share repurchase authorization.

IBM ended the first quarter with \$18.1 billion of cash on hand. Debt totaled \$50.0 billion, including Global Financing debt of \$29.5 billion. The balance sheet remains strong and is well positioned for the long term.

Segment Results for First Quarter

- Cloud & Cognitive Software (includes cloud and data platforms, cognitive applications and transaction processing platforms) -- revenues of \$5.0 billion, down 2 percent (up 2 percent adjusting for currency), led by cognitive applications, up 2 percent (up 4 percent adjusting for currency), and by cloud and data platforms, down 2 percent (up 2 percent adjusting for currency).
- Global Business Services (includes consulting, application management and global process services) --revenues of \$4.1 billion, flat year to year (up 4 percent adjusting for currency), with growth in consulting and global process services. Gross profit margin increased 280 basis points.
- Global Technology Services (includes infrastructure and cloud services and technology support services) -- revenues of \$6.9 billion, down 7 percent (down 3 percent adjusting for currency), with growth in hybrid cloud revenue. Gross profit margin increased 110 basis points.
- Systems (includes systems hardware and operating systems software) -- revenues of \$1.3 billion, down 11 percent (down 9 percent adjusting for currency), with growth in Power, offset by the impact of the IBM Z product cycle dynamics and weakness in Storage.
- Global Financing (includes financing and used equipment sales) -- revenues of \$406 million, flat year to year (up 4 percent adjusting for currency).

Full-Year 2019 Expectations

The company continues to expect GAAP diluted earnings per share of at least \$12.45, and operating (non-GAAP) diluted earnings per share of at least \$13.90. Operating (non-GAAP) diluted earnings per share exclude \$1.45 per share of charges for: amortization of purchased intangible assets and other acquisition-related charges, including pre-closing charges, such as financing costs, associated with the Red Hat acquisition; retirement-related charges; and tax reform enactment impacts.

IBM continues to expect free cash flow of approximately \$12 billion, with a realization rate of approximately 100 percent of GAAP Net Income.

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PTC Announces Second Quarter Fiscal Year 2019 Results

24 April 2019

PTC reported financial results for its fiscal second quarter 2019.

Financial Summary - ASC 606 (1)

Revenue of \$290 million

GAAP net loss was \$44 million or (\$0.37) per diluted share; non-GAAP net income was \$26 million or \$0.22per diluted share

GAAP operating margin of (8%); non-GAAP operating margin of 15%

Financial Summary ASC 605 (1)

Revenue of \$315 million

GAAP net loss was \$12 million or (\$0.10) per diluted share; non-GAAP net income was \$45 million or \$0.38per diluted share

GAAP operating margin of 0%; non-GAAP operating margin of 21%

(1)We adopted ASC 606 on October 1, 2018, which impacted our reported financial results, including the timing and classification of revenue. For comparability purposes, and unless otherwise specified, the amounts included in the commentary below refer to results under ASC 605, as shown in our financial statements, including the notes thereto.

"We are pleased with our second quarter financial performance with revenue, margin and EPS at or above the high end of our guidance range," said James Heppelmann, President and CEO, PTC. "Bookings growth of 18% year over year in constant currency was driven by a strong quarter for IoT, with IoT bookings growth well above the estimated 30-40% market growth rate. With our subscription business model transition complete, we were pleased to deliver Subscription bookings mix above 90%."

Other second quarter 2019 results:

Additional operating and financial highlights are set forth below. Information about our bookings and other reporting measures (as updated) is provided below. For additional details, please refer to the prepared remarks and financial data tables that have been posted to the Investor Relations section of our website at investor.ptc.com.

Additional Operating Highlights:

License and subscription bookings: Q2'19 license and subscription bookings were \$112 million, an increase of 18% on a constant currency basis, driven by a strong quarter for IoT; for the first time IoT bookings surpassed both CAD and PLM in the quarter.

Software revenue: Q2'19 software revenue was \$277 million, an increase of 6% year over year or 8% in constant currency.

Recurring Software revenue: Q2'19 software recurring revenue was \$266 million, an increase of 11% year over year or 14% in constant currency.

IoT software revenue: Q2'19 IoT software revenue was \$37 million, up 27% year over year or 30% on a constant currency basis, driven by 48% constant currency growth in subscription revenue.

Annualized recurring revenue (ARR): Q2'19 ARR was \$1,065 million, a constant currency increase of 15% year over year and the ninth consecutive quarter of double-digit year-over-year growth.

Deferred revenue: Billed deferred revenue increased 11% year over year to \$554 million. Total deferred revenue – billed and unbilled - increased \$61 million year over year, despite a 400-basis point currency headwind. Billed deferred revenue primarily relates to software agreements invoiced to customers for which the revenue has not yet been recognized. Billed deferred revenue fluctuates quarterly based upon the contractual billing dates in our recurring revenue contracts, and the timing of our fiscal reporting periods. Additionally, total deferred revenue is impacted by changes in FX rates and the length of new and renewal contracts.

Operating margin: GAAP operating margin in the second quarter was 0%, compared to 7% in the same period last year driven by restructuring charges associated with the relocation of our headquarters; non-GAAP operating margin was 21%, compared to 18% in the same period last year.

Operating cash flow and free cash flow: Operating cash flow in the second quarter was \$141 million, up 27% over Q2'18, and free cash flow was \$120 million, up 13% over Q2'18. Free cash flow in Q2'19 includes cash payments of approximately \$10 million related to our restructuring plan, including the relocation of our headquarters.

Total cash, cash equivalents, and marketable securities: As of the end of the second quarter total cash, cash equivalents, and marketable securities was \$351 million and total debt, net of deferred issuance costs, was \$739 million. During the second quarter we used \$65 million to repurchase 725,000 shares.

Restructuring: The restructuring charge in the second quarter related to exiting our headquarters in Needham was \$27 million.

Other information – Q2'19 subscription bookings: Bookings include a \$7.5 million IoT booking for which the contract terms were approved on March 30, but for which the electronic signature process was not fully complete until the morning of March 31.

To see the rest of the full release, including media, please visit https://investor.ptc.com/news-releases/news-release-details/ptc-announces-second-quarter-fiscal-year-2019-results

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Implementation Investments

Boursorama renews its agreement with IBM to accelerate its hybrid cloud strategy

18 April 2019

IBM and Boursorama, a subsidiary of Société Générale group, renewed their agreement by signing a hybrid cloud contract for five years to help enrich the bank's offerings of new products and services.

Boursorama is a pioneer and leader in online brokerage, Internet financial information and, since 2005, online banking. Designated the least expensive bank in France for eleven years, Boursorama pushes the borders to simplify the lives of its customers at the best price and with the best quality of service, according to Boursorama reports. Thus, in 2018, Boursorama reports attracting a new customer every 50 seconds and now has more than 1.7 million customers.

Today, Boursorama extends its original 2014 infrastructure agreement with IBM to reinforce growth and a high level of availability and security supporting its operations and compliance with regulatory requirements, especially from the European Central Bank. As part of the agreement announced today, Boursorama will be able to use new IBM Cloud services for its banking business.

Boursorama has chosen IBM Cloud for:

- Its resilience, allowing it to continue to provide the best service to its ever-increasing number of customers since 2016, the number has doubled to reach 1.7 million day or night, every day of the week
- The use of a cloud infrastructure which positions Boursorama to constantly enrich its offer with new products and services, including: everyday banking, loans (real estate, consumer, Lombard, renewable), precautionary savings, life insurance and the stock market. Today, Boursorama Banque offers a catalog of 827 free features to help simplify the lives of its customers on a daily basis
- Its Hybrid Cloud catalog including SaaS and PaaS, allowing them to dynamically respond to business innovations at the service of customers
- Enhanced Cybersecurity services on Web servers to help prevent denial of service attacks, complemented by the expertise of the IBM X-Force Incident Response and Intelligence Services (IRIS) team who can assist the customer to deal with a cybersecurity incident by helping them prepare and implement a remediation plan.

"IBM's secure hybrid cloud offering, as well as the security services around Web platforms, are designed to be real innovation assets for our customers in the context of their digital transformation, especially in the banking world subject to the ECB's regulatory requirements," says Béatrice Kosowski, General Manager, Global Technology Services, IBM France. "We are very proud to continue to support Boursorama in its growth and conquest of new markets."

"The hosting of a large part of our IS on IBM Cloud solutions allows us to continue our development on proven technological infrastructures capable of responding to the strong growth of Boursorama," declares Benoit Grisoni, CEO of Boursorama. "By also using public cloud solutions, we will simultaneously seek to optimize our costs and offer more and more innovative services to our customers."

IBM and Boursorama signed this transaction in Q1, 2019.

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Canadian Outerwear Leader APP Group Chooses Centric PLM to Protect Productivity

23 April 2019

APP Group has selected Centric Software's Product Lifecycle Management (PLM) solution.

APP Group is headquartered in Montreal and owns two outerwear brands, Mackage and SOIA & KYO. Mackage was launched in 1999 and is now one of the most prestigious contemporary outerwear brands worldwide. The mission is clear: to elevate outerwear with a unique balance between fashion and function with collections that combine the finest leathers, downs, and wool with tailored silhouettes and precision detail; testament to the brand's cornerstones of innovation, design and an unwavering commitment to outstanding quality.

Founded in 2004, SOIA & KYO has quickly grown into a sought-after outerwear brand for women. With luxurious materials and artful details, SOIA & KYO creates signature styles that speak for themselves. SOIA & KYO celebrates the beauty found in simplicity.

When working with email, Excel and cloud storage services became too cumbersome and inefficient, APP Group investigated PLM solutions.

"Our main challenge is providing data visibility between design teams and technical teams, and between our head office and remote offices," explains Demet Ozdemir, Vice-President Production and Sourcing at APP Group. "Manual data entry takes up time that our talented teams could spend on productive tasks. We need to create a seamless flow of information that will give us visibility of the full development cycle."

APP Group hired an external consultant to assess potential solutions. After a comprehensive demo session, they selected Centric 8 PLM.

"We see great success stories from major brands in our industry who work with Centric," says Ozdemir. "Centric's fashion experience means that they understand our obstacles and can offer insight into industry best practices. They offered us solutions from the start. Centric PLM is a user-friendly tool that will help facilitate communication across different time zones and languages and will also tie into our Enterprise Resource Planning (ERP) solution. It will centralize shareable data and complete the full product lifecycle workflow."

As Ozdemir concludes, "We expect to increase the productivity of each user's role, establish data protection and security and share master library data between users. We'll now have visibility of the full development cycle from line plan to final collection."

"We are very happy to welcome APP Group as our tenth partner in Canada," says Chris Groves, President and CEO of Centric Software. "APP Group will use Centric PLM to improve visibility and productivity at their outerwear brands, and we are anticipating great results. We look forward to partnering with them as they continue to grow and expand."

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Haselmeier selects Minerva Medical Device PLM as their enterprise PLM solution

26 April 2019

Minerva, Aras Certified Gold Partner, today announced that Haselmeier, a leading solution provider of innovative self-injection devices, has selected Minerva Medical Device PLM and Aras Innovator® as their enterprise-wide PLM system.

Haselmeier was looking for a way to digitalize their processes, including the handling and collaboration processes for documentation and product data. They looked to Minerva and Aras for a solution.

Key drivers in Haselmeier's selection were plug and play-functionalities of the Minerva Medical Device PLM template on top of Aras Innovator®, the breadth of functionality and the ability to customize the platform.

"We chose Minerva and Medical Device PLM because it was an out-of-the-box solution which helps ensure that we meet regulatory requirements and gives us cool functionalities like the deliverable matrix and the DMR filtering. All these features fitted exactly to our needs," says Alexander Ball, Vice President of IT at Haselmeier.

Like many other manufacturing companies in the medical device industry, the employees at Haselmeier spends too much time searching for the right data and waiting for document approval. It was time for a change.

"We want to have everything digitalized, including a fully electronic workflow for our development process, which is paper-based now. We are convinced that we need to recreate our development processes in a digital way to optimize it and in the end reduce time-waste for our employees," says Alexander Ball, Vice President of IT at Haselmeier.

"More and more companies in the medical device industry are acknowledging the need for digitalized processes to speed up their processes and increase the efficiency while ensuring they stay compliant to regulatory standards. We created Medical Device PLM to address those challenges that are typical to the industry. So, it makes us proud when a company like Haselmeier chooses Minerva and Medical Device PLM to help them with these specific challenges" says Thomas Skogen, Product Director at Minerva.

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LG Electronics Advances Product Innovation Through Multi-year Agreement with ANSYS

23 April 2019

LG Electronics (LG) expects shortened product development lifecycles and accelerated product design and delivery thanks to a new, multi-year agreement with ANSYS. The agreement provides LG with access to ANSYS' industry leading multiphysics simulation solutions — supporting LG's continued commitment to delivering highly innovative mobile devices, home entertainment and appliance applications to customers worldwide.

The multi-year enterprise license agreement enables LG, a leading manufacturer of mobile devices, home entertainment and appliances, with enterprise-wide licenses and expansive access to cutting-edge ANSYS structures, fluids and high-frequency electromagnetics suites.

"This agreement with ANSYS signifies a major milestone in the evolution and growth of our new

product design and development processes," said Sang Kook Kim, product development team task leader, LG. "Their portfolio of next generation simulation technologies will empower our talented engineering team with highly advanced capabilities, spurring the development of innovative, state-of-the-art LG products and expediting our path to market."

"ANSYS' pervasive engineering simulation solutions support LG's drive for continuous innovation and increased production velocity," said Shane Emswiler, vice president and general manager of Electronics, Fluids and Mechanical, ANSYS. "We look forward to working with LG in the coming years and being part of their next wave of innovation."

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Product News

Adesto Announces Availability of Open Edge Server for Building Automation and Industrial IoT 22 April 2019

Adesto® Technologies Corporation announced general availability of its next-generation edge server for building automation and industrial IoT applications. SmartServerTM IoT is the industry's first truly open, full-featured and end-to-end industrial-rated IoT edge server. Its out-of-the-box device management services, intuitive user interface and programmable interfaces and applications enable system integrators to deploy solutions in an afternoon, and OEMs to create custom applications with ease.

Smart buildings represent a rapidly growing segment of the Industrial IoT market as facility managers increasingly see the benefits of merging traditional building automation and control (BAC) systems with emerging sensing, communications and cloud technologies. With Adesto's SmartServer IoT, customers can meet today's challenge of creating truly smart buildings by integrating their systems' multitude of non-interoperable communications protocols – which have evolved over the years to support each buildings' diverse functions, such as lighting, security, HVAC, fire detection and others – with new sensing, analytics and predictive AI services not available through BAC systems.

"Edge servers represent the crossroads where traditional operational systems meet the IoT, and today they are needed across just about every industrial and built-in environment," said Adarsh Krishnan, principal analyst, ABI Research. "Edge servers are not all created equal, however. Bridging the separate islands of automation in buildings without losing the considerable investment in each specialized control network is key. This path to more effective building automation solutions is what Adesto is addressing today with SmartServer IoT."

SmartServer IoT supports multiple protocols and applications, enabling the convergence of diverse systems into a single edge networking and compute platform. It features built-in support for popular building automation protocols and services; open northbound interfaces to any remote client, workstation or web application; open southbound interfaces; and a data abstraction layer for connecting with emerging IoT protocols and devices. With SmartServer IoT, businesses can embrace their existing, perfectly functional control and management systems, and enhance them by securely connecting them to advanced IoT technologies.

"By supporting both BAC work flows and IoT applications and providing an open ecosystem, Adesto's SmartServer IoT eliminates the painstaking task of integration that is the industry norm when

implementing IoT projects in commercial buildings," said Tim Hopkins, COO, Envigilant Systems, an Allied Telesis Division. "While a typical integration project can take months, we were able to get going with SmartServer IoT in a matter of hours. SmartServer IoT gives us the ability to not only reduce integration frictions, but also create our own services for data and controls. We're excited to pass this benefit on to our customers by enabling them to maximize their ROI and enhance the building experience for owners and occupants."

"Traditional building and industrial control systems aren't going away," said Apurba Pradhan, vice president of marketing, Embedded Systems Division, Adesto. "Rip and replace is just not an option for building or operations managers with existing automation infrastructure based on BACnet, LON, Modbus or other field bus systems that were very costly to put in place. With SmartServer IoT, we leverage our 30 years of expertise in industrial communications and networking to simplify the deployment of advanced IoT applications in such market verticals for web developers and system integrators."

A Look Inside SmartServer IoTThe SmartServer IoT provides multi-protocol IoT gateway functionality with edge compute resources and APIs to optimize industrial IoT workflow between the cloud and edge for industries such as building automation, transportation and industrial controls. Key enablers include:

-- An end-to-end IoT solution, with modular interfaces for leading industrial communications protocols and IP network and data abstraction layer, eliminating the requirement to integrate protocol stacks and abstract the data from a variety of device types -- Secure IoT messaging to remote clients and cloud services to gather data from devices efficiently from any public or private cloud without opening unsecure ports or punching holes through firewalls -- Edge services for controls and automation, with pre-integrated device and data management apps—such as connecting, routing, scheduling, data logging and alarming—all operating at the network edge for faster, more responsive systems -- User-friendly web-based management systemfor simplifying the integrator workflow of creating, provisioning and managing devices with configurable dashboards, alarms and reports -- An extensible, open integration platform based on Linux, with freely available modern RESTful APIs for accelerating web apps and HTML development, and MQTT for custom controls applications; all ensuring integration with any IoT device or application

AvailabilitySmartServer IoT is available now.

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ANSYS Completes Latest Certification on TSMC 5nm FinFET Process Technology

22 April 2019

Through new certifications and a comprehensive suite of semiconductor design solutions, TSMC and ANSYS empower mutual customers to meet increasing demands for next-generation of innovations in mobile, networking, 5G, artificial intelligence (AI), cloud and data center applications.

Advancements in these cutting-edge applications are pushing the limits of performance within a power and thermal constrained environment. AI applications — including training and inferencing data sets in the cloud and edge — require power-hungry, high-performance processors with increased functionality.

TSMC certifies ANSYS® RedHawk™ and ANSYS® Totem™ multiphysics solutions on its latest 5nm

FinFET process technology. The certifications include extraction, power integrity and reliability, signal electromigration (signal EM) and thermal reliability analysis, and statistical EM budgeting (SEB) analysis. Optimized for mobile and HPC applications, the certifications enable low power design solutions for TSMC's most advanced process technology.

"ANSYS' solutions are certified on TSMC industry-leading 5nm FinFET, 7nm, and 7nm FinFET Plus processes, enabling our mutual customers to verify and validate their designs with increased confidence to address growing performance, reliability and power challenges," said Suk Lee, senior director, design infrastructure management division at TSMC. "Our fruitful collaboration with ANSYS results in empowering customers to achieve their successes in high-growth markets with primary focuses on leading edge AI, data center, cloud and mobile applications."

"Multiphysics analysis enables silicon success for 7nm and below FinFET designs," said John Lee, general manager at ANSYS. "We are proud to collaborate with TSMC to enable our mutual customers to achieve their power, performance, area and reliability goals with our solutions."

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Arena PLM for AWS GovCloud Extends PLM and Quality Assurance to ITAR / EAR Registered Companies

24 April 2019

Arena Solutions announces Arena PLM for AWS GovCloud, designed for companies manufacturing products subject to the United States International Traffic in Arms Regulations (ITAR) and Export Administration Regulations (EAR). Electronics defense suppliers can now benefit from a single platform for all product and quality assurance processes from design to sustaining—while complying with Federal security mandates. Arena PLM for AWS GovCloud addresses system access, data storage, and technical data access compliance requirements critical to these regulated product companies.

Recognizing the critical need to retain a technological advantage, the US Congress has enacted reforms to close the defense technological gap and accelerate adoption of commercial technologies for military use. As a result of these changes, commercial firms are leading in defense technologies in the United States, capitalizing on dual-use opportunities for products across sectors. According to a 2018 Study by PWC, commercial electronics and technology companies are pushing into defense with innovation, risk-taking willingness, and larger R&D budget spends than past traditional defense contractors. Once a part of the defense supply chain, these companies must adhere to ITAR and EAR regulations, which control the export of defense articles including technical data, defense services, and dual-use articles and technology.

Companies operating in controlled regulatory spaces, including ITAR and EAR, need a secure, transparent single source of product record. "Our customers wanted a solution that provided the product control, collaboration, and quality benefits of Arena, but within an environment that assists with their federally mandated compliance needs," said Craig Livingston, Chief Executive Officer of Arena Solutions. "Arena PLM for AWS GovCloud makes modern, cloud-based product realization enablement compelling and easy to implement while maintaining the integrity and security of digital export-controlled product data throughout the supply chain."

Electronics defense suppliers previously limited to on-premise systems, spreadsheets, or cumbersome

toolkit systems now can utilize Arena PLM for AWS GovCloud to speed new product development and ensure product quality while meeting critical financial and market goals.

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Autodesk: BIM 360 Field Management Update

22 April 2019

Announced on the Autodesk blog:

"The April 22nd, 2019 BIM 360 Field Management update delivers the following enhancement.

Ability to add activity notes to Daily Log

Daily Log – Labor Activity Notes

In addition to documenting workers and their hours per Company, you can now add notes within the Labor section of your Daily Log. The notes allow you to document not only the labor from a count perspective, but also describe the activity of the day for that Company. Notes can be added both on web and mobile allowing for enhanced collaboration with the team.

As a reviewer of a Daily Log, I can quickly see which of the days entries have notes associated to them. I can expand and collapse the view as needed to make consumption of the data easier, either all notes at once or each individually.

Additional capabilities just around the corner for Daily Logs."

To view the original post with media, please visit https://blogs.autodesk.com/bim360-release-notes/2019/04/22/bim-360-field-management-update-april-22nd-2019/

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Cadence Collaborates with TSMC to Accelerate 5nm FinFET Innovation, Enabling Next-Generation SoC Production Design

22 April 2019

Cadence Design Systems, Inc. announced that it has collaborated with TSMC to enable customers' production delivery of next-generation system-on-chip (SoC) designs for mobile, high-performance computing (HPC), 5G and artificial intelligence (AI) applications on TSMC's 5nm FinFET process technology. As part of the collaboration, the Cadence® digital, signoff and custom/analog tools have been certified for Design Rule Manual (DRM) and SPICE v1.0, and Cadence IP has been enabled for the TSMC 5nm process. The corresponding process design kits (PDKs) featuring integrated tools, flows and methodologies are now available for traditional and cloud-based environments. Additionally, mutual customers have already completed several tapeouts using Cadence tools, flows and IP for full production development on the TSMC 5nm process technology.

5nm Digital and Signoff Tool Certification

Cadence delivered a fully integrated digital implementation and signoff tool flow, which has been

certified on TSMC's industry-leading 5nm process that has the benefits of process simplification provided by extreme ultraviolet (EUV) lithography. The Cadence full-flow includes the InnovusTM Implementation System, LiberateTMCharacterization Portfolio, QuantusTM Extraction Solution, TempusTM Timing Signoff Solution, VoltusTM IC Power Integrity Solution and PegasusTM Verification System.

The Cadence digital and signoff tools that have been optimized for TSMC's 5nm process technology provide EUV support at key layers and associated new design rules, which enable mutual customers to reduce iterations and achieve performance, area, and power (PPA) improvements. Some of the newest enhancements for the 5nm process include predictive via-pillar-aware synthesis structuring with the GenusTMSynthesis Solution as well as a pin-access control routing method for cell electromigration (EM) handling in the Innovus Implementation System and Tempus ECO and also statistical EM budgeting analysis support in the VoltusTM IC Power Integrity Solution. The newly certified Pegasus Verification System supports 5nm rule decks for all TSMC physical verification flows including DRC, LVS and metal fill.

5nm Custom/Analog Tool Certification

The Cadence custom/analog tools certified on TSMC's industry-leading 5nm process technology include the Spectre® Accelerated Parallel Simulator (APS), Spectre eXtensive Partitioning Simulator (XPS), Spectre RF Option, Spectre Circuit Simulator, Voltus-Fi Custom Power Integrity Solution, Pegasus Verification System as well as the Virtuoso® custom IC design platform, which includes the Virtuoso Layout Suite EXL, Virtuoso Schematic Editor and Virtuoso ADE Product Suite.

The Virtuoso R&D team has an ongoing and rich collaboration with the Cadence IP Group, developing 5nm mixed-signal IP using a state-of-the-art custom design methodology built on the latest Virtuoso design platform. By continually enhancing the design methodologies and capabilities included with the Virtuoso Advanced-Node and Methodology Platform for TSMC's advanced-node processes, including the 5nm process, customers can achieve better custom physical design throughput versus traditional non-structured design methodologies.

The new Virtuoso Advanced-Node and Methodology Platform (ICADVM 18.1) consists of features and functionality required for creating 5nm designs, which include an accelerated, row-based custom placement and routing methodology that enables users to improve productivity and better manage complex design rules. Cadence introduced several new features that support the 5nm process including stacked gate support, universal poly grid snapping, area-based rule support, asymmetric coloring and voltage-dependent rule support, analog cell support and support for various new devices and design constraints that are part of TSMC's 5nm technology offering.

5nm IP Enablement

Cadence is developing a differentiated advanced-node IP portfolio to support TSMC's 5nm process, which includes a high-performance memory subsystem, very high-speed SerDes and high-performance analog to meet the demands of HPC, machine learning (ML) and 5G base stations. With the release of TSMC's 5nm design infrastructure, Cadence and TSMC are actively engaged with customers and enabling next-generation SoC development by addressing the latest IP requirements for evolving application areas.

"TSMC's 5nm technology offers our customers the industry's most advanced technology to address the growing demand for computing power driven by AI and 5G," said Suk Lee, TSMC senior director, Design Infrastructure Management Division. "By collaborating closely with Cadence, we're enabling

customers to effectively differentiate themselves and deliver designs to market faster using our latest technologies."

"We're continuing to broaden our collaboration with TSMC to facilitate 5nm FinFET adoption, giving customers access to the latest tools and IP for advanced process design creation," said Dr. Chin-Chi Teng, senior vice president and general manager of the Digital & Signoff Group at Cadence. "Our R&D team has focused heavily on developing new features and performance improvements so that our digital and signoff and custom/analog tools and IP can be used with complete confidence, enabling customers to achieve first-pass silicon success and deliver end products within aggressive time-to-market schedules."

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EDGECAM 2020.0: Now Supports one of the Fastest 5-Axis Machining Tools

23 April 2019

The introduction of a specific 5-axis 'Tilt' control strategy, combined with a 'Barrel Cutter,' is said to be the most significant enhancement in the latest release of EDGECAM, from Hexagon Manufacturing Intelligence's Production Software division.

Brand Manager John Buehler says barrel cutters are recognised as one of the fastest tools when 5-axis machining, and are now fully supported in the EDGECAM Toolstore.

As well as the new 'side tilt by contact point' capability, the Advanced 5-axis cycle also offers further gouge checking in the Swarf command, along with extra "ink" control in all strategies.

A number of new and enhanced features in EDGECAM 2020.0 provide increased productivity for both milling and turning users. And the recently introduced EDGECAM Inspect module includes 13 upgrades.

First...mindful of the need to generate quick toolpaths to reduce production costs, EDGECAM 2020.0 offers a significant performance boost when either roughing or profiling a solid model. "Essentially, the machining engine will only compute data constrained within the boundary, ignoring the rest of the model. This significantly decreases the cache size, while generating faster toolpaths."

Formerly introduced in the Hole cycle in the 2018 R1 release, the 'Deep Hole' strategy has been enhanced, justifying the creation of its own individual cycle. The original modifiers have been improved, and further control tabs have been added to the cycle, giving greater control over the toolpath.

The Turning environment offers a new machining cycle – Thread Profiling. "Reacting to a high frequency of enhancement requests from customers in this area, EDGECAM 2020.0 allows users to effortlessly machine complex form threads such as VAM and Acme," says John Buehler. "The cycle provides both roughing and finishing strategies, allowing users to specify their own thread forms."

The ever-popular Waveform Machining Strategy has been enhanced with 'Chip Prevention' control. Under certain conditions, a toolpath can generate a thin island of material (chip), which, as it gets

thinner can cause machining stresses, and potentially break the tool.

"We've found that to compensate for this risk, users tend to sacrifice productivity by reducing feeds and speeds. So we've introduced the 'Chip Prevention' option which alters the toolpath pattern, by machining across the island of material, removing the possibility of machining stresses, allowing users to maintain optimum feeds and speeds."

Supporting the growing number of machine tools possessing an 'Auxiliary Z' (Quill), EDGECAM 2020.0 introduces a Code Wizard enhancement, letting users add a secondary working spindle. This supports multi-task machine, along with any combination of Table/Head Milling machines. Coupled with that, a new 'Quill Command (Move menu), offer greater control when commanding the second working axis.

When using the Finish Grooving cycle, users can now control the 'Break Edge' angle. In previous EDGECAM releases, the break angle was set at 45-degrees.

In the Finish Turning cycle a 'stand off' value can now be defined when using 'Up Cut' control.

An XY Offset can be set when deploying the Hole Cycle's 'Helical' strategy, allowing users to control both surface finish and tool wear. "It also leads to reduced CAD preparation time, while guaranteeing that the cycle is associative to the solid model."

Two new tool types – Dovetail, and Double Angle – have been added to the Toolstore. This does away with the need to create custom graphics for them, saving time and programming costs. And the tools work automatically with the Slot Cycle.

Moving on to EDGECAM Inspect, Brand Manager for Research and Development Andy Mears says developers have responded to numerous customer requests by expanding the ability of Inspect components in both the Turning and Mill-Turn environments.

The overall interface has been upgraded to adopt the work-flow ribbon toolbar, improving interactivity. The 'Probing Options' menu has been split into two separate dialogs, meaning users can concentrate on Output and Inspect preferences individually.

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Introducing Ambrosus IoT Product Kits

23 April 2019

Announced on the Ambrosus blog:

"Ambrosus is proud to announce the public release of its IoT (Internet of Things) production kits! After months of designing, prototyping, and testing different products, a number of IoT solutions and Gateways are officially fit for industrial implementation! These tools, utilized for collecting, transmitting, and managing data from the physical world, are specifically designed for enterprises and entrepreneurs interested in utilizing the Ambrosus Network, for their next-generation of data

management solutions. With the release of the Ambrosus IoT Product Kits, Ambrosus now stands uniquely at the nexus of Blockchain and the Internet of Things (IoT), with a strong commitment to data transparency and integrity!

More specifically, the documentation can be categorized beneath the following headings, with specific information contained in each individual fact sheet:

Ambrosus Network Architecture

The first series of Fact Sheets provides a graphics based explanation of the entire Ambrosus Ecosystem. From its major components, to the functionality of the different masternodes on the network, these factsheets contextualize the place and importance of the IoT production kits.

The Ambrosus Ecosystem Architecture

The Ambrosus Network Design

Middleware and Communication Protocols

The three fact sheets devoted to 'middleware and communication protocols' concentrate on explaining how the data collected from IoT devices can be communicated to the Ambrosus Network and underlying blockchain infrastructure. This overview outlines different solutions involving BLE, LoRaWan, as well as LoRaDTN. Furthermore, a technical description of the Ambrosus Multisensing Platform as well as its edge gateways are provided explaining the underlying purpose of such technology. Altogether, the factsheets outline different technical designs, as well as the underlying importance of ensuring secure data management and connectivity, between connecting devices and the blockchain.

Ambrosus Communication Protocols

Ambrosus Edge-Gateways

The Ambrosus Multisensing Platform

Ambrosus IoT Solutions

The factsheets describing Ambrosus IoT solutions detail both the general and specific range of solutions that have currently been developed. More traditionally, this includes a number of different tagging solutions such as Optic, UHF and NFC Tags. However, specific innovations from within Ambrosus have also created the Multisensing Device, the Low Cost Serialization Tag, as well as Ambrosus' original Smart Containers. Within each factsheet is a technical design and explanation of the most important details of each product, and its relevant applicability.

Ambrosus Smart Tagging Overview

Ambrosus Smart Containers

The LCS Tag

The Ambrosus Smart Device

Client Applications

Last but not least, the final sub-category of IoT kits created by Ambrosus pertains to the alpha versions of different dashboards to be used for managing data on the Ambrosus Network. This refers to the Ambrosus Developer Manager Dashboard, as well as a Demo of the Ambrosus Client Dashboard. With each, photos and explanations are provided for how the specific application is optimized for general use

as well as for the creation and management of Assets and Events, by product managers, mobile and web developers, entrepreneurs, and service providers.

Developer Management Dashboard

Ambrosus Dashboard Client Demo

What does this mean for the Ambrosus Ecosystem?

As the premier blockchain and IoT platform, AMB-NET is officially upgraded and primed for sophisticated IoT product implementation using the diverse array of IoT Kits now available to enterprises and entrepreneurs. Based upon these 11 initial kits, the foundation for developing sophisticated and complete IoT solution architectures across industries is now available. Data from a complex number of environments can be securely collected, transmitted, stored, and visualized utilizing the different components of the Ambrosus Network. In the coming weeks, more IoT products and relevant documentation will be released pertaining to more complex IoT solutions that Ambrosus is currently in the process of further developing.

Welcome to the Fourth Industrial Revolution; it is going to be an exciting journey!"

To view the full release with media, please visit https://blog.ambrosus.com/introducing-ambrosus-iot-product-kits-17492d4d6e85

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Introducing MagiCAD Construction Solutions

18 April 2019

Announced on the MagiCAD blog:

"It's our pleasure to introduce MagiCAD Construction Solutions. Based out of our London office, we'll be delivering two solutions for Construction & MEP focusing on cost and quantification.

Cubicost redefines BIM quantification & costing with intelligent automation for Construction & MEP projects.

MagiCAD Quantity for Revit enables customers to move beyond manual quantification of MEP by generating meaningful & complete quantities directly from the model in a truly digital workflow.

There's much more to come from our Construction Solutions team, but in the meantime please contact us to kick start your digital construction journey."

To view the original post, please visit https://www.magicad.com/en/blog/2019/04/introducing-magicad-construction-solutions/

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Monkeytoe Launches Online Product Catalog with BIM & CAD Downloads, Built by CADENAS PARTsolutions

18 April 2019

Monkeytoe has just launched an all-new, online product catalog of configurable 3D BIM and CAD models. Built by CADENAS PARTsolutions, the product configurator transforms the design process for architects and engineers looking to download 3D BIM objects for their planning projects.

Based in New Zealand and Australia, Monkeytoe is committed to offering full-service support to engineers and architects, providing safe and compliant roof access and smart HVAC plant mounting systems. Now, with their all-new BIM catalog, Monkeytoe can provide the instant 3D BIM downloads and CAD models their customers need, reducing overall design time and creating a more streamlined and collaborative design process.

"Before launching the new configurator, customers would send in a download request to our draftsmen, via email. Now customers can configure the exact product they need on-demand by accessing the BIM or CAD product directly from our website. It's a faster and more accurate process overall," said Budd Prestidge, General Manager at Monkeytoe.

When customers customize their product in the online catalog, they can choose from over 100 BIM and CAD formats to download the 3D part as a native BIM or CAD download. Native formats include native files for Autodesk Revit, AutoCAD®, Inventor®, SolidWorks®, Solid Edge®, PTC Wildfire®, CREO®, Siemens NX®, CATIA®, and more. This, along with built-in metadata of the manufacturer information and product specs, ensures architects have all the information they need to purchase the downloaded product.

"With the new catalog, we can instantly deliver CAD and BIM files to customers that are tailored to their design needs," said Prestidge.

In addition to 3D BIM downloads, Monkeytoe's new online product catalog also offers free interactive product datasheets. These downloadable PDFs have an interactive preview of the customer's configured part and include relevant manufacturer information, simplifying collaboration and information sharing between departments.

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Mouser's Revolutionary BOM Tool, FORTE, Gives Engineers and Buyers More Power to Select and Purchase

23 April 2019

Mouser Electronics, Inc. has helped customers process more than 11 million lines through its comprehensive bill of materials (BOM) management tool FORTE. In 2018 customers completed more than 140,000 BOMs through FORTE, Mouser's tool designed to increase confidence, save time, and improve order accuracy in specifying and purchasing electronic components.

FORTE provides a Risk Evaluator feature based on a unique relevancy engine that analyzes partial part numbers and descriptions to suggest the best options for customers — an industry-leading feature. The tool, free to anyone with a My Mouser account evaluates the millions of daily interactions of purchasing professionals and engineers. FORTE then quickly validates part numbers, product availability, and price, and recommends alternative products to reduce design and product lifecycle risks.

Mouser is constantly improving its tools to help buyers and engineers manage their specification and purchasing; FORTE was developed to be what purchasing professionals really need in a BOM tool.

With FORTE, customers receive intelligent advice even when they search for outdated or partial part numbers. The new tool can match a higher percentage of parts and help customers understand the confidence and risk of each part.

FORTE offers expanded customization, added intelligence, and enhanced part match confidence that makes the BOM-building process faster, easier to use, and easier to share. The highly intelligent tool remembers users' preferences, spreadsheet layouts, naming conventions, and previous product orders. FORTE also offers legacy features like translations for all of Mouser's supported languages, support for the most common file formats, real-time product pricing and availability, and easy purchasing directly from the BOM.

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New Environmental Digital Twin for Healthy Sustainable Communities

16 April 2019

IES is excited to announce the launch of their brand new cutting-edge digital twin technology that connects distributed energy networks, renewables, master plans, building design, operation and retrofit.

The ICL (Intelligent Communities Lifecycle) is a platform of interconnected decision support tools that facilitate the planning, design and operation of energy efficient and sustainable communities of any size and purpose, whether that be a company, campus, city or country. It is the most holistic tool for assessing any configuration of buildings throughout their lifecycle.

Utilising the latest digital technology to link IOT (Internet of Things) data, sensor readings, OpenData or any other data source into one interconnected platform, the ICL enables investigation of built environment performance at any level.

The technology will provide decision makers with the information required to form intelligent solutions, by identifying the most effective and resource efficient ways in which they can dramatically reduce the use of energy and fossil fuels within a community. The built environment currently accounts for 40% of the world's energy use, meaning buildings and cities have the potential to make the biggest impact in reducing carbon emissions globally.

Climate reports over the last 6 months have made clear that time isn't on our side. Climate Change is not something that is going to happen far into the future - it is happening now. The research shows that warming the planet more than 1.5C is a real threat to its liveability, and the way things are going this 1.5C temperature safety guard could be exceeded in as little as 17 years. We have a small window to really make a difference, but the question many are struggling with is "how?"

By launching the ICL, we're making our technology available to anyone interested in energy efficiency and sustainability; from Architects, Engineers and Developers, to City Planners, ESCO's, Sustainability, Energy and Facilities Managers, helping them see the true sustainability potential of their projects.

Through pilot projects, the technology has already delivered an interactive 3D visualisation and masterplanning model for Nanyang Technological University in Singapore, which uncovered campus-

wide energy savings of 31% and \$4.7m cost savings.

It has also been used to create a prototype community interaction model that enables real-time visualisation of energy data within the Trent Basin community in Nottingham, UK. A model that includes information on renewable energy generation and storage, alongside energy consumption data, and general information about the homes.

"I am very excited to be bringing this unique innovative technology to the market," says Don McLean, IES Founder and CEO. "The IES team have been working extremely hard over the past few years to develop this sophisticated suite of tools that will revolutionise the way we plan and design communities and use energy, whether that be a university campus, city or entire continent."

"Climate Change is a very real threat, and much more imminent than most people realise. Over the last 25 years we've built a solid reputation as a leading innovator in sustainable analytics for individual buildings and we've made a huge impact, eliminating the need for around 30 power stations to be built.

"With the ICL we can now apply sustainable analysis to communities of any size or purpose, enabling people to look at energy use holistically at a much larger scale. This technology brings the opportunity to make a massive difference to the fight against climate change, and secure a much better future for our children and future generations."

To find out more sign up for IES' exclusive free launch webinar on 30th April 2019.

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New CheckMate for SOLIDWORKS Release Automates CMM Programming from Drawings, and Adds Inspection Results to Digital Twins for the First Time

25 April 2019

Origin's latest release of its SOLIDWORKS add-in delivers powerful new productivity tools to the SOLIDWORKS community.

"Many companies see a need to improve the efficiency of Inspection but are put off by the perceived risks of model-based definition (MBD)," says Murray Desnoyer CEO of Origin. "And there's demand to add inspection results to the manufacturing digital twin. For companies that need these solutions, we developed CheckMate 2019 for SOLIDWORKS."

Automated CMM programming from drawings. The new Measure All feature analyzes the SOLIDWORKS CAD and converts all hole, cylinder and surface plane features it finds to measurements. This eliminates the repetition, and errors, of capturing common measurements from drawings. And inspection technicians get to focus on the more challenging measurements that only they can program.

"Every company has its own standards for measuring parts so Measure All built so companies can customize it to their standards," says Desnoyer. Measurement defaults are input once, during setup. After that, each time the Measure All button is pushed in SOLIDWORKS, CheckMate refers to the defaults to generate feature measurements.

Inspection results added to the digital twin. CheckMate has added measurement results to the SOLIDWORKS file – and now it displays these results as part of the manufacturing digital twin. The tolerance condition of each feature is displayed graphically. "Leveraging this data which we've added to SOLIDWORKS CAD files is an extraordinarily efficient way to distribute time-sensitive inspection information," says Desnoyer. Model faces are colored green (in tolerance), red (high), or blue (low).

Leverage CheckMate's Programming productivity tools. The new features are fully-integrated with the powerful productivity of CheckMate Programming.

Graphic programming. This powerful tool enables inspection technicians to build multiple programs in seconds just by picking and clicking. This is incredibly powerful when building the inspection plan for assemblies that require multiple components, and in-process checks for each.

Program optimization. CheckMate analyzes the part and the measurements to develop an inspection program that will run in the least possible time – for over 50 different CMM makes, including Zeiss, Hexagon, Mitutoyo and more.

Bridge the gap to MBE and MBD. The big challenge of model based enterprise (MBE) and model based design (MBD) is the required process changes and new skills. "It's seen as very risky to take all of this on at once" says Desnoyer. "We've found a way for companies to take a more gradual, engineering approach to MBD." When designers want to make tests of MBD by applying a few annotations, CheckMate notices. For those measurements, CheckMate uses the MBD annotations instead of the Measure All defaults. This enables companies to begin to move by ordered stages into MBE as skills and processes are ramped up.

Measure All and Digital Twin are new features of their respective modules of CheckMate. So customers on Support can download and use the feature right away without incremental cost.

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Pop-Link Mounting Systems, by ADandD.com, Launches 3D Product Configurator by CADENAS PARTsolutions

23 April 2019

Industrial automation manufacturer Automated Drive and Design (ADandD)launched a one-of-a-kind product configurator for its popular Pop-Link© Mounting Systems, comprising over 60 individual, configurable parts on their website.

Powered by CADENAS PARTsolutions, the pop-link configurator improves accuracy and simplifies the design process for assembly integrators by providing ease-of-selection, interactive product previews and on-demand 3D CAD downloads. This new tool will also serve as a key sales tool for ADandD's distributors.

On-Demand Product Configuration and Assembly

Before launching the Pop-Link© Mounting Systems product configurator, ADandD customers had to download each individual product one piece at a time and build the model on their own. Now, mechanical and assembly integrators can configure, assemble and download a model instantly from ADandD's website from over 150 native CAD format and versions.

"Mounting systems are now configurable online. Instead of downloading parts piece by piece, our

customers can automatically build a model and download the whole assembly, all within the configurator," says Jake Ronsheim, Engineering Manager at ADandD. "Having that ability plus 3D preview ensures the customer they are downloading the right part, which ultimately improves accuracy in their design process."

Instant Product Visualization and Downloads for Distributors

With the distributor-embedded feature through CADENAS PARTsolutions, ADandD's distributors can also take advantage of the product catalog features. Distributors can embed the Pop-Link© product catalog onto the ADandD product pages, giving their customers an interactive 3D preview and instant CAD downloads.

"This is a sales tool that lets us be on-site and show the different products without physically taking them with us," says Ronsheim. "This will also be a key sales tool for our distributors."

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Trimble Launches Mobile Augmented Reality Tool

23 April 2019

Trimble announced the launch of Trimble PULSE® Remote Expert, an augmented reality (AR) tool that improves the productivity of field service technicians by connecting them with support experts via video, audio and spatial annotations in real-time.

The AR tool provides remotely-located users with a shared, live view using the camera on a smart phone. Both users can add digital annotations, such as text or drawings, directly to the live view by accessing a simple menu displayed on the smartphone screen. Digital annotations can be especially helpful when trying to communicate complex information remotely, or if either user is working in a loud environment.

Trimble PULSE Remote Expert enables businesses across a range of industries, including construction, agriculture, telecommunications and utilities, to rapidly connect remote experts with technicians in the field. It is a simple and powerful application for technicians who require real-time assistance when facing complex or unfamiliar situations, and ultimately helps to improve first-time fix rates, technician productivity and the overall customer service experience.

"Many organizations are looking for new and improved ways of connecting their field workers," said John Cameron, general manager of Trimble's Field Service Management Division. "An aging workforce and skill shortages are adding complexity to the service workflow and organizations are looking for innovative ways to address the challenges."

Key benefits of Trimble PULSE Remote Expert include:

- Live, remote connection between a field technician and a support expert to conduct maintenance and repairs, eliminating dependency on paper manuals
- Quicker completion of time-critical jobs by collecting key information directly from the customer in the field, in real time
- Increased collaboration and knowledge sharing across the workforce with the option to capture, record and replay information or support sessions on command

Trimble PULSE Remote Expert is a standalone mobile application for iOS. It requires wireless Internet connectivity and an ARKit capable iPhone or iPad device with iOS version 12 and above. Visit www.trimblepulse.com/remote-expert to learn more and request a personalized product demonstration. The application is available at the Apple App Store.

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