

PLM Weekly Summary

Editor: CIMdata News Team

15 January 2021

Contents

CIMdata News	2
An Enterprise Digital Transformation Platform – a CIMdata Commentary	2
Aras' Cloud Strategy – a CIMdata Blog Post	5
CIMdata Announces its 2021 PLM Market & Industry Forum Series	6
CIMdata to Host a Free Webinar on CAD Trends	7
NLign Analytics "Structural Lifecycle Digital Environment" Enables Model-Driven Product Quality – a	
CIMdata Commentary	
PTC's Cloud Strategy – a CIMdata Blog Post	
Acquisitions	14
Accenture Acquires Real Protect, Brazil-Based Information Security Company	
Atos to acquire In Fidem to reinforce its cybersecurity position in the North American market	
Planview Announces Strategic Acquisitions of Clarizen and Changepoint to Accelerate Strategy to Delifor Enterprises	
Company News	17
Agiloft Appoints Andy Wishart Chief Product Officer to Accelerate Product Innovation	
Appian Selected by Accenture as a Core Partner in the INTIENT Network for Life Sciences	
Arena Solutions and Rimsys Announce Partnership to Offer an End-to-End Quality and Product-Centric Regulatory Solution	:
Aspen Technology Appoints David Leitham as Senior Vice President and General Manager to Lead	
Pharmaceutical Industry Effort	19
Atos recognized twice by Springboard Consulting for its excellence in disability inclusion	20
Capgemini announces leadership appointments	21
Daimler and Infosys Announce Strategic Partnership to Drive Hybrid Cloud-powered Innovation & IT	
Infrastructure Transformation in the Automotive Sector.	
EMA Becomes Distribution Partner for SkillCAD Cadence Virtuoso Layout Automation Suite	
Gerber Technology Joins Forces to Donate 5,000 Gowns to Organizations in Need	
HCL TECHNOLOGIES PARTNERS WITH BOBBLE AI TO OFFER CUSTOMER ENGAGEMENT	
SOLUTIONS IN BANKING AND INSURANCE MARKETS	
Launching the EPLAN Partner Network	
PROS Appoints Sherry Lautenbach as Senior Vice President, Global B2B Sales	
Vertex Named Top 10 Collaboration Solution Provider from CIOReview	27
Event News	28
Appirio announces Helix, an immersive virtual showcase for achieving seamless business continuity	
Financial News	
HCL Technologies – Third Quarter Results FY 2021	
PTC to Announce Fiscal Q1'21 Results on Wednesday, January 27th, 2021	29
SAP Pre-Announces Strong Fourth Quarter and Full-Year 2020 Results	30
Strong Demand Drives TCS Q3 Growth Momentum	
Wipro - Results for the Quarter ended December 31, 2020 under IFRS	
Implementation Investments	
Autodesk Construction Cloud Increasingly Adopted by Leading Infrastructure Construction Teams to B	
Collaboration and Safeguard Public Budgets	35

Fiat Chrysler Automobiles partners with Wipro to establish its first Global Digital Hub in India	36
GERSON & GERSON IMPLEMENTS DIGITAL TRANSFORMATION PACKAGE	
Infosys Implements Global Warranty Solution to Simplify Factory Warranty Processes for Johnson Conti	rols
	38
Island Pacific Announces Partnership with CGS for PIM & PLM	38
Kinetic Vision Improves PCB Workflow by 500% with Altium 365	39
Navantia Leverages Ansys' Digital Transformation Solutions to Design Next-Gen Naval Vessels	40
MNML Minimizes Risk and Maximizes Efficiency with Centric Software PLM	41
Synopsys and Socionext Expand Collaboration to Deploy HBM2E IP for 5-Nanometer Process in AI and High-Performance Computing SoCs	l 42
Product News	. 43
BQE Software Releases Major Update to the Company's Flagship BQE CORE Cloud Platform	43
Datakit announces version 2021.1 of its CAD file converters	43
Minerva Group launches a new implementation software solution; Minerva DevOps	45
Siemens announces Simcenter 3D 2021	46
Spectra Logic Announces Latest Version of StorCycle Storage Lifecycle Management Software	46
TCS' Cloud Exponence Platform Now Available on Microsoft Azure for Greater Enterprise Agility	48
TCS Launches the Autoscape™ Solution Suite to Help Deliver Next-Gen Autonomous and Connected	
Vehicle Experiences	48
TraceParts and SnapEDA Partner to Offer Unified UX to Source Free PCB Footprints, Schematic Symbo & 3D MCAD Models	ols 50

CIMdata News

An Enterprise Digital Transformation Platform – a CIMdata Commentary 14 January 2021

Key takeaways:

- Executives often don't understand PLM and often pay lip service to digital transformation.
- Digital transformation initiatives often proceed without employing PLM as the source of authoritative product information.
- Product information must be at the core of any successful digital transformation and is usually much more complex than initially assumed.
- Every business has different drivers; can a generic out-of-the-box (OOTB) PLM solution really deliver a competitive advantage?
- Aras Innovator was designed to be a low-code platform at its inception. Customers use it to support rip and replace, as well as embrace, extend, extinguish their legacy solutions per their transform roadmap.

Introduction

Digital is hot—digital thread, digital twin, digital transformation, and so on—but it is rapidly becoming an overused term. All data stored electronically is digital and has been from the inception of computer-

based data processing more than sixty years ago. According to mainstream media, any company that doesn't have a digital strategy and go all-in on it is missing an opportunity of a lifetime. But, what does it mean? Is it just a slogan? Does it have any substance behind it? A key point to remember is digitization is not digitalization. Digitization is converting analog or paper data into an electronic file or record, digitalization is the process of moving information to digital processes (e.g., computer files, connected data elements representing a product, managing a configuration and all its dependencies) to transform business—moving to a digital business where information becomes more valuable than a company's traditional products and/or services.[1]

A second key point to remember is products (and also remember that services are products too) are instantiations of ideas and intellectual property and are what generate a company's revenue (i.e., a product is a result of the data that defines it). This is why a solid product lifecycle management strategy is so important and why CIMdata is so passionate about the topic of product lifecycle management (PLM). Technically, PLM doesn't require digitization or digitalization, but practically speaking it does. Products were developed for thousands of years without information being created or being managed digitally, but given the scale, complexity, and timelines required to deliver today's products, it's hard to imagine any modern product being developed without at least some aspect of digitalization.

Ultimately, any digital transformation that isn't focused on improving the creation, use, reuse, and dissemination of the information that describes a product is unlikely to have a material impact on a company's top and/or bottom line. To have substance, a digital transformation initiative has to address product information from an end-to-end lifecycle perspective. As a product moves through its lifecycle states of concept, design, production, operation, and end of life or next life, data representing information is moved bidirectionally across these states.

To make rapid and sound decisions, the data and processes acting on the data need to be managed and traceable to ensure integrity, thereby enabling quality products to be produced on a predictable and repeatable basis. The product data and related processes reside within the PLM environment, whether a well implemented commercial solution or an ad-hoc group of tools with lots of human glue. Digital transformation is the process of continuously improving the former, and dramatically updating the latter.

Continuous Transformation

Transformations don't happen instantaneously, and digital transformations are no different. Digital transformation is not "one and done." The well documented, accelerating pace of innovation guarantees transformation needs to be done regularly (i.e., on an on-going basis). The benefit of becoming more digitalized is that the more connected product information is, the easier it is to innovate. Connected data enables faster processes and reduces the need to validate data before using it, thereby reducing administrative drudgery. For example, when a part is added to an EBOM within a PLM solution, the part number can be automatically assigned to the CAD model and fill in the drawing title block. Furthermore, the new item can be inherited into the MBOM without rekeying data, then transferred to ERP for downstream operations.

Digital, within the context of the product lifecycle, is a way to create, manage, and consume digital product information. Most products get instantiated as a physical item, but more and more, products have a growing digital component (e.g., software, simulation results, or operating asset performance derived using analytic solutions). Unfortunately, many companies are struggling to adapt legacy solutions to new and evolving requirements especially software related ones.

Tools and processes need to transform to support the rapidly evolving software and operational data aspects of products. A <u>product innovation platform[2]</u> choice may support the current requirements, but

what about the next three or five years, or even fifty years? A platform needs to be resilient, adaptable, and upgradeable to support evolution and at its speed (i.e., at the speed that business is evolving) because replacing it is difficult and expensive.

How to Digitally Transform

Deciding how to transform can be complex because the end-to-end lifecycle is complex for most products. There are many stakeholders each with their own needs and wants. In the past, tools were heavily customized to make earlier generations of PLM-enabling technology work. In many cases, the customizations were difficult and costly to change and upgrade. This often leads to a backlash against customizing and demand for OOTB solutions. Unfortunately, this strategy doesn't work well, because some needed capabilities are unique or specialized and not available with OOTB implementations. To support every company's unique requirements, solutions are often customized adding risk, cost, and complexity. The consequences experienced are why so many companies stress that they want an OOTB solution. What they really want is a solution that can transform along with them without adding excess risk, cost, and complexity.

Developing a transformation plan is a well understood process and can be achieved using different methodologies. At a high level, the company needs to develop a vision of what it wants to achieve, a strategy that addresses the important business dimensions including people, process, technology, and data. A roadmap can then be developed to execute the strategy. To transform, an organization's roadmap must decompose changes into digestible chunks organized by business priority. Technology is only part of the solution, digitalization is the way the transformation is achieved, not the goal. It's easy to forget that the goal is to improve the business.

The reality is technology sometimes needs to be customized to meet transformation requirements. The key is to make sure the customizations are sustainable while satisfying the roadmap, that is all the short-and long-term requirements are met in the most cost-effective way possible. The process of transformation is well understood. The current best practice is to use an agile approach. Execute a sprint, measure and analyze the results, refresh the roadmap, then repeat. Of course, the devil is often in the details.

Aras Platform

CIMdata has followed Aras from its inception. We have a deep understanding of the company and their solution and understand how it has evolved and where it is headed. We have published a lot on Aras, and can review all our publications in our <u>Aras Dossier</u>.[3] Many of these publications go into depth on different aspects necessary to have a successful digital transformation.

We have been impressed with Aras' customer stories on how they have been able to solve a wide variety of lifecycle issues by configuring a custom solution and keeping it upgraded. One of the important points from the customer stories is implementation can start anywhere within a company's product lifecycle. Aras' ability to integrate with legacy technologies allows solutions that are working to be incorporated in the lifecycle via integration rather than rip and replace. This ability is why customers are able to execute a vision that addresses the highest business value issues first, generating benefits as soon as possible, improving return on investment (ROI).

Aras has had a public roadmap for many years. Their platform services and applications have grown significantly to where they credibly enable an end-to-end lifecycle solution. Investments in platform services to support model-based systems engineering (MBSE) and maintenance, repair & overhaul (MRO) have enabled Aras to extend their digital thread support on both ends of the lifecycle, thereby supporting an even broader range of transformation projects.

Aras' System Architecture and Digital Twin apps leverage new lifecycle services within the platform. Their OOTB apps can be tailored and web services can connect non-Aras toolsets to the platform. This openness is a critical element of Aras' strategy—one that is well proven.

Finally, while Aras has many customers using virtual machines in the cloud, CIMdata is looking forward to more detail on Aras' native cloud offering. SP12, released in December 2020, is their initial release that supports containerization. Aras has stated their commitment to remain open, flexible, scalable, and upgradeable. These are all critical characteristics of a sustainable platform. No upgrades will be forced on customers, and their data sovereignty is fundamental to their offering both on-premise and in the cloud.

Conclusion

Business transformations are never easy but are necessary for long-term survival. Changing or transforming is the only sustainable way to stay ahead of the competition when there are significant landscape changes in areas such as markets, products, competitors, and technology constantly on the horizon. To support a digital transformation, technology needs to adapt to solve current problems and issues many years out that are hard to imagine today. Digital transformations are best executed on an open, flexible, scalable, and upgradable digital product innovation platform as the most important issues will be product related.

Aras has many customers that have used the Aras Platform to transform their product lifecycles and businesses. CIMdata is impressed with the diversity in how Aras' technology has been used to improve their customers' businesses. Companies planning a digital transformation should consider Aras Innovator as a solution to their digital transformation requirements.

[1] Research for this commentary was partially supported by Aras.

[2] See: https://www.cimdata.com/en/resources/complimentary-reports-research/position-papers/item/8484-product-innovation-platforms-definition-their-role-in-the-enterprise-and-their-long-term-viability-position-paper

[3] See: https://www.cimdata.com/en/resources/solution-provider-profiles/plm-dossier-aras

Click here to return to Contents

Aras' Cloud Strategy - a CIMdata Blog Post

15 January 2021

Stan Przybylinski, Vice President of CIMdata, had the pleasure of speaking with Mark Reisig, VP of Product Marketing at Aras, to learn more about Aras' cloud strategy. Among the topics on the table for discussion were:

How important are cloud-based solutions to the strategy of Aras?

What about the ecosystem of infrastructure, applications, and other partners that are part of your offerings?

How does your solution and its go-to-market strategy address the issues raised by your customers and prospects?

How would you describe your primary target customers?

Can you provide any information on your installed customer base?

How are your offerings going to evolve in the short to medium term? What are the primary themes/strategy in your roadmap?

Learn the answers to these questions and more in the full blog post available at https://www.cimdata.com/en/resources/cimdata-blog/item/14804-aras-cloud-strategy-an-interview-with-mark-reisig

Click here to return to Contents

CIMdata Announces its 2021 PLM Market & Industry Forum Series

14 January 2021

CIMdata, Inc., the leading global Product Lifecycle Management (PLM) consulting and research firm, announces its 2021 PLM Market & Industry Forum schedule and theme. For 2021, these events will be held virtually over the course of three half-days.

The first session will take place in April with coverage over five time zones. This session will consider the current economic climate, leading trends, and their effects on the PLM economy. There will be a detailed look at the state and trends of current and future PLM markets and the eagerly awaited first public release of CIMdata's 2020 PLM market analysis results. Update sessions are scheduled for June and September.

The theme for 2021 is "Resilience in the Face of Crisis: Bouncing Forward." The PLM Economy was poised for another strong year in 2020 when COVID-19 stopped the world in its tracks. Companies in a wide range of industries had to immediately adapt to support working from home, remote collaboration, and many other scenarios. The PLM Economy responded and showed their ability to deliver value to their customers. Presentations will show how the PLM Economy and its many customers have chosen to thrive in these uncertain times.

According to Stan Przybylinski, CIMdata's Vice President, "CIMdata believes that times like these are ripe for boldly going where organizations have not gone before. Applying the right technology and processes to help define a new normal for a product or manufacturing process is often part of PLM's goal. We will use this forum to explore the resilience of and innovation by the PLM Economy and their industrial clients." Mr. Przybylinski added, "There have been some great examples of bouncing forward, creating new products, new business models, and new services. What have we learned? What changes might be permanent, and which ones might spring back to the pre-COVID-19 status quo? What new business opportunities arose during the pandemic, and which ones will stand the test of non-COVID-19 time?"

We will cover the following topics during the first session:

- The current state of PLM
- PLM global market analysis for the 2020 calendar year
- The Resilience of the PLM Economy
- Industrial Resilience in the Face of Crisis

For more information on the presentations, please visit https://www.cimdata.com/en/education/plm-market-industry-forums.

Participants will gain a solid understanding of the current and emerging PLM market, the dynamics impacting it, and the expectations for its continued evolution. Attendees will also learn more about opportunities and approaches they can use to navigate the PLM Economy in the year to come.

To learn more or register for a 2021 PLM Market & Industry Forum event, please go to https://cimdata.com/en/education/plm-market-industry-forums.

Click here to return to Contents

CIMdata to Host a Free Webinar on CAD Trends

12 January 2021

CIMdata, Inc., the leading global PLM strategic management consulting and research firm, announces an upcoming free educational webinar, "CAD Trends—Real Change or Marketing Hype." The webinar will take place on Thursday, 28 January 2021, at 11:00 a.m. (EDT) and last for one hour.

At the beginning of each new year, various technology groups, industry publications, and CAD solution providers offer their opinions on future trends in CAD. These opinions are truly subjective. This year is no different. An internet search on "CAD Trends" results in 16.2 million hits. While not all are current to 2021, many are. But are even the most recent predictions credible?

CIMdata believes that a *Trend in CAD* results in an impact on how CAD operates or how a CAD designer interacts with CAD design software. It does not include such topics as "CAD in the Cloud." That is an application packaging topic, such as CAD on a workstation or CAD on a PC. A trend must affect how CAD works internally, such as when parametric modeling was a new trend, or affect the internal structures within CAD. For example, Generative Design is not a trend, but the integration of mesh geometry with precise geometry to support generative design within CAD is.

In this webinar, we will look at the types of "CAD Trends" put forward in 2021 and assess whether they truly impact CAD or are just hype, promoting a technology solution.

Attendees at this webinar will:

- Learn the real impact on CAD from advertised CAD Trends.
- Understand the potential short- and long-term benefits derived from CAD trend changes.
- Better evaluate whether new trending solutions will benefit their business.

According to Dr. Ken Versprille, an Executive Consultant at CIMdata, and the host for this webinar, "Each year about this time, many publish what they consider to be the CAD Trends for the coming year. While a number are marketing hype for their products, too often, the stated trends have more to do with software packaging than actual core CAD. CIMdata believes that real CAD Trends must impact CAD capabilities and how CAD operates."

Dr. Versprille has over 40 years of experience in the application of computer-based solutions for engineering and manufacturing. His research spans geometric design, design collaboration and automation, PLM standards and openness, and CAD integration across PLM applications. Dr. Versprille published the first description of NURBS, the mathematical curve-and-surface formulation, now an international standard in CAD and Computer Graphics. In 2005 he received a Lifetime Achievement Award from The CAD Society.

During the webinar, attendees will have the opportunity to ask questions about the topics discussed. To find out more, visit: https://www.cimdata.com/en/education/educational-webinars/webinar-cad-

<u>trends-real-change-or-marketing-hype</u>. To register for this webinar, please visit: https://register.gotowebinar.com/register/5481715687145492240.

Click here to return to Contents

NLign Analytics "Structural Lifecycle Digital Environment" Enables Model-Driven Product Quality – a CIMdata Commentary

12 January 2021

Key takeaways:

- The U.S. Department of Defense announced a new Digital Engineering Strategy in June 2018 that dictates 5 key pillars in transitioning the U.S. defense industry from document centric engineering processes to digital, model driven processes for the design, development, manufacturing and on-going use and sustainment of complex weapons systems. The DoD estimates that over \$256B is spent annually in U.S. military system sustainment operations.
- NLign Analytics is providing mission-critical 3D digital model technologies to the DoD in support of this Digital Engineering directive to optimize product quality, minimize critical military asset downtime, and reduce total lifecycle costs.
- NLign Analytics customers are seeing up to 33% improvement in the structural integrity review process time as well as improvements in aircraft structural integrity data quality from 15% to 95% usable for decision making without relying solely on experience based knowledge and "best guess" assumptions.
- NLign Analytics creates a robust 3D "Structural Lifecycle Digital Environment" for each weapon system, tracing structural integrity data from manufacturing through quality inspection and sustainment. This is accomplished by capturing operational in-service data, analyzing and visually displaying all 3D non-conformances, structural damage, and failure areas. This 3D visual information enables engineers to identify potential repairs and rework for each individual asset as well as across a family or fleet of similar systems.
- NLign Analytics technology is available in an easy-to-implement engineering desktop environment as well as a mobile tablet environment for part quality data analysis and 3D model interactive viewing throughout the virtual enterprise. It is being used on the manufacturing floor and in aircraft repair depots as well as by aerospace and defense supply chain partners.
- NLign Analytics technology can also work in combination with many existing commercial tools
 from the major PLM, ERP, MRO, and MES solution providers and/or legacy in-house developed
 custom software tools for non-destructive inspection and structural quality assessment.

Today's Market Drivers and the Need for Change

Over the past several decades, there has been significant growth in the use of enterprise software systems for supply chain management (SCM), quality management systems (QMS), product lifecycle management (PLM), manufacturing execution systems(MES), enterprise resource planning(ERP), and maintenance, repair and operations(MRO). However, despite these advances in digital information management technologies, the digital connection from the engineering design and manufacturing domains to in-service operations and the impact on the lifecycle quality assessment of "as built" versus "as operated" systems has been relatively minimal in many industries. It is still common to see inefficient manual and document based processes used to assess the in-service structural status of

complex parts and systems used in mission critical applications for military aircraft, ships, missile systems, land vehicles, and energy production facilities. Where quality assessment software tools are in use, they are often used within organizational silos where the data is not captured in a form that provides useful information to enable quick and effective decision-making. Additionally, there are a significant number of out of date legacy systems currently in use. These systems lack the state of the art analytics for real time operational data and cannot provide engineering, manufacturing, and operations personnel with the information they need to collaborate in order to make part design modifications and/or manufacturing rework decisions.[1]

Engineers also need accurate 3D visualization of the system in the "as built" and "as operating" states. This allows defects leading to operational failures to be readily identified, communicated visually for collaboration with quality engineering teams, and then quickly corrected via permanent design upgrades or even temporary in field modifications or fixes.

The U.S. DoD has recognized the urgent need for change from document-centric processes to a digital, model-driven approach due to systems sustainment cost issues and international competitive factors (i.e., warfighting superiority and operational flexibility). The DoD estimates that \$256B was spent in FY2020 for military system sustainment operations with the U.S. Air Force accounting for approximately \$65B of that total.[2] Despite these levels of spending on operations sustainment, of the approximately 5,400 aircraft in the Air Force fleet, the percentage that are able to fly at any given time has decreased steadily each year since fiscal year 2012, when 77.9 percent of aircraft were deemed flyable. By fiscal 2018, that airworthiness metric had plunged to 69.97 percent, according to statistics obtained by Air Force Times via the Freedom of Information Act.[3]

In the 2021 Department of Defense budget request document revised on May 13, 2020,[4] the DoD highlights the focus on weapons systems readiness. The studies examined the strengths and weaknesses of past and current Defense Readiness Reporting Systems to determine the shortfalls of the current readiness reporting framework and to identify the areas for improvement. They assessed and reviewed new analytical technologies that may help the Department more effectively and efficiently gather, analyze, and visualize readiness data.

As stated in this document, "In order to successfully measure the readiness of warfighting force elements, the Defense Department must:

- Improve the data quality, accessibility, and flexibility of our readiness reporting system by accessing, linking and leveraging many authoritative data sources (ADS) across the DoD.
- Increase diagnostic capabilities by providing more specific and adaptable data pertaining to factors that contribute to readiness at its current or predicted levels.
- Develop consistent, intuitive methods to identify root causes of readiness degradation.
- Visualize common readiness trends across the Total Force, and develop predictive models to forecast the impacts on future readiness that result from current decisions, based on leading indicators."

To specifically address these major challenges stated above, groups within the U.S. Air Force and U.S. Navy as well as major A&D prime contractors to DoD, have been adopting NLign Analytics technology and incorporating a 3D model-driven product quality approach into their long established but typically much more document-based Materiel Review Board (MRB) processes and associated manual best practices for Structural Lifecycle Management (SLM). An example of where the model-driven product quality approach using NLign technology has already been successfully employed is in the Air Force Aircraft Structural Integrity Program (ASIP) as applied to the A-10 close air support aircraft upgrade

(see Figure 1).



Figure 1—NLign

Analytics Enabled the DoD Digital Engineering Strategy in the A-10 Program (Courtesy of NLign Analytics and U.S. DoD)

Similar asset readiness and predictive maintenance challenges and associated cost saving opportunities also exist in the commercial airline and commercial air freight industries. According to Oliver Wyman, "Total MRO spend is expected to rise to \$116 billion by 2029, up from \$81.9 billion in 2019. Aside from the growth in the commercial fleet, the increase will be driven by more expensive maintenance visits and technology enhancements. The annual average growth rate for the MRO market will be 3.5 percent over the decade. More of this growth will take place between 2024 and 2029, when MRO spend will grow \$19 billion versus \$15 billion between 2019 and the start of 2024."[5]

The NLign Analytics Technology: A Driver of Business Value

NLign Analytics has been in the business of creating engineering software solutions to identify and predict the structural integrity of large scale systems for almost 15 years. The NLign Analytics technology was initially developed in conjunction with applied research projects in the U.S. Air Force and has since evolved into an integrated suite of commercial software applications that includes six U.S. technology patents.

So, what is special about NLign that is not found in other quality software tools or enterprise software applications such as PLM, QMS, ERP, MRO, and MES systems? The key foundational elements of the NLign Structural Lifecycle Digital Environment are:

- Ability to acquire and create the baseline "Structural Integrity Digital Twin."
 - Easily acquire and process physical inspection data from a wide variety of nondestructive inspection (NDI) and measurement sources including photos and 2D drawings and tie it to a 3D location on a digital model.
 - A mobile device/tablet environment that enables manufacturing and in-service operations to enter structured data in the context of the visual 3D part.
 - Align the 3D part physical inspection data and map structural failure data on to a 3D geometric digital representation of the part aligned with part/BOM numbers and assigned criticality codes (or create a 3D model if none exists).
 - o Ability to tie structural integrity disposition analysis to specific 3D defect locations in the

- physical part.
- Ability to spatially search across a fleet of aircraft to identify recurring "hot spots," historical analysis and repairs, and identify historic repairs on a particular aircraft that could impact future repair analysis.
- Understand the "As Built" and/or "As Maintained" state of the current structure and enable decision making to improve manufacturing quality and/or define field fixes.
 - The NLign suite of data analytics and 3D model interrogation capabilities enable mapping of failure areas and/or material quality discrepancies in a part onto the 3D digital model. It can also compare those key structural integrity failure areas to results from a 3D structural FEA analysis. Potential design modifications/fixes can also be visually compared to the "As Is" and "To Be" states of the structure.
 - Structural integrity criticality analysis can be performed based on defect type codes and analyses are configurable to customer requirements. Pre-defined analysis inputs ensure that quality analysis data and assumptions are complete and valid based on type of analysis performed. Quality analyses can also be performed across a fleet of vehicles in different service environments or a family of manufactured parts prior to assembly and in service deployment.
 - o Prognostics charts aid in maintenance scheduling and budgeting decisions.



Figure 2—NLign

Environment for Model-Driven Product Quality Analysis (Courtesy of NLign Analytics and U.S. DoD)

 By Leveraging the patented spatial database capability, design engineers, manufacturing and quality engineers, and operations personnel can collaboratively share, update and manage the "Structural Integrity Digital Twin" across the virtual extended enterprise and throughout the

product operations lifecycle, including supply chain partners. This empowers the engineers to:

- Equip Lifecycle traceability—Track and report out structural integrity metrics over timefor a single system or across a grouping of assets (fleet characteristics).
- Enable "Digital Thread for Structural Quality"—Provide an "Authoritative Source of Truth" for structural quality and integrity across the enterprise.
- o Allow Data Openness—Enable connections and integrations with enterprise systems such as PLM, QMS, ERP, MRO, MES, and in-house quality software applications.

NLign Analytics Technology Adoption: Key Customer Success

Current major customers of the NLign Analytics software technology and services include:

- o Northrop Grumman—T-38 trainer aircraft and F-35 fighter aircraft.
- o Boeing—787 Dreamliner, F-15, B-1B, and F/A-18 programs.
- o U.S. Air Force—AFRL, ICBM, AFLC- A-10, T-38, F-15, B-1B, C5, C130, and Global Hawk.
- o U.S. Navy—Naval Air Systems Command MQ4, F/A-18, P-8, and V22.
- o Other U.S. and Foreign Government OEMs and suppliers.

Several major customers and aircraft programs have been using NLign Technology long enough to be able to measure and publicly disclose real world business impact metrics in moving from manual, document-based processes such as the A&D MRB process into a model-driven process leveraging the NLign Structural Lifecycle Digital Environment:

- o Air Force A-10/ASIP program key results:
 - Helped double the service life of the workhorse A-10 close air support aircraft between maintenance cycles.
 - Dramatic increase in the quality of data. The quality of inspection records went from 17% good in 2017 to a current 95% in 2019.
 - 800% increase in data communication from time of induction to receipt of inspection data by engineering.
- Northrop Grumman F-35 fighter program:
 - Real-time data communication with engineering, mitigating errors in data and ultimately receiving 100% quality data for downstream usage.
 - Estimates use of NLign saved 33% of MRB process labor hours.
 - USAF estimated cost savings of \$1B over life of F-35 production.
- o Current NLign Analytics technology and solution partners include:
 - ANSYS
 - Siemens Digital Industries Software
 - PTC

Conclusion

CIMdata believes that the availability of next generation model-based quality analysis technologies such

as the NLign Structural Lifecycle Digital Environment fills a major gap in the intersection of the current suite of commercial software tools and product innovation platforms provided by the major enterprise software solution providers such as Altair, ANSYS, Dassault Systèmes, Hexagon, Infor, PTC, Oracle, SAP and Siemens Digital Industries Software.

As such, we expect that when NLign is used in combination with PLM, QMS, ERP, MRO, and MES systems, this integration can be a major step forward for industry in achieving one key aspect of the digital thread for structural integrity and system quality across the entire product lifecycle. The use of 3D virtual reality/augmented reality (VR/AR) environments combined with advanced data analytics and AI/ML (machine learning) technologies to create and continuously enhance digital twins will accrue significant business benefits to end users of weapons systems such as the U.S. Department of Defense deploys and maintains as well as to the companies that design and manufacture such complex weapons systems. More importantly, these digital technologies are now beginning to mature to the level where adoption should not be limited only to high value assets such as those found in the aerospace and defense industry.

From CIMdata's perspective, NLign is currently providing a high impact set of 3D model-based product quality and reliability applications that can have significant business impact and ROI across a wide range of industries and product lifecycle applications. We look forward to monitoring their business success, future technology enhancements, and the more widespread adoption of this valuable technology across a range of industries over the next several years. For more information about NLign Analytics and its solutions please see https://nlign.com/.

[1] Research for this commentary was partially supported by NLign Analytics.

[2] Office of the Under Secretary of Defense (Comptroller) / Chief Financial Officer. Operation and Maintenance Overview Fiscal Year 2020 Budget Estimates. March 2019

[3] Losey, Stephen. Aircraft mission-capable rates hit new low in Air Force, despite efforts to improve. AirForceTimes. July 2019. https://www.airforcetimes.com/news/your-air-force/2019/07/26/aircraft-mission-capable-rates-hit-new-low-in-air-force-despite-efforts-to-improve

[4] Office of the Under Secretary of Defense (Comptroller) / Chief Financial Officer. United States Department of Defense. Fiscal Year 2021 Budget Request. February 2020. Revised May 13, 2020.

[5] Wyman, Oliver. Global Fleet & MRO Market Forecast 2019–2029 Commentary. https://www.oliverwyman.com/our-expertise/insights/2019/jan/global-fleet-mro-market-forecast-commentary-2019-2029.html

Click here to return to Contents

PTC's Cloud Strategy - a CIMdata Blog Post

15 January 2021

Stan Przybylinski, Vice President of CIMdata, recently spoke with Kevin O'Brien, PTC's Divisional GM for the PLM, the aim being to learn more about PTC's cloud and SaaS strategy. Among the topics they discussed were:

- The importance of cloud-based solutions to the overall strategy of PTC.
- A description of the ecosystem of infrastructure, applications, and other partners that are part of PTC's offering.
- How PTC's solution and its go-to-market strategy address the issues raised by your customers and prospects.
- A description of the primary target customers.
- Information on PTC's installed customer base.
- The evolution of PTC's offerings in the short to medium term.

Learn more by reading the full blog post which is available at https://www.cimdata.com/en/resources/cimdata-blog/item/14851-ptc-s-cloud-strategy-an-interview-with-kevin-o-brien

Click here to return to Contents

Acquisitions

Accenture Acquires Real Protect, Brazil-Based Information Security Company 11 January 2021

Accenture has acquired Real Protect, a privately held, Brazil-based provider of managed security and cyber defense services (MSS), extending its cybersecurity presence and capabilities in Latin America. Financial terms were not disclosed.

Founded in 2005, Real Protect is headquartered in Rio de Janeiro and has an office in São Paulo. Powered by two security operation centers, its managed security services business provides custom and packaged solutions to clients across Brazil. The company's portfolio also includes threat monitoring, detection and incident-response capabilities, which will complement Accenture's managed detection and response offerings.

"According to Accenture's research, Brazil continues to be a hotspot for cybercrime, which we estimate could cost companies more than US\$100 billion in lost revenues by 2023," said Kelly Bissell, who leads Accenture Security globally. "The acquisition of Real Protect is a natural complement to our existing Managed Security Services business, which offers tailored industry-focused solutions to help clients rapidly anticipate, detect and respond in real time to cyber threats. We welcome Real Protect to Accenture and are excited about what we can achieve together to help organizations be more resilient."

Real Protect's approximately 90 cybersecurity professionals, who serve a variety of clients in the healthcare, energy, oil & gas, and financial services industries, will join Accenture Security's global workforce of nearly 7,000 professionals. Real Protect CEO Daniel Lemos will lead Accenture's Managed Security Services business in Latin America.

"We are excited to join Accenture and tap into their breadth of MSS capabilities, building on the success we have achieved in our business to date," said Lemos. "Together, our shared commitment to providing market-leading cybersecurity solutions positions us well to drive growth in the adoption of these

services in Brazil and across Latin America."

Real Protect was the first in Latin America to receive the international unified certification standard by the MSP Alliance, the world's largest industry association and certification body for cloud computing and managed services professionals.

"Brazil is home to a variety of cybercriminal groups with specific tactics, which is a cyber threat that can be tackled with specialized Brazilian cyber defense and incident response specialists," said Paulo Ossamu, Accenture Technology Lead for Latin America. "Real Protect will bring this expertise to complement our teams all over the region and enhance our commitment to help secure our clients' businesses across their entire ecosystems in Latin America."

Accenture became one of the leading global providers of managed security services as a result of its January 2020 acquisition of Symantec's Cyber Security Services business, then further strengthened its cyber defense capabilities through its acquisitions of Context Information Security and Revolutionary Security in March and April 2020, respectively.

Click here to return to Contents

Atos to acquire In Fidem to reinforce its cybersecurity position in the North American market 14 January 2021

Atos announces that it has signed an agreement to acquire In Fidem, a Canada-based specialized cybersecurity consulting firm. This acquisition will reinforce Atos' position as the #3 worldwide cybersecurity services leader and in particular enhance its North America cybersecurity services capabilities by bringing experienced consultants to the Atos team.

Consistent with its targeted acquisition strategy, the operation will expand Atos' client portfolio and established expertise in cybersecurity services in Canada. Founded in 2005 and headquartered in Montréal with offices in Québec City and Ottawa, In Fidem has expertise in cloud security, digital identity, risk management, security operations, digital forensics and cyber breach response. It is a leading player in the Canadian market and has a proven track-record of successfully addressing large private and public organizations' digital security challenges. In Fidem will bring its network of more than 100 highly skilled specialists to the Atos cybersecurity team.

"This acquisition reinforces our position in a fast-growing cybersecurity market and is a key addition to our current cybersecurity business in North America. In Fidem's strong long-standing client relationships will bring added value to our teams. We're excited to unite our expertise with that of In Fidem and see many synergies between our teams and business approach" said Pierre Barnabé, Senior Executive Vice-President, Head of Big Data & Cybersecurity at Atos.

"This strategic move will enable our customers to benefit from Atos' extensive expertise, global presence and its leading rankings in Managed Security Services. We're convinced that the combined capabilities of our portfolio and expertise with that of Atos' will bring added value to our clients. We look forward to the next steps in our journey together" said Matthieu Chouinard, CEO of In Fidem. The closing of the transaction is expected to take place in Q1 2021.

Click here to return to Contents

Planview Announces Strategic Acquisitions of Clarizen and Changepoint to Accelerate Strategy to Delivery for Enterprises

15 January 2021

Planview, a global leader in Portfolio Management and Work Management, announced the company has entered into definitive agreements to acquire Clarizen and Changepoint, leading enterprise Project Portfolio Management (PPM) providers.

Across industries, enterprises are transforming their businesses to be digital-first. This shift has only accelerated during the COVID-19 pandemic, and what's emerged is a new and enduring way of working that's flexible, highly distributed, and digital. As increasingly dispersed teams embrace new tools and processes to meet the evolving needs of their customers, visibility and connectivity across the enterprise have never been more critical. The market demands a comprehensive software platform that can connect strategy to delivery across siloed workstreams and disciplines – capabilities best provided through PPM and Agile.

The combination of Planview, Clarizen, and Changepoint creates a unique platform enabling organizations to better collaborate, deliver, and thrive in this new world of work. Backed by TPG Capital and TA Associates, the combination harnesses the capabilities of three leading providers to deliver customers an unmatched level of expertise, IP, and resources to ensure their most important outcomes are delivered with efficiency, urgency, and transparency.

"In today's environment, enterprises are looking for partners with the vision, expertise, and scale to help them navigate and excel in our all-digital world," said Greg Gilmore, CEO of Planview. "Planview, Clarizen, and Changepoint are all leaders, and together, our customers create an exceptional community of PMOs, PPM, and Professional Services Automation (PSA) practitioners. Collectively, there is no better platform to drive innovation and fuel the transformation of strategy to delivery."

Since inception, Planview has focused on partnering with enterprises to help them re-imagine the ways they plan and manage work. With Clarizen and Changepoint's leadership and category expertise, Planview will provide customers of all sizes with a robust community and end-to-end offering that enables them to meet their unique business goals and drive better business outcomes. In addition to leading Enterprise Agile Planning and Kanban from Planview, Clarizen and Changepoint customers will benefit from the expanded resources that Planview delivers.

"We're thrilled to be joining forces with two organizations that share our core belief of putting customers at the heart of everything we do," said Matt Zilli, CEO of Clarizen. "By bringing together these companies, customers will have access to a portfolio of industry leading solutions from three world-class companies, as well as new innovation as we focus on providing even more value to our customers."

"In order to achieve meaningful business outcomes, organizations need to be adaptable and nimble while ensuring alignment from strategic planning to delivery," said Matt Scheuing, CEO of Changepoint. "We look forward to working with the Planview and Clarizen teams and believe the combination of exceptional Portfolio and Work Management solutions, practitioners, and experts will enable our customers to continue to succeed in an ever-changing business environment."

Upon completion of the transactions, the Clarizen and Changepoint teams will join Planview as distinct business units, led by Matt Zilli and Matt Scheuing. Zilli and Scheuing will report into Planview CEO, Greg Gilmore. The transaction is expected to close in the first quarter of 2021. Terms of the transaction

were not disclosed.

Click here to return to Contents

Company News

Agiloft Appoints Andy Wishart Chief Product Officer to Accelerate Product Innovation 14 January 2021

Agiloft, the global standard in contract and commerce lifecycle management, announced the appointment of Andy Wishart as chief product officer (CPO). Wishart will provide leadership and direction to further accelerate innovation in Agiloft's no-code contract lifecycle management (CLM) platform.

Wishart brings over 20 years of experience building innovative legal technology solutions. Most recently, he worked as vice president of product management at Thomson Reuters where he led a team focused on legal drafting and productivity solutions. Wishart was co-founder and chief technology officer of Contract Express, the contract automation solution that Thomson Reuters acquired in 2015. With a degree in artificial intelligence and psychology from the University of Edinburgh, Wishart is passionate about enhancing legal productivity through intelligent and easy-to-use solutions.

"I am beyond thrilled to have Andy Wishart on board," says Eric Laughlin, Agiloft CEO. "Andy is an outstanding leader in both CLM product management and AI innovation. As an industry leader in both areas, he will play a central role in our strategy of accelerating our CLM product development and AI capabilities."

Already a leader in the exploding contract lifecycle management (CLM) space, Agiloft has begun to take its product development to a new level, propelled by a \$45 million growth equity investment from FTV Capital in the fall of 2020.

This announcement follows an Agiloft fall software release with enhanced AI functionality, the new Agiloft Contract Assistant add-in for Microsoft Word, and new and improved integrations with Dell Boomi, Tableau, and Salesforce. Agiloft further accelerated growth with a revamped partner program announced in December 2020.

"I am very excited to be joining Agiloft's dynamic team at this pivotal moment in its growth and innovation," said Wishart. "As a recognized industry leader, Agiloft has developed exciting AI capabilities around clause extraction and risk scoring and has integrated that seamlessly into the user's contracting workflows. I look forward to bringing my passion and expertise to the table to spur on the company's course of product development."

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

Appian Selected by Accenture as a Core Partner in the INTIENT Network for Life Sciences 12 January 2021

Appian announced that it has joined Accenture's INTIENT partner ecosystem as a core partner. The ecosystem is designed to help independent software vendors (ISVs) and life science companies integrate more effectively to accelerate drug discovery efforts and improve patient outcomes.

The INTIENT Network is an integral part of Accenture's INTIENT Platform that enables insights and collaboration across the life sciences enterprise to improve productivity, efficiency, and innovation in drug discovery. Accenture has partnered with Appian to integrate low-code development into the INTIENT platform.

The Appian Low-Code Automation Platform allows enterprises to build applications up to 20x faster than traditional code. By providing a single interface that unifies data, process, people and the digital workforce, Appian helps organizations improve digital innovation and optimize business outcomes. Industry leaders trust Appian to improve customer experience, achieve operational excellence, and simplify global risk management and compliance.

"We are proud to work with Accenture to jointly support research, innovation, and better outcomes for the Life Sciences industry," said Marc Wilson, Founder and Senior Vice President of Global Partnerships and Industries at Appian. "Our ability to accelerate business processes, unify enterprise data, and simplify global compliance is why nine of the world's top 10 drug and biotech organizations use Appian."

As part of the INTIENT partner ecosystem, Appian's platform can be accessible across the INTIENT product suites.

"Our open partner network is one of the ways we're bringing innovation to our clients through the Accenture INTIENT Platform," said Jill Schulte, managing director in Accenture's Life Sciences practice. "Appian's integration into the INTIENT Platform enables low-code workflow creation and management to accelerate the building of applications for our clients and ultimately for the benefit of their customers and patients."

Click here to return to Contents

Arena Solutions and Rimsys Announce Partnership to Offer an End-to-End Quality and Product-Centric Regulatory Solution

13 January 2021

Arena Solutions, a leader providing cloud-based product development solutions for high tech, consumer electronics, and medical device industries, announced a new partnership with Rimsys Inc., a world-leading provider of a holistic Regulatory Information Management (RIM) software platform designed specifically for medical technology (MedTech) companies.

The Arena and Rimsys partnership offers a secure cloud-based, product-centric regulatory solution for the MedTech industry. Rimsys seamlessly integrates with Arena's QMS and PLM solutions by pulling product and documentation information directly into Rimsys to create, manage, and maintain marketing applications such as 510(k), Summary Technical Documentation (STED), and Table of Contents (ToCs).

The Arena product development platform connects product and quality processes allowing dispersed teams throughout the product design and manufacturing process to work together. Rimsys integrates with Arena's platform by syncing product information so companies can better manage global registrations and selling status at the SKU level. Rimsys has the capability to pull in QMS records and documentation to create and compile regulatory applications from approved documentation. The integration automatically monitors for documentation changes and alerts users when updates occur with additional reporting based on document location ensuring a single and accurate

source of truth.

"The seamless and deep integration between Rimsys and Arena solutions reduces the day-to-day regulatory management," said James Gianoutsos, Founder and President of Rimsys. "The administrative burden of compiling marketing applications and the maintenance of product data is completely eliminated, allowing for increased compliance, efficiency, and visibility throughout the organization."

"Our partnership with Rimsys makes it easier for MedTech companies to address regulatory affairs, product registration, and standards management more effectively," said George Lewis, VP of Business Development and Strategy for Arena Solutions. "This new integration streamlines regulatory compliance processes by accelerating the notification of updates to critical quality records and documents."

Click here to return to Contents

Aspen Technology Appoints David Leitham as Senior Vice President and General Manager to Lead Pharmaceutical Industry Effort

12 January 2021

Aspen Technology, Inc., a global leader in asset optimization software, has appointed David Leitham as Senior Vice President and General Manager to lead the company's pharmaceutical industry growth strategy.

Leitham has 25 years' experience in the pharmaceutical industry and is responsible for expanding AspenTech's footprint in the pharmaceuticals market, shaping the product and solution strategy and leading go-to-market efforts. He has demonstrated a track record of success integrating and transforming software businesses and products and growing them at double digits, while leading a software portfolio that drove over one billion dollars in connected sales. He brings significant expertise to AspenTech in mergers and acquisitions integration having worked on multiple integration efforts to transform businesses into high performing operations.

Leitham joins AspenTech from Thermo Fisher Scientific, where he was Vice President and General Manager responsible for a team that consistently delivered double-digit growth in software revenue. He also held roles at GSK, where he served as Vice President, Information Engineering, Technology and Architecture; The Network Connection, where he served as Vice President, Software Engineering and Vice President, Application Development; and FAAC Incorporated, where he held several engineering positions.

"We believe that the pharmaceutical industry can continue to benefit from AspenTech's current solution portfolio as it increases focus on operational excellence and accelerates its digitalization journey in manufacturing and across the enterprise. We see a significant opportunity to contribute to compliance with the regulatory requirements pharmaceutical companies must meet and to the value creation opportunities available through their ongoing digitalization efforts. Bringing David on board is an important step in helping them achieve these important objectives," said Antonio Pietri, President and Chief Executive Officer of AspenTech.

"AspenTech has an unrivaled reputation in the process manufacturing industries," said Leitham. "That reputation has been earned through a relentless focus on meeting the needs of its customers, which I have long shared, and I am looking forward to enhancing that approach, along with our technology and

expertise, to the pharmaceutical industry."

Click here to return to Contents

Atos recognized twice by Springboard Consulting for its excellence in disability inclusion 15 January 2021

Atos has been recognized by Springboard Consulting, an expert in mainstreaming disability in the global workforce, workplace, and marketplace, with two awards, one in the 'Workplace' category recognizing the quality of Atos' internal accessibility policy and the second in the 'Marketplace' category, for the comprehensiveness of its offering to help companies incorporate accessibility. Amongst the 8 honorees of the 8th Annual Disability Matters Europe Conference that took place in early December, Atos was the only company to be recognized in two categories.

The Disability Matters Awards annually honors companies for their innovative programs resulting in the successful outreach, recruitment, engagement and retention of candidates, employees and customers with disabilities. The Honorees represent the 'best of the best' when it comes to the commitment required and actions necessary for disability inclusion.

Aligned to Atos' purpose (*raison d'être*), inclusion is one of the group's core values. In the 'Workplace' category, Springboard Consulting highlighted the comprehensiveness of Atos' digital inclusion program in particular, including the availability of assistive technologies, as well as accessibility and disability related training materials, to all employees.

In the 'Marketplace' category, Atos was recognized for the comprehensiveness of its offering, which includes:

- Accessibility as-a-Service for digital workplace;
- Accessibility testing and auditing for websites;
- Accessibility consulting services, with a maturity assessment-based approach to help large organizations assess and plan for inclusion.

Atos' accessibility specialists work across multiple countries and contribute to various disability inclusion initiatives, such as the International Labor Organization's global business disability network, the Business Disability Forum's Technology Taskforce, the Valuable 500 and the W3C Web Accessibility Initiative.

"In the current circumstances of distributed, remote and home working, it is even more our responsibility to ensure that digital technologies are inclusive, so that each individual is offered the appropriate support and opportunity to reach their full potential. We are proud to be honored by Springboard Consulting for our holistic and systematic approach to digital inclusion, enabling our employees, clients and members of our communities to maximize their contribution regardless of disability or impairment," said Philippe Mareine, Chief Digital & Transformation Officer, Head of CSR at Atos.

Click here to return to Contents

Capgemini announces leadership appointments

15 January 2021

Capgemini confirmed a number of Group leadership appointments that combine its global strengths and talent, effective January 1, 2021.

Three leaders named as CEOs of strategic business units

In Europe, Michael Schulte, previously Managing Director of Capgemini in Germany, is now CEO of the Northern Europe Strategic Business Unit. Jérôme Siméon, previously Managing Director of Capgemini in France, is CEO of the Southern Europe Strategic Business Unit. Both Michael and Jérôme join the Group Executive Board.

Olaf Pietschner, formerly Managing Director of Cappemini in Australia & New Zealand, becomes CEO of the Asia Pacific Strategic Business Unit. Olaf joins the Group Executive Committee.

Seasoned Altran leaders augment Capgemini's Group Executive Committee

William Rozé, formerly Executive Vice-President in charge of Europe at Altran, is now CEO of Capgemini's Engineering and R&D business line. Pascal Brier, previously Executive Vice-President at Altran responsible for its Strategy, Technology & Innovation, is appointed Group Chief Innovation Officer. Both William and Pascal join the Group Executive Committee.

Finally, Jeroen Versteeg, previously Deputy CEO of Cappemini's Europe Strategic Business Unit, becomes the global Chief Sales Officer for the Group and joins the Group Executive Committee.

"I am delighted to welcome such strong and talented executives from across the Group to our leadership team. The appointment of two former Altran leaders to the Group Executive Committee is a further example of the continuation of the smooth integration process that has been well underway since its acquisition last year," comments Aiman Ezzat, CEO of the Cappemini Group. "Each of the newly appointed executives, announced today, brings to their position a series of outstanding achievements and a depth of experience from which our clients, team members and the Group as whole will benefit greatly."

Click here to return to Contents

Daimler and Infosys Announce Strategic Partnership to Drive Hybrid Cloud-powered Innovation & IT Infrastructure Transformation in the Automotive Sector

11 January 2021

Daimler AG and Infosys announced a long-term strategic partnership for a technology-driven IT infrastructure transformation. After the receipt of all regulatory approvals, Daimler AG will transform its IT operating model and infrastructure landscape across workplace services, service desk, data center, networks and SAP Basis together with Infosys. The partnership will enable the company to deepen its focus on software engineering and to establish a fully scalable on-demand digital IT infrastructure and anytime-anywhere workplace. The collaboration will empower Daimler to strengthen its IT capabilities, and Infosys, its automotive expertise.

As software becomes modular, digital infrastructure continues to play an important role in defragmentation. Daimler will work towards a model that ensures a robust IT infrastructure across its plants and regions, and supports consolidation of its data centers, scaling its IT operations, and bringing

innovations to the fore. Some of the key deliverables from this partnership include:

- A smart hybrid cloud, leveraging Infosys Cobalt and leading cloud providers, accelerating the multicloud journey with a focus on open source adoption
- A carbon neutral solution, by consolidating and rationalizing data centers across all regions
- Standardized technology stack by bringing in an ecosystem of best of breed partners
- Creation of a state of the art Zero Trust network with seamless technology upgrades
- Persona-driven and cognitive, AI powered anytime-anywhere workplace solution that empowers the end-users

As a part of this partnership, automotive IT infrastructure experts based out of Germany, wider Europe, the U.S. and the APAC region will transition from Daimler AG to Infosys. Infosys is well placed to realize this transition as an expert having integrated more than 16,000 employees through other partnerships in recent years with a high acceptance, retention and satisfaction rate. The transfer will also enable Infosys to bolster and grow its automotive business, while offering Daimler employees strong prospects for long-term career growth and development.

"We are excited about this partnership and the opportunity to support Daimler AG's automotive vision. As we embark on this journey, we will bring together capabilities, ecosystems and a hybrid cloud infrastructure that will shape new experiences for Daimler AG and the industry at large. Infosys has deep expertise in helping our clients across the globe navigate their digital journeys, and as part of this strategic partnership, we look forward to setting a new standard for the automotive industry," said Salil Parekh, Chief Executive Officer, Infosys.

Talking about the partnership, Jan Brecht, Chief Information Officer, Daimler and Mercedes-Benz, said, "Software becomes modular and IT infrastructure becomes big. Daimler will take three steps at once to transform its IT infrastructure: consolidation, scaling and modernization. We need to think infrastructure beyond the size of our company. With Infosys we found a partner to scale, to innovate and to speed up. Moreover, this is a strategic partnership for Daimler's IT capabilities and Infosys' automotive expertise. Infosys wants to grow with us in the automotive industry, which gives career opportunities for our employees. With this partnership, Daimler also strengthens its overall technology investment and partnership strategy."

Click here to return to Contents

EMA Becomes Distribution Partner for SkillCAD Cadence Virtuoso Layout Automation Suite 13 January 2021

EMA Design Automation®, a full-service provider and innovator of Electronic Design Automation (EDA) systems solutions, today announced that it is extending its focus on designer productivity to the IC world by partnering with SkillCAD to bring their LAS (layout automation suite) to the Cadence® Virtuoso® User Community.

"Much of the time spent designing an IC is during the layout phase," said Manny Marcano, president and CEO of EMA Design Automation. "SkillCAD provides over 120 fully-validated commands to enable Virtuoso design teams to realize significant productivity gains through automation, reducing design times by up to 50%. Anyone designing analog, mixed-signal, or RF ICs can benefit from the SkillCAD routines. Current Cadence Virtuoso users have access to these new, time-saving routines

directly inside their Virtuoso design environment, providing virtually zero learning curve and an instant productivity boost."

SkillCAD has evolved into over 120 functions, including:

- Patented V-Editor tools that introduce a revolutionary way of editing layouts by simply drawing
 a directional line (vector) instead of conventional clicks (this consolidates the layout steps for
 object selection, stretching or moving, and design rule compliance into a single step,
 significantly minimizing the number of mouse clicks or keystrokes)
- Metal routing tools that allow the designer to route one or fifty metal lines with equal ease
- Pin placing tools that allow the placement of hundreds of pins in a matter of seconds
- And many other tools that greatly improve layout design productivity

Widths, spacing, and other design rules are known to the SkillCAD tools, enabling simple commands to correctly construct complex layout objects according to the design rules. This significantly improves productivity of the layout designer, while reducing costly design iterations. Also, the SkillCAD routing commands are extremely powerful, yet easy to use—they automate and simplify usage. There are five main routing commands, with over 200 sub-routines and parameters to automate routing and editing.

"SkillCAD is very excited to have EMA Design Automation to be our exclusive distributor in the US. EMA not only provides SkillCAD with a proven sales and support organization, they also have a marketing and inside sales team not found in the industry," said Pengwei Qian, founder and CEO of SkillCAD. "EMA's sales and support organization coupled with SkillCAD proven technology will give us the resources to provide the Cadence Virtuoso community with powerful routing commands coupled with our patented V-editor, which can improve layout designers' productivity by hours a day while reducing design errors."

"We have a long history of enhancing the Cadence design environment in the PCB space with EMA technology like CircuitSpace®, so it was a natural fit to help bring this same level of efficiency to IC designers," added Marcano. "We are extremely excited about this important partnership and look forward to helping support the Cadence Virtuoso user community."

Click here to return to Contents

Gerber Technology Joins Forces to Donate 5,000 Gowns to Organizations in Need 12 January 2021

With the significant rise of COVID-19 cases, Gerber Technology has launched an initiative to help local communities in need of protective gowns. In partnership with their network of manufacturers and charitable associations, RetailersUnited and Fashion For the Frontlines, Gerber is donating 5,000 Level 1 gowns to various organizations in need. The gowns are made of DuPontTM Tyvek® material that is specifically assigned to Gerber Technology for use in PPE (personal protective equipment) production. All of the gowns are being produced in U.S. factories to help keep local workforces employed.

Gerber has been committed to making PPE more widely available since the creation of their PPE Task Force in March 2020. Since then, the technology partner has helped over 1,700 companies pivot their supply chain for PPE production. Gerber estimates that it has empowered production of over 100 million gowns and 8 billion face coverings during the pandemic in 2020. Through their most recent gown donation efforts, Gerber will help ensure health organizations across the United States have access to

high-quality, industry standard PPE to keep them safe.

The recipients of the gowns were determined by Gerber Technology jointly with non-for-profit organizations RetailersUnited and Fashion For the Frontlines. Since the early days of the pandemic in March, Gerber Technology has worked closely with both organizations. Fashion For the Frontlines' is focused on getting critical PPE to those in need on the frontlines in healthcare. RetailersUnited is focused on helping America reopen for business with a focus on the Retail Industry.

"We continue to see unmet needs of PPE across the U.S. in hospitals, healthcare systems, retailers, communities and more, but by simplifying the supply chain and producing more PPE domestically, these shortages will be mitigated," said Deborah Weinswig, CEO of Coresight Research and Board Member of RetailersUnited. We value our continued collaboration with Gerber Technology and thank them for this contribution. The recipient institutions play a vital role in their local communities. With the recent alarming spike in COVID cases, these gowns are desperately needed, especially by smaller organizations whose funds and access to PPE are more limited."

The recipients of the donated gowns include: NYC Mayor's Office for People with Disabilities for local distribution, Eger Healthcare and Rehabilitation Center in Staten Island, NY, Housing Works, Inc. in Brooklyn, NY, and Great Plains Tribal Chairmen's Health Board in South Dakota.

"Our Native American communities are in desperate need of the right PPE to help protect the community", says Jo Overton, co-founder and director at Together on Turtle Island "We are beyond thrilled to help facilitate this gown donation. Gowns have been from the beginning part of the broken supply chain and desperately needed.

"Every community is in great need of help as they continue to fight COVID-19, especially right now" said Karsten Newbury, Chief Strategy and Digital Officer at Gerber Technology. "We are proud to be doing our part to help frontline workers be safer as they perform critical services for their communities. We are grateful for the partnerships with the manufacturers who have done their part to produce personal protective equipment during this very difficult time."

"We were thrilled to connect with our generous friends and partners at Gerber Technology," said Sherri Barry, Owner of Arizona Fashion Source and Co-Founder of F.A.B.R.I.C. "As a result of the COVID-19 pandemic, there is a tremendous need for gowns by the Great Plains Tribal Chairman's Board. Through our partnership with Gerber, we are able to successfully provide them with the number of gowns they need to operate safely."

Click here to return to Contents

HCL TECHNOLOGIES PARTNERS WITH BOBBLE AI TO OFFER CUSTOMER ENGAGEMENT SOLUTIONS IN BANKING AND INSURANCE MARKETS

12 January 2021

HCL Technologies (HCL), a leading global technology company, today announced that it has partnered with Artificial Intelligence (AI) innovation company Bobble AI to offer customer engagement solutions in the open banking space through a plug-n-play White-label Keyboard SDK (Software Development Kit).

The keyboard-based solution creates a unique advantage and strengthens HCL's relationships with its Banking and Insurance Clients, building a competitive advantage by offering clear benefits including increased revenue and reduced customer acquisition cost.

The solution, which will be deployed remotely, will help HCL's Banking Clients develop a 360-degree understanding of their consumers based on smartphone behavior across 24x7 usage. With this knowledge HCL's Banking Clients will be equipped with a far better communication and acquisition strategy for cross-selling its wide-range of products and services.

The Bobble AI Keyboard SDK offers core typing functionalities like auto-correct, word predictions, swipe-to-type, speech-to-text, clipboard and more. In addition to English these features work efficiently in 36 Indic languages and over 100 International languages.

The solution seamlessly integrates with a bank's mobile app, giving consumers access to services while creating an opportunity for banks to extend their features and offerings to their consumers based on real-time intent. It serves as both a strategic driver for promoting mobile banking services and helps banks regain P2P (peer-to-peer) transactions that may be lost to digital wallets and other dedicated solutions.

Click here to return to Contents

Launching the EPLAN Partner Network

13 January 2021

At the turn of the year, EPLAN, the engineering solutions provider, started its Partner Network (EPN). It provides a framework for existing and new partnerships to jointly develop and market interfaces. The EPN partnership is based on common binding goals for enhancing and supporting interfaces. This commitment both increases customer benefits and enhances quality.

Maximum advantage via perfect interaction

EPLAN CEO Sebastian Seitz explains: "Aside from using EPLAN software, our customers also use a variety of other software applications from various manufacturers in the ERP, PLM, PLC and simulation environments to name just a few. The effective interaction of these various applications is especially important to them. As part of the EPN, we will therefore be focusing on joint development of integrations as well as quality assurance and support."

Integration is everything

Asked about the motivation to found the new EPLAN Partner Network, the company's Senior Vice President Strategy & Corporate Program Marco Litto says: "The professionalisation of our network systematically increases the benefits for end users." As Litto explains, the goals are ambitious: "The connectors between our systems should be planned, developed, tested, supported and marketed with the same rigour and soundness that we are accustomed to with our own solutions. Together with our EPN partners, it will allow us to achieve a completely new level of customer focus." Open interfaces and modern integrations will create a wide range of opportunities that users of the various software solutions will benefit from, not to mention the partner companies themselves.

"The effective interaction of various applications is particularly important for our customers. As part of the EPN, we will therefore be focusing on joint development of integrations as well as quality assurance and support," says EPLAN CEO Sebastian Seitz.

"The professionalisation of our network systematically increases the benefits for end users," says EPLAN Senior Vice President Strategy & Corporate Program Marco Litto.

Prestigious companies on board

Global key players of automation including Bosch Rexroth, B&R, Endress+Hauser, Festo, ifm

electronic, Mitsubishi Electric, Phoenix Contact, Pilz, Rittal and Rockwell Automation are already taking part in the initiative. Software partners – for example configit, Contact Software, encoway, Gain, ISD, ISG, keytech, machineering, Procad, Quanos and SAE – are also participating in the new network. Both German and international companies are being approached to participate too, and EPLAN is currently in talks with many of them. For instance, UDMTEK in Korea was the first Asian company to seal the membership deal – others are certain to follow.

The best of all worlds

Rockwell Automation/USA Vice President Global Business Development Tom O'Reilly says: "A digital thread of data within and across organizations is one of the key requirements to bringing the Connected Enterprise to life. Together with EPLAN, we support companies through their digital transformation by enabling data consistency, improving efficiency of engineering processes and shortening time-to-market."

Also Bosch Rexroth got involved right at the network's start. As the company's Vice President of Sales Steffen Winkler explains, "Configuration of automation solutions and the dynamic provision of exact device data are essential with regards to Industry 4.0. The Bosch Rexroth ctrlX Configurator enables easy configuration of complete ctrlX AUTOMATION solutions. By directly integrating our configurator into the EPLAN Platform, users will receive all device data of the configured system topology including detailed product lists and CAD data at the touch of a button. This integration ensures full data consistency and reuse of product data throughout the entire digital design phase."

In Korea, UDMTEK CEO Gi Nam Wang also has good reasons for joining, saying: "We have decided to partner with EPLAN through EPN to leverage our industry-leading offerings and combine them with EPLAN's best-in- class engineering platform. We are excited to partner with a world-class company as we embark on our next phase of growth and innovation."

EPLAN is making it easy for users and companies alike. A partner area on the website provides particulars for companies involved in the EPLAN Partner Network, information about integrations, contact persons and current news.

To conclude

In the era of the digital transformation, when cloud solutions are playing an increasingly crucial role, it's becoming more and more important for providers to coordinate integrations across companies. EPLAN CEO Seitz says, "With the EPN, we're maximising the overall benefits of our own solutions and those of our partners in the ecosystem of industrial automation for shared customers. Together we're creating a win-win situation for both customers and partners."

Click here to return to Contents

PROS Appoints Sherry Lautenbach as Senior Vice President, Global B2B Sales 12 January 2021

PROS®, a provider of AI-powered solutions that optimize selling in the digital economy, announced that Sherry Lautenbach, a veteran technology sales leader, has joined the company as Senior Vice President, Global B2B Sales. Lautenbach will be responsible for driving enterprise adoption of PROS solutions and the PROS Platform as organizations seek to transform end-to-end selling experiences across traditional and digital channels to meet buyers' increasing demands.

Reporting directly to Les Rechan, PROS Chief Operating Officer, Lautenbach brings to the role deep

expertise in enterprise SaaS and software sales, and more than 25 years of experience achieving and exceeding sales and revenue objectives.

"Sherry is a proven sales leader with a record for accelerating growth, building key relationships, enabling high-performing enterprise software sales teams and achieving aggressive goals," said Rechan. "We're honored to welcome Sherry to PROS as we continue to drive market leadership in AI-powered solutions that help B2B companies optimize every shopping and selling experience."

Prior to PROS, Lautenbach served as Senior Vice President for Cloud Sales at Oracle, where she drove the cloud agenda to the top 120 key accounts. Prior to Oracle, Lautenbach served in senior level roles for Nutanix and IBM. At IBM she was selected as a member of the IBM Senior Leadership Growth Transformation Team, responsible for driving strategy, execution and transformation success across the company.

"PROS has demonstrated strong market leadership across its solutions offerings," said Lautenbach. "I look forward to working with the PROS team to continue driving growth while delivering a customer experience that helps companies accelerate and outperform in today's digital marketplace."

Click here to return to Contents

Vertex Named Top 10 Collaboration Solution Provider from CIOReview 14 January 2021

CIOReview recently unveiled their "10 Most Promising Collaboration Solution Providers 2020," naming Vertex Software in their list. Vertex helps manufacturers solve collaboration challenges made apparent in the pandemic and shifts towards a digital transformation mindset for long-term initiatives. Vertex's award is due to their ability to provide 3D visualization for the digital twin, enabling true communication and collaboration with an accurate visual context for product and IoT data.

"We are honored to be recognized by CIOReview for the second year in a row," says Mike Sellberg, Vertex Vice President of Market Strategy and Customer Operations. "Vertex makes 3D visualization for the digital twin extremely cost-effective and easy. Our vision is to support visualization initiatives for any size manufacturer. Recognition from establishments like CIOReview affirm that we are solving a true need in the industry."

The top 10 nomination is paired with a cover story in CIOReview's December 2020 issue, "The Next Revolution for Manufacturing: 3D Visualization For the Digital Twin." Vertex CEO and Founder Dan Murray explains how Vertex has achieved something that no other company today can offer: industrial 3D visualization at massive scale with complex 3D model rendering on any device. Vertex enables companies to access high fidelity 3D models that are 100% aligned with product information for anyone in the extended enterprise.

Click here to return to Contents

Event News

Appirio announces Helix, an immersive virtual showcase for achieving seamless business continuity 15 January 2021

Wipro Limited, a leading global information technology, consulting and business process services company, announced that Appirio, a Wipro company, will host Helix, a 21-hour immersive virtual event. This will feature expert guest presenters across industries, as well as proven tactics on how to unlock new value and discover digital-first strategies that can positively impact bottom line.

"We wanted to create a virtual experience where there are multiple channels and opportunities to swap business insights, lessons learned, and have interesting conversations that we've missed last year. We think Helix is the solution," said Harish Dwarkanhalli, President, Applications and Data, Wipro Limited

Helix aims to help companies navigate today's volatile and uncertain environments with real-world use cases and customer relationship management techniques for a digital-first era. Attendees will also gain exclusive insights into powerful, yet easy-to-manage tools that translate digital experiences into enduring brand loyalty. Helix features sessions tailored to each region and brings a localized yet global perspective to help businesses achieve their growth goals.

Throughout the event, attendees can explore different venues and develop relationships crucial to their business success. The Welcome & Charity Wall is the gateway to the experience, where attendees can choose the charity they would like Appirio to donate to on their behalf. The Main Stage will feature keynote speakers, analysts, customers, and industry experts. The Industry Showcase will highlight insights from various industries and product demos tailor-made for specific applications. At Connect, attendees can discuss their business goals and digital ambitions with Appirio and Wipro strategists. In addition to this, an invite-only lounge named Club will provide access to analyst and expert panels, exclusive meet and greets, industry-focused roundtables, Black Card events, and one-on-one experiences.

With 3D environments, leading experts and targeted sessions to ensure business continuity for regions, Helix will provide an immersive global experience that goes beyond a traditional webinar. This event will allow businesses to learn from the challenges of 2020 and embrace 2021 with confidence, agility, and resilience.

Discover all that Helix has to offer and register at https://go.appirio.com/helix-ty/

Helix Dates by Region

APAC | Thursday, 14 Jan, 12:00 pm - Friday, 15 Jan, 9:00 am AEDT

EMEA | Thursday, 14 Jan, 1:00 am - 10:00 pm GMT

AMER | Wednesday, 13 Jan, 8:00 pm – Thursday, 14 Jan, 5:00 pm EST

Click here to return to Contents

Financial News

HCL Technologies - Third Quarter Results FY 2021

15 January 2021

CALENDAR YEAR 2020 RESULTS

Revenue at US\$ 10,022 mn; up 3.6% YoY in US\$ and Constant Currency EBITDA margin at 26.5%, (US GAAP); EBITDA margin at 27.4% (Ind AS); EBIT margin at 24.5% Net Income at US\$1781 mn (Net Income margin at 17.8%) up 19.8% YoY

Revenue at ₹74,327 crores; up 9.2% YoY Net Income at ₹13,202 crores; up 26.0% YoY

Q3 FY'21 RESULTS

Revenue at US\$ 2,617 mn; up 4.4% QoQ & up 2.9% YoY
Revenue in Constant Currency; up 3.5% QoQ & up 1.1% YoY
EBITDA margin at 28.2%, (US GAAP); EBITDA margin at 29.1% (Ind AS); EBIT margin at 22.9%
Net Income at US\$ 540 mn (Net Income margin at 20.6%) up 27.3% QoQ & up 26.5% YoY

Revenue at ₹ 19,302 crores; up 3.8% QoQ & up 6.4% YoY Net Income at ₹ 3,982 crores; up 26.7% QoQ & up 31.1% YoY

FY 2021 Guidance

Revenue expected to grow QoQ between 2% to 3% in constant currency for Q4, FY'21, including DWS contribution.

EBIT expected to be between 21.0% and 21.5% for FY'21

Click here to return to Contents

PTC to Announce Fiscal Q1'21 Results on Wednesday, January 27th, 2021

12 January 2021

PTC will release its fiscal 2021 first quarter results on Wednesday, January 27th after the stock market closes. Senior management will host a live webcast and conference call to review the results on Wednesday, January 27th at 5pm Eastern Time. The earnings press release and accompanying prepared remarks will be accessible prior to the conference call and webcast on the Investor Relations section of the Company's web site at PTC Investor Relations.

What: PTC Fiscal Q1'21 Conference Call and Webcast

When: Wednesday, January 27th, 2021 at 5:00pm (ET)

Webcast: www.ptc.com/for/investors.htm

Replay: To access the replay via webcast, please visit www.ptc.com/for/investors.htm.

Please note that statements made on the conference call and webcast are as of the date of the conference call and webcast and PTC does not assume any obligation to update any statements made live or the archived call. Matters discussed may include forward-looking statements about PTC's anticipated financial results and growth, as well as about the development of products and markets, which are based on current plans and assumptions. Actual results in future periods may differ materially from current expectations due to a number of risks and uncertainties, including those described from time to time in reports filed by PTC with the U.S. Securities and Exchange Commission, including PTC's most recent reports on Form 10-K and 10-Q.

Click here to return to Contents

SAP Pre-Announces Strong Fourth Quarter and Full-Year 2020 Results

15 January 2021

After an initial review of its fourth-quarter 2020 performance, SAP SE announced its preliminary financial results for the fourth quarter and full year ended December 31, 2020. All 2020 figures in this release are approximate due to the preliminary nature of the announcement.

Topline Exceeds Revised 2020 Outlook, Profit Hits High End

Stellar Cash Flow Performance

Fourth Ouarter

- IFRS Cloud Revenue Up 8%; Non-IFRS Cloud Revenue Up 13% At Constant Currencies
- Current Cloud Backlog Up 14% At Constant Currencies
- IFRS Software Licenses Revenue Down 15%; Non-IFRS Software Licenses Revenue Down 11% At Constant Currencies
- IFRS Cloud & Software Revenue Down 4%; Non-IFRS Cloud & Software Revenue Up 1% At Constant Currencies
- IFRS Operating Profit Up 26%; Non-IFRS Operating Profit Up 3% At Constant Currencies
- IFRS Operating Margin Up 9.1pp; Non-IFRS Operating Margin Up 1.5pp At Constant Currencies

Full Year

- Non-IFRS Operating Profit Reaches High End of Revised Outlook Range
- Operating Cash Flow Expected At Around €7.0 Billion, Approximately Doubling Year-over-Year; Free Cash Flow Expected At Around €5.9 Billion; Significantly Exceeding Raised Outlook
- 2021 Outlook Reflects Expedited Move to Cloud

The world's leading companies are turning to SAP to become intelligent enterprises. We are reinventing how businesses run by accelerating our customers' transformation in the cloud. Our strong finish to the

year and the upcoming launch of our new holistic business transformation offering position us well to meet our new outlook targets.

Christian Klein, CEO

In a uniquely challenging environment, 2020 was a record year for cash flow in every single quarter and the full year. Our better-than-anticipated top line performance combined with our quick response on the cost side drove strong operating profit. SAP's expedited shift to the cloud will drive long-term, sustainable growth while significantly increasing the resiliency and predictability of our business.

Luka Mucic, CFO

Fourth Quarter Business Update

SAP's business performance sequentially improved in the fourth quarter even as the COVID-19 crisis persisted and lockdowns were reintroduced in many regions. Cloud revenue in the fourth quarter continued to be impacted by lower pay-as-you-go transactional revenue, mainly Concur business travel related. However, continued high demand for e-commerce, Business Technology Platform, and Qualtrics solutions along with several competitive wins – particularly for SuccessFactors Human Experience Management – produced a strong finish to the year for SAP's cloud business. SAP also saw strong early take up of its new holistic business transformation offering among pilot customers, contributing to the cloud performance in the quarter. Both North America and Europe experienced a better-than-expected performance in cloud order entry as well as software licenses revenue reflecting strong demand for SAP's digital supply chain solutions in particular. In addition SAP had significant competitive wins in ERP.

Throughout the COVID-19 crisis, SAP continues to serve its customers effectively with an embedded virtual sales and remote implementation strategy. The company retains a disciplined approach to hiring and discretionary spend while capturing natural savings e.g. from lower travel, facility-related costs and virtual events. In combination with the strong topline performance these actions drove higher operating profit (IFRS and non-IFRS at constant currencies) and operating margin despite the challenging macro environment.

Click here to return to Contents

Strong Demand Drives TCS Q3 Growth Momentum

11 January 2021

Tata Consultancy Services, a leading global IT services, consulting and business solutions organization, reported its consolidated financial results according to Ind AS and IFRS, for the quarter ending December 31, 2020.

Highlights of the Quarter Ended December 31, 2020

- Revenue at \$5.702 Bn, +5.1% QoQ, +2.1% YoY
- Constant Currency revenue growth: +4.1% QoQ, +0.4% YoY
- Net Income at \$1.18 Bn, +3.4% QoQ, +3.7% YoY
- Operating Margin at 26.6%; Net Margin at 20.7%
- Strong Cash Conversion: Net Cash from Operations at \$1.62 Bn | 137.4% of Net Profit
- Consolidated headcount: 469,261 | Net addition: 15,721 | Women in the workforce: 36.4%

- 366K+ employees trained in new technologies; 444K+ on Agile methods
- IT Services attrition rate dips to a new all-time low, at **7.6%** LTM
- Interim Dividend per share: `6.00 | Record date 16/01/2021 | Payment date 03/02/2021

Commenting on the Q3 performance, **Rajesh Gopinathan, Chief Executive Officer and Managing Director,** said: "Growing demand for core transformation services and strong revenue conversion from earlier deals have driven a powerful momentum that helped us overcome seasonal headwinds and post one of our best performances in a December quarter. We are entering the new year on an optimistic note, our market position stronger than ever before, and our confidence reinforced by the continued strength in our order book and deal pipeline."

He added: "Looking beyond the immediate business growth opportunity, we are tremendously excited by what lies ahead. Cloud is enabling a new class of boundaryless organizations, that can seamlessly partner and collaborate within larger ecosystems to create innovative purpose-driven offerings to customers. This boundaryless value creation, supported by the seamless fabric of technology enabled by cloud together the seamless fabric of talent enabled by our SBWSTM, will redefine industry after industry over the longer term. Our intimate knowledge of our customers' business contexts, our strong relationships across ecosystems, and our continued investments in research and innovation make us their preferred partner in their growth and transformation journeys."

N Ganapathy Subramaniam, Chief Operating Officer & Executive Director, said: "Our Q3 growth is a very satisfactory outcome of our ability to leverage the proactive investments made to capture the strong demand and be meaningful to our clients. It is a strong endorsement of our resilience, way of working and the relative competitiveness of our products and services. We celebrated the accomplishment of our Enterprise Agile by 2020 vision during the quarter, and with SBWSTM, we have a well-oiled location-independent execution model that brings in the resources just in time, efficient execution, and machine-led delivery governance that are delighting our customers. All these augur well to progress our 25x25 future of work vision."

He added: "We have had healthy deal closures and the growth has been broad based on a sequential basis, setting ourselves well for the future. We also welcome to the TCS fold, the professionals from Pramerica and Postbank Systems, accelerating our growth plans in Ireland, Germany and more broadly in Europe."

V Ramakrishnan, Chief Financial Officer, said: "Strong growth across all our verticals, and operational benefits from our SBWS model allowed us to post the highest operating margin in the last five years, even after rolling out a salary increase this quarter. We also had an all-time high cash conversion in Q3. This and our strong balance sheet position us very strongly to seize the opportunities that the current market offers, and more closely partner our customers in their growth and transformation journeys."

Q3 Segment Highlights**

Industries: All verticals showed good sequential growth, led by Manufacturing (+7.1%), BFSI (+2%), Life Sciences and Healthcare (+5.2%), Communications & Media (+5.5%) and Retail and CPG (+3.1%). On a year on year, constant currency basis, Life Sciences and Healthcare continued to grow in double digits at 18.2%. BFSI (+2.4%) and Technology & Services (+2.4%) also moved into positive territory.

Markets: Sequential growth was led by North America (+3.3%), India (+18.1%), UK (+4.5%), and Continental Europe (+2.5%). Other markets grew as well, with and Asia Pacific growing +2.6%, MEA

+6.7%, and Latin America +3.1%.

Services: Continue to see a strong rebound in growth and transformation services as customers seek to operationalize new models. Growth in the quarter was led by Cloud Services, Analytics & Insights, Cognitive Business Operations, IoT and Quality Engineering & Transformation Platform Services.

- Consulting & Services Integration: Continued robustness in demand, led by digital and cloud strategy, enterprise agility, mergers and acquisitions, and supply chain and finance transformation.
- Cognitive Business Operations: Experiencing strong growth due to acceleration of digital adoption and hyper-automation across enterprises to enhance agility, customer experience, agility and deliver superior business outcomes. Growth in Q3 was led by datacenter services, service desk and end-user computing, supply chain operations, and automation services.
- **Digital Transformation Services:** There was strong demand for hyperscaler cloud services. Key areas included mainframe and legacy modernizations, data modernization on cloud (MDM, data lakes), augmented analytics for in-context insights, risk regulatory & compliance analytics and use of cloud platforms for collaboration. Cybersecurity continued to be of the highest priority as new work models emerge.

The need to enhance user experience across enterprise functions drove good growth for professional services around Salesforce, SAP S/4 HANA and BPM. Consumer demand for automated and contactless services led to good growth for TCS Interactive, in design-led services, digital marketing and content services. Growth in IoT was led by strong demand for implementing IoT-enabled remote monitoring and self-optimizing plant operations.

New offerings launched in Q3 include TCS CogniXTM, an AI-driven suite of prebuilt solutions for accelerating digital transformation of operations, ConvertCoreTM for accelerated S/4HANA transformation assessment & migration and an expanded version of CrystallusTM, a contextualized preconfigured solution for enterprise transformation, to cover Railways.

** Growth in QoQ CC

Research and Innovation

TCS Access Infinity platform, developed by the Accessibility Center of Excellence, won the **Zero Project's 2021 Award** for Innovations related to ICT. The platform allows publishers to generate real-time accessible content for persons with visual impairment or printing disabilities, enabling one-click conversion into multiple formats. It powers *Sugamya Pustakalaya*, an online accessible library that today hosts over 200,000 pages of university study material and over 450,000 titles in 17 languages.

As on December 31st, 2020, the company has applied for **5,634** patents, including **134** applied during the quarter, and has been granted **1,713** patents.

Human Resources

TCS' consolidated headcount stood at **469,261** as of December 31, 2020, with a diverse workforce comprising **147** nationalities, and women constituting **36.4%** of the base.

TCS' investments in skilling and developing its workforce, and the use of innovative training methods, continue to deliver industry-leading outcomes. Over **366,000** employees have been trained on multiple new technologies, and over **444,000** have been trained on Agile methods.

The company's people culture, and world-leading HR practices have made it the global industry benchmark in talent retention. In Q3, its IT services attrition rate (LTM) was at **7.6%**.

"While continuing to stay closely focused on employee engagement and morale, we are now gearing up for growth. Our sustained investment in organic talent development is now paying rich dividends, helping us support our business growth. We are also continuing along our journey to reimagine and transform the HR value chain, leveraging technology innovatively to digitize processes, virtualize interactions, and enhance responsiveness. These initiatives for entry-level hiring, training and onboarding were so successful, we are now rolling out similar models for mid-level hiring and incremental reskilling. All this has resulted in a superior employee experience, while materially driving up our throughput," said Milind Lakkad, Chief Human Resources Officer.

Click here to return to Contents

Wipro - Results for the Quarter ended December 31, 2020 under IFRS 15 January 2021

Wipro Limited announced financial results under International Financial Reporting Standards (IFRS) for the guarter ended December 31, 2020.

Highlights of the Results

Results for the Quarter ended December 31, 2020:

- Gross Revenue was ₹156.7 billion (\$2.1 billion1), an increase of 3.7% QoQ and 1.3% YoY
- IT Services Segment Revenue was at \$2,071 million, a sequential growth of 3.9%
- Non-GAAP2 constant currency IT Services Segment Revenue increased by 3.4% QoQ
- IT Services Operating Margin3 for the quarter was at 21.7%, an expansion of 243 bps QoQ and 329 bps YoY
- Net Income for the quarter was ₹29.7 billion (\$406 million1), an increase of 20.8% YoY
- Earnings Per Share for the quarter was at ₹5.21 (\$0.071), an increase of 20.7% YoY
- Operating Cash Flow was at ₹44.3 billion (\$607 million1), which is 149.4% of Net Income
- Wipro declared an interim dividend of ₹1 (\$0.0141) per equity share/ADS

Performance for the quarter ended December 31, 2020

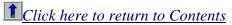
Thierry Delaporte, CEO and Managing Director said, "Wipro has delivered a second consecutive quarter of strong performance on order booking, revenue and margins. Five of our sectors grew over 4% sequentially. We closed our largest ever deal win in Continental Europe. The demand environment is steadily improving, especially for digital transformation, digital operations, and cloud services. I am also pleased to share with you that we have moved into our new organization structure and are stabilizing quickly."

Jatin Dalal, Chief Financial Officer said, "Our margins are now at a 22 quarters high. The expansion was led by improved revenue growth trajectory and excellence in operations with several metrics at an all-time high. Our Operating Cash Flows grew by 45% YoY with a significant improvement in outstanding receivables."

Outlook for the quarter ending March 31, 2021

We expect Revenue from our IT Services business to be in the range of \$2,102 million to \$2,143

million*. This translates to a sequential growth of 1.5% to 3.5%.



Implementation Investments

Autodesk Construction Cloud Increasingly Adopted by Leading Infrastructure Construction Teams to Boost Collaboration and Safeguard Public Budgets

12 January 2021

Autodesk, Inc. announced the majority of ENR-ranked top contractors building critical infrastructure such as highways, piers, airports, railways and tunnels are now using Autodesk Construction Cloud to seamlessly connect teams and data across design, planning, construction and maintenance workflows. Leading contractors and their project partners including owners and specialty trades are turning to Autodesk's preconstruction, project management and field collaboration solutions to ensure quality, cost and schedule certainty on projects funded by the public sector.

Infrastructure designers, engineers and contractors have consistently relied on Autodesk solutions including Revit, Civil 3D, InfraWorks and AutoCAD to create, optimize and coordinate designs on their projects. Now infrastructure contractors and owners around the world, including the following, are also leveraging Autodesk Construction Cloud:

- New Mexico Facilities Management Division state-wide agency responsible for setting standards around infrastructure construction project management
- Brasfield & Gorrie one of the United States' largest privately-held construction firms that has seen a 280 percent growth in infrastructure work in the past four years
- Balfour Beatty industry-leading provider of general contracting, at-risk construction management and design-build services for public and private sector clients across the United States
- FNX-INNOV multi-disciplinary engineering firm specializing in integrated services from design to execution for infrastructure projects across Canada
- Johansen Construction Company leading heavy civil contractor in the northwest region of the United States
- Constructora Conconcreto Colombian-based general contractor designing, building and operating large-scale infrastructure across North and South America

"Our projects require collaboration with many stakeholders and strict management of budgets, timelines and large volumes of data," said Mark Konchar, senior vice president and chief of innovation at Balfour Beatty. "Autodesk Construction Cloud enables everyone on our team to remain in close collaboration with one another from anywhere so we can identify and address any issues quickly, and keep work moving along schedule."

Autodesk Construction Cloud's connected workflows power quality infrastructure delivery

The Global Infrastructure Outlook forecasts \$94 trillion USD is needed in infrastructure spending by 2040 but predicts only \$79 trillion will be invested, leaving a \$15 trillion gap. Infrastructure construction teams are tasked to do more with less and have little room for unforeseen issues endangering project quality, cost and schedule. Teams must also manage projects while navigating public funding

requirements, numerous external stakeholders, safety risks, cybersecurity demands and large physical distances that make collaboration difficult.

Autodesk Construction Cloud connects stakeholders across infrastructure projects to their design and building information in one common data environment. The product portfolio supports infrastructure teams by enabling them to securely collaborate on project workflows from start to finish, while reducing risk to public budgets:

- Quantity take-off: Conduct accurate quantity take-offs to improve cost forecasting
- **Bid management:** Find qualified specialty contractors and increase bid efficiency with one collaborative and easy-to-use solution
- **Risk analysis:** Readily qualify specialty contractors with advanced risk profiles that feature financial benchmarking, capacity recommendations and safety performance history
- Design collaboration and coordination: Reduce constructability issues on-site by connecting
 designers and contractors in one place for design collaboration and coordination during
 preconstruction
- Project management: Decrease costly rework and maintain safety standards with immediate
 access to the latest project information; collect rich project activity data that easily translates to
 complete as-builts to improve handover experience and save time and money for ongoing
 maintenance
- Capital planning: View conceptual designs and manage all aspects of capital planning and project financials for construction projects through Autodesk Construction Cloud's integration with Aurigo Masterworks

"Infrastructure directly supports the well-being of our economy and is a priority for the incoming US administration as well as governments in other countries," said Jim Lynch, vice president and general manager, Autodesk Construction Solutions. "Projects involving our roads, bridges, tunnels, ports and other infrastructure frameworks must be built quickly and maintained well into the future. Autodesk Construction Cloud's traction in the infrastructure segment demonstrates building teams are investing in technology that can boost productivity, improve quality, help meet demand and get the most out of limited public budgets."

Click here to return to Contents

Fiat Chrysler Automobiles partners with Wipro to establish its first Global Digital Hub in India 15 January 2021

Wipro Limited, a leading global information technology, consulting, and business process services company, announced that it has been chosen as a strategic technology services partner by Fiat Chrysler Automobiles (FCA) to establish its first Global Digital Hub in Hyderabad, India.

This digital hub, called FCA ICT India, will support FCA's Information and Communication Technology operations to focus on delivering premium mobility services and help FCA achieve its goal to enhance customer centricity through digital transformation.

As part of this engagement, Wipro will source and build a talent pool of more than 1000 skilled consultants and technologists for FCA ICT India who will help develop capabilities around futuristic technologies. The hub will showcase world-class high-performance engineering skills and digital best

practices. FCA ICT India will be built from the ground up to meet FCA's specific needs and growth agenda in the region. Wipro's global expertise in the automobile sector will enable FCA to acquire the best talent and achieve digital transformation at scale.

Commenting on this partnership, **Ashish Saxena**, **Head of Manufacturing**, **Wipro Limited** said, "The automotive industry needs a robust digital infrastructure that will accelerate the pace of innovation and change it is currently experiencing. We are thrilled to partner with FCA and bring a collaborative operating model that will allow them to build customized digital solutions for their customers. We will help catalyze FCA's transformation and innovation by leveraging our global technology partnerships, in-house IPs and accelerators in the automobile sector. Furthermore, this alliance will create new career opportunities in Hyderabad."

Karim Lalani, Head, FCA ICT India said, "This partnership will help us leverage Wipro's global IT expertise to develop new-age mobility solutions and services. Wipro will serve as a strategic technology services partner to build a high-performance digital engineering team that closely maps our needs to innovate and enhance our customers' experience. It requires a truly agile mindset like Wipro's to deliver productivity, scale, and speed, thereby nurturing an exciting work culture and plenty of career growth opportunities."

FCA India will enable Wipro to provide solutions towards operational challenges to ensure productivity remains unaffected. The partnership will fulfil the need for increased speed of delivery, heightened risk management processes and better control. Establishing the Global Digital Hub in India will drive both innovation and competitiveness necessary for FCA to become a leader in the future of mobility.

Click here to return to Contents

GERSON & GERSON IMPLEMENTS DIGITAL TRANSFORMATION PACKAGE

14 January 2021

Gerson & Gerson partners with Discover e-Solutions (DeSL) to greatly improve accuracy through the implementation of DeSL's Digital Transformation PLM Essentials package.

Founded in 1935, Gerson & Gerson is a family owned fashion brand, specializing in girl's apparel. With its sights fixed on moving towards the future, Gerson & Gerson set out to partner with a software vendor offering a configurable solution to meet their specific needs.

In order to survive in a post COVID-19 era, brands must fundamentally change business operations towards a digital approach, which is exactly what Gerson & Gerson did. When asking Barbara Zeins, President at Gerson & Gerson, why she chose DeSL she said, "If the past 9 months have taught us anything, it is that accurate information is the heart of our business and that our success depends on everyone having access to it." Zeins goes on to explain, "While a technology spend was not really on our radar in what has been an extremely challenging year, DeSL's configurable software hits most of our long-standing pain points and promises to reduce waste, improve speed, and allow tracking of remote teamwork with a high degree of accuracy. The entire product development team at Gerson & Gerson is excited to get started!"

DeSL's Essentials package includes, PLM, Ai Plug-In, PO Management and 3D integration features. This package is one of three digital transformation packages DeSL offers in addition to the standalone modules.

DeSL looks forward to the continuous long-term partnership with Gerson & Gerson and is committed to

supporting the brand's successful implementation.

Click here to return to Contents

Infosys Implements Global Warranty Solution to Simplify Factory Warranty Processes for Johnson Controls

13 January 2021

Infosys, a global leader in next-generation digital services and consulting, announced that it has successfully implemented a global warranty solution on SAP S/4 HANA, across all Johnson Controls ducted products. This enables Johnson Controls, the global leader in smart and sustainable buildings, to simplify factory warranty processes, enhance visibility into assets, and become more responsive to customers.

Johnson Controls selected Infosys as a technology services partner for its in-depth knowledge of business priorities and the ability to develop best-fit solutions for Johnson Controls for over two decades. Infosys replaced the legacy system with a global warranty platform solution, leveraging the latest UI/UX technologies such as SAP Fiori combined with SAP S/4 HANA. These technologies, along with the application of the agile methodology for execution, delivered an end-to-end, integrated, and centralized warranty process for Johnson Controls. The solution also offers a digital-first experience for both B2B and B2C customers while supporting equipment integration and warranty claims on finished products.

Krzysztof Soltan, Vice President Information Technology - Building Solutions North America & Global Retail at Johnson Controls, said, "Warranty management of assets in smart and healthy buildings are playing an increasingly important role at a process as well as operational level. In order to address the next generation digital needs, we partnered with Infosys to create a solution for our customers with most relevant information through Johnson Controls OpenBlue digital platform."

Jasmeet Singh, Executive Vice President and Global Head of Manufacturing, Infosys, said, "The implementation of the Global Warranty Solution on SAP S/4 is a testament to our 20-year partnership with Johnson Controls. The global warranty solution integrates seamlessly with legacy systems to harmonize business processes. Through this transformation journey, we will also help Johnson Controls develop digital strategies for warranty processes. With a comprehensive warranty solution, Johnson Controls will be able to provide digital consumers with a superior after-sales experience."

Click here to return to Contents

Island Pacific Announces Partnership with CGS for PIM & PLM

13 January 2021

Island Pacific, a division of 3Q Holdings Limited and a leading provider of global software solutions and services to the retail industry, announced it has signed a partnership with CGS, a global provider of business applications, enterprise learning and outsourcing services, for its BlueCherry Next™ PIM (Product Information Management) and PLM (Product Lifecycle Management) solutions.

Davy Rosen, Island Pacific CEO, explains: "We are continually listening to our user community to understand the tools they need to help them elevate their processes and businesses to the next level and we do that either by extensive R&D or fostering strategic partnerships such as the one with CGS for

PIM & PLM. Typically Island Pacific SmartSuite deals with a finished style or finished SKU providing everything a global multichannel retailer needs for master data and product enrichment. Our partnership with CGS means that we can take this to the next level."

Many of today's global retailers engage in supplying not only finished products but in developing their own products from concept to delivery. The solution helps organize and classify millions of pieces of data across multiple stakeholders. Collaboration and digitization of all the assets are key for ease of access across departments and channels. Ensuring all data is available and fed to the relevant, interested party whether that be suppliers, ecommerce, buying, merchandising, finance, wholesale and other channels. Allowing supply chain and their partners the opportunity to quickly share and update critical product information well before it becomes a finished article. Giving all parties greater transparency and improving communication.

Richard Gaetano, Island Pacific COO, elaborates: "In addition, the partnership with CGS provides Island Pacific with a best-in-class PLM solution which ensures retailers have the tools to manage their products as they move through from concept to finished good. Product development is such an integral part of our customers' business process and this will enhance that experience and improve visibility of the product from planning, formalizing, ordering and all the way through allocating the products across various channels. Strategically, the benefits are extremely tangible; providing one version of the truth and integration of activity across all interested parties with an integral workflow.

"We are pleased to introduce a bidirectional integration that builds from our merchandise and financial planning systems, across to the PLM system for product development across the planned categories where the finished products can be formalized into our merchandising system. Once products are formalized, they can be further enriched and purchase orders can originate through BlueCherry Next PLM and/or our SmartRetail Merchandising system for management and invoicing."

Paul Magel, President of Business Applications division at CGS, states: "I am delighted to announce our collaboration and partnership with Island Pacific to provide an end-to-end solution for global multichannel retailers. Much has been written about increased social awareness and consciousness, environmental sustainability as well as the need to react quickly to avoid overproduction. Partnering to offer tools that help with wider awareness of products and activity can only support those goals. Through BlueCherry Next PLM, brands can leverage the latest in 3D technology, which is imperative amid the onset of the COVID-19 pandemic that has restricted face-to-face interactions and travel. By integrating with best-of-breed 3D solutions, consumers can experience actual material properties and fit before an accurate simulation."

Click here to return to Contents

Kinetic Vision Improves PCB Workflow by 500% with Altium 365

13 January 2021

A long-term change in the way that the various stakeholders in the electronics industry work together is taking place.

Whether working from home, office or traveling for business, the need to work from anywhere in the world without being tethered to your desktop is here to stay. Altium is paving the way for engineers and designers to work from anywhere, and connect with anyone by making the Altium Designer user experience more collaborative and more readily available than ever before.

Altium customer Kinetic Vision, a Cincinnati-based design, engineering, and development firm, is an innovator's one-stop-shop for transforming even the wildest ideas into real products. Among their diverse client list are 50 of the Fortune 500 and 15 of the Fortune 100 companies.

In Altium Designer, Kinetic Vision found a PCB design solution for all of their projects, from their simplest to their most advanced, that best supports the production of smart products that incorporate electronics, circuit boards, and communications chipsets. Serendipitously, the company added Altium 365 to test out its cloud-based workflow capabilities just a few weeks before the COVID-19 crisis began sweeping the United States.

As Michael Weston, Lead Engineer in Kinetic Vision's Product Design and Development Group, explains, "Altium Designer's 3D visualization, multi-user collaboration, and export standardization are essential for our work here at Kinetic Vision. We added the Altium 365 platform to our arsenal of tools in January 2020 because we needed a more stable platform for our data and collaboration methods. With COVID-19 forcing our employees and customers to work from home without warning, Altium's cloud platform became even more essential because our team members could continue to work remotely."

With Altium 365, Weston and his team can share PCB designs and collaborate with anyone - in any time zone, at any stakeholder - as designs evolve. Where stay-in-place orders have slowed many businesses down, with Altium 365, Weston's team actually *improved* their workflow processes. "Altium's visualization and collaboration tools have improved our process flow by a factor of five. It has enabled a truly remarkable improvement in our productivity," Weston concludes.

To read the full Kinetic Vision Customer Success Story, please visit: https://www.altium.com/company/customer-success/smart-pcb-design-solutions-kinetic-vision-and-altium-365.

Kinetic Vision will be featured on an upcoming webinar on 1/20/21 describing how Kinetic Vision uses Altium's platform to enable a connected and frictionless PCB design experience, increasing their productivity x5 even in the midst of pandemic.

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

Navantia Leverages Ansys' Digital Transformation Solutions to Design Next-Gen Naval Vessels
11 January 2021

Navantia and Ansys are substantially decreasing the design time and boosting the performance of next-generation navy vessels, such as F-110 frigates and S-80 submarines. Through a new strategic agreement, Navantia engineers will leverage Ansys' solutions as part of the Shipyard 4.0 Integrated Business Management System — Navantia's leading-edge technology platform that includes digital technologies across the operational lifecycle of navy ships to improve product quality and speed production.

To enhance ship design, maximize construction speed and minimize development costs, engineering processes and procedures must ensure that simulation tools and data are fused across the enterprise digital ecosystem and throughout a vessel's lifecycle. This collaboration equips Navantia engineers with Ansys' comprehensive suite of simulation solutions to spur the development of highly advanced frigates and submarines — significantly lessening vessel signatures, decreasing the impact of external and environmental threats and producing lightweight and optimized components.

Integrating Ansys' solutions drastically improves Navantia's simulation process and data management capabilities and automates engineering workflows across Navantia's digital thread to heighten operational efficiency. Additionally, physics-based digital twins will help ship engineers monitor performance and maintenance requirements of deployed vessels, helping to promote the safety and productivity of naval warfighters.

"Ansys is furthering Shipyard 4.0's mission by providing industry-leading simulation solutions and digital twin technology to our entire digital enterprise. This serves as a formidable force multiplier for increasing our innovation capacity and represents a dynamic new direction for engineering smart products and services," said Donato Martinez, chief technology officer at Navantia. "Under this new agreement, Ansys will empower our engineers to create a multitude of bold new designs, improve simulation fidelity, dramatically boost product performance and cut development time and cost."

"Together with Navantia, we are building highly advanced smart ships that provide lifesaving abilities," said Prith Banerjee, chief technology officer at Ansys. "Ansys will support Navantia by enhancing a clear digitization strategy within an open environment and enabling a robust shared knowledge infrastructure for their engineering teams, which will improve collaboration. Additionally, Ansys solutions will drive engineering productivity, creating highly efficient workflows that were inconceivable only a few years ago."

Click here to return to Contents

MNML Minimizes Risk and Maximizes Efficiency with Centric Software PLM

11 January 2021

MNML (pronounced 'minimal') the streetwear brand, has selected Centric Software®'s Product Lifecycle Management (PLM) solution for emerging brands, Centric SMB. Centric Software provides the most innovative enterprise solutions to fashion, retail, footwear, outdoor, luxury and consumer goods companies to achieve strategic and operational digital transformation goals.

Based in Los Angeles, California, MNML is a direct-to-consumer streetwear brand that was founded in 2016 by apparel industry veterans. MNML offers a variety of wardrobe staples at a fraction of the cost of their designer competition.

Sporting a lean, yet digitally native team, the company needed to put order to their product development to allow them to scale properly due to their rapid growth. They also wanted a way for top leadership to get a snapshot of projects in progress at any time.

Says Josh Fish, COO at Third Estate LLC, "We are a really small team for a company this size. Our development process is very collaborative, but we've been operating in a wild west sort of way with respect to organization. We have thousands of products in progress at any one time and needed a way to stay on top of it all."

He continues, "We wanted to make product design & development faster and more efficient and that's how we arrived at PLM. We met with a few other companies, but there were some things that Centric had that really stood out to me, including the calendar function and how visual the homepage is."

MNML is implementing Centric SMB, a cloud-based PLM solution tailored for small to medium businesses, with a fully remote deployment.

Technology is essential to MNML since they sell their product exclusively online. Says Fish, "From the beginning we saw that the future of retail is online and the direct communication and feedback from the

customer allowed us to be faster and more affordable, so that's where we put all of our effort."

As with any business, the pandemic has had an effect. Says Fish, "We've all been working remotely since the beginning of March; I think the pandemic sped up getting PLM because we need transparency now more than ever since we're not sitting next to each other all day."

Fish explains, "With Centric PLM I can make sure that balls aren't dropped and that we're staying ontrack, on-schedule and on-time. Releasing more on-trend products at a higher volume than we're currently doing will itself give us the ROI on the system."

Fish says that Centric will improve onboarding of new vendors, offer transparency into the business and allow them to ditch email and chat messaging by centralizing communication in one place that also houses the most up-to-date product information.

"I am proud that MNML has chosen to partner with us," says Chris Groves, President and CEO of Centric Software. "We know that the company will benefit from Centric SMB. I look forward to a long-term partnership with them and seeing them expand in the future."

Click here to return to Contents

Synopsys and Socionext Expand Collaboration to Deploy HBM2E IP for 5-Nanometer Process in AI and High-Performance Computing SoCs

13 January 2021

Synopsys, Inc. and Socionext, Inc. announced their collaboration to expand Socionext's use of Synopsys' broad DesignWare® IP to include Synopsys' HBM2E IP for maximum memory throughput in AI and high-performance computing (HPC) applications. Socionext selected Synopsys' HBM2E IP, operating at 3.6 Gbps, to meet the stringent capacity, power, and compute performance requirements of its innovative AI engine and accelerator system-on-chip (SoC). The Synopsys IP provides efficient heterogeneous integration with the shortest 2.5D interposer package routes.

"As a global leader in SoC solutions with differentiated functionalities, we face very tight delivery deadlines," said Yutaka Hayashi, vice president of Automotive & Industrial Business Group at Socionext. "By leveraging Synopsys' DesignWare HBM2E IP and integrated full-system multi-die design platform, Socionext can deliver world-class high-performance, high-capacity and power-efficient SoCs on the 5-nanometer FinFET process to the market. We are also collaborating with Synopsys on using their next-generation DesignWare IP solutions including HBM3."

With an aggregated bandwidth of 460 gigabytes per second, the DesignWare HBM2E PHY IP delivers the required massive compute performance of SoCs in advanced FinFET processes. The HBM2E IP is part of Synopsys' comprehensive memory interface IP solution that includes DDR5/4/3/2 and LPDDR5/4//4X/3/2 IP, which have been validated in hundreds of designs and shipped in millions of SoCs.

"As the leading memory interface IP provider, Synopsys provides innovative companies, like Socionext, with a highly competitive HBM2/2E IP solution that addresses the aggressive power and memory bandwidth requirements of advanced high-performance computing SoCs," said John Koeter, senior vice president of marketing and strategy for IP at Synopsys. "Synopsys' silicon-proven DesignWare HBM2/2E IP, with over 25 design wins and customers in volume production, enables designers to confidently integrate the IP into their SoCs with less risk and achieve a faster path to silicon success."

Availability and Resources

The Synopsys DesignWare HBM2/2E IP in a wide range of processes from 16-nm to 5-nm is available now.

Click here to return to Contents

Product News

BQE Software Releases Major Update to the Company's Flagship BQE CORE Cloud Platform 15 January 2021

BQE Software, a leading business management software provider to professional service firms, recently released another update to the company's BQE CORE platform. This marks the company's 23rd update in 3.5 years, and is the most robust to date.

In addition to Dark Mode - which enhances visual ergonomics, reduces eye strain, and uses less energy - the new release also includes Shared Reports, which will save countless hours in administrative setup, while still ensuring consistency and accuracy.

"Two of the most popular aspects of our CORE cloud are Dashboards and Reports," said Steven Burns, Chief Creative Officer at BQE Software. "Users can now share their own dashboard layouts, pulling from our library of over 50 unique widgets with other individuals or groups of individuals in their firm."

As businesses continue to demand increased security, BQE CORE now provides administrators with the ability to control a uniform policy for 2-Factor Authentication (2FA). Administrators can now enforce a mandatory opt-in for 2FA for all or selected employees, as well as stay informed about compliance.

The new release also includes an enhanced Project Structure screen for Principals and Project Managers, which gives them the ability to instantly compare *Contract vs Actual* and *Budget vs Actual* in a carefully considered design that informs them to take appropriate action in real-time. This eliminates the need to run cumbersome reports, which then need to be analyzed to determine project and budgeting status.

"And because we embrace the mission of being a truly customer-driven solution - and understand that time is money - we are pleased to announce Touch-2-Talk, an in-app feature that puts users in direct voice contact with one of our customer support engineers, without the need of a traditional telephone," Burns added. "We are proud of our award-winning, live customer support, and are happy to have made it easier than ever for our customers to connect with them 24/7/365."

Click here to return to Contents

Datakit announces version 2021.1 of its CAD file converters

11 January 2021

To start this year 2021 well, Datakit presents the new version of its software. It adds a new library for reading the FBX format, support for ACIS .asab files, support for the latest versions of CAD software on the market (JT, Open CASCADE, CATIA V6, Solid Edge, SOLIDWORKS, NX and Rhino) and without forgetting new conversion possibilities in CrossManager.

New FBX format reading library

After writing the FBX format, Datakit is able to offer you to **read the .FBX format**. The library is able to read **binary and ASCII** files in FBX format from **version 6.1 to 7.7**.

In addition to **geometry**, it allows the extraction of **texture**, **instance** and **assembly** data.

New extension for ACIS format

In its ACIS reader, Datakit offers reading of **ASCII and binary parts** (.sat, .sab) and **ASCII assemblies** (.asat). In this new version, Datakit adds the **reading of binary assemblies** (.asab).

Support of new versions of 2D & 3D formats

Datakit, always responsive following the evolution of software, adds support for reading and writing **new versions of formats.** Datakit tools can now read and convert the formats mentioned below.

- CATIA V6 R2021x 3D & 2D format reading
- Solid Edge 2021 3D & 2D reading
- SOLIDWORKS 2021 3D & 2D reading Datakit's plug-ins for SOLIDWORKS are also compatible with this latest version
- NX 3D & 2D reading up to version 1946
- Rhino 7 Reading

Datakit plug-ins for Rhino are also compatible with this latest version

- JT 10.5 reading
- Compatibility of plug-ins for **Open CASCADE** from Datakit with the latest version of this C ++ library recognized for the development of CAD applications: **Open CASCADE 7.5.**

More input and output formats for CrossManager

End users, through the **CrossManager** software, can convert their models using even more combinations:

- FBX input to STL, VRML, OBJ, 3MF, 3DXML, PDF 3D, PRC, JT, COLLADA, glTF, CGR outputs
- STL, OBJ, FBX input to STEP output
- PLM XML input to 3DXML, OBJ, PDF 3D, PRC, FBX, glTF outputs

The table of all possible combinations is available here.

Improvements for the entire software line

Version 2021.1 also benefits from the continuous improvement of dozens of CAD interfaces provided by Datakit. They are, in fact, **constantly maintained** in order to **improve their quality** and **support new entities**, while **optimizing execution time**.

This concerns CrossManager and plug-ins, used by **end users** and CrossCad/Ware for **software vendors** integrating Datakit technology.

Minerva Group launches a new implementation software solution; Minerva DevOps 11 January 2021

Minerva Group, the leading Aras Innovator PLM implementation partner, today announced the launch of Minerva DevOps, a PLM implementation solution for Aras Innovator and Minerva PLM subscribers.

Minerva DevOps is designed to optimize the entire way you build & configure, test, and deploy your Aras and Minerva PLM environment with speed, quality, and control.

The main goal is to shorten the delivery cycle of functionalities in production while improving collaboration, quality, and stability.

10 years of implementation experience in one tool suite

Configure and deploy Innovator like the best. With more than 100 successful Aras implementations across industries for companies of differing sizes, Minerva DevOps contains 10 years of best practice implementation experience

The best practice capabilities have already benefitted smaller and medium-sized OEMs and tier 1, 2, and 3 industry suppliers, and will also benefit larger organizations that wish to go live faster with fewer consultant efforts.

"I am of course excited about the opportunity to support the very best PLM platform on the market today with our 25 years of industry best practice knowledge and hands-on experience. Now, we have built a solution that enables Aras users across different industries to get more PLM functionality faster with our best practice tool suite," says Leon Lauritsen, Vice President, and partner at Minerva Group.

Increase quality, improve workflow & reduce time and costs

The Minerva DevOps tool suite enables organizations to remove manual steps, reduce errors, increase team agility, and to scale beyond small, isolated teams.

Quality – Improved code quality by introducing Code Review. Further, with Minerva Test Framework tool, you reduce regression by enabling regression testing. And CI/CD remove any manual actions and improve repeatability.

Way of working – Minerva DevOps tools enable feature-by-feature development in isolation and support local development. You can easily facilitate a bigger development team collaboration.

Time & Costs – Reduced Dev time by 40% and Rework time by 80% due to having a code review, continuous integration, and automated testing. We also estimate that we reduce our Deployment time by 90% by eliminating manual work.

Included in the Minerva DevOps tool suite:

- Delivery Kit
- Library
- NuGet
- Test Framework
- Package Manager

Siemens announces Simcenter 3D 2021

14 January 2021

Siemens Digital Industries Software announces the availability of the latest release of SimcenterTM 3D software, part of the SimcenterTM portfolio of simulation and test solutions. Simcenter 3D and the Simcenter portfolio are part of the XceleratorTM portfolio, Siemens' integrated portfolio of software, services and application development platform. In the 2021 release, Simcenter 3D continues to further improve its powerful unified and shared engineering platform for all simulation disciplines to help users gain full value of the benefits that simulation provides in terms of cost, speed and impact to innovation. Introducing new enhancements to the AI (Artificial Intelligence) driven user experience, new simulation types as well as refinements in accuracy and enhanced performance speed, Simcenter 3D 2021 can help companies understand true performance of their designs early in their development process.

In many applications, product innovation includes the engineering of the advanced material used in them, which is why new materials are being introduced into the market at unprecedented speed. Cracking is a very important consideration for advanced materials, however micro and meso cracking in advanced materials is difficult to model with the finite element method. Simcenter 3D now includes full representative volume element (RVE) separation and 2D and 3D automatic insertion of cracks or cohesive zones in materials. Macro and microstructural models now allow for full mesh separation for a crack to propagate completely through a material.

"Simcenter Multimech allows us to model microstructural cracks and determine how they would affect the overall part," states Neraj Jain, group leader in simulation and engineering at the DLR Department of Ceramic Composites and Structures. "Using this tool, we can actually see where a crack is developing, how the crack will change our material, and how it will affect the final microstructure of the material."

New to Simcenter 3D is an auralization post-processing tool that allows users to listen to simulated pressure results to evaluate sound quality. This allows acoustics engineers to actually hear the noise produced from various vibrating components or products as opposed to having to visually evaluate through charts or graphs.

Simulation-driven design can drastically lower the time it takes to bring a product to market. For this reason, Simcenter 3D's thermal analysis capabilities have been scaled into a vertical solution for mold designers and design engineers. The new NX Mold Cooling product uses Simcenter 3D technology to allow designers to rapidly set up and simulate the thermal performance of an injection mold insert directly in NX as they are designing the mold. This allows for easy and rapid thermal analysis of injection mold designs without having to wait for expert analyst feedback.

Click here to return to Contents

Spectra Logic Announces Latest Version of StorCycle Storage Lifecycle Management Software 13 January 2021

Spectra Logic, a leader in data storage and data management solutions, announced the latest release of its award-winning StorCycle[®] Storage Lifecycle Management software. StorCycle 3.3 comes with a range of new features including an open RESTful API that allows users to integrate StorCycle into a broader set of workflows, as well as new enhancements that advance the software's ability to migrate data to disk, tape and cloud storage, including all tiers of Amazon[®] and Microsoft[®] Azure[®].

StorCycle is a storage lifecycle management software solution that ensures data is stored on the right tier throughout its lifecycle for greater IT and budgetary efficiencies. Created for organizations that need lasting protection and access to data which is no longer active, but still critical to retain, StorCycle scans primary storage for inactive files and migrates them to a lower cost tier of storage, which includes any combination of cloud storage, object storage disk, network-attached storage (NAS) and object storage tape. Interoperable with Linux and Windows, StorCycle migrates data, without changing original formats, and allows users to have easy access to all data including data migrated to higher latency storage mediums like cloud "cold" tiers and tape.

StorCycle 3.3 delivers the following new benefits:

Open API

With the exposed RESTful API, users can take advantage of StorCycle's core features, including scanning, migrating, and restoring data to build integrations and applications that leverage StorCycle's Storage Lifecycle Management capabilities. The exposed API is an excellent tool for advanced users who wish to integrate StorCycle into wider workflows. In addition to providing core commands to configure storage locations, the API helps users build applications to better manage jobs or perform bulk actions without using the web interface.

• Extended Cloud Support to Microsoft® Azure® and Amazon®

StorCycle 3.3 extends cloud support to Microsoft® Azure®, including both the standard (hot/cool) and archive tiers. Azure® can be used as a storage target for migrate/store jobs, helping organizations leverage the cost-effectiveness and ease of cloud storage. This is in addition to StorCycle's existing support for Amazon S3 standard and archive tiers. Additional support for Amazon® has also been added in StorCycle 3.3 so that users can leverage StorCycle's capability to tier data to Glacier and Deep Archive from standard tiers after a migration.

• Automated Restore Notification Alerts

When configuring a restore job, StorCycle users now have the ability to request automatic email alerts when the restore job completes. This is especially helpful and convenient for restore jobs which may take several hours (such as with Amazon® Glacier or Azure® Archive).

• Real Time Performance and Progress Data

Real time performance and progress data is now displayed when a migrate or restore job is active. Migrate/store and restore jobs will display the data rate (MB/s), the amount of data transferred thus far and the job size. Scan jobs will display the total directories and files migrated per second. Each performance chart is easily available on the respective jobs pages (migrate, restore, scan), as well as the main jobs page which will display all active jobs in StorCycle. This feature is especially useful when many large jobs are running in parallel and other organizational tasks depend on job completions.

OpenLDAP

In addition to Active Directory, StorCycle now provides full support for OpenLDAP for user authentication. When configured, users on the LDAP domain can be given Restore User permissions where they are able to restore migrated data without Administrator assistance. Configuring OpenLDAP also makes it easier for Administrators to add named users to StorCycle, where they can be given additional permissions in the application, such as Administrator or Storage Manager roles.

TCS' Cloud Exponence Platform Now Available on Microsoft Azure for Greater Enterprise Agility 14 January 2021

Tata Consultancy Services (TCS), a leading global IT services, consulting and business solutions organization, has launched a curated version of its flagship cloud management and orchestration platform, TCS Cloud Exponence on Microsoft Azure.

TCS Cloud Exponence is a comprehensive platform that applies a Machine FirstTM approach, optimizing machine-human collaboration to deliver smart managed services in hybrid cloud environments. It reduces cloud management overheads, offers a consistent service delivery experience and provides full-stack infrastructure services for applications, IoT, blockchain, APIs, and other new age workloads. The integrated services simplify complex operations, making way for cloud flexibility, enterprise agility, and enabling smarter and faster digital transformations.

TCS Cloud Exponence provides fully configurable functionalities, minimizing the need for investments in third-party tools. It offers enterprises the power to orchestrate operations through a unified console across multiple cloud platforms. In addition, customers are provided with a catalog-based service model to choose services on an as-needed basis. The new version is integrated with Azure features such as Azure Recovery Vault, Infrastructure-as-code, Azure Security Center and Azure Sentinel to manage workloads on Azure.

"Enterprises that are competing to deliver differentiated experiences by harnessing the cloud are looking for a comprehensive, purpose-driven cloud management and orchestration platform," said Sivaraman Ganesan, Global Head, Microsoft Business Unit, TCS. "TCS Cloud Exponence on Microsoft Azure has been curated by TCS MBU to help enterprises define and administer superior governance policies in managing a globally distributed cloud real estate, resulting in a secure and seamless cloud management experience."

"TCS" new Microsoft Azure powered Cloud Exponence management platform helps enterprises leverage a wide range of cloud functionality, and enables easy integration with existing IT operations tools. We are pleased that TCS is using Microsoft cloud technology to help Enterprises harness the power of the cloud to drive business transformation, and capitalize on new opportunities," said Takuya Hirano, Vice President, Global System Integrators and Advisory Partners, Microsoft.

1 Click here to return to Contents

TCS Launches the AutoscapeTM Solution Suite to Help Deliver Next-Gen Autonomous and Connected Vehicle Experiences

13 January 2021

Tata Consultancy Services (TCS), a leading global IT services, consulting and business solutions organization, has launched the Autoscape[™] solution suite to enable connected and autonomous vehicle ecosystem players − such as automotive OEMs, suppliers, fleet owners and start-ups − to pursue new business models, launch new services quickly and deliver differentiated experiences and value to end-customers.

TCS has launched this new suite of solutions and services to help global manufacturers and other ecosystem players accelerate their initiatives around autonomous and connected vehicles. Autoscape comprehensively addresses the technology and business challenges that these programs entail, like petabyte-scale driving data collection and analysis, development, validation and deployment of

algorithms which guide autonomous vehicles in the real world.

The Autoscape Autonomous Vehicle (AV) solution suite covers the entire end-to-end AV development value chain, and consists of AV Data Services, a Data Annotation Studio and AV validation services. Through AV Data Services, TCS offers comprehensive compute infrastructure architecture, a data management solution, AI workbench, and toolkits to accelerate AV development. The Data Annotation Studio is a data curation solution with cost effective workflow orchestration, model management, and best-in-class AI tools. TCS SIMPLE is a simulation-led autonomous vehicle validation platform that is coverage-driven and generates AI enhanced scenarios and test cases, particularly focusing on identifying test cases that will cause a failure – the edge cases.

The Autoscape Connected Vehicle solution suite consists of Vehicle in the Cloud, Connected Vehicle Experience, Connected Insights, and a Data Monetization Toolkit. Vehicle in the Cloud provides the foundational capabilities required to manage a connected vehicle, and its digital twin in the cloud. The Connected Vehicle Experience solution, built on top of the Azure-based Microsoft Connected Vehicle Platform, enables personalized customer experiences inside and outside the vehicle in a scalable and secure manner.

Connected Insights provides OEMs and other ecosystem players with actionable insights from the data received from the connected vehicle ecosystem. The Data Monetization Toolkit provides opportunities for data monetization through TCS' data marketplace platform that is integrated with consent management and subscription management platforms to facilitate the sale of data.

"There will be a significant increase in the adoption of connected and autonomous technologies in the coming years that will pave the way for innovative business models that deliver differentiated user experiences. TCS Autoscape will enable our customers to participate in the large business opportunity within the connected, autonomous, shared and electric ecosystem, to create new services, and define the future of mobility," said Susheel Vasudevan, Global Head, Manufacturing and Utilities, TCS.

"The vehicle of the new decade is Connected and Autonomous (CAV), bringing the potential for enormous improvements in safety and efficiency. Though personal light-duty vehicles are promising targets for CAV technology, as in many industries commercial use cases lead the way, with freight, last-mile delivery, and even mining and agriculture proving rich with opportunities in the immediate term. TCS helps accelerate the shift with the introduction of AutoscapeTM – a comprehensive suite of software tools and services built for OEMs and other technology developers, enabling them to bring their Connected and Autonomous Vehicle programs to life faster and more effectively," said Eduard Fidler, Industry Analyst, ARC Advisory Group.

TCS has been partnering with leading automotive manufacturers, tier I suppliers, and fleet owners in their growth and transformation journeys. Its Neural Automotive framework leverages next-generation technologies to imbue vehicles with high levels of connectedness and inbuilt autonomous capabilities, resulting in the Neural traits of sensing, perceiving, and acting. TCS works with a closely networked set of partners, such as technology providers, start-ups, industry consortia and academic institutes aligned to a common purpose, to create responsive, adaptive, and personalized value chains, with intelligence built on the 'edge' of the networks. This enables enterprises to embrace new business models and transform customer experiences and service behaviors to deliver differentiated value.

TraceParts and SnapEDA Partner to Offer Unified UX to Source Free PCB Footprints, Schematic Symbols & 3D MCAD Models

12 January 2021

TraceParts, one of the world's leading providers of 3D digital content for engineering, and SnapEDA, the creators of the first search engine for electronics design, are announcing a strategic content syndication partnership. The new partnership helps electronics engineers and designers source PCB footprints, schematic symbols, and 3D CAD models at their fingertips, for millions of electronic components.

Engineering files can be downloaded from TraceParts.com or SnapEDA.com, and then imported to hundreds of ECAD & MCAD tools. This instant and unified access to millions of free design resources helps engineers and designers to save time while designing printed circuit boards, and also drastically reduce the risk of errors.

Through this partnership, global electronic component manufacturers – such as Samtec, Nicomatic and TE Connectivity – will also benefit, by expanding their market reach to new customers, while providing a completely streamlined MCAD & ECAD experience. They'll be able to provide their mechanical and electronics engineering customers with native product geometry as well as rich product attributes directly embedded within the CAD models, forming a "Digital Thread" that ensures quick specification and purchase.

Our new collaboration with TraceParts will greatly expand the breadth of 3D mechanical models we provide through SnapEDA's platform and syndication network.

Our recent annual survey showed that over 75% of electronics designers now use 3D models in their designs, and increasingly want a well-integrated ECAD & MCAD experience. With our new collaboration with TraceParts, we're thrilled to be able to provide the seamless experience that engineers expect, with 3D models merged directly within our PCB footprints. said Natasha Baker, Founder & CEO of SnapEDA

The combination of these two complementary types of design assets empowers our catalogs of electronics components with specific PCB metadata, footprints and schematic product information. That means our customers, like electronic component manufacturers and distributors, can give access to their entire engineering data through TraceParts.com and the entire TraceParts Publishing Network, but also via the TraceParts EasyLink content syndication solutions and APIs. explains Bertrand Cressent, Product Portfolio Global Manager at TraceParts

PCB and MCAD design software applications supported include Cadence Allegro, OrCAD, Eagle, Altium, Mentor PADS, KiCad, SOLIDWORKS, CATIA, CREO, Autodesk Inventor, AutoCAD, Solid Edge and many more.