

PLM Industry Summary

Sara Vos, Editor

Vol. 21 No. 18 - Friday, May 3, 2019

Contents

CIMdata News	2
Jim Roche, CIMdata Practice Director, Aerospace & Defense, Featured on Podcast: PLM Quic	
Origin and Evolution of PLM	2
Ms. Philomena "Phil" Zimmerman from the Office of the Under Secretary of Defense for Rese Engineering to Keynote at PLM Road Map [™] & PDT North America 2019	
Acquisitions	4
Accenture to Expand Industry X.0 Capabilities with Acquisition of Zielpuls to Create Smart Pr Services for Carmakers	
ANSYS Acquires Assets of Electronics Automated Design Analysis Leader DfR Solutions	5
Company News	6
Accenture, Splunk, UTC and Veracode Join SAFECode	6
	7
Growing Cyber Threats Drive Need for Advanced Security Defenses	
HPE New digs day: A new headquarters for a new chapter	10
Minerva expands global operations within France with new office in Lyon	12
MISSLER SOFTWARE Changes Name and Becomes TOPSOLID	13
OPEN MIND Technologies announces new hyperMILL® Reseller for Texas, Louisiana	
Persistent Systems Joins Siemens' MindSphere Partner Program to Bring Industrial IoT Solutio	
PTC Reveals Second-Stage Results of Pace-Setting Retail PLM Upgrade Program	14
Events News	15
8 th biennial BEFORE REALITY International Conference of BETA CAE Systems: May 2019	15
Hexagon Manufacturing Intelligence Hosts the MSC Software Global Users' Conference at Hx	
Financial News	17
FARO Invitation to Join First Quarter 2019 Earnings Conference Call	
Nemetschek SE records strongest quarterly growth of the past few years at +27% with high pro	
Trimble Reports Q1 2019 Results	
Product News	21
Announcing VMware Cloud on Dell EMC	
BigID Introduces New Data Access Lifecycle Features Ahead of CCPA	
C3D Toolkit Delivers 3D Solid Modeling to DWG-based nanoCAD Mechanica	
Centric Software Supercharges Innovation with Centric 8 PLM v6.6	
Creaform Launches HandySCAN BLACK for Portable Metrology	
First Ever Fully Functional 3D Printed IoT Communication Device Developed for Use in Smar	rt Homes and
Products	27
iBASEt Integrates with Siemens Teamcenter to Create Fully Integrated Digital Thread, from A	s-Designed to
As-Built	
Launch of aPriori in the Cloud	
Modelon Announces Release of 2019.1	30
MSC Apex Iberian Lynx Now Enables Conceptual Design Workflow for Aerospace Vehicles v Pack 1	

Copyright © 2017 by CIMdata, Inc. All rights reserved. CIMdata, Inc. 3909 Research Park Drive Ann Arbor, Michigan 48108 Tel: +1 (734) 668–9922 Fax: +1 (734) 668–1957 E-mail: s.vos@CIMdata.com Web: http://www.CIMdata.com

Oracle Powers Full BIM Model Coordination for Design and Construction Teams	31
ParaMatters Upgrades Its Generative, Autonomous Design and Lightweighting Software	32
Pimcore Launches Data Hub to Strengthen Content-As-A-Service Capabilities For Enhanced Data De	livery
and Consumption	34
PROCAD 2020 Announced	35
PTC's Industrial IoT Platform ThingWorx Celebrates More Recognition as Industry Leader	35
Simulation On-The-Go with COMSOL Client for Android	35
Solibri Model Checker v9.9.5.113 Release Notes	36
SOLIDWORKS eDrawings Website Now Live	36
VeChain Launches Revolutionary One-stop BaaS PlatformVeChain ToolChain	37
Welcome to Test ZWCAD 2020 Open Beta	39
Workflow Simplified with New RADAN 2020.0	40

CIMdata News

Jim Roche, CIMdata Practice Director, Aerospace & Defense, Featured on Podcast: PLM Quick 30: The Origin and Evolution of PLM

25 April 2019

Jim Roche has over 30 years of experience in transformation and IT enablement of product development and manufacturing processes. He has been strategic advisor and program manager for PLM programs across the United States, Europe, and Asia.

To listen to the podcast, <u>click here</u>.

1 Click here to return to Contents

Ms. Philomena "Phil" Zimmerman from the Office of the Under Secretary of Defense for Research and Engineering to Keynote at PLM Road Map[™] & PDT North America 2019

30 April 2019

CIMdata, Inc. and Eurostep are pleased to announce that Ms. Philomena "Phil" Zimmerman, Deputy Director of Engineering Tools and Environments, Office of the Deputy Assistant Secretary of Defense for Systems Engineering, 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."

Digital engineering is the US Department of Defense's initiative to transform the way it designs, develops, delivers, operates, and sustains complex systems. It is defined as "an integrated digital approach that uses authoritative sources of systems' data and models as a continuum across disciplines to support lifecycle activities from concept through disposal." This keynote presentation will describe these digital engineering initiatives and will consider the challenges and steps being taken to realize the vision.

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 <u>https://www.cimdata.com/en/education/plm-conferences/plm-road-map-2019-pdt-2019/2019-plmrmna-pdt-agenda</u>

About Ms. Philomena "Phil" Zimmerman

Ms. Zimmerman is the Deputy Director of Engineering Tools and Environments in the Office of the Deputy Assistant Secretary of Defense for Systems Engineering (DASDSE). She leads the effort to advance the use of model-based techniques to advance Systems Engineering (SE) concepts in acquisition. As a member of the SE staff, she is responsible for establishing the effective use of modeling and simulation as a systems engineering tool to support acquisition programs, as well as the related efforts in modular open systems architectures, intellectual property, and data rights. Her team supports updates to policy, guidance, and participates in program support activities that are conducted on behalf of DASDSE. She is also the lead for the Acquisition Modeling and Simulation Working Group, coordinating among the Services and Joint Community on traditional modeling and simulation challenges and products for support to the acquisition community.

Previously, Ms. Zimmerman served in various leadership positions within the Army's Future Combat System Program, and PEO Integration. She served as the Associate Director for M&S, Analysis, and System of Systems Engineering and Integration. She held various positions in the modeling and simulation, test, and product development communities, including activities in radar processing, signal analysis, and use, development, and support to M&S. She has been active in standards development and is a strong proponent for Model-Based Engineering.

She participates in various professional activities, including INCOSE, NDIA, and SISO. She has received numerous awards from both OSD and the Army. She has a BS in Mathematics from St. John Fisher College, with an emphasis in Computer Science from Rochester Institute in Technology. She is DAWIA Level 3 certified in T&E, and SPRDE.

About CIMdata

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

CIMdata works with both industrial organizations and providers of technologies and services seeking competitive advantage in the global economy. In addition to consulting, CIMdata conducts research, provides PLM-focused subscription services, and produces several commercial publications. The company also provides industry education through PLM certificate programs, seminars, and conferences worldwide. CIMdata serves clients around the world from offices in North America, Europe, and Asia-Pacific. To learn more about CIMdata's services, visit our website, www.CIMdata.com; follow us on Twitter at http://twitter.com/CIMdataPLMNews ; or contact CIMdata at: 3909 Research Park Drive,

Ann Arbor, MI 48108, USA; Tel: +1 734.668.9922; Fax: +1 734.668.1957; or at Oogststraat 20, 6004 CV Weert, The Netherlands, Tel: +31 (0) 495.533.666.

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.

1<u>Click here to return to Contents</u>

Acquisitions

Accenture to Expand Industry X.0 Capabilities with Acquisition of Zielpuls to Create Smart Products and Services for Carmakers

30 April 2019

Accenture has entered into an agreement to acquire <u>Zielpuls</u>, a technology consultancy headquartered in Germany. The acquisition will bolster the capabilities of <u>Accenture Industry X.0</u> in the design of smart products and services for automotive companies and will be expanded to support clients in the medical technology, industrial equipment and high-tech industries.

Zielpuls provides architecture, development, engineering and management services for complex digital products and services. Work examples include an automated car parking system and development of the architecture for driver assistance systems. The firm helped medical technology companies automate production and align it to <u>Good Manufacturing Practices</u> standards. It also defined the entire IT architecture to operate high-speed trains for a leading transportation company.

Founded in 2008, Zielpuls will bring a team of 190 highly skilled professionals with a background in science, technology, engineering and mathematics. Zielpuls is headquartered in Munich and has offices in Wolfsburg and Hanover, Germany, Shanghai and Beijing, China.

Frank Riemensperger, senior country managing director for Accenture in Austria, Switzerland, Germany and Russia (ASGR), said, "Zielpuls excels at designing architectures and operating systems for smart, connected products and services. It will add to the deep expertise we have been building in this area and complement previous acquisitions, including award-winning strategic design consultancy <u>designaffairs</u>."

Axel Schmidt, managing director and global lead of Accenture's automotive industry practice, said, "The team of engineers and technologists of Zielpuls will strengthen our ability to develop connected, intelligent architectures for automotive clients, both in Germany and globally. Like designaffairs, Zielpuls has established business in Germany and China, which is strategic for us." Upon close, Zielpuls will become part of Accenture Industry X.0, which helps clients master the digital reinvention of industry by using advanced digital technologies to transform core operations, worker and customer experiences, and business models.

Andrew Smith, managing director and Accenture Industry X.0 lead in ASGR, said, "Zielpuls has started to branch out into other areas, such as medical technology, where software and data-driven services will transform the core products. Its engineering know-how and ability to orchestrate operating systems for smart products will help us build an organization that can co-create and reimagine smart connected products and services with clients from ideation through production."

Following completion of the acquisition, the Zielpuls co-CEOs Markus Frey and Dr. Marc Poppner will join Accenture as managing directors. They will continue to lead the Zielpuls team along with their existing management team and support the firm's transition to Accenture Industry X.0.

Markus Frey, co-CEO of Zielpuls, said, "We are excited to become part of Accenture Industry X.0 which will allow us to scale our services for clients, get access to the best brands in the world and capitalize on the huge market opportunity in the area of smart connected products and services."

Zielpuls will be the latest of several acquisitions Accenture has recently made to expand Accenture Industry X.0. These include strategic design consultancy designaffairs (Germany), <u>Pillar</u> <u>Technology</u> (US) with its strong focus on embedded software development for the automotive industry, hardware engineering firm <u>Mindtribe</u> (US), and <u>Enterprise System Partners</u>(Ireland), a consulting and manufacturing services provider for the life sciences industry.

Completion of the acquisition is subject to customary closing conditions. Terms of the transaction were not disclosed.

1 Click here to return to Contents

ANSYS Acquires Assets of Electronics Automated Design Analysis Leader DfR Solutions

1 May 2019

<u>ANSYS</u> announced that it has acquired substantially all the assets of <u>DfR Solutions</u>, the developer of Sherlock, the industry's only automated design reliability analysis software. ANSYS' comprehensive multiphysics solutions, combined with Sherlock's accurate reliability analyses, will provide a complete designer-level toolkit enabling customers to quickly and easily analyze for electronics failure earlier in the design cycle – saving users time and money during the development process.

Companies are under continued pressure to develop groundbreaking products as advances in autonomous driving, electrification and internet of things continue to accelerate – increasing design complexity and making it more difficult to guarantee the reliability of electronic components and systems. Sherlock provides customers with a turnkey solution that seamlessly imports from ECAD and leverages embedded part libraries to enable engineers to rapidly build and analyze 3D models of electronic assemblies. Engineers can then subject their products to several environmental stresses, including temperature and power cycling, harmonic vibration, mechanical shock and bending, to help ensure manufacturability and maximize the life of a product.

Headquartered in Beltsville, Maryland, DfR Solutions has customers across a range of electronic technology markets and industries – including avionics and aerospace, automotive, consumer

electronics, industrial, medical, defense and telecommunications – that rely on Sherlock to address their product challenges.

"As electronics proliferates in nearly every industry, electronics reliability becomes a key challenge, requiring companies to perform analysis earlier in the design cycles," said Shane Emswiler, vice president and general manager, ANSYS. "This acquisition will give customers the ability to push electronics reliability analysis earlier in their design cycles – saving significant costs on testing and accelerating product design."

"We're incredibly excited to become part of the ANSYS family," said Craig Hillman, CEO, DfR Solutions. "ANSYS and DfR Solutions share a vision of democratizing the process of electronics design by bringing powerful, analytical tools to every engineer involved in electronic hardware. ANSYS brings industry-leading electronic simulation capabilities while DfR's Sherlock extends the value of simulation by clearly quantifying the real-world cost of design and material selection decisions. This acquisition brings the entire design workflow, from functional block to change management, to the customers of both organizations."

1 <u>Click here to return to Contents</u>

Company News

Accenture, Splunk, UTC and Veracode Join SAFECode

1 May 2019

The <u>Software Assurance Forum for Excellence in Code</u> (SAFECode) announced today that Accenture, Splunk and United Technologies joined SAFECode as new Associate Members, and Veracode rejoined the organization as an Associate Member. SAFECode is a non-profit, global industry forum where business leaders and technical experts come together to exchange insights and ideas on creating, improving and promoting scalable and effective software security programs.

"The addition of these companies as <u>SAFECode members</u> is significant because they bring a deep expertise in secure software development and a broad industry perspective. Joining SAFECode acknowledges their commitment to identifying and promoting proven methods of software assurance. I'm pleased to be able to welcome them aboard and look forward to their contributions," said Steve Lipner, executive director, SAFECode.

SAFECode provides its members with a forum to safely and directly connect with other software security professionals to exchange ideas, share lessons learned, and collaborate on ways to make a positive impact on both their businesses, and the security of the greater technology ecosystem. Non-members may also benefit from free access to SAFECode resources such as its <u>secure software</u> assurance best practices publications and <u>technical training videos</u>.

Member Supporting Statements

"We are excited to be a member of SAFECode as we believe it is vital for all companies to embed strong cybersecurity practices in their development activities, so they can grow confidently and build cyber resilience. Applications constitute one of the most common ways for humans as well as machines to interact with data and reducing vulnerabilities around these applications can significantly enhance a company's overall security posture." Tara Khanna, who leads Accenture's application security business. "Splunk has an obligation to its customers to develop and deliver secure software that helps them solve their toughest business challenges, in an environment with ever-increasing demands on speed, volume and performance. Because security is a team sport, it's important that we collaborate with our peers to ensure that security is a key component of the product development lifecycle. We are thrilled to join SAFECode as an Associate Member, which will further enable Splunk to make data accessible, usable and valuable to everyone." Jeremy Rishel, vice president of platform and market group engineering, Splunk.

"Veracode is proud to join SAFECode in support of its global effort to promote best practices in developing secure software. Our research shows that following secure software development principles results in fixing flaws 11.5 times faster than the typical organization, which reduces overall risk. We believe secure code is synonymous with high quality code, and Veracode is dedicated to helping security and development professionals learn new skills and improve their understanding of application security." Chris Wysopal, co-founder and CTO, Veracode.

<u>*Click here to return to Contents</u>*</u>

Dell Technologies and Microsoft expand partnership to help customers accelerate their digital transformation

29 April 2019

Dell Technologies and Microsoft Corp. on Monday announced they are expanding their partnership to address a wider range of customer needs and help accelerate digital transformations. Through this collaboration, the companies will deliver a fully native, supported, and certified VMware cloud infrastructure on Microsoft Azure. Additionally, joint Microsoft 365 and VMware Workspace ONE customers will be able to manage Office 365 across devices via cloud-based integration with Microsoft Intune and Azure Active Directory. VMware will also extend the capabilities of Windows Virtual Desktop leveraging VMware Horizon Cloud on Microsoft Azure.

"At Microsoft, we're focused on empowering customers in their digital transformation journey, through partnerships that enable them to take advantage of the Microsoft Cloud, using the technologies they already have," said Satya Nadella, CEO, Microsoft. "Together with Dell Technologies and VMware, we are providing our mutual customers with an integrated cloud experience and digital workplace solutions to open up new opportunities and meet their evolving needs."

"Customers are excited to see us expand our collaboration with Microsoft," commented Pat Gelsinger, CEO, VMware. These innovative cloud and client offerings will deliver customers even more value, provide more flexibility to accelerate their hybrid-multi cloud and multi-device journey, and accelerate the digital transformation of their business."

The cloud has become fundamental to enabling organizations to move faster toward their business goals. With the cloud's scalability, enhanced security, productivity, cost savings and more, companies are capitalizing on the many benefits. These benefits are enabling organizations to better tap into the potential of technologies like artificial intelligence and Internet of Things. Through this collaboration, the companies aim to accelerate customer transformations with even more open, flexible and scalable solutions.

"We're excited to expand our collaboration with Microsoft. These innovative cloud and client offerings

will deliver customers even more value," commented Pat Gelsinger, CEO, VMware. "These offerings will provide customers flexibility to accelerate their cloud journey and drive their business forward."

New Azure VMware Solutions provide a seamless VMware experience on Microsoft Azure

Azure VMware Solutions are built on VMware Cloud Foundation – a comprehensive offering of software defined compute, storage, networking and management – deployed in Azure. With these solutions, customers can capitalize on VMware's broadly deployed and trusted cloud infrastructure while experiencing the power of Microsoft Azure.

Azure VMware Solutions give customers the power to seamlessly migrate, extend and run existing VMware workloads from on-premises environments to Azure without the need to re-architect applications or retool operations. Customers will be able to build, run, manage, and secure new and existing applications across VMware environments and Microsoft Azure while extending a single model for operations based on established tools, skills and processes as part of a hybrid cloud strategy. Some of the more popular customer scenarios Azure VMware Solutions will support are app migration and datacenter expansion, disaster recovery, and business continuity and modern application development.

Azure VMware Solutions enable organizations to tap into Azure's scale, security, and fast provisioning cycles to innovate and modernize applications while also improving performance. By integrating with native Azure services, customers can easily infuse advanced capabilities like AI, machine learning, and IoT into their applications enabling new, intelligent experiences.

Azure VMware Solutions are first-party services from Microsoft developed in collaboration with VMware Cloud Verified partners CloudSimple and Virtustream (a Dell Technologies company).

"At Walmart, we're focused on making it easy, fast, friendly and fun to shop with us no matter where you are – whether online, in our stores or through our pick up services. We're excited about the role technology plays in this and how it can help us deliver new services faster. Cloud and Client innovations are an important part of this and a key enabler of our digital transformation," commented Clay Johnson, executive vice president and enterprise chief information office, Walmart. "The partnership being announced today between Microsoft, Dell and VMware in Cloud and Client innovations will allow them to better bring their best solutions to customers like us. We look forward to continuing to work with Microsoft, Dell and VMware to accelerate our digital transformation."

Helping customers advance their digital workspace strategy

With this agreement, mutual Microsoft 365 and VMware Workspace ONE customers will be able to get the most out of their digital workspace across device platforms while maximizing existing and future investments. Specifically, customers will be able to use Workspace ONE to manage and secure the powerful productivity features of Office 365 across devices via cloud-based integration with Microsoft Intune and Azure Active Directory.

Through the new Dell Technologies Unified Workspace offerings, customers can further accelerate their Windows 10 digital transformation journey by leveraging the integration of Windows Autopilot and Dell Device Provisioning and Deployment Services, like Dell ProDeploy – all enabled by the integration of Microsoft 365, Workspace ONE, and Dell Provisioning Services.

In addition, Microsoft recently announced Windows Virtual Desktop, the only service that delivers a multi-session Windows 10 experience, optimizations for Office 365 ProPlus, and support for Windows Server Remote Desktop Services (RDS) desktops and apps. As a part of this agreement, VMware will extend the capabilities of Windows Virtual Desktop to enable customers to further accelerate their cloud

initiatives, leveraging VMware Horizon Cloud on Microsoft Azure. Initial capabilities are expected to be available as a tech preview by the end of calendar year 2019.

Microsoft and VMware are also exploring initiatives to drive further integration between VMware infrastructure and Azure such as integration of VMware NSX with Azure Networking and integration of specific Azure services with VMware management solutions. They will also be exploring bringing specific Azure services to the VMware on-premise customers. Through this collaboration, the companies aim to give customers a more seamless experience across VMware and Azure environments.

Click here to return to Contents

Growing Cyber Threats Drive Need for Advanced Security Defenses

1 May 2019

The majority of C-Suite executives and policy makers in the United States believe investing in security software, infrastructure and emerging technologies is critical to protecting U.S. data from growing cybersecurity risks, according to a newly released survey.

Asked what would make the U.S. government better equipped to secure data, 51 percent of C-Suite executives and 62 percent of policy makers cite investing in IT/security infrastructure; 59 percent of the C-Suite and 60 percent of policy makers cite investing in security software. When it comes to their own security investments over the next 24 months, 44 percent of C-Suite executives and 33 percent of policy makers plan to purchase new software with enhanced security; and 37 percent and 25 percent, respectively, plan to invest in new infrastructure solutions to improve security.

The report, "Security in the Age of AI" detailing the views and actions of C-Suite executives, policy makers and the general public related to cybersecurity and data protection, was released today by Oracle.

In addition, both C-Suite executives and policy makers rank "human error" as the top cybersecurity risk for their organizations. However, in the next two years, they are choosing to invest more in people—via training and hiring—than in technology, such as new types of software, infrastructure, and artificial intelligence (AI) and machine learning (ML), which is essential to advancing security and significantly minimizing human error. Only 38 percent of C-Suite executives and 26 percent of policy makers plan to invest in AI and ML to improve security in the next 24 months.

"We are at a critical juncture in our cybersecurity journey, as more decision makers in the public and private sector recognize the benefits of investing in next-generation technology designed for security to make progress on addressing previously intractable threats, instead of relying solely on people or legacy technology," said Edward Screven, Chief Corporate Architect at Oracle. "That said, there is a delta between what C-Suite executives and policy makers think is best for America's cyber future and the actions they are taking for their own organizations, indicating a greater need for business and government to understand how and why next generation technologies are so critical for their own cyber defenses."

Queried about what their organization has done over the past five years to improve security, both C-Suite executives and policy makers said they had upgraded existing software (60 percent and 52 percent respectively) and trained existing staff (57 percent and 50 percent respectively). Just over half (54 percent) of C-Suite executives and 41 percent of policy makers have purchased new software with enhanced security features, with 40 percent of C-Suite executives and 27 percent of policy makers having invested in new infrastructure solutions.

Technology Industry Faces Great Threats and Responsibilities

As for what they perceived to be the greatest security threat to the technology industry, attacks by foreign governments was ranked highest by respondents (C-Suite 30 percent; policy makers 37 percent). Seventy-eight percent of C-Suite executives, 75 percent of policy makers and 64 percent of the general public believe the technology industry is well equipped to protect data. Additionally, 79 percent of C-Suite executives and policy makers, and 64 percent of the general public trust the technology industry to behave responsibly and in the best interests of the American public, as it relates to data security. Interestingly, only one in three C-Suite executives (34 percent) and policy makers (32 percent) think it is the government's responsibility to protect consumer data, highlighting the critical role that the technology sector has to play in keeping U.S. data protected.

"While the government has an important role to play in keeping America's data safe, today's increasingly dangerous cybersecurity landscape means it can't be expected to out-innovate attackers on its own. That's our job," said Screven. "The U.S. government and businesses will need to rely on the technology sector more to advance the nation's cyber defense. We can build data centers, hire talent and secure data at scale more efficiently than any one individual customer can."

Artificial Intelligence and Its Impact on Security

Only 33 percent of C-Suite executives and 20 percent of policy makers adopt and implement AI and ML to its fullest potential, yet they strongly believe autonomous technologies powered by AI and ML will improve the way they protect and defend against security threats.

"For the past several years, our R&D efforts have been focused on ways to out-innovate the most sophisticated security threats we could imagine. That's why Oracle Cloud Infrastructure was rebuilt with separation between application and security processing and designed to run the Oracle Autonomous Database. The Oracle Autonomous Database uses AI to deliver the world's first and only self-driving, self-securing and self-repairing database that repairs, patches and updates itself," Screven added. "These and other Oracle cloud security technologies based on machine learning can become the cornerstone of an organization's cybersecurity defense strategy."

In addition to benefiting the state of data security in the U.S., the majority of C-Suite executives (88 percent), policy makers (89 percent) and the general public (77 percent) believe autonomous technologies will also positively impact the U.S. economy, with "increased productivity" cited as the top benefit.

Download and learn more about Oracle's Security in the Age of AI report at Oracle's website.

1 Click here to return to Contents

HPE New digs day: A new headquarters for a new chapter

30 April 2019

Announced on the HPE blog by Antonio Nero, President & CEO:

"When we set out to build our new headquarters in San Jose, it was important to me that the space left an immediate and lasting impression, showcasing who we are today while celebrating our rich history as a company. Before you even enter our lobby, you're greeted by a statue created by my friend and local artist, Adam L. Wiedman. The statue is named 'Elysium,' and represents our past, present, and future. The entire building is a tangible representation of this balance, offering inspiration and the facilities needed to innovate, which simultaneously benefits our employees, our customers, and our partners.

While I love everything about our new home, I'm particularly excited about the Executive Briefing Center, which features demos from our work with Mercedes and the International Space Station, and the Innovation Showcase, which offers a visual guide through our most innovative work. We've also built state-of-the-art amenities for our employees, including a running trail, a spectacular gym, many recreational areas, and game rooms, all thoughtfully built to put the fun back in our workplace and energize our team. The headquarters site is located in the new America Center development in San Jose, right next to the bay where our team members can enjoy the views and take in the fresh air anytime. It's a home that we can all be proud of – and rightfully so as we've kept our <u>commitment to sustainability</u> by building a headquarters that relies on green technology, which is a key aspect of our holistic approach in advancing the way we live and work.

Our new headquarters, along with the sites we've updated around the world, are a showcase of the company we are today. But what really matters are the people who come to work in them every day.

With my 20 plus years at this company, our culture and employees' experiences are especially important to me. My personal experiences as both an employee, and now as the CEO, have helped me understand that you benefit your customers and partners when you have a team that feels appreciated and supported. My philosophy is that happy employees equal happy customers and partners. I hope that the re-energizing of our culture will become my legacy, which is why today we announced several enhanced benefits that enable our team to live the best life they can - both professionally and personally. These benefits include:

Six Months Paid Parental Leave: No parent should have to miss out on the first few months of their child's life. Mothers and fathers across the company will be provided at least 6 months of leave, at 100% of pay, to bond with their child during the first year after birth or adoption.

Parental Transition Support: A new child changes everything, including schedules. New parents will be able to apply to work part-time for up to 36 months following the birth or adoption of a child.

Wellness Fridays: We work to live, we don't live to work. Employees will be encouraged to leave the office three hours early on a designated Friday each month to volunteer, focus on physical or emotional health, or spend time on personal or career development. Employees will be paid as normal for this time.

Career Reboot: This program offers job opportunities at HPE to individuals, such as stay-at-homeparents, who have been out of the workforce for an extended period of time and are ready to restart their careers.

Retirement Transition Support: Retiring is a major life transition. Employees within one year of retirement may apply to work part-time to help ease their transition to post-working life.

Please watch your inbox for announcement of country-specific program details and launch dates.

While I am incredibly proud of these new employee benefits and our new workspaces – both at headquarters and around the world – this is just the beginning. Our new headquarters is a symbol of what we can do, and what we will continue to do in the future long after my time as CEO. In those times, I hope my tenure as CEO won't be measured exclusively against shareholder returns, but also against our culture and the team we built.

Dave Packard famously said, "to stay static is to lose ground." You can expect to hear more on how we're creating and investing in a world-class team that is, in turn, delivering cutting-edge technologies and services that enable our customers and partners to advance the way people live and work."

To view the full post, including images, please visit <u>https://www.hpe.com/us/en/newsroom/blog-post/2019/05/new-digs-day-a-new-headquarters-for-a-new-chapter.html</u>

1<u>Click here to return to Contents</u>

Minerva expands global operations within France with new office in Lyon

3 May 2019

Minerva Group today announced expanded operations in France with new office locations in Lyon.

The expansion will support the growing demand for Minerva's Medical Device PLM solution from companies such as Airbus and SmarDTV.

Minerva is experiencing a massive increase in the demand for PLM services and their industry solution on the French market. With growing teams and dedicated offices in Lyon and Toulouse, France, this expansion is a response to support the growing demand from companies such as Airbus, SmarDTV, Sophysa, and AGCO.

Minerva is the leading partner for the Aras Innovator Enterprise Product Life Cycle Management (PLM) software and has also developed two dedicated PLM solutions for the Electronic High-tech and Medical Device industries. Both Electronic PLM and Medical Device PLM offers industry-specific functionalities for manufacturing companies on a subscription model with no complicated PLM licenses.

Leading companies throughout the world, including Fujifilm, Carestream Health, L3 and Teledyne DALSA rely on Minerva to improve time to market, reduce costs and maximize profitability.

"The demand for digitalizing the complex processes inside manufacturing companies has been very strong in France, wherefore we are pleased to increase our investment in the region. Manufacturing companies throughout the region, recognize the value of Minerva, our domain knowledge inside the Electronic High-tech and Medical Device industries and the business model. Our customers are able to significantly reduce the risk and cost of optimizing the processes while enjoying industry-specific features and a competent partnership with their provider," says Asger Thierry, founder and CEO of Minerva Group.

1 Click here to return to Contents

MISSLER SOFTWARE Changes Name and Becomes TOPSOLID

26 April 2019

In late 2018, the management team of the MISSLER SOFTWARE Group leaned on a pool of financial investors to organize the takeover of the company and the pursuit of its independence.

In order to better represent its international growth capabilities and for simplicity in the relationship with its customers, MISSLER SOFTWARE has become TOPSOLID.

One brand, "TOPSOLID", THE CAD / CAM / PDM / ERP reference!

Internal transmission and new corporate name, changes in the continuity!

TOPSOLID, headquartered in Evry, France, is the publisher of the TopSolid software, which provides CAD/CAM and ERP solutions for the mechanical manufacturing, tooling, wood and sheet metal work industries. With a headcount of 320, the company turned over €45 million in 2018. Every year, TOPSOLID invests some 30% of its turnover in research and development for its integrated range of software. The company was founded in 1984 and has been present on the international stage since 1997. Today, about 70% of the software is exported through a network of 60 value-added resellers all over the world. For more information, visit our web site www.topsolid.com

1 Click here to return to Contents

OPEN MIND Technologies announces new hyperMILL® Reseller for Texas, Louisiana

24 April 2019

OPEN MIND Technologies announced that it recently partnered with a new authorized reseller, 5 Cell Technologies, located in Houston, Texas. 5 Cell Technologies will offer industry leading *hyper*MILL[®] CAM software from OPEN MIND in Texas and Louisiana, with a strong focus on 5-axis milling and mill-turn capabilities.

"We are very pleased to welcome 5 Cell Technologies to our reseller network," said Alan Levine, Managing Director of OPEN MIND Technologies USA, Inc. "5 Cell Technologies is known for their 5axis technology expertise and strong customer service, which ideally complements our 5-axis milling strength."

5 Cell Technologies Vice President, Daniel Davila, said, "We are looking forward to working closely with OPEN MIND to support *hyper*MILL[®] customers. In addition to the Houston area, we will have a strong presence in Austin, San Antonio as well as Louisiana, and will be establishing an office in Dallas soon."

OPEN MIND's focus on CAM, and its continued commitment to the latest technologies, produces trendsetting innovations that make it significantly easier for customers to achieve substantial quality, time and cost improvements. OPEN MIND's *hyper*MILL*software is a state-of-the-art CAM solution with 2.5D, 3D, 5-axis milling and turning strategies, as well as specialty applications, that are all available in one interface.

Click here to return to Contents

Persistent Systems Joins Siemens' MindSphere Partner Program to Bring Industrial IoT Solutions to Market

2 May 2019

Persistent Systems announced it has joined Siemens' MindSphere Partner Program to deliver its Industrial IoT solutions to market. MindSphere® is the cloud-based, open IoT operating system from Siemens that connects products, plants, systems, and machines, enabling businesses to harness the wealth of data generated by the Internet of Things (IoT) with advanced analytics.

Persistent is delivering MindSphere solutions for Smart Energy Management, Overall Equipment Effectiveness (OEE) and other related offerings to manufacturing clients in APAC and North America. In addition to offering clients a fast track to remote connectivity and management for machines and programmable logic controller (PLC) assets through its MindSphere "Connect & Monitor" integration services, Persistent offers custom analytics that leverage MindSphere Analytics and Machine Learning service APIs.

Sanjeev Srivastav, General Manager - Industrial & IoT Practice, Persistent Systems, said, "Aside from the benefit of working with a partner like Siemens with a huge installed base of industrial automation controllers, MindSphere can help reduce the amount of time it takes for us to develop applications for our clients, while retaining the option to develop related services on the cloud services from AWS and Microsoft Azure, where Mindsphere is available."

Florian Beil, Head of Sales for MindSphere at Siemens PLM Software, said, "Persistent Systems has deep domain expertise in IoT, Analytics and AI/ML and is well situated to deliver MindSphere solutions to firms with complex industrial operations in Discrete and Process Manufacturing sectors. We look forward to collaborating with Persistent Systems to help our joint customers achieve their goals."

1 Click here to return to Contents

PTC Reveals Second-Stage Results of Pace-Setting Retail PLM Upgrade Program

1 May 2019

PTC is proud to reveal the next set of results from its innovative, inclusive PLM upgrade program. Working closely with the specialist retail team at ArcherGrey, PTC has far outpaced expectations by upgrading more than half a dozen customers to the cutting-edge version of FlexPLM – at a low, inclusive cost that included software, professional services, and in some cases a migration from on-premise hosting to the secure cloud.

Combined with the results realized in the first phase of the program, more than twenty FlexPLM customers – many of them multinational, Tier 1 businesses, with thousands of users each, internally and throughout the extended supply chain – have now had their implementations upgraded to the new, milestone v11 release. This list now includes high-profile companies like Chico's FAS, Lululemon Athletica, Skechers, Tommy Bahama, and Dick's Sporting Goods – all of which have complex design, development, and sourcing processes.

With more users than any other PLM provider in the Retail, Footwear and Apparel industry, FlexPLM is already the industry's most widely-used PLM solution, and this upgrade program is designed to enable even deeper enterprise integration and improved core functionality – opening the door to the newest

components of PTC's Retail Innovation Platform, including Artificial Intelligence, Augmented Reality, and open-standards 3D.

"The second stage results of our upgrade program are just as impressive as the first, and I'm thrilled to see so many loyal FlexPLM customers gaining rapid, low-risk access to everything our latest version has to offer," said Bill Brewster, Senior Vice President and General Manager of PTC's Retail Business Unit. "We attribute the results of this remarkable, pace-setting upgrade schedule to two things: the retail specialization of the PTC and ArcherGrey teams, and our constant pursuit of technical innovation. ArcherGrey has proven itself time and time again when it comes to delivering success in complex environments, as well as leveraging our newly-released ThingWorx Retail Connector, enabling our customers to quickly and easily integrate almost any business system."

At the same time as lowering total cost of ownership, the second stage of the upgrade program also provides an immediate path to all the previously-documented capabilities and benefits of the latest version of PTC's FlexPLM solution, including:

- Accelerating time to market by up to 45%
- Improving margins by up to 10%
- Improving sales conversion rates by up to 30%
- Reducing sample costs by up to 35%

"Experience counts, and I'm proud to say that the ArcherGrey retail team has been tested and proven their worth across multiple projects, sharing skills and knowledge to help PTC customers translate a technical edge into a market advantage," added Kelly Price, Director at ArcherGrey. "That history, coupled with our choice to focus on the PTC software suite, has allowed us to develop and refine the library of templates, scripts, and other resources that made this accelerated schedule possible, and unlocked new value for so many PTC customers in such a short time. We really see PTC as part of our team, and this synergistic effort would not have been possible working alone."

Click here to return to Contents

Events News

8th biennial BEFORE REALITY International Conference of BETA CAE Systems: May 2019

30 April 2019

The 8th biennial BEFORE REALITY International Conference of BETA CAE Systems will take place next month May 20th and 22nd, at the Hilton Munich Park hotel.

The conference will be of interest to decision makers, strategy & methodology planners, simulation experts, applications users and researchers at the forefront of the CAE simulation for various disciplines, coming from OEMs and suppliers from a wide spectrum of industrial sectors, especially from, yet not limited to the: automotive, motorsports, railway vehicles, aerospace, shipbuilding / offshore, power tools, defence, energy, heavy machinery, biomechanics, chemical processes, electronics, etc.

All those who wish to communicate recent advances and future trends in the analyses technologies, methods and practices for solving the problems of the modern Industry, using our software products, are

welcome to make the conference a success.

BETA CAE Systems is looking forward to hosting in Munich, Germany. To register, please visit <u>https://www.beta-cae.com/conference08_announcement.htm</u>

Click here to return to Contents

Hexagon Manufacturing Intelligence Hosts the MSC Software Global Users' Conference at HxGN LIVE

1 May 2019

Hexagon Manufacturing Intelligence today announced the <u>2018 MSC Software Global Users'</u> <u>Conference</u> will be held at HxGN LIVE, Hexagon's premier cross-industry technology conference, from 12-15 June at The Venetian in Las Vegas. During this four-day event, Hexagon Manufacturing Intelligence will highlight innovative, data-driven manufacturing techniques and technologies that are redefining quality and productivity in the Smart Factory. Three sub-tracks– Design and Engineering, Production, and Metrology –form the Manufacturing Intelligence Track. The MSC Software Global User's Conference will be hosted in the CAE and simulation-focused Design and Engineering sub-track, attracting company executives, engineering managers, CAE specialists, product development professionals, designers and academicians. Acquired by Hexagon in 2017, <u>MSC Software</u> is a global leader in helping product manufacturers to advance their engineering methods with simulation software and services.

The MSC Software Global Users' Conference will offer educational content for novice and expert users of MSC Software's expanding product portfolio: MSC Nastran, Adams, Marc, MSC Apex, SimManager, Digimat, Simufact, Actran, Cradle CFD and VIRES VTD. The conference programme features topical expert presentations, customer success stories, an Experts' Desk and Q&A sessions, and unique networking opportunities. Conference attendees will learn about simulation methodologies, best practices and MSC's vision for virtualisation of the manufacturing process. Users will get a first-hand look at how the digital thread can integrate MSC's engineering solutions with other process touchpoints and embed quality throughout the product lifecycle In addition, participants have entry to the entire HxGN LIVE venue including keynote sessions and The Zone technology expo staging more than 120,000 sq. ft. of Hexagon technologies and 60+ exhibiting sponsors.

On Tuesday 12 June, the MSC Software Global Users' Conference commences with free training sessions conducted by MSC Software product experts. Training topics include: 1) What's New in Apex Hawk, 2) Using Simulation for First-Time-Right Additive Manufacturing, and 3) Virtualising Welding and Forming Processes. Following the training sessions in late afternoon, all attendees are invited to the kick-off HxGN LIVE Conference Keynote address and reception immediately following.

On Wednesday 13 June, MSC Software President Paolo Guglielmini and CTO Brian Shepherd will present MSC's new corporate vision, strategy, and roadmap to the future. Other session topics include 'System Dynamics Simulation in Vehicle Electrification and Automation' and 'Improving Customisation and Integration of Simulation into Your Engineering Processes'. In the afternoon, there will be six sessions featuring customer-presented application stories in automotive, aerospace, industrial and other industries.

On Thursday 14 June, expert presentations continue with topics such as 'Managing Enterprise Data and Processes with Engineering Lifecycle Management', and 'MSC Additive Manufacturing Solution for

Metals and Polymers'. The agenda also includes the Experts' Desk, where users submit their toughest questions and meet MSC applications experts face-to-face for resolution. In the afternoon, there will be six more sessions featuring customer stories and two MSC Software aerospace and automotive presentations covering autonomous vehicle simulation and hydraulics cosimulation for aerospace systems.

1 Click here to return to Contents

Financial News

Autodesk Extends Invitation to Join Financial Results Conference Call

1 May 2019

<u>Autodesk, Inc.</u> today announced that it will broadcast its first quarter fiscal 2020 financial results conference call live via its website Thursday, May 23, 2019 at 2:00 p.m. Pacific Time. Autodesk will host a live webcast call at <u>www.autodesk.com/investors</u>. An audio replay webcast and podcast will also be available after 5:00 p.m. Pacific Time on Autodesk's website at <u>www.autodesk.com/investors</u>. For more information, please call Autodesk Investor Relations at 415-507-6373.

1 Click here to return to Contents

FARO Invitation to Join First Quarter 2019 Earnings Conference Call

25 April 2019

FARO® announced that after the market closes on Wednesday, May 1, 2019 it will release its financial results for the first quarter of 2019. In conjunction with the release, Dr. Simon Raab, President and CEO, and Bob Seidel, Chief Financial Officer, will host a conference call and simultaneous live audio webcast on Thursday, May 2, 2019 at 8:15 a.m. Eastern Time.

Persons wishing to access the conference call may do so by dialing (877) 876-9174 (U.S.) and (785) 424-1670 (International) and using the passcode FARO or by logging on at <u>www.faro.com/Q1-</u>2019earnings. Alternatively, you may also access the call via FARO's website, <u>www.faro.com</u>, clicking on Investor Relations, Conference Calls, and the relevant date.

Replays of the conference call will be available beginning May 2, 2019 through July 2, 2019 by calling (800) 934-7612 (U.S.) or (402) 220-6980 (international). No code is required. If you are unable to participate during the live webcast, the call will be archived on <u>www.faro.com</u>.

1Click here to return to Contents

Nemetschek SE records strongest quarterly growth of the past few years at +27% with high profitability

30 April 2019

After an outstanding fiscal 2018, the Nemetschek Group has now achieved its strongest quarterly growth of the past few years while maintaining high profitability. At the same time, the top player in the global AEC market is continuing to invest substantially in strategic projects and further internationalization to enable continued double-digit growth in the future.

"We've made an outstanding start to the year and achieved an exceptionally strong first quarter. Our strategic investments in next-generation solutions and further internationalization are paying off," says Patrik Heider, Spokesman and CFOO of the Nemetschek Group. "In addition to our future-oriented investments, our new management structure enables us to act even more decisively in the market and in our various customer segments," Heider adds, "meaning we've set the course for this strong performance to continue into the future."

Major indicators of the Group's success in Q1 2019

- Group revenue rose in the first quarter to EUR 129.9 million, which represents growth of 27.1% (currency-adjusted: 23.2%) compared to the same quarter of the previous year (EUR 102.2 million). This increase is a result of both strong organic growth of 21.3% and the recent acquisition of the Spacewell brand.

- Growth drivers were recurring revenues from software service contracts and subscriptions, which rose by 33.9% (currency-adjusted: 30.0%) to EUR 67.7 million. Revenue from subscriptions increased considerably by 124.8% from EUR 4.3 million to EUR 9.7 million.

- Ongoing internationalization remains another major driver of growth. Revenues generated abroad in Q1 grew by 32.7% to EUR 95.0 million. And in Germany, too, Nemetschek achieved double-digit revenue growth of 14.0%.

- Consolidated operating earnings before interest, taxes, depreciation, and

amortization (EBITDA) increased by 31.4% to EUR 36.7 million. This represents an EBITDA margin of 28.2%. The increase was partly boosted by the first application of the new IFRS 16 standard for the accounting of leasing contracts. Adjusted for this effect, the EBITDA would have increased by 18.5%, which is equivalent to an EBITDA margin of 25.5%. In the first quarter of 2019, Nemetschek also invested as planned in strategic projects. In addition, the growth-related increase in the number of employees up to the end of last year led to a noticeable increase in personnel costs. Furthermore, in the Manage segment, the acquired Spacewell brand's still below-average EBITDA margin (due primarily to the acquisition costs) had an impact on the operating result in Q1.

- Net income for the quarter also increased substantially by 19.7% to EUR 19.6 million (same period in previous year: EUR 16.4 million). Earnings per share came to EUR 0.51 (Q1 2018: EUR 0.43).

Segment performance in Q1 2019

In segment reporting, the Solibri brand, which had been allocated to the Build segment up to the end of 2018, was reclassified to the Design segment as of 2019. The previous year's values in segment reporting were adjusted accordingly.

- As in the previous quarters, the Build segment recorded the strongest revenue growth, increasing by 34.7% (currency adjusted: 27.0%) to EUR 40.2 million. EBITDA rose by 36.0% to EUR 12.8 million, resulting in a high EBITDA margin of 31.8% (previous year: 31.5%). Without the first-ever application of IFRS 16, the EBITDA margin would have been 28.4%.

- The Design segment recorded very pleasing revenue growth of 15.1% (currency adjusted: 12.8%) to EUR 74.3 million, due in part to a rise in demand prompted by BAU, the world's leading trade fair for

the building sector, which took place in January. At 36.0%, the increase in EBITDA to EUR 21.2 million was notably disproportionate to revenue and equivalent to an EBITDA margin of 28.5% (adjusted for IFRS 16: 26.1%; same period in previous year: 24.1%).

- The Manage segment was significantly reinforced through the acquisition of Spacewell. Revenues increased from EUR 2.0 million in the same period the previous year to EUR 8.2 million. Purely organic revenue growth amounted to 11.7%. In this segment, EBITDA was EUR -0.2 million due to acquisition costs (Q1 2018: EUR 0.4 million). Adjusted for approximately EUR 1.5 million in acquisition costs, the EBITDA margin would amount to 15.6%.

- The Media & Entertainment segment was able to substantially accelerate its growth compared to the previous year. Revenues climbed by 23.9% (currency-adjusted: 19.9%) to EUR 7.2 million. In spite of high acquisition costs for Redshift, EBITDA increased by 13.7% to EUR 2.9 million, which is equivalent to an EBITDA margin of 40.7% (without IFRS 16: 39.4%).

Strong growth also affirmed for year 2019 as a whole

After the very strong start to the year, the Executive Board reaffirms the existing growth targets for the year 2019 as a whole, that is: achieving Group revenue in the region of EUR 540 million to 550 million, which represents growth of 17% to 19% year on year.

In view of renewed high, future-oriented investment and the still below-average EBITDA margin in the Manage segment, the EBITDA margin is expected to stay within the range of 25% to 27%. This range does not reflect the effects from the changeover to the new IFRS 16* leasing standard. Including the positive effects from the application of IFRS 16, the Nemetschek Group expects an EBITDA margin of between 27% and 29% for 2019.

*The new IFRS 16 accounting standard, according to which leases of any type (operate leasing and finance leasing) must always be recognized in the balance sheet, must be adopted for the first time as of January 1, 2019. The Nemetschek Group anticipates this change to have a positive effect of around EUR 13 million to 14 million on EBITDA. The Nemetschek Group will present the effects of IFRS 16 on EBITDA in detail in the quarterly reports.

The full 3-month report for 2019 can be downloaded from the Investor Relations section of the company's website.

To view the full release with charts and tables, please visit <u>https://ir.nemetschek.com/websites/nemetschek/English/2110/news.html?newsID=1772795</u>

Click here to return to Contents

Trimble Reports Q1 2019 Results

1 May 2019

Trimble Inc. today announced financial results for the first quarter of 2019.

First Quarter 2019 Financial Summary

First quarter 2019 GAAP revenue of \$801.6 million was up 8 percent as compared to the first quarter of 2018. First quarter 2019 non-GAAP revenue of \$804.5 million was up 8 percent as compared to the first quarter of 2018.

Buildings and Infrastructure revenue was \$294.7 million, up 30 percent. Geospatial revenue was \$161.2 million, down 8 percent. Resources and Utilities revenue was \$159.5 million, flat on a year-over-year basis. Transportation revenue was \$189.1 million, up 3 percent. Segment revenues reflect the results of Trimble's reportable segments under its management reporting system and are non-GAAP measures.

GAAP operating income was \$86.3 million, up 34 percent as compared to the first quarter of 2018. GAAP operating margin was 10.8 percent of revenue as compared to 8.6 percent of revenue in the first quarter of 2018.

GAAP net income was \$62.3 million, up 6 percent as compared to the first quarter of 2018. GAAP diluted earnings per share were \$0.25 as compared to GAAP diluted earnings per share of \$0.23 in the first quarter of 2018.

Non-GAAP operating income of \$152.9 million was up 8 percent as compared to the first quarter of 2018. Non-GAAP operating margin was 19.0 percent of revenue in both the first quarter of 2019 and 2018.

Non-GAAP net income of \$113.6 million was down 1 percent as compared to the first quarter of 2018. Non-GAAP diluted earnings per share was \$0.45 in both the first quarter of 2019 and 2018.

The GAAP tax rate for the quarter was 17 percent as compared to 12 percent in the first quarter of 2018, and the non-GAAP tax rate was 20 percent as compared to 19 percent in the first quarter of 2018.

Operating cash flow for the first quarter of 2019 was \$147.6 million, up 78 percent as compared to the first quarter of 2018. Deferred revenue for the first quarter of 2019 was \$464.4 million, up 29 percent as compared to the first quarter of 2018.

"Our first quarter results met expectations despite trade uncertainties and lower growth in China," said Steven W. Berglund, Trimble's president and chief executive officer. "Our recurring revenue demonstrated significant growth in our end-user markets and our ongoing transition to higher subscription content remains on course."

Forward Looking Guidance

For the second quarter of 2019, Trimble expects to report GAAP revenue between \$849 million and \$879 million and GAAP earnings per share of \$0.31 to \$0.35, and non-GAAP revenue between \$850 million and \$880 million and non-GAAP earnings per share of \$0.52 to \$0.56. GAAP guidance assumes a tax rate of 16 percent and non-GAAP guidance assumes a tax rate of 20 percent. Both GAAP and non-GAAP earnings per share assume approximately 254 million shares outstanding. A reconciliation of the non-GAAP measures to the most directly comparable GAAP measures and other information relating to these non-GAAP measures are included in the supplemental reconciliation schedule attached.

Investor Conference Call / Webcast Details

Trimble will hold a conference call on May 1 at 2:00 p.m. PT to review its first quarter 2019 results. An accompanying slide presentation will be made available on the "Investors" section of the Trimble website, <u>www.trimble.com</u>, under the subheading "Events & Presentations." The call will be broadcast live on the web at <u>http://investor.trimble.com</u>. Investors without internet access may dial into the call at (800) 528-9198 (U.S.) or (702) 928-6633 (international). The passcode is 9089723. The replay will also be available on the web at the address above.

Use of Non-GAAP Financial Information

In addition to financial information prepared in accordance with GAAP, this press release also contains

certain non-GAAP financial measures based upon management's view of performance, including:

- Non-GAAP revenue
- Non-GAAP operating income
- Non-GAAP operating margin
- Non-GAAP net income
- Non-GAAP diluted earnings per share
- Non-GAAP tax rate

Segment data reflects the results of Trimble's reportable segments under its management reporting system. Segment revenue and operating income are consistent with the respective non-GAAP measures discussed below and in the attached supplemental schedules. Investors are encouraged to review the specific non-GAAP measures, which Trimble uses along with a reconciliation to the nearest comparable GAAP measures and the explanation for why these non-GAAP measures provide useful information to investors regarding the financial condition and results of operations and why management chose to exclude selected items, which can be found at the end of this press release. Additional financial information about Trimble's use of non-GAAP results can be found on the investor relations section of Trimble's website at: http://investor.trimble.com.

To see the full release, including charts and tables, please visit <u>http://investor.trimble.com/news-releases/news-release-details/trimble-reports-first-quarter-2019-results</u>

1 Click here to return to Contents

Product News

Announcing VMware Cloud on Dell EMC

29 April 2019

Announced on the VMware blog:

"At VMworld last year, we announced Project Dimension, which extends VMware Cloud to deliver the SDDC infrastructure and hardware as-a-service to customers' on-premises locations. Because it is a cloud service, VMware takes care of operating the infrastructure: deploying it; troubleshooting issues; and performing patching, upgrading and maintenance. This means customers can focus on differentiating their business by building innovative applications rather than spending time on day-to-day infrastructure management.

This is a transformational innovation, but in order to realize it we must have deep software and hardware integration. Thus, a key element of Project Dimension is working closely together with hardware manufacturers to achieve this integration.

So what's the new news today? Well, we're excited to announce that the first solution within the Project Dimension family we're bringing to market is in collaboration with Dell EMC – <u>VMware Cloud on Dell</u> <u>EMC</u>. We're combining all the great capabilities of VMware Cloud and VMware's SDDC along with Dell EMC's industry-leading VxRail hyper-converged infrastructure.

But before we jump into the specifics of this new offering, let's step back and review why we're doing Project Dimension.

The Rise of Hybrid Cloud

More applications are being created now than at any time in history, partly because there is more digital data being created now than ever before. This means data gravity is in full effect: as data mass grows, applications and services will be attracted to the data. How cool would it be to just move your applications seamlessly to where the data masses, whether it is in your data center or your edge locations or in a public cloud?

This is the holy grail of a hybrid cloud operating model. Of course, nirvana would be being able to take the best parts of cloud computing model (increased agility, simplified operations that drive accelerated innovation) with the best parts of on-premises operating model (mitigated risks, controlled costs, and increased performance when apps need low data latency and high-performance networking).

And of course, the three laws of hybrid cloud – the laws of physics, the laws of economics, and the laws of the land – will also dictate where data and applications may reside. To do the right thing for your business and move the compute and applications seamlessly to where your data resides, you'll need a consistent architecture and consistent operations.

This is where Project Dimension and, in particular, VMware Cloud on Dell EMC come in!

Fully-managed VMware Cloud Service

VMware Cloud on Dell EMC takes VMware's industry-standard SDDC platform and integrates it with Dell EMC's enterprise-class VxRail hyper-converged infrastructure, delivering the combined hardware and software offering as-a-service to data center and edge locations. We are still finalizing the exact hardware configuration, but broadly speaking it will include a half-rack or full-rack with three or more VxRail servers, two top-of-rack switches, two NSX SD-WAN by VeloCloud appliances, and an uninterruptible power supply.

And when we say "as-a-service" we really do mean as a cloud service: you can call an API or use a UI to order a new SDDC with VxRail hardware to any location you like (datacenter or edge location) by simply supplying a street address. Once the hardware arrives, a Dell EMC technician will activate and configure it. After the SDDC is up and running, you can start to deploy your workloads in the cloud, just like with VMware Cloud on AWS today. Since VMware operates the infrastructure along with Dell EMC, we are continually monitoring the SDDC infrastructure for any issues and will proactively act if we determine there's a problem, including dispatching a Dell EMC technician to remediate issues with the physical hardware. Want another server in your SDDC rack? Just call an API and we'll deliver one and connect it up for you quickly. VMware also takes care of all the patches and upgrades. You simply provide us with maintenance windows when we can perform those patches and upgrades. We'll even come and take the rack away when you're done with the VMware Cloud on Dell EMC service at that location. And there is one monthly fee based on the number of hosts you have in the rack – hardware, software, service, and support are all included in that single price.

When we talk about a "cloud service", we mean that everything can be done via API or UI. In other words, you don't have to have humans in the loop. That being said, there are many VMware employees working on VMware Cloud on Dell EMC that are ready to help whenever you need it. It's easy to get help from support via the interactive chat window in the VMware Cloud portal. While we have designed this system for automation, agility, and speed, we always have people at the ready to assist at a

moment's notice."

To view the original post with images, please visit <u>https://blogs.vmware.com/vsphere/2019/04/announcing-vmware-cloud-on-dell-emc.html</u>

1 Click here to return to Contents

BigID Introduces New Data Access Lifecycle Features Ahead of CCPA

1 May 2019

<u>BigID, Inc.</u> announced first-of-their-kind data access rights management features to help enterprises automate fulfillment of personal data access requests for privacy regulations like the California Consumer Privacy Act (CCPA).

Personal data rights around access and deletion of personal information are a cornerstone of more than 130 privacy regulations around the world. The laws grant consumers the right to access and in some instances, delete, correct or port the data organizations hold on them. For companies, this requires a new ability to locate all the personal data they hold on every individual across their entire data and application landscape.

BigID pioneered the technology to help organizations find and inventory personal information by identity to fulfill privacy-driven personal data rights. The new advanced capabilities expand the company's market leadership in enterprise data access lifecycle management.

The new features include:

- Enhanced AI for identifying contextual personal data
- Smarter classification and correlation for connecting data to a person
- Expanded data coverage to more than 50 systems in the data center and cloud
- Enhanced data access management capabilities for analysts and operators
- New programmatic bulk processing capabilities for high volume requests
- Deep customization and summarization templates for tailored responses
- Enriched workflows for deletion, correction and portability
- Consent tracking and orchestration
- Automation for validating deleted data
- SDK integration with web and mobile data access request portals

"BigID was first to market with technology that can deliver on the vision of personal data rights enshrined in privacy regulations like the EU's GDPR and now CCPA," said Nimrod Vax, co-founder and chief product officer, BigID. "We believe that data access rights are foundational to privacy, however, they require new capabilities for the enterprise to find, resolve and connect even contextual personal data back to a person at petabyte scale. These latest data access features further cement our leadership in this critical privacy segment."

BigID will demonstrate its platform and new capabilities at the upcoming IAPP Global Privacy Summit,

booth #202, May 2-3, 2019 in Washington, D.C.

Nimrod Vax will be leading a session, "Automating Data Access Requests for CCPA and GDPR," on May 2 at 8:10 a.m. at the <u>IAPP Global Privacy Summit</u>, where he will highlight the latest technology innovation for managing personal data rights from request to response.

BigID will also be sponsoring a privacy engineering workshop at the <u>IAPP Global Privacy Summit</u> on May 2 at 12:15 p.m. at the Marriott Marquis in Washington, D.C. featuring panelists from Uber, NIST, MITRE, Cisco and CableLabs.

1 <u>Click here to return to Contents</u>

C3D Toolkit Delivers 3D Solid Modeling to DWG-based nanoCAD Mechanica

30 April 2019

C3D Labs is pleased to announce that Nanosoft's newly released nanoCAD Mechanica 9.0 software features its C3D Toolkit components. Three-dimensional solid modeling is brand new in Mechanica 9.0, and its capabilities are based on the C3D Modeler geometric kernel and the C3D Converter data exchange module.

Nanosoft is a rapidly growing international CAD developer, with an extensive line of design software all running on its DWG-based nanoCAD program. Mechanica is its design application for mechanical engineers.

The components from C3D Labs incorporated into nanoCAD Mechanica provide users with featurebased 3D modeling, as well as extended export/import functions for the most common interchange formats -- STL, IGES, STEP, and so on.

Previously known exclusively as a 2D mechanical drafting and design application, nanoCAD Mechanica 9.0 now offers standard modeling tools for 3D design, including extrusion, rotation, chamfering, filleting, and pulling objects along paths and out of sections.

The cornerstone of the 3D design environment is the history window, with its construction tree representing the step-by-step history of the models' creation process. The tree is a sequence of features (or actions) that created the models. In nanoCAD, 3D History is a nanoCAD Inspector window with a specific set of tools. In addition to the history approach to the solid modeling, nanoCAD Mechanica 9.0 also provides standard Boolean operations on 3D solid objects, such as union, intersection, and subtraction.

By adding the C3D Converter module, nanoCAD Mechanica 9.0 offers the flexible data conversion functions:

- Reading and writing B-rep models in STEP (with PMI), IGES, ACIS SAT, and Parasolid X_T and X_B formats
- Importing and exporting models in JT format
- Reading and writing polygonal models in STL and VRML formats

"We had been closely watching the development of the C3D kernel and then made the decision to build it into our CAD application for mechanical engineering," said Dmitry Popov, deputy director of Nanosoft. "The robust components from C3D Labs are progressing quickly and have all the solid modeling features necessary for us to deploy them right now."

"We are proud to partner with Nanosoft in implementing their strategy of creating cost-effective CAD solutions," said Oleg Zykov, CEO of C3D Labs. "Our C3D Toolkit components integrate smoothly into the DWG environment, enabling nanoCAD Mechanica to enter the 3D world and so make solids modeling affordable to users."

1 Click here to return to Contents

Centric Software Supercharges Innovation with Centric 8 PLM v6.6

30 April 2019

Centric Software is proud to announce that the latest release of its flagship Product Lifecycle Management (PLM) solution, <u>Centric 8 PLM version 6.6</u>, is now available.

Driven by feedback from customer innovation partners in fashion, retail, outdoor and consumer goods, Centric 8 v6.6 is a market-driven release that responds to the increasing complexity of creating an increasing number of products destined for multiple channels and diverse regions while also keeping time to market fast and product costs low.

New innovations include automated rules to govern the use of colors across different collections, mass creating product Stock Keeping Units (SKUs) to avoid tedious clicks and streamlining Point of Measure (POM) management. This release also continues Centric's journey into 3D with a powerful new viewer for virtual prototypes and samples.

"We were thrilled to partner with Centric on the new Color Rules innovation in Centric PLM as it enables designers and product developers to easily apply color rules to materials, threads and trims all at once harmonizing product designs, assuring adherence to brand guidelines and reducing the risk of a design snafu," attests a long-time Centric customer. "We are a luxury brand specializing in leather goods and the choice of colors for each component of each product is as critical as our brand DNA. Color details are noticed, and appreciated, by our customers."

The ability to mass create product SKUs was similarly driven by Centric customers. "This new release enables users to easily create many SKUs at one time," explains Ron Watson, VP Product at Centric Software. "Automatically generating SKUs saves our users time and increases information accuracy while also saving hundreds of clicks." Centric v6.6 also transforms the creation of POMs codes and size charts saving time and speeding product iterations destined for multiple markets.

The 3D Viewer in version 6.6 has exciting new features that give users even more control over the 3D product sample workflow, further boosting efficiency and speeding time to market. Watson explains how the enhanced 3D Viewer simplifies the 3D sampling process and gives increased control over product designs and construction. "Our customers partner with us to help streamline their collection development process and the new Centric innovations in 3D give them more precision when assessing samples and make design and development process much faster."

"Centric has always been an innovation leader with user experience and adoption being keystones of our success," says Chris Groves, president and CEO of Centric Software. "We empower our fashion, outdoor, footwear, luxury and consumer goods brands, retailers and manufacturers in their everyday

work to drive their own innovations, speed time to market and achieve business growth."

1 Click here to return to Contents

Creaform Launches HandySCAN BLACK for Portable Metrology

25 April 2019

Creaform launched a thoroughly reengineered and refined update to the HandySCAN 3DTM: the <u>HandySCAN BLACK</u>TM. This is the third-generation version of Creaform's patented metrologygrade scanner. Its launch marks more than 15 years of innovation of technology to meet the evolving needs of the manufacturing and engineering industries. The HandySCAN BLACKTM is made for professionals who need the most effective and reliable tool on the market to capture accurate dimensional measurements of physical objects.

HandySCAN BLACK combines high-performance 3D scanning with improved optics, multiple blue laser technology and a sleek, ergonomic design. Its distinctive simplicity and portability advantages are a staple of Creaform's product line. As the company's flagship portable metrology-grade 3D scanner, the HandySCAN BLACK sets the standard for measurement, regardless of size, material or complexity, within seconds anywhere.

High-Performance Tools to Meet Rising Quality Standards

- **4X resolution:** Captures fine details and large volumes thanks to the unique and versatile combination of improved high-performance optics and multiple blue laser technology.
- **3X faster measurement speed and instant mesh:** Larger scanning area featuring 11 blue laser crosses that take up to 1,300,000 measurements per second, ultimately cutting down the time between acquisition and workable files.
- More accurate and traceable measurements: Volumetric accuracy of 0.020 mm + 0.040 mm/m (0.0008 in. + 0.0005 in./ft) based on VDI/VDE 2634 part 3 as well as ISO 17025, ensuring reliability and full traceability to international standards.
- Available in BLACK and BLACK |Elite: Customers can choose from two models based on their needs: part complexity, measurement speed, accuracy, etc.
- And much more! Visit the website for detailed information about the innovative technology that provides *TRUaccuracy*, *TRUsimplicity*, *TRUportability*, and speed for your product development and quality control applications.

Innovation and Technology in the Metrology Market

"Over the past decade, Creaform technologies have become the standard in highly accurate metrology tools, trusted to take reliable measurements that help make informed decisions at all stages of the product lifecycle management (PLM)," said Simon Côté, Product Manager at Creaform. "HandySCAN BLACK packs the benefits of its predecessors and further takes on quality assurance inspections in the shop, at the machine, in process—where the customers need it."

Creaform introduced the HandySCAN BLACK at the company's international sales meeting as well as the PolyWorks Conference USA in Novi, MI. It will make its European debut at the Control international trade fair in Stuttgart, Germany, which takes place May 7 to 10. To learn more, visit

our <u>website</u> or join the <u>free webinar</u> to learn what makes the HandySCAN BLACK the ultimate metrology-grade scanner, from its portability to its versatility during any stage of the product lifecycle.

1 Click here to return to Contents

First Ever Fully Functional 3D Printed IoT Communication Device Developed for Use in Smart Homes and Products

30 April 2019

Nano Dimension Ltd., announced today that it has created the first fully functional, 3D printed communication device, at a faster speed than has ever been achieved to date with traditionally made devices. This first ever additively manufactured (3D printed) IoT device developed by Nano Dimension, enables companies and research institutions to create and test their 'smart' products and other prototypes faster and more easily than ever before.

Nano Dimension completed the print, assembly and testing of the prototype IoT transceiver device in approximately 18 hours, which is about 90% faster than traditional (non 3D printed) devices which typically take approximately 14 days or more. The device was additively manufactured using Nano Dimension's award winning <u>DragonFly Pro 3D Printer</u> - the only precision additive manufacturing system of its type worldwide.

The remote-control type IoT device, smaller than a silver dollar coin ($16 \times 33 \times 1.6$ mm), is currently in its qualification phase and Nano Dimensions' experts anticipate that it can easily and efficiently be developed into a two-way communication device (transmitter and receiver) such as a router.

Organizations who specialize in smart home routers may be able to assist organizations to speedily develop enhanced communication with smart white goods such as washing machines, refrigerators, televisions, air conditioning system, and even children's toys. For example, smart TVs that can communicate with their owners reminding them that their favorite program is about to begin, smart fridges that can communicate that they are out of milk and children's toys that can demand to be played with.

Furthermore, this device (essentially a printed circuit board) has much farther-reaching applications than just smart homes. Enterprises that manufacture autonomous vehicles, with their many hundreds of sensors, may be able to utilize this smart device developed with the help of the DragonFly Pro.

As more products become 'smart', eventually there will be no limit to the number of items that this seemingly simple device can connect to.

Amit Dror, CEO of Nano Dimension, said: "An ever-greater emphasis is being placed on smart cities, smart buildings, smart homes and smart products by industries and consumers alike. Our solution enables companies to speedily trial and finalize their prototypes in just one day without compromising on quality or performance. They no longer have to wait over a fortnight to understand whether their smart device works or not. This ultimately increases product and cost efficiencies and reduces time to market, which means that the consumer can enjoy the benefits of these products faster than ever before."

The only 3D printing system of its type worldwide, the <u>DragonFly Pro 3D Printer</u>, in some cases miniaturizes electronics making devices and circuit boards more efficient in capacity as well as in performance. It also boasts many applications including the *Transceiver Application* (transmitter and

communicator) as described above, the *Multilayer PCB Torque Sensor Application* for creation of sensors required in almost every device, from a finger sensor in the average smartphone, to temperature and motion sensors in monitoring equipment, and the *RF Amplifier Application* which can massively amplify signals for portable communication devices and unmanned airborne vehicles such as drones and satellites, amongst many others.

The <u>DragonFly Pro 3D Printer</u> is poised to revolutionize the industry for electrical engineers as they know it, bringing with it huge and positive design implications.

Click here to return to Contents

iBASEt Integrates with Siemens Teamcenter to Create Fully Integrated Digital Thread, from As-Designed to As-Built

30 April 2019

<u>iBASEt</u> today announced that their iBASEt PLM Connector now integrates with Siemens Teamcenter, allowing for seamless communication between engineering teams using Siemens Teamcenter and manufacturing teams running iBASEt's Digital Manufacturing suite of products. The connector allows manufacturers to effectively handle data from conception through production, moving them one step closer to an Enterprise Digital Thread.

iBASEt PLM Connector integrates with a company's existing Product Lifecycle Management (PLM) system to automatically publish various objects into iBASEt's Digital Manufacturing (DM) suite. From last minute design changes, to engineering and manufacturing Bill of Materials, all the way to parts and visuals, data from Siemens Teamcenter will now be effortlessly integrated into iBASEt's solutions.

iBASEt PLM Connector addresses the historically wide gap between engineering and production systems. The differing goals, interests, and work tasks between these teams often can lead to scattered silos of data and inefficient asset sharing methods. PLM Connector on the other hand, lets workshop floor and design teams collaborate effectively and communicate in real-time, preventing many back and forth iterations. The product also provides customizable API's that configure workflows based on each teams' needs and program context. Users can easily access 3D visualizations, illustration, and multimedia objects. In addition, teams can receive notifications through a closed loop error reporting system.

"The connector for Siemens Teamcenter further highlights iBASEt's commitment to transform the digital thread vision into action," said John Fishell, VP of Products at iBASEt. "The out of the box PLM Connector will enable our customers to take advantage of automation to close the gap between engineering and production systems. This creates a more efficient and accurate process to send data across systems."

Gone are the days of manual data entry, duplicating master data or costly custom integrations with a high cost of maintenance. No longer do manufacturers need to manage intermediate steps like having to use large XML files, requiring extensive labor hours and high storage costs. All this results in an increased risk of data inaccuracy, and lower productivity. iBASEt's PLM Connector allows for data accuracy during transfer by replacing manual steps with automation. Furthermore, incorporating an efficient change management system into the production cycle allows manufacturers to reconcile "Asdesigned" plans with "As-built" workflows, ensuring next generation of products have higher quality.

As part of the iBASEt DM suite, this new product is the second of iBASEt's solutions to streamline and facilitate communication and transparency throughout the engineering and manufacturing environment. In June 2018, the company released <u>iBASEt PLM Connector for PTC Windchill</u>.

1 <u>Click here to return to Contents</u>

Launch of aPriori in the Cloud

24 April 2019

<u>aPriori</u> announces the release of a new version of the company's flagship product, aPriori Professional 2019 R1. The new release expands the company's portfolio of out-of-the-box (OOB) <u>manufacturing cost</u> <u>models</u>, introduces an expanded collection of design to cost (DTC) guidance and reports, and includes more than 200 individual product enhancements driven through collaboration with the company's expanding customer base.

Furthermore, the company is announcing the achievement of a major milestone with the introduction of the first suite of costing applications available in the cloud. The new Software as a Service (SaaS) offering includes aPriori Professional and a new application, Cost Insight Design. This lightweight web application was developed in collaboration with a group of key customers who were looking for a streamlined version of aPriori that was easy to deploy, easy to learn, and can be utilized by design engineers to quickly identify and eliminate manufacturability and cost drivers in the earliest phases of design and consider cost and manufacturability in trade studies.

Highlights of aPriori Professional 2019 R1

New and Enhanced Cost Models

With aPriori Professional 2019 R1, the company continues its commitment to expanding the suite of OOB manufacturing cost models that enable quick and easy analysis of product designs. New and enhanced cost models available with this release include:

- Plastics new insert molding and over molding cost models [watch video]; expanded DTC feedback
- Machining automated analysis of pockets and slots on components that require machining and tool size selection improvements to make these features
- Welding & Bonding new TIG welding and adhesive bonding cost models. Along with MIG welding updates and improvements to automatically read ProWELD and estimate the welding process for these welds on a component
- Mechanical Assembly new lockbolt and threaded inserts cost models
- Casting die casting and sand-casting updates to improve the cycle time estimate precision and expand DTC feedback to include more manufacturability checks
- Secondary Processes new vibratory deburr, shot peening and hot isostatic pressing cost models now available

Design to Cost Reports

aPriori Cost Insight Report 2019 R1 now provides access to DTC metric data from major manufacturing process groups. aPriori Professional and Cost Insight Design simulate the physical manufacturing

process and identify potential manufacturability issues and cost drivers. Cost Insight Report then captures and stores counts, ratios and other time related metrics from several categories, including violations of design standards, geometric cost driver counts, tolerances, slow operations, manufacturing issues and more. Data generated from this analysis can be presented to the end user via a suite of OOB or ad hoc reports.

The four new OOB reports included in aPriori Cost Insight Report enable project leaders to quickly identify parts with high DTC scores that would be good candidates for redesign to improve manufacturability or reduce cost.

1<u>Click here to return to Contents</u>

Modelon Announces Release of 2019.1

1 May 2019

Modelon is pleased to announce the release of 2019.1 for products within the <u>Modelon Library</u> <u>Suite</u> and <u>Modelon Creator Suite</u>. Detailed release notes are available below and on the product pages. Modelon products are sold and distributed directly from Modelon, as well as approved <u>resellers</u>.

As part of our multi-platform strategy, select Modelon technology is available in <u>OPTIMICA</u>, Dymola, TwinBuilder, <u>IGNITE</u>, MapleSim, SimulationX, and Simcenter Amesim.

Highlights Include:

Automotive

- New state-of-art battery charging and performance models
- Fast table-based media significantly improving the simulation speed
- New components: heat exchanger, control valve, tire models
- Initialization and calculation robustness improvements
- Realtime and HiL (Hardware in the Loop) support enhancements

Aerospace

- New aircraft model architecture with subsystems and aerodynamic
- New complex gas turbine model with mass estimation

Energy & Power

- Three pressure boiler for gas turbine powerplants
- New hydro friction models
- District heating heat diffusion and dynamic delay models introduced
- Solid oxide fuel cell model calculation speed enhanced

1 Click here to return to Contents

MSC Apex Iberian Lynx Now Enables Conceptual Design Workflow for Aerospace Vehicles with Feature Pack 1

24 April 2019

MSC Software Corporation, a part of Hexagon, announced the release of MSC Apex Iberian Lynx

Feature Pack 1, which augments the Iberian Lynx release with additional scripting capabilities to automate the creation of conceptual models for aerospace vehicles.

Aircraft conceptual design is a significant challenge facing aircraft manufacturers, where engineers start their work from a blank page. Efficient conceptual design relies on the capacity of the user to rapidly iterate on many design alternatives and explore trends before committing to more costly detailed models.

MSC Apex offers a unique solution by automatically generating many variants of a design to leverage its automation capabilities. The scripting capabilities delivered in Apex Iberian Lynx allow the user to create full vehicle models automatically based on user-defined parameters, pre-defined fuselage sections, and idealized representations of stringers, spars, and frames. Engineers can fully automate model import, partitioning, meshing, assembly connection, part attribution, scenario definition, execution, and post-processing.

With this solution, not only is it easy to customize Python scripts for various design purposes but also to capture engineering knowledge and connect to PLM databases to build an analysis-ready model for MSC Nastran.

The benefits of incorporating MSC Apex for the conceptual design of aerospace vehicles are multi-fold. It not only provides engineers a highly-efficient tool, but also reduces costs resulting from concept revision, manual design process, and potential human error.

"This novel environment, together with Apex's proven world-class user experience, enables engineers to prepare full vehicle, internal load models, efficiently", says Hugues Jeancolas, VP of Product Management at MSC Software. "This work is thematic with an ongoing initiative at MSC to bring simulation earlier in the design process."

This MSC Apex Feature Pack release primarily targets engineers working on conceptual modeling of commercial/military aircraft, launch vehicles, and shipbuilding projects.

If you missed the webinar for this release you may replay it at: <u>https://www.youtube.com/watch?v=qxack4yf2QE</u>

1 Click here to return to Contents

Oracle Powers Full BIM Model Coordination for Design and Construction Teams

24 April 2019

Building information modeling (BIM) is an increasingly important component of construction project delivery, but is currently limited by a lack of collaboration, reliance on multiple applications, and missing integrations. The Oracle Aconex Model Coordination Cloud Service eliminates these challenges by enabling construction design and project professionals to collaboratively manage BIM models across the entire project team in a true common data environment (CDE). As such, organizations can reduce the risk of errors and accelerate project success by ensuring each team member has access to accurate, up-to-date models.

The BIM methodology uses 3D, 4D and 5D modeling, in coordination with a number of tools and technologies, to provide digital representations of the physical and functional characteristics of places.

"Issues with model management means projects go over budget, run over schedule, and end up with a higher total cost of ownership for the client. As part of the early access program for Oracle Aconex Model Coordination, it was great to experience how Oracle has solved these challenges," said Davide Gatti, digital manager, Multiplex.

Single Source of Truth for Project Data

With Oracle Aconex Model Coordination, organizations can eliminate the need for various point solutions in favor of project-wide BIM participation that drives productivity with faster processes and cycle times, enables a single source of truth for project information, and delivers a fully connected data set at handover for asset operation.

The Model Coordination solution enhances Oracle Aconex's existing CDE capabilities, which are built around Open BIM standards (e.g., IFC 4 and BCF 2.1) and leverage a cloud-based, full model server to enable efficient, secure, and comprehensive model management at all stages of the project lifecycle.

The Oracle Aconex CDE, which is based on ISO 19650 and DIN SPEC 91391 definitions, provides industry-leading neutrality, security, and data interoperability. By enabling model management in this environment, Oracle Aconex unlocks new levels of visibility, coordination, and productivity across people and processes, including enabling comprehensive model-based issue and clash management.

Key features of the new solution include:

- Seamless clash and design issue management and resolution
- Dashboard overview and reporting
- Creation of viewpoints e.g. personal "bookmarks" within models and the linking of documents to objects
- Integrated measurements
- Process support and a full audit trail with the supply chain

"With Oracle Aconex Model Coordination, we're making the whole model management process as seamless and easy as possible. By integrating authoring and validation applications to the cloud, users don't need to upload and download their issues and clashes anymore," said Frank Weiss, director of new products, BIM and innovation at Oracle Construction and Engineering.

"There's so much noise and confusion around BIM and CDEs, much of it driven by misinformation in the market about what each term means. We believe everybody on a BIM project should work with the best available tool for their discipline. Therefore, open formats are critical for interoperability, and the use of a true CDE is key to efficient and effective model management."

For more information on the Model Coordination solution, please visit <u>https://www.oracle.com/industries/construction-engineering/aconex-products.html</u>.

1 Click here to return to Contents

ParaMatters Upgrades Its Generative, Autonomous Design and Lightweighting Software 30 April 2019

<u>ParaMatters</u>, a leading generative design provider of autonomous topology optimization, parts consolidation and lightweighting software solutions, today announced the release of CogniCAD 2.1, an upgrade of its platform that automatically generates ready-to-3D print, high-performance, lightweighted structures for aerospace, automotive and other mission critical applications.

CogniCAD is ParaMatters' holistic and agnostic generative design solution that employs a cloud-based, cognitive design and high-performance computational platform. Images available to view <u>here</u>.

CogniCAD 2.1 offers an enhanced variety of loading conditions including thermal loads as a beta release and force/moments via remote points, in addition to existing acceleration (g-forces) and pressure. The software also allows design for additive manufacturing and investment casting as a beta release. CogniCAD 2.1's functional design capabilities include stress, compliance (stiffness) and deformation constraints. The platform enables taking an optimal design and finding its ideal model orientation for additive manufacturing, by minimization of unsupported areas or supports volume, while highlighting areas which require reinforcement. CogniCAD 2.1 introduces 2x calculation speedup and allows users to select the desired combination between resolution and speed of calculations. Finally, there is an enhanced design cabinet view and any minimal glitches in the system have been smoothed out. The designs generated as a 1-click solution are smooth and watertight STL models ready for AM and STEP models compliant with any CAD system.

"The most powerful agnostic CAD-to-CAD generative design and lightweighting software offering available on the market just got that much better for the automotive, aerospace, medical, industrial and material industries," said ParaMatters Co-founder and Chief Technology Officer Dr. Michael Bogomolny. "With CogniCAD 2.1, users have more options and greater flexibility to create lightweighted objects that meet their design and manufacturing needs for challenging real-life applications."

"With CogniCAD 2.1, users have an enhanced tool that merges advanced topology optimization techniques, computational geometry, infinite computing power in the cloud, and artificial intelligence. The result is a powerful and affordable way to unleash the full potential of design for additive manufacturing," added Avi Reichental, ParaMatters Co-founder and board member.

CogniCAD 2.1 works by first importing CAD files into the platform, and then defining loading and design criteria. Within minutes, users can obtain generative designs verified by built-in Finite-Element Analysis, ready for 3D printing in both STL and STEP formats. All ParaMatters-generated designs can be directly produced using additive manufacturing.

The CogniCAD 2.1 update can be accessed at <u>www.paramatters.com</u> as a pay-per-design, cloud-based service. The company is offering several subscription and enterprise-based models, and actively engages in several complementary strategic partnerships.

ParaMatters continues to develop advanced algorithms designed to enhance the overall digital thread and additive manufacturing capabilities. This includes a new cloud-based, generative design platform that automatically compiles lightweight and metamaterial lattice structures on-demand, based on size, weight, strength, style, materials and cost as specified by designers or engineers. Unique meso structural capabilities, which are offered as a design service, deliver biomimicry design for optimal structural infills that are mission critical for certain additive manufacturing processes.

1 Click here to return to Contents

Pimcore Launches Data Hub to Strengthen Content-As-A-Service Capabilities For Enhanced Data Delivery and Consumption

30 April 2019

<u>Pimcore</u> has released <u>Pimcore Data Hub</u> to provide organizations with enhanced technology to create fast, scalable apps without multiple steps. The new feature will enable organizations to centrally manage product and web content data, and translate it into neutral formats to be used across multiple channels for a consistent and unified customer experience.

"Data Hub makes Pimcore the most progressive open-source digital experience platform in the market," said Dietmar Rietsch, CEO of Pimcore. "With our centrally stored content data and advanced APIs, we're able to disrupt the content management experience for our clients. What once would be an arduous and time-consuming process of deriving insights from disparate data sets to inform a unique, front-end customer experience, is now simplified and streamlined. That helps organizations drive revenue faster."

Pimcore Data Hub will become the main platform for data delivery and consumption in Pimcore. It's based on Pimcore APIs, so it's easy to connect with eCommerce software and SaaS applications no matter the industry standard, proprietary or legacy formats. It's easily compatible with React, Angular, and other Javascript frameworks. Specifically, the new tools gives users the ability to:

Integrate different input and output channel technologies in a simple and easy-to-configure user interface

Import and export data from and into Pimcore in different formats

Access automated, reusable data pipelines for scale and efficiency

Given Pimcore is currently the only open-source digital experience platform, Data Hub will make content-as-a-service offerings more accessible across the enterprise as organizations continue to work across diverse sets of content data. As Data Hub is iterated on, it will be made compatible with recurring CSV and Microsoft Excel flat file imports and exports.

Data Hub leverages GraphQL, a query language for APIs that works to fulfill asks with existing data. It then provides a straightforward and complete description of that data to an API endpoint, which delivers an easy to understand content experience. Ultimately, the use of GraphQL helps create fast, stable, and reliable apps. The combination of GraphQL and the Pimcore solution allows customers to leverage content data across a multitude of formats from a single backend to truly enable a headless content experience. The headless experience gives organizations the ability to leverage next-level content data insights, and quickly adapt experiences based on feedback and performance.

"The data management space is changing rapidly as customers demand flexible, fast and unique content experiences," said Shashin Shah, co-CEO at Pimcore. "Other experience management providers are incredibly rigid and lack an effective way to provide these experiences. Data Hub is filling this gap and doing so in an open-source environment, which will give providers like SAP and Adobe a run for their money."

1Click here to return to Contents

PROCAD 2020 Announced

29 April 2019

PROCAD is rolling out its version 2020 software. These applications are add-on to your existing AUTOCAD® 2020 thru 2015.

The released 2020 applications include: SPOOLCAD, P&ID, ORTHO, ISOMETRIC and ELECTRIC. 3DSMART 2020 and all PROCAD+ products will be available in May.

1 Click here to return to Contents

PTC's Industrial IoT Platform ThingWorx Celebrates More Recognition as Industry Leader

1 May 2019

PTC today announced that it has been recognized by two advisory firms as a 2019 leader in the global industrial internet of things (IIoT) marketplace for its ThingWorx® Industrial Innovation Platform. The two awards come just months after PTC introduced the latest version of <u>ThingWorx</u>. ThingWorx 8.4 introduces a long list of new capabilities, including <u>Operator Advisor</u>, which is designed to increase the productivity of factory workers by simplifying the way critical operational data is collected, synthesized, and delivered.

"PTC continues to advance its breakthrough IIoT solutions and equip industrial companies with industry-leading software to drive business momentum and create value," said Jim Heppelmann, president and CEO, PTC. "These accolades underscore not only PTC's technological superiority, but also our commitment to the success of our partners and customers in the industrial sector."

1 Click here to return to Contents

Simulation On-The-Go with COMSOL Client for Android

25 April 2019

COMSOL is excited to announce COMSOL Client for AndroidTM is now available. Researchers, engineers, and students are now able to perform simulation tasks from their AndroidTM devices, such as phones, tablets, and Chromebooks simply by connecting to the COMSOL ServerTM software which runs the computations remotely.

COMSOL Client for Android[™] expands on the capabilities of the Application Builder and COMSOL Server by enabling you to take your simulation applications on the road, without being limited by your device hardware. Providing field technicians or sales representatives with the power of COMSOL Multiphysics[®] directly on their Android devices allows them to bring the R&D work on site or to the sales pitch.

"COMSOL Server allows users to run simulations through web browsers or desktop-installed clients," explains Daniel Ericsson, Applications Product Manager, COMSOL. "COMSOL Client for Android expands on those capabilities by introducing a more seamless user experience on Android devices."

"Using COMSOL Multiphysics and its Application Builder I can create models and build apps based on

them. This allows other departments to test different configurations for their particular requirements and pick the best design", comments Sam Parler, Research Director at Cornell Dubilier.

The Application Builder and COMSOL Server were developed to make multiphysics modeling more accessible to a wider audience. The Application Builder allows simulation specialists to create custom-made applications based on their multiphysics models. With COMSOL Server, organizations have been able to deploy industry-specific analysis tools in a streamlined and quick to implement format that can be scaled for global benefit. COMSOL Client for Android has made the convenience of running simulation applications as easy as ordering a rideshare.

"Expanding the reach of multiphysics modeling is at the core of our mission," adds Daniel Ericsson. "COMSOL Client for Android will allow everyone from design engineers to field technicians be more efficient with the ability to run COMSOL Multiphysics simulations from the palm of their hands."

Just like COMSOL Client for Windows[®], the simulations are run on remote servers, so you are not limited by your device hardware. Administrators continue to have full control over who can access and run the apps by using COMSOL Server. AndroidTM users will have the latest version of a simulation application each time they open the app.

Learn more about COMSOL Client for Android: <u>https://play.google.com/store/apps/details?id=com.comsol.androidclient</u>

1Click here to return to Contents

Solibri Model Checker v9.9.5.113 Release Notes

17 April 2019

Mandatory compatibility update

All current users using SMC versions from v9.9.2.63 up to v9.9.5.112 are highly advised to upgrade to this version to ensure the continued working functionality of the software. Optionally, you can download the software patch 'Solibri Model Checker Patch for New Licensing' (Mac/PC) to allow your current version to continue working.

Both the new version and the patch can be found on Solibri Solution Center.

Read more about the update in the <u>news</u>: <u>https://www.solibri.com/news/mandatory-update-for-solibri-model-checker</u>

Improvements in the SMC Installer

When installing Solibri with Microsoft System Center Configuration Manager (SCCM), an error prevented the install in certain circumstances. This has now been fixed and installing works properly also with the SCCM.

Click here to return to Contents

SOLIDWORKS eDrawings Website Now Live

9 April 2019

Announced on the SOLIDWORKS blog:

"We've been tinkering in our mad scientist lab and finally ready to unveil the brand <u>new eDrawings</u> <u>website</u>! It's now much easier to explore all the eDrawings products and learn about the direct benefits to using our solutions in your daily workflow.

Besides the new look and feel, we've added two new website "tabs" for you to see real-world use cases of how customers use eDrawings to improve communication, simplify their manufacturing and erase costly delays. These new sections are called "View" and "Share."

In addition to the PC Desktop version, were you aware that eDrawings also has a native Mac version and mobile apps for both iOS and Android? Explore the Products page to see how you can make important decisions and communicate on-the-go using the device of your choice. That's the true power of eDrawings.

There's also a dedicated <u>Test Drive</u> page, letting you experience eDrawings without any barriers."

To view the full post with media and free download, please visit <u>https://blogs.solidworks.com/solidworksblog/2019/04/new-edrawings-website-is-live.html</u>

1 Click here to return to Contents

VeChain Launches Revolutionary One-stop BaaS Platform--VeChain ToolChain

30 April 2019

With the advancement of 5G, IoT (The Internet of Things), AI (Artificial Intelligence), and the Internet of Value, data is set to play a more significant role in the future business world. For enterprises to realize the value of data, blockchain technology will be vital. The disruption of existing business models is on the horizon, which will compel businesses to embrace new technologies like blockchain, enabling them to stay ahead of the market.

However, there are obstacles in feasibly employing blockchain technology into business models, especially for small and medium enterprises (SMEs). This failure is typically caused by one of three things (or all):

- High cost
- Complexity
- Lacking professionals or technical capabilities to implement the solution

Breaking Down the Barriers—VeChain Develops and Launches ToolChain so that Anyone Can Implement and Use Blockchain Technology

VeChain officially launched ToolChain, the next generation of blockchain-as-a-service (BaaS) platform at the 2019 VeChain Summit—the first global developer conference of VeChain, held on April 18th at San Francisco's historic Fort Mason Festival Pavilion. It is the first commercial BaaS platform built on top of a public blockchain.

VeChain Toolchain Turnkey Solution with hardware suggestions

ToolChain Addresses Pain Points for SMEs

VeChain ToolChain provides a variety of general interfaces to essentially eliminate the high technical

threshold and substantially lower the costs for SMEs or even individuals in blockchain integration. VeChain ToolChain pioneered the concept of providing an "off-the-shelf" solution, with various standardized application modules.

Unlike the BaaS products on the market, ToolChain also includes a vertical blockchain application focusing on product life cycle management, which can be used as a SaaS solution or customized as a turnkey package. The solution can integrate with the existing business of the enterprises immediately with zero development requirements. In this way, companies without blockchain development capabilities can acquire a secure and mature blockchain solution at a reasonable cost. More importantly, eco-enterprises and channel partners are allowed to build their own applications on the VeChainThor blockchain BaaS platform, should they be authorized with the turnkey solution provided by VeChain.

SMEs can further benefit from a comprehensive one-stop customized blockchain service, including product life-cycle management, supply chain management, data storage, data verification, and process verification, thereby improving their brand image and scaling their businesses.

Meeting the Demands of the Market: ToolChain Releases with Three Versions

To meet the diverse demands of the market, VeChain ToolChain solution is currently available in three versions: Standard Version, Developer Version, and Channel Partner Version:

• Standard Version

The VeChain ToolChain Standard Version provides various standardized application modules, tools and IoT devices. This allows SMEs with no development capability to have their own blockchain-based lifecycle management solution.

• Developer Version

For enterprise customers with strong technical capabilities, the developer version can provide a variety of API interfaces, SDK development kits, and detailed developer documentation. With these, enterprises can develop various applications based on the VeChainThor Blockchain according to their own needs and desired hardware solutions.

• Channel Partner Version

The newly developed Channel Partner Version will support independent deployment and multidimensional customization of ToolChain based on the channel partner's business strength. To become a channel partner, you only need to apply for authorization from VeChain before receiving the ToolChain Turnkey packages for customization and independent deployment. This version creates a win-win situation by allowing VeChain's partners to build their own blockchain-based business ecology to serve their customers.

Hardware Suggestions: What You Need to Fully Implement VeChain ToolChain

To realize VeChain ToolChain's strengths and provide a one-stop solution to optimize supply-chain management, for SMEs and even individual users, by using a smartphone with NFC function and NFC tags ordered from VeChain (will be available soon), you can start using the ToolChain service. Moreover, VeChain has prepared a collection of suggested hardware devices to fully implement the solution and connect the software to the physical goods being managed. The hardware suite includes:

- QR code printer and application software for easy, immediate at the office, printing of QR codes
- NFC writer and related software to create digital labels

- IoT devices, including RFID chips, sensor devices, and more
- Handheld terminal devices to enable Toolchain apps to bond and activate NFC chips and collect and transfer chip ID and other core data
- Physical carriers for simple transport of the Toolchain Kit, including QR codes and NFC/RFID digital chips

ToolChain Successfully Applied in Multiple Industries

VeChain ToolChain has been successfully introduced into various industries such as energy, automobile, agriculture, wine, FMCG, art auction, insurance and more. In these industries, it has played a critical role in data verification, data sharing, anti-counterfeiting, and traceability.

New business models based on the VeChain ToolChain have been developed to empower real economy and facilitate an enterprise's digital transformation and brand image enhancement. In the future, VeChain will stay focused on building a blockchain-based ecosystem for its partners and developers, enabling them to provide customized ToolChain-based services for enterprise users, extend application scenarios, and further optimize relevant functions.

To use VeChain ToolChain for business scaling, please contact the professional VeChain ToolChain consultant for personalized development advice at <u>bd@vechain.com</u> and apply for a free trial of VeChain ToolChain Standard Version.

1 Click here to return to Contents

Welcome to Test ZWCAD 2020 Open Beta

22 April 2019

Not long after ZWCAD 2020 Close Beta was released in <u>ZWorld 2019</u>, its Open Beta is available now for you to <u>have a test</u>!

As was stated by Daniel Huang, ZWCAD Product Manager in ZWorld 2019, "We have spared no effort to make ZWCAD stronger at almost every aspect, based on the feedback from our users and the understanding of the industry", so, what will ZWCAD bring you this time?

Multi-core Processor: Faster and Faster

Through efficiency tests, ZWCAD 2020 Beta just got even faster, improving by 45.5% compared with ZWCAD 2019, which has already been 150% faster than 2 years ago.

What's the secret behind it? The answer is multi-core processing technology. It helps increase the speed of opening drawing especially the large ones, and creating blocks especially the ones with numerous objects. Moreover, in 32-bit Operation System, up to 2.6GB memory can be released, enabling you to open the large drawings more smoothly.

Manage PDF Underlays with Ease

The PDF Underlay Manager palette is now ready for you to better manage all the attached PDF Underlays in your drawing. They can be attached, detached, opened, etc. in this palette, and their information such as status, size, type, etc. can also be checked.

In one word, it will help you manage PDF Underlays more conveniently, and take full advantage of the

PDF Underlay feature.

TK: Handy In-command Tracking

Previously, if you want to place a point, say, the starting point of an object to a specific location, you need to draw some auxiliary lines. Now, with the in-command TK Tracking, you can locate the object with a virtual auxiliary line in the middle of your drawing or an editing command. Thus, the drawing efficiency and accuracy have been greatly improved.

More User-friendly Annotation Scale

When there are too many annotation scales being stored in one single drawing, it will take a long time to load and display the annotative objects.

Now, a prompt will pop out when opening such kind of drawings, reminding you to reset the scale list to the default state by removing the unneeded custom scales, and thus improving the efficiency and smoothness of dealing with annotative objects.

Lisp Debugger – Work on ZWCAD Lisp Conveniently

If you are a lisp-writer, you can't miss the Lisp Debugger, which was developed based on Visual Studio Code from MicrosoftTM. It helps you debug and modify your lisp programs easily. It is a true friend and helpful companion for all developers working on ZWCAD Lisp.

Data Extraction – All You Need are Well Organized by a Few Clicks

It enables you to extract various data including quantity, layer, area, diameter, length, color, etc. from objects by filters. All these extracted data will be shown in a table or be exported to a .csv/.xls file. It helps you easily acquire the data you need from the drawing, and it is especially useful when numerous data need to be extracted at one time.

1 Click here to return to Contents

Workflow Simplified with New RADAN 2020.0

30 April 2019

With user experience as a top priority, the new release of RADAN is set to make this leading CAD/CAM software for the sheetmetal industry easier to use than ever before. A further reduction in mouse clicks and improvements to nesting and reporting allows customers to see a real increase in efficiency, saving both time and costs.

Olaf Körner, Product Manager for RADAN says: "After introducing a strong enhancement to our nesting engine last year, users have increased their operation of the automatic nester. The reporting is really powerful, and the number of mouse clicks needed has been reduced by around half, to use automatic nesting, or to work on a 3D model – the workflow is so much easier."

The new quick nest mode in RADAN 2020.0 provides a more visual interface, with limited upfront setup for projects. And a redesigned new project dialog allows users to 'get nesting quicker'. Time benefits can also be achieved with machine specific projects and templates. Olaf Körner says: "If a user wants to begin nesting quickly, we've made it much easier to get started, with fewer questions and machine specific templates. The template contains automation – for example, a fiber laser template will switch to your correct laser machine and put in all the settings needed."

As well as a quicker start to projects, it is also easier for users to pick up on previous projects. The new streamlined mode benefits from reduced mouse travel and an autosave function so that work is never lost. The ease of use ensures the software is simple to learn and allows more complex projects to be completed efficiently.

Complex projects can also be achieved using the new punching tool type. Punching plays an important part of the manufacturing process, and he says customers are getting more creative with their tooling for punch presses, to set them apart from lasers. Now there's a new tool type for flattening features in the tool editor.

Radtube sees further improvements to the popular common line cutting feature, added in the previous release. Users can now optimise the nest either by material usage or by cycle time. When optimising the cycle time, the nest starts looking for common cuts more aggressively. "It doesn't sacrifice all the material usage, but does look harder for opportunities to use common line cutting. This gives the customer a choice between using as little material as possible or optimising the cycle time.

"As common line cutting is becoming increasingly popular, customers asked us to allow their old legacy parts to be nested for it, too. They want RADAN to assume those parts can be common cut, if it's safe. So we've brought in automatic common cut selection on legacy parts, giving more automatic common cutting."

Radtube reporting has also been improved to include QR codes, bar codes and images, making the recognition of parts simpler and more accurate. The reports can be outputted automatically and in the required format.

In this release, Radquote has been enhanced with many updates; a highlight being the new nesting engine for material calculations. This feature has the ability to increase the number of orders won due to its accurate and achievable estimates. As soon as a quote turns into an order, Radquote automatically exports all the information needed, in the form of a PDF file for records; for emailing to the customer as an order confirmation; or as data in CSV or text format. This can be seamlessly linked to the company's ERP/MRP system.

A new Radquote feature, Customer Specific Import Template, allows information such as DXF files to be automatically analysed according to the specific customer by setting up a template. "This can greatly improve the workflow, as without it, the file would need to be manipulated, which can be time consuming.

A default delivery time can also be added automatically to the quote along with a calculation for delivery costs based on a new 'distance' field for customer data. "As delivery costs will be more for a customer who's 200 miles away, than for a customer just 20 miles away, when setting up a customer in Radquote you can now specify how far away they are. This is used in a formula to calculate, with the order weight, the total delivery costs."

Radbend now has additional monitoring in place which checks the unfold geometry in a number of stages to ensure it is manufacturable. Olaf Körner explains: "For example, automatic checks can be carried out for holes too near to bends. Analysing the part, we can see whether the design is manufacturable in terms of whether any holes in the part are going to be deformed by the bending process." Further checks have also been added to support intermediate bends, breaking down the process into two steps where needed, to ensure accurate results. Previously this could only be accomplished by physically changing the model and making different bends and stages; therefore this new function saves a considerable amount of time.

Overall RADAN 2020.0 benefits from further upgrades to workflow, increasing efficiency, saving time and optimising resources. "Manufacturers are getting real benefits from the software which has the ability to connect seamlessly to their ERP/MRP software. Achieving results more naturally and quicker, with much less manual input and fewer mouse clicks, not only saves time but also ensures the software is easier to use and learn. The automatic nesting algorithm will allow users to be more creative in using their material due to quality layout proposals, and the option of making different decisions on sheet sizes and manual nests."

1Click here to return to Contents